
HIPIFY Documentation

Advanced Micro Devices, Inc.

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HIPIFY is a ROCm tool to help developers migrate GPU programming from NVIDIA's CUDA language to AMD's HIP C++ programming language for use on AMD GPUs. HIPIFY includes two tools offering different levels of capability:

- **hipify-clang**: A clang-based tool that parses CUDA code and converts it to HIP code. It handles syntax changes, API calls, and kernel launch differences.
- **hipify-perl**: A simpler tool generated from **hipify-clang** that replaces CUDA API calls with HIP equivalents for basic code translation needs. **hipify-perl** is useful for simple CUDA programs, but offers less error detection when running into issues during translation.

Note

`hipify_torch` is a related tool that also translates CUDA source code into portable HIP C++. It was developed as part of the PyTorch project to cater to the project's unique requirements, was found to be useful for PyTorch-related projects, and released as an independent utility.

HIPIFY does not automatically convert all CUDA code into HIP code seamlessly. While it is a powerful tool for translating CUDA code to HIP, there are some limitations and areas where manual intervention is often required. HIPIFY can automatically convert many CUDA runtime API calls, kernel launch syntax, standard CUDA library functions where there is a HIP library equivalent, specific keywords like `__global__` and `__device__`. However, HIP is not a complete replacement for CUDA, and HIPIFY cannot automatically translate all code. CUDA libraries, or third-party libraries that have no HIP equivalent cannot be translated. In addition, code which is optimized for performance on NVIDIA GPUs might require additional rework to optimize performance on AMD GPUs.

After migrating code through HIPIFY, you should perform a code review to ensure functional correctness, replace any unsupported libraries or constructs with HIP or ROCm features. Debug and test the new HIP program, and optimize the performance on the target AMD GPUs.

HIPIFY is open-source and freely available as part of the ROCm ecosystem. You can find the HIPIFY code on AMD's [GitHub HIPIFY repository](#).

The documentation is structured as follows:

Building

- [Building hipify-clang on Linux](#)
- [Building hipify-clang on Windows](#)
- [Building hipify-perl](#)

How to

- [Use hipify-clang](#)
- [Use hipify-perl](#)

API reference

- [hipify-clang commands](#)
- [hipify-perl commands](#)
- [Supported APIs](#)
- [HIP supported APIs](#)
- [ROC supported APIs](#)
- [HIP and ROC supported APIs](#)

To contribute to the documentation, refer to [Contributing to ROCm](#).
You can find licensing information on the [Licensing](#) page.

BUILDING HIPIFY-CLANG ON LINUX

1.1 Building LLVM

```
# Create a root directory for building LLVM, Clang and HIPIFY
export ROOT_DIR=$(pwd)

# If you would like to clone LLVM with the full git history, remove the `--depth 1`
↪option.
git clone --depth 1 https://github.com/llvm/llvm-project.git

mkdir build dist
cd build

cmake \
  -DCMAKE_INSTALL_PREFIX=./dist \
  -DLLVM_TARGETS_TO_BUILD="X86" \
  -DLLVM_ENABLE_PROJECTS="clang" \
  -DLLVM_INCLUDE_TESTS=OFF \
  -DCMAKE_BUILD_TYPE=Release \
  ../llvm-project/llvm
make -j install
```

Note

If LLVM and Clang are built in Debug mode (with `-DCMAKE_BUILD_TYPE=Debug`), please build HIPIFY in Debug mode as well.

We support 64-bit build mode (`-Thost=x64`). Please build LLVM and Clang in 64-bit mode.

1.2 Building HIPIFY

```
cd $ROOT_DIR

git clone https://github.com/ROCm/HIPIFY.git

cd build

# To ensure LLVM is found, or in the case of multiple LLVM instances,
# specify the path to the root folder containing the LLVM distribution.
```

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```
cmake \  
-DCMAKE_INSTALL_PREFIX=./dist \  
-DCMAKE_BUILD_TYPE=Release \  
-DCMAKE_PREFIX_PATH=$ROOT_DIR/dist \  
../hipify  
  
make -j install
```

You can find the binary at `./dist/hipify-clang` or at the folder specified by the `-DCMAKE_INSTALL_PREFIX` option.

1.3 Testing hipify-clang

`hipify-clang` is equipped with unit tests using LLVM [lit](#) or [FileCheck](#).

We recommend that you build LLVM+Clang from sources, as prebuilt binaries are not exhaustive for testing. Before building, ensure that the [software required for building](#) belongs to an appropriate version.

- Install [CUDA](#) version 7.0 or greater.

In case of multiple CUDA installations, specify the particular version using `DCUDA_TOOLKIT_ROOT_DIR` option:

```
-DCUDA_TOOLKIT_ROOT_DIR=/usr/include
```

- [Optional] Install [cuTensor](#):

To specify the path to [cuTensor](#), use the `CUDA_TENSOR_ROOT_DIR` option:

```
-DCUDA_TENSOR_ROOT_DIR=/usr/include
```

- [Optional] Install [cuDNN](#) belonging to the version corresponding to the CUDA version:

To specify the path to [cuDNN](#), use the `CUDA_DNN_ROOT_DIR` option:

```
-DCUDA_DNN_ROOT_DIR=/usr/include
```

- [Optional] Install [CUB 1.9.8](#) for CUDA < 11.0 only; for CUDA >= 11.0, the CUB shipped with CUDA will be used for testing.

To specify the path to CUB, use the `CUDA_CUB_ROOT_DIR` option (only for CUDA < 11.0):

```
-DCUDA_CUB_ROOT_DIR=/srv/git/CUB
```

- Install [Python](#) version 3.0 or greater.
- Install [lit](#) and [FileCheck](#); these are distributed with LLVM.

`lit`:

```
python $(ROOT_DIR)/llvm-project/llvm/utils/lit/setup.py install
```

Starting with LLVM 6.0.1, specify the path to the `llvm-lit` Python script using the `LLVM_EXTERNAL_LIT` option:

```
-DLLVM_EXTERNAL_LIT=$ROOT_DIR/build/bin/llvm-lit
```

`FileCheck`:

Copy from `$ROOT_DIR/build/bin/` to `CMAKE_INSTALL_PREFIX/dist/bin.`

- To run OpenGL tests successfully, you need to install OpenGL headers and libraries.
On Ubuntu, use: `sudo apt-get install mesa-common-dev`
- Set the HIPIFY_CLANG_TESTS option to ON: `-DHIPIFY_CLANG_TESTS=ON`.
- Build and run tests.

1.3.1 Linux testing

On Linux, the following configurations are tested:

- Ubuntu 22-24: LLVM 13.0.0 - 21.1.6, CUDA 7.0 - 12.9.1, cuDNN 8.0.5 - 9.14.0, cuTensor 1.0.1.0 - 2.3.1.0
- Ubuntu 20-21: LLVM 9.0.0 - 20.1.8, CUDA 7.0 - 12.8.1, cuDNN 5.1.10 - 9.14.0, cuTensor 1.0.1.0 - 2.3.1.0
- Ubuntu 16-19: LLVM 8.0.0 - 14.0.6, CUDA 7.0 - 10.2, cuDNN 5.1.10 - 8.0.5
- Ubuntu 14: LLVM 4.0.0 - 7.1.0, CUDA 7.0 - 9.0, cuDNN 5.0.5 - 7.6.5

Minimum build system requirements for the above configurations:

- CMake 3.16.8, GNU C/C++ 9.2, Python 3.0.

Recommended build system requirements:

- CMake 4.1.1, GNU C/C++ 13.3, Python 3.14.0.

Here's how to build `hipify-clang` with testing support on Ubuntu 24.04.02:

```
cd $ROOT_DIR/build

cmake \
-DHIPIFY_CLANG_TESTS=ON \
-DCMAKE_BUILD_TYPE=Release \
-DCMAKE_INSTALL_PREFIX=./dist \
-DCMAKE_PREFIX_PATH=$ROOT_DIR/dist \
-DCUDA_TOOLKIT_ROOT_DIR=/usr/local/cuda-12.9.1 \
-DCUDA_DNN_ROOT_DIR=/usr/local/cudnn-9.14.0 \
-DCUDA_TENSOR_ROOT_DIR=/usr/local/cutensor-2.3.1.0 \
-DLLVM_EXTERNAL_LIT=$ROOT_DIR/build/bin/llvm-lit \
../hipify
```

The corresponding successful output is (assuming `ROOT_DIR` is `/usr/llvm/21.1.6`):

```
-- The C compiler identification is GNU 13.3.0
-- The CXX compiler identification is GNU 13.3.0
-- Detecting C compiler ABI info
-- Detecting C compiler ABI info - done
-- Check for working C compiler: /usr/bin/cc - skipped
-- Detecting C compile features
-- Detecting C compile features - done
-- Detecting CXX compiler ABI info
-- Detecting CXX compiler ABI info - done
-- Check for working CXX compiler: /usr/bin/c++ - skipped
-- Detecting CXX compile features
-- Detecting CXX compile features - done
-- HIPIFY config:
--   - Build hipify-clang      : ON
--   - Test hipify-clang      : ON
```

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```

--   - Is part of HIP SDK      : OFF
--   - Install clang headers  : ON
-- Found ZLIB: /usr/lib/x86_64-linux-gnu/libz.so (found version "1.3")
-- Found LLVM 21.1.6:
--   - CMake module path      : /usr/llvm/21.1.6/dist/lib/cmake/llvm
--   - Clang include path     : /usr/llvm/21.1.6/dist/include
--   - LLVM Include path      : /usr/llvm/21.1.6/dist/include
--   - Binary path            : /usr/llvm/21.1.6/dist/bin
-- Linker detection: GNU ld
-- ---- The below configuring for hipify-clang testing only ----
-- Found Python: /usr/bin/python3.14 (found suitable version "3.14.0", required range is
↪ "3.0...3.15") found components: Interpreter
-- Found lit: /usr/local/bin/lit
-- Found FileCheck: /GIT/LLVM/trunk/dist/FileCheck
-- Initial CUDA to configure:
--   - CUDA Toolkit path      : /usr/local/cuda-12.9.1
--   - CUDA Samples path      :
--   - cuDNN path              : /usr/local/cudnn-9.14.0
--   - cuTENSOR path          : /usr/local/cuTensor/2.3.1.0
--   - CUB path                :
-- Found CUDAToolkit: /usr/local/cuda-12.9.1/targets/x86_64-linux/include (found version
↪ "12.9.86")
-- Performing Test CMAKE_HAVE_LIBC_PTHREAD
-- Performing Test CMAKE_HAVE_LIBC_PTHREAD - Success
-- Found Threads: TRUE
-- Found CUDA config:
--   - CUDA Toolkit path      : /usr/local/cuda-12.9.1
--   - CUDA Samples path      : OFF
--   - cuDNN path              : /usr/local/cudnn-9.14.0/include
--   - cuTENSOR path          : /usr/local/cuTensor/2.3.1.0/include
--   - CUB path                : /usr/local/cuda-12.9.1/include/cub
-- Configuring done (0.6s)
-- Generating done (0.0s)
-- Build files have been written to: /usr/hipify/build

```

```
make test-hipify
```

The corresponding successful output is:

```

Running HIPify regression tests
=====
CUDA 12.9.86 - will be used for testing
LLVM 21.1.6 - will be used for testing
x86_64 - Platform architecture
Linux 6.5.0-15-generic - Platform OS
64 - hipify-clang binary bitness
64 - python 3.14.0 binary bitness
=====
-- Testing: 106 tests, 12 threads --
Testing Time: 6.91s

Total Discovered Tests: 106

```

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Passed: 106 (100.00%)

BUILDING HIPIFY-CLANG ON WINDOWS

2.1 Building LLVM >= 10.0.0 (Recommended)

```
# Assuming commands are being run in Windows CMD.
# Use "$env:ROOT_DIR = (Get-Location).Path" to set the environment variable for
↳ PowerShell and use $env:ROOT_DIR to access it.
set ROOT_DIR=%cd%

# If you would like to clone LLVM with the full git history, remove the `--depth 1`
↳ option.
git clone --depth 1 https://github.com/llvm/llvm-project.git
mkdir build dist
cd build

cmake -G "Visual Studio 17 2022" -A x64 -Thost=x64 -DCMAKE_INSTALL_PREFIX=./dist -DLLVM_
↳ TARGETS_TO_BUILD="" -DLLVM_ENABLE_PROJECTS="clang" -DLLVM_INCLUDE_TESTS=OFF -DCMAKE_
↳ BUILD_TYPE=Release ../llvm-project/llvm

# Run Visual Studio 17 2022, open the generated LLVM.sln, build all, and build project
↳ "INSTALL".
# Alternatively, you can build using "msbuild INSTALL.vcxproj /m" using the developer
↳ command prompt.
```

i Note

If LLVM and Clang are built in Debug mode (with `-DCMAKE_BUILD_TYPE=Debug`), please build HIPIFY in Debug mode as well.

We support 64-bit build mode (`-Thost=x64`). Please build LLVM and Clang in 64-bit mode.

2.2 Building LLVM < 10.0.0

Download older LLVM + Clang sources.

```
set ROOT_DIR=%cd%

mkdir build dist
cd build
```

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```
cmake -G "Visual Studio 16 2019" -A x64 -Thost=x64 -DCMAKE_INSTALL_PREFIX=./dist -DLLVM_
↳ TARGETS_TO_BUILD="" -DLLVM_ENABLE_PROJECTS="clang" -DLLVM_INCLUDE_TESTS=OFF -DCMAKE_
↳ BUILD_TYPE=Release ../llvm-project/llvm
```

```
# Run Visual Studio 16 2019, open the generated "LLVM.sln", build all, and build the
↳ "INSTALL" project.
```

2.3 Building HIPIFY

```
cd %ROOT_DIR%
```

```
git clone https://github.com/ROCm/HIPIFY.git
```

```
cd build
```

```
# To ensure LLVM is found, or in the case of multiple LLVM instances,
# specify the path to the root folder containing the LLVM distribution.
```

```
cmake -G "Visual Studio 17 2022" -A x64 -Thost=x64 -DCMAKE_PREFIX_PATH="./dist" -DCMAKE_
↳ INSTALL_PREFIX="./dist" -DCMAKE_BUILD_TYPE=Release ../hipify
```

```
# Run Visual Studio 17 2022, open the generated LLVM.sln, build all, and build project
↳ "INSTALL".
```

```
# Alternatively, you can build using "msbuild INSTALL.vcxproj /m" using the developer_
↳ command prompt.
```

You can find the binary at `./dist/bin/hipify-clang` or at the folder specified by the `-DCMAKE_INSTALL_PREFIX` option.

2.4 Testing hipify-clang

`hipify-clang` is equipped with unit tests using LLVM `lit` or `FileCheck`.

We recommend that you build LLVM+Clang from sources, as prebuilt binaries are not exhaustive for testing.

- Install `CUDA` version 7.0 or greater.

In case of multiple `CUDA` installations, specify the particular version using `DCUDA_TOOLKIT_ROOT_DIR` option:

```
-DCUDA_TOOLKIT_ROOT_DIR="C:/Program Files/NVIDIA GPU Computing Toolkit/CUDA/v12.9"
```

```
-DCUDA_SDK_ROOT_DIR="C:/ProgramData/NVIDIA Corporation/CUDA Samples/v12.9"
```

- [Optional] Install `cuTensor`:

To specify the path to `cuTensor`, use the `CUDA_TENSOR_ROOT_DIR` option:

```
-DCUDA_TENSOR_ROOT_DIR=D:/CUDA/cuTensor/2.3.1.0
```

- [Optional] Install `cuDNN` belonging to the version corresponding to the `CUDA` version:

To specify the path to `cuDNN`, use the `CUDA_DNN_ROOT_DIR` option:

```
-DCUDA_DNN_ROOT_DIR=D:/CUDA/cuDNN/9.14.0
```

- [Optional] Install [CUB 1.9.8](#) for CUDA < 11.0 only; for CUDA >= 11.0, the CUB shipped with CUDA will be used for testing.

To specify the path to CUB, use the CUDA_CUB_ROOT_DIR option (only for CUDA < 11.0):

```
-DCUDA_CUB_ROOT_DIR=D:/CUDA/CUB
```

- Install [Python](#) version 3.0 or greater.
- Install [lit](#) and [FileCheck](#); these are distributed with LLVM.

lit:

```
python %ROOT_DIR%/llvm-project/llvm/utils/lit/setup.py install
```

Starting with LLVM 6.0.1, specify the path to the llvm-lit Python script using the LLVM_EXTERNAL_LIT option:

```
-DLLVM_EXTERNAL_LIT=%ROOT_DIR%/llvm-project/llvm/utils/lit/llvm-lit.py
```

FileCheck:

Copy from %ROOT_DIR%/llvm-project/llvm/utils/FileCheck to CMAKE_INSTALL_PREFIX/dist/bin.

- To run OpenGL tests successfully, you need to install OpenGL headers and libraries.
No installation required. All the required headers are shipped with the Windows SDK.
- Set the HIPIFY_CLANG_TESTS option to ON: -DHIPIFY_CLANG_TESTS=ON.
- Build and run tests. Run Visual Studio 17 2022, open the generated hipify-clang.sln, to build the project test-hipify.

2.4.1 Windows testing

Tested configurations:

LLVM	CUDA	cuDNN	Visual Studio	CMake	Python
4.0.0 -	7.0 -	5.1.10 -	2015.14.0, 2017.15.5.2	3.5.1 -	3.6.4 -
5.0.2	8.0	7.1.4		3.18.0	3.8.5
6.0.0 -	7.0 -	7.0.5 -	2015.14.0, 2017.15.5.5	3.6.0 -	3.7.2 -
6.0.1	9.0	7.6.5		3.18.0	3.8.5
7.0.0 -	7.0 -	7.0.5 -	2017.15.9.11	3.13.3 -	3.7.3 -
7.1.0	9.2	7.6.5		3.18.0	3.8.5
8.0.0 -	7.0 -	7.6.5	2017.15.9.15	3.14.2 -	3.7.4 -
8.0.1	10.0			3.18.0	3.8.5
9.0.0 -	7.0 -	7.6.5	2017.15.9.20, 2019.16.4.5	3.16.4 -	3.8.0 -
9.0.1	10.1			3.18.0	3.8.5
10.0.0 -	7.0 -	7.6.5 -	2017.15.9.30, 2019.16.8.3	3.19.2	3.9.1
11.0.0	11.1	8.0.5			
11.0.1 -	7.0 -	7.6.5 -	2017.15.9.31, 2019.16.8.4	3.19.3	3.9.2
11.1.0	11.2.2	8.0.5			
12.0.0 -	7.0 -	7.6.5 -	2017.15.9.43, 2019.16.11.9	3.22.2	3.10.2
13.0.1	11.5.1	8.3.2			
14.0.0 -	7.0 -	8.0.5 -	2017.15.9.57, ⁵ 2019.16.11.	3.24.0	3.10.6
14.0.6	11.7.1	8.4.1	17, 2022.17.2.6		
15.0.0 -	7.0 -	8.0.5 -	2019.16.11.25, 2022.17.5.2	3.26.0	3.11.2
15.0.7	11.8.0	8.8.1			
16.0.0 -	7.0 -	8.0.5 -	2019.16.11.29, 2022.17.7.1	3.27.3	3.11.4
16.0.6	12.2.2	8.9.5			
17.0.1 ⁶ -	7.0 -	8.0.5 -	2019.16.11.50, 2022.17.14.	4.1.1	3.13.6
18.1.8 ⁷	12.3.2	9.13.1	12		
19.1.0 -	7.0 -	8.0.5 -	2019.16.11.51, 2022.17.14.	4.1.1	3.13.7
20.1.8	12.8.1	9.14.0	14		
21.1.0 -	7.0 -	8.0.5 -	2019.16.11.51, 2022.17.14.	4.1.1	3.14.0
21.1.6	12.9.1	9.14.0	14		

⁵ LLVM 14.x.x is the latest major release supporting Visual Studio 2017.

To build LLVM 14.x.x correctly using Visual Studio 2017, add `-DLLVM_FORCE_USE_OLD_TOOLCHAIN=ON` to corresponding CMake command line.

You can also build LLVM < 14.x.x correctly using Visual Studio 2017 without the `LLVM_FORCE_USE_OLD_TOOLCHAIN` option.

⁶ Note that LLVM 17.0.0 was withdrawn due to an issue; use 17.0.1 or newer instead.

⁷ Note that LLVM 18.0.0 has never been released; use 18.1.0 or newer instead.

Building with testing support using Visual Studio 17 2022 on Windows 11:

```

cmake \
-G "Visual Studio 17 2022" \
-A x64 \
-Thost=x64 \
-DHIPIFY_CLANG_TESTS=ON \
-DCMAKE_BUILD_TYPE=Release \
-DCMAKE_INSTALL_PREFIX=../dist \
-DCMAKE_PREFIX_PATH=%ROOT_DIR%/dist \
-DCUDA_TOOLKIT_ROOT_DIR="C:/Program Files/NVIDIA GPU Computing Toolkit/CUDA/v12.9" \
-DCUDA_SDK_ROOT_DIR="C:/ProgramData/NVIDIA Corporation/CUDA Samples/v12.9" \

```

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```
-DCUDA_DNN_ROOT_DIR=D:/CUDA/cuDNN/9.14.0 \
-DCUDA_TENSOR_ROOT_DIR=D:/CUDA/cuTensor/2.3.1.0 \
-DLLVM_EXTERNAL_LIT=%ROOT_DIR%/build/Release/bin/llvm-lit.py \
../hipify
```

The corresponding successful output is (assuming %ROOT_DIR% is D:/LLVM/21.1.6):

```
-- The C compiler identification is MSVC 19.44.35216.0
-- The CXX compiler identification is MSVC 19.44.35216.0
-- Detecting C compiler ABI info
-- Detecting C compiler ABI info - done
-- Check for working C compiler: C:/Program Files/Microsoft Visual Studio/2022/Community/
↪VC/Tools/MSVC/14.44.35207/bin/Hostx64/x64/cl.exe - skipped
-- Detecting C compile features
-- Detecting C compile features - done
-- Detecting CXX compiler ABI info
-- Detecting CXX compiler ABI info - done
-- Check for working CXX compiler: C:/Program Files/Microsoft Visual Studio/2022/
↪Community/VC/Tools/MSVC/14.44.35207/bin/Hostx64/x64/cl.exe - skipped
-- Detecting CXX compile features
-- Detecting CXX compile features - done
-- HIPIFY config:
--   - Build hipify-clang      : ON
--   - Test hipify-clang      : ON
--   - Is part of HIP SDK     : OFF
--   - Install clang headers  : ON
-- Found LLVM 21.1.6:
--   - CMake module path      : D:/LLVM/21.1.6/dist/lib/cmake/llvm
--   - Clang include path     : D:/LLVM/21.1.6/dist/include
--   - LLVM Include path     : D:/LLVM/21.1.6/dist/include
--   - Binary path           : D:/LLVM/21.1.6/dist/bin
-- ---- The below configuring for hipify-clang testing only ----
-- Found Python: C:/Users/TT/AppData/Local/Programs/Python/Python314/python.exe (found
↪suitable version "3.14.0", required range is "3.0...3.15") found components:
↪Interpreter
-- Found lit: C:/Users/TT/AppData/Local/Programs/Python/Python314/Scripts/lit.exe
-- Found FileCheck: D:/LLVM/21.1.6/dist/bin/FileCheck.exe
-- Initial CUDA to configure:
--   - CUDA Toolkit path      : C:/Program Files/NVIDIA GPU Computing Toolkit/CUDA/v12.9
--   - CUDA Samples path     : C:/ProgramData/NVIDIA Corporation/CUDA Samples/v12.9
--   - cuDNN path            : D:/CUDA/cuDNN/9.14.0
--   - cuTENSOR path         : D:/CUDA/cuTensor/2.3.1.0
--   - CUB path              :
-- Found CUDAToolkit: C:/Program Files/NVIDIA GPU Computing Toolkit/CUDA/v12.9/include
↪(found version "12.9.86")
-- Found CUDA config:
--   - CUDA Toolkit path      : C:/Program Files/NVIDIA GPU Computing Toolkit/CUDA/v12.9
--   - CUDA Samples path     : C:/ProgramData/NVIDIA Corporation/CUDA Samples/v12.9
--   - cuDNN path            : D:/CUDA/cuDNN/9.14.0/include
--   - cuTENSOR path         : D:/CUDA/cuTensor/2.3.1.0/include
--   - CUB path              : C:/Program Files/NVIDIA GPU Computing Toolkit/CUDA/v12.9/
↪include/cub
```

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```
-- Configuring done (4.4s)
-- Generating done (0.1s)
-- Build files have been written to: D:/HIPIFY/build
```

BUILDING HIPIFY-PERL

`hipify-perl` is a perl-based script that heavily uses regular expressions, which is automatically generated from `hipify-clang`. To generate `hipify-perl`, run:

```
hipify-clang --perl
```

You can choose to specify the output directory for the generated `hipify-perl` file using `--o-hipify-perl-dir` option.

USING HIPIFY-CLANG

`hipify-clang` is a Clang-based tool for translating NVIDIA CUDA sources into HIP sources.

It translates CUDA source into an Abstract Syntax Tree (AST), which is traversed by transformation matchers. After applying all the matchers, the output HIP source is produced.

Advantages:

- `hipify-clang` is a translator. It parses complex constructs successfully or reports an error.
- It supports Clang options such as `-I`, `-D`, and `-cuda-path`.
- The support for new CUDA versions is seamless, as the Clang front-end is statically linked into `hipify-clang` and does all the syntactical parsing of a CUDA source to HIPIFY.
- It is very well supported as a compiler extension.

Disadvantages:

- You must ensure that the input CUDA code is correct as incorrect code can't be translated to HIP.
- You must install CUDA, and in case of multiple installations specify the needed version using `--cuda-path` option.
- You must provide all the `includes` and `defines` to successfully translate the code.

4.1 Release Dependencies

`hipify-clang` requires:

- **CUDA**, the latest supported version is `12.9.1`, but requires at least version `7.0`.
- **LLVM+Clang** version is determined at least partially by the CUDA version you are using, as shown in the table below. The recommended Clang release is the latest stable release `21.1.6`, or at least version `4.0.0`.

CUDA version	supported LLVM release versions	Windows	Linux
12.9.1 ¹	21.1.0, 21.1.1, 21.1.2, 21.1.3, 21.1.4, 21.1.5, 21.1.6 ¹		
12.8.1	20.1.0, 20.1.1, 20.1.2, 20.1.3, 20.1.4, 20.1.5, 20.1.6, 20.1.7, 20.1.8		
12.6.3	19.1.0, 19.1.1, 19.1.2, 19.1.3, 19.1.4, 19.1.5, 19.1.6, 19.1.7		
12.3.2	17.0.1, 17.0.2, 17.0.3, 17.0.4, 17.0.5, 17.0.6, 18.1.0, 18.1.1, 18.1.2, 18.1.3, 18.1.4, 18.1.5, 18.1.6, 18.1.7, 18.1.8		
12.2.2	16.0.0, 16.0.1, 16.0.2, 16.0.3, 16.0.4, 16.0.5, 16.0.6		
11.8.0	14.0.5, 14.0.6, 15.0.0, 15.0.1, 15.0.2, 15.0.3, 15.0.4, 15.0.5, 15.0.6, 15.0.7		
11.7.1	14.0.0, 14.0.1, 14.0.2, 14.0.3, 14.0.4	Works only with patch due to Clang bug 54609 patch for 14.0.0 ² patch for 14.0.1 ² patch for 14.0.2 ² patch for 14.0.3 ² patch for 14.0.4 ²	
11.5.1	12.0.0, 12.0.1, 13.0.0, 13.0.1		
11.2.2	11.0.1, 11.1.0		
11.0.1, 11.1.0, 11.1.1	11.0.0	Works only with patch due to Clang bug 47332 patch for 11.0.0 ³	Works only with patch due to Clang bug 47332 patch for 11.0.0 ³
11.0.0	11.0.0		
11.0.1, 11.1.0, 11.1.1	10.0.0, 10.0.1	Works only with patch due to Clang bug 47332 patch for 10.0.0 ³ patch for 10.0.1 ³	Works only with patch due to Clang bug 47332 patch for 10.0.0 ³ patch for 10.0.1 ³
11.0.0	10.0.0, 10.0.1		
10.1	9.0.0, 9.0.1		
10.0	8.0.0, 8.0.1	Works only with patch due to Clang bug 38811 patch for 8.0.0 ² patch for 8.0.1 ²	
9.2	7.0.0, 7.0.1, 7.1.0	Works only with patch due to Clang bug 38811 patch for 7.0.0 ² patch for 7.0.1 ² patch for 7.1.0 ²	due to Clang bug 36384
9.0	6.0.0, 6.0.1		
8.0	4.0.0, 4.0.1, 5.0.0, 5.0.1, 5.0.2		
7.5	3.8.0 ⁴ , 3.8.1 ⁴ , 3.9.0 ⁴ , 3.9.1 ⁴		

¹ Represents the latest supported and recommended configuration.

² Download the patch and unpack it into your LLVM distributive directory. This overwrites a few header files. You don't need to rebuild LLVM.

³ Download the patch and unpack it into your LLVM source directory. This overwrites the Cuda.cpp file. You need to rebuild LLVM.

⁴ LLVM 3.x is no longer supported (but might still work).

In most cases, you can get a suitable version of LLVM+Clang with your package manager. However, you can also [download a release archive](#) and build or install it. In case of multiple versions of LLVM installed, set `CMAKE_PREFIX_PATH` so that CMake can find the desired version of LLVM. For example, `-DCMAKE_PREFIX_PATH=D:\LLVM\21.1.6\dist`.

4.2 Usage

Note

For additional details on the following `hipify-clang` command options, see [hipify-clang commands](#)

To process a file, `hipify-clang` needs access to the same headers that are required to compile it with Clang:

```
./hipify-clang square.cu --cuda-path=/usr/local/cuda-12.9 -I /usr/local/cuda-12.9/
↳samples/common/inc
```

`hipify-clang` arguments are supplied first, followed by a separator `--` and the arguments to be passed to Clang for compiling the input file:

```
./hipify-clang cpp17.cu --cuda-path=/usr/local/cuda-12.9 -- -std=c++17
```

`hipify-clang` also supports the hipification of multiple files that can be specified in a single command with absolute or relative paths:

```
./hipify-clang cpp17.cu ../../square.cu /home/user/cuda/intro.cu --cuda-path=/usr/local/
↳cuda-12.9 -- -std=c++17
```

To use a specific version of LLVM during hipification, specify the `hipify-clang` option `--clang-resource-directory=` to point to the Clang resource directory, which is the parent directory for the include folder that contains `__clang_cuda_runtime_wrapper.h` and other header files used during the hipification process:

```
./hipify-clang square.cu --cuda-path=/usr/local/cuda-12.9 --clang-resource-directory=/
↳usr/llvm/21.1.6/dist/lib/clang/21
```

For more information, refer to the [Clang manual for compiling CUDA](#).

4.3 Using JSON compilation database

For some hipification automation (starting from Clang 8.0.0), you can provide a [Compilation Database in JSON format](#) in the `compile_commands.json` file:

```
-p <folder containing compile_commands.json>
- or -
-p=<folder containing compile_commands.json>
```

You can provide the compilation database in the `compile_commands.json` file or generate using Clang based on CMake. You can specify multiple source files as well.

To provide Clang options, use `compile_commands.json` file, whereas to provide `hipify-clang` options, use the `hipify-clang` command line.

Note

Don't use the options separator `--` to avoid compilation error caused due to the `hipify-clang` options being provided before the separator.

Here's an [example](#) demonstrating the `compile_commands.json` usage:

```
[
  {
    "directory": "<test dir>",
    "command": "hipify-clang \"<CUDA dir>\" -I./include -v",
    "file": "cd_intro.cu"
  }
]
```

4.4 Hipification statistics

The options `--print-stats` and `--print-stats-csv` provide an overview of what is hipified and what is not, as well as the hipification statistics. Use the `--print-stats` command to return the statistics as text to the terminal, or the `--print-stats-csv` command to create a CSV file to open in a spreadsheet.

Note

When multiple source files are specified on the command-line, the statistics are provided per file and in total.

4.4.1 Print statistics

```
hipify-clang intro.cu -cuda-path="C:/Program Files/NVIDIA GPU Computing Toolkit/CUDA/v12.
→9" --print-stats
```

```
[HIPIFY] info: file [intro.cu] statistics:
CONVERTED refs count: 40
UNCONVERTED refs count: 0
CONVERSION %: 100.0
REPLACED bytes: 604
[HIPIFY] info: file [intro.cu] statistics:
  CONVERTED refs count: 40
  UNCONVERTED refs count: 0
  CONVERSION %: 100.0
  REPLACED bytes: 604
  TOTAL bytes: 5794
  CHANGED lines of code: 34
  TOTAL lines of code: 174
  CODE CHANGED (in bytes) %: 10.4
  CODE CHANGED (in lines) %: 19.5
  TIME ELAPSED s: 0.41
[HIPIFY] info: CONVERTED refs by type:
  error: 2
  device: 2
  memory: 16
```

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```
event: 9
thread: 1
include_cuda_main_header: 1
type: 2
numeric_literal: 7
[HIPIFY] info: CONVERTED refs by API:
  CUDA Driver API: 1
  CUDA RT API: 39
[HIPIFY] info: CONVERTED refs by names:
  cuda.h: 1
  cudaDeviceReset: 1
  cudaError_t: 1
  cudaEventCreate: 2
  cudaEventElapsedTime: 1
  cudaEventRecord: 3
  cudaEventSynchronize: 3
  cudaEvent_t: 1
  cudaFree: 4
  cudaFreeHost: 3
  cudaGetDeviceCount: 1
  cudaGetErrorString: 1
  cudaGetLastError: 1
  cudaMalloc: 3
  cudaMemcpy: 6
  cudaMemcpyDeviceToHost: 3
  cudaMemcpyHostToDevice: 3
  cudaSuccess: 1
  cudaThreadSynchronize: 1
```

4.4.2 Print CSV statistics

```
hipify-clang intro.cu -cuda-path="C:/Program Files/NVIDIA GPU Computing Toolkit/CUDA/v12.
↪9" --print-stats-csv
```

This generates `intro.cu.csv` file with statistics:

file 'intro.cu' statistics:	
CONVERTED refs count	40
UNCONVERTED refs count	0
CONVERSION %	100.0
REPLACED bytes	604
TOTAL bytes	5794
CHANGED lines of code	34
TOTAL lines of code	174
CODE CHANGED (in bytes) %	10.4
CODE CHANGED (in lines) %	19.5
TIME ELAPSED s	0.41
CUDA ref type	Count
error	2
device	2
memory	16
event	9
thread	1
include_cuda_main_header	1
type	2
numeric_literal	7
CUDA API	Count
CUDA Driver API	1
CUDA RT API	39
CUDA ref name	Count
cuda.h	1
cudaDeviceReset	1
cudaError_t	1
cudaEventCreate	2
cudaEventElapsedTime	1
cudaEventRecord	3
cudaEventSynchronize	3
cudaEvent_t	1
cudaFree	4
cudaFreeHost	3
cudaGetDeviceCount	1
cudaGetErrorString	1
cudaGetLastError	1
cudaMalloc	3
cudaMemcpy	6
cudaMemcpyDeviceToHost	3
cudaMemcpyHostToDevice	3
cudaSuccess	1
cudaThreadSynchronize	1

USING HIPIFY-PERL

`hipify-perl` is perl-based script that heavily uses regular expressions, that is automatically generated from `hipify-clang`.

Advantages:

- Ease of use
- No checks for input source NVIDIA CUDA code for correctness required
- No dependency on third party tools, including CUDA

Disadvantages:

- Inability or difficulty in implementing the following constructs:
 - Macros expansion
 - Namespaces:
 - * Redefinition of CUDA entities in user namespaces
 - * Using directive
 - Templates (some cases)
 - Device or host function calls differentiation
 - Correct injection of header files
 - Parsing complicated argument lists

5.1 Example

For additional details on the following `hipify-perl` command options, see *hipify-perl commands*. For more advanced translation needs use `hipify-clang` as it is more comprehensive and accurate.

Convert a simple CUDA file (`square.cu`) to HIP using `hipify-perl`:

```
hipify-perl square.cu -o square.cu.hip
```

This command translates the input file and writes the result to `square.cu.hip`.

HIPIFY-CLANG COMMANDS

For a list of `hipify-clang` options, run:

```
hipify-clang --help
```

6.1 Output:

6.1.1 Usage

```
hipify-clang [options] <source0> [... <sourceN>]
```

6.1.2 Options

Options	Description
<code>--</code>	Separator between <code>hipify-clang</code> and <code>clang</code> options. Don't specify if there are no <code>clang</code> options. Not all <code>clang</code> options are supported by <code>hipify-clang</code>
<code>-D <macro>=<value></code>	Define <code><macro></code> to <code><value></code> or 1 if <code><value></code> is omitted
<code>-I <directory></code>	Add directory to include search path
<code>--amap</code>	Try to hipify as much as possible; ignores <code>default-preprocessor</code>
<code>--clang-resource-directory <directory></code>	Defines the path to the parent folder for the include folder, containing <code>__clang_cuda_runtime_wrapper.h</code> and other header files used on runtime
<code>--csv</code>	Generate documentation in CSV format
<code>--cuda-gpu-arch=<value></code>	CUDA GPU architecture (e.g. <code>sm_35</code>); may be specified more than once
<code>--cuda-kernel-execution-mode <mode></code>	Keep CUDA kernel launch syntax (default)
<code>--cuda-path=<directory></code>	CUDA installation path. The CUDA path is required for <code>hipify-clang</code>
<code>--default-preprocessor</code>	Enable default preprocessor behavior (synonymous with <code>--skip-excluded-preprocessor-conditional-blocks</code>)
<code>--doc-format=<value></code>	Documentation format: <code>full</code> (default), <code>strict</code> , or <code>compact</code> . Either the <code>--md</code> or <code>--csv</code> option must also be specified to generate the documentation.
<code>--doc-roc=<value></code>	ROC documentation generation: <code>skip</code> (default), <code>separate</code> , or <code>joint</code> . Either the <code>--md</code> or <code>--csv</code> option must also be specified to generate the documentation.
<code>--examine</code>	Combine the <code>--no-output</code> and <code>--print-stats</code> options
<code>--experimental</code>	Hipify HIP APIs that are experimentally supported, otherwise, the corresponding warnings will be emitted
<code>--extra-arg=<string></code>	Additional argument to append to the compiler command line
<code>--extra-arg-before=<string></code>	Additional argument to prepend to the compiler command line
<code>--help</code>	Display available options (Use <code>--help-hidden</code> to include hidden options)
<code>--help-list</code>	Display list of available options (Use <code>--help-list-hidden</code> to include hidden options)

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Table 1 – continued from previous page

<code>--hip-kernel-execution-syntax</code>	Transform CUDA kernel launch syntax to a regular HIP function call (overrides <code>--cuda-kernel-execution-syntax</code>)
<code>--inplace</code>	Modify input file in-place. This will overwrite the input file with the hipify output
<code>--md</code>	Generate documentation in Markdown format
<code>--miopen</code>	Translate to <code>miopen</code> libraries instead of <code>hip</code> libraries where it is possible. Cannot be used with <code>--roc</code>
<code>--no-backup</code>	Don't create a backup file for the hipified source
<code>--no-output</code>	Don't write any translated output to stdout
<code>--no-undocumented-features</code>	Don't rely on undocumented features in code transformation
<code>--no-warnings-on-undocumented-features</code>	Suppress warnings on undocumented features in code transformation
<code>-o <filename></code>	Output filename
<code>--o-dir=<directory></code>	Output directory
<code>--o-hipify-perl-dir=<directory></code>	Output directory for <code>hipify-perl</code> script
<code>--o-python-map-dir=<directory></code>	Output directory for Python map
<code>--o-stats=<filename></code>	Output filename for statistics
<code>-p <build-path></code>	Used to read a compile command database as described in <i>Using JSON compilation database</i> . For example, it can be a CMake build directory in which a file named <code>compile_commands.json</code> exists (use <code>-DCMAKE_EXPORT_COMPILE_COMMANDS=ON</code> CMake option to get this output). When no build path is specified, a search for <code>compile_commands.json</code> will be attempted through all parent paths of the first input file. See: https://clang.llvm.org/docs/HowToSetupToolingForLLVM.html for an example of setting up Clang Tooling on a source tree
<code>--perl</code>	Generate <code>hipify-perl</code> script. See <i>Building hipify-perl</i> for more information.
<code>--print-stats</code>	Print translation statistics. See <i>Hipification statistics</i> for more information
<code>--print-stats-csv</code>	Print translation statistics in a CSV file. See <i>Hipification statistics</i> for more information
<code>--python</code>	Generate <code>hipify-python</code> command
<code>--roc</code>	Translate to <code>roc</code> libraries instead of <code>hip</code> libraries where possible. Cannot be used with <code>--miopen</code>
<code>--save-temps</code>	Save temporary files
<code>--skip-excluded-preprocessor-conditional-blocks</code>	Enable default preprocessor behavior by skipping undefined conditional blocks. This has the same effect as <code>--default-preprocessor</code>
<code>--temp-dir=<directory></code>	Temporary directory
<code>-v</code>	Show commands to run and use verbose output
<code>--version</code>	Display the version of this program
<code>--versions</code>	Display the versions of the supported 3rd-party software
<code><source0> ...</code>	Specify the file paths and names of one or more source files. These paths are looked up in the compile command database. If the path of a file is absolute, it needs to point into CMake's source tree. If the path is relative, the current working directory needs to be in the CMake source tree and the file must be in a subdirectory of the current working directory. <code>./</code> prefixes in the relative files will be automatically removed, but the rest of a relative path must be a suffix of a path in the compile command database

6.1.3 Option uses:

1. Common Options:

- `--help`: Displays the help message
- `-o <file>`: Specifies the output file for the converted source
- `-I <dir>`: Adds the specified directory to the include search paths

- `--cuda-path=<path>`: Specifies the path to the CUDA installation. Required
 - `--hip-path=<path>`: Specifies the path to the HIP installation (optional; defaults to the ROCm installation path)
2. Preprocessor and Compilation Options:
- `-D<macro>`: Defines macros for the preprocessor
 - `-U<macro>`: Undefines macros
 - `--save-temps`: Keeps intermediate files generated during processing
3. Diagnostics and Debugging:
- `-v`: Enables verbose output to provide detailed diagnostic information
 - `--version`: Displays the version of HIPIFY-Clang
 - `--show-progress`: Displays progress during the translation process
 - `--print-stats` | `--print-stats-csv`: Prints statistics about the translation process (e.g., the number of functions or API calls converted) into either text or CSV form
4. Include and Exclude Rules:
- `--exclude-path=<path>`: Specifies paths to exclude from translation
 - `--include-path=<path>`: Specifies paths to explicitly include during translation

HIPIFY-PERL COMMANDS

For a list of `hipify-perl` options, run:

```
hipify-perl --help
```

7.1 Output:

7.1.1 Usage

```
hipify-perl [options] <source0> [... <sourceN>]
```

7.1.2 Options

Options	Description
<code>-cuda-kernel-execution-syntax</code>	Keep CUDA kernel launch syntax (default)
<code>-examine</code>	Combines <code>-no-output</code> and <code>-print-stats</code> options
<code>-exclude-dirs=<string></code>	Exclude directories
<code>-exclude-files=<string></code>	Exclude files
<code>-experimental</code>	HIPIFY experimentally supported APIs
<code>-help</code>	Display available options
<code>-hip-kernel-execution-syntax</code>	Transform CUDA kernel launch syntax to a regular HIP function call (overrides <code>--cuda-kernel-execution-syntax</code>)
<code>-inplace</code>	Backs up the input file in <code>.prehip</code> file, and modifies the input file in-place
<code>-no-output</code>	Don't write any translated output to stdout
<code>-o=<string></code>	Output filename
<code>-print-stats</code>	Print translation statistics as described in <i>Hipification statistics</i>
<code>-quiet-warnings</code>	Don't print warnings on unknown CUDA identifiers
<code>-roc</code>	Translate to roc libraries instead of hip libraries where possible
<code>-version</code>	The supported HIP version
<code>-whitelist=<string></code>	Whitelist of identifiers

SUPPORTED CUDA APIS

CUDA	HIP	ROC	HIP & ROC
CUDA Runtime API	<i>HIP API</i>		
CUDA Driver API	<i>HIP API</i>		
CUComplex API	<i>HIP API</i>		
CUDA Device API	<i>HIP Device API</i>		
CUDA RTC API	<i>HIP RTC API</i>		
CUBLAS API	<i>HIP BLAS API</i>	<i>ROC BLAS API</i>	<i>HIP + ROC BLAS API</i>
CUSPARSE API	<i>HIP SPARSE API</i>	<i>ROC SPARSE API</i>	<i>HIP + ROC SPARSE API</i>
CUSOLVER API	<i>HIP SOLVER API</i>		
CURAND API	<i>HIP RAND API</i>	<i>ROC RAND API</i>	<i>HIP + ROC RAND API</i>
CUFFT API	<i>HIP FFT API</i>		
CUDNN API		<i>MIOPEN API</i>	
CUTENSOR API	<i>HIP TENSOR API</i>		
CUB API	<i>HIP CUB API</i>		

To generate the above documentation with the information about all supported CUDA APIs in Markdown format, run `hipify-clang --md --doc-format=full --doc-roc=joint` with or without specifying the output directory (-o). By running `hipify-clang --csv --doc-format=full --doc-roc=joint`, the documentation will be generated in CSV format.

CUDA APIS SUPPORTED BY HIP

CUDA	HIP
CUDA Runtime API	<i>HIP API</i>
CUDA Driver API	<i>HIP API</i>
CUComplex API	<i>HIP API</i>
CUDA Device API	<i>HIP Device API</i>
CUDA RTC API	<i>HIP RTC API</i>
CUBLAS API	<i>HIP BLAS API</i>
CUSPARSE API	<i>HIP SPARSE API</i>
CUSOLVER API	<i>HIP SOLVER API</i>
CURAND API	<i>HIP RAND API</i>
CUFFT API	<i>HIP FFT API</i>
CUTENSOR API	<i>HIP TENSOR API</i>
CUB API	<i>HIP CUB API</i>

To generate the above documentation with the information about all supported CUDA APIs in Markdown format, run `hipify-clang --md --doc-format=full --doc-roc=separate` with or without specifying the output directory (-o). By running `hipify-clang --csv --doc-format=full --doc-roc=separate`, the documentation will be generated in CSV format.

9.1 CUDA Runtime API supported by HIP

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

9.1.1 1. Device Management

CUDA	A	D	C	R	HIP	A	D	C	R
<code>cudaChooseDevice</code>					<code>hipChooseDevice</code>	1.6.0			
<code>cudaDeviceFlushGPUDirectRDMAWrites</code>	11.3								
<code>cudaDeviceGetAttribute</code>					<code>hipDeviceGetAttribute</code>	1.6.0			
<code>cudaDeviceGetByPCIBusId</code>					<code>hipDeviceGetByPCIBusId</code>	1.6.0			
<code>cudaDeviceGetCacheConfig</code>					<code>hipDeviceGetCacheConfig</code>	1.6.0			
<code>cudaDeviceGetDefaultMemPool</code>	11.2				<code>hipDeviceGetDefaultMemPool</code>	5.2.0			
<code>cudaDeviceGetHostAtomicCapabilities</code>	13.0								
<code>cudaDeviceGetLimit</code>					<code>hipDeviceGetLimit</code>	1.6.0			
<code>cudaDeviceGetMemPool</code>	11.2				<code>hipDeviceGetMemPool</code>	5.2.0			

contin

Table 1 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	HIP
cudaDeviceGetNvSciSyncAttributes	10.2									
cudaDeviceGetP2PAtomicCapabilities	13.0									
cudaDeviceGetP2PAttribute	8.0					hipDeviceGetP2PAttribute				3.8.0
cudaDeviceGetPCIBusId						hipDeviceGetPCIBusId				1.6.0
cudaDeviceGetStreamPriorityRange						hipDeviceGetStreamPriorityRange				2.0.0
cudaDeviceGetTexture1DLinearMaxWidth	11.1					hipDeviceGetTexture1DLinearMaxWidth				6.4.0
cudaDeviceReset						hipDeviceReset				1.6.0
cudaDeviceSetCacheConfig						hipDeviceSetCacheConfig				1.6.0
cudaDeviceSetLimit						hipDeviceSetLimit				5.3.0
cudaDeviceSetMemPool	11.2					hipDeviceSetMemPool				5.2.0
cudaDeviceSynchronize						hipDeviceSynchronize				1.6.0
cudaGetDevice						hipGetDevice				1.6.0
cudaGetDeviceCount						hipGetDeviceCount				1.6.0
cudaGetDeviceFlags						hipGetDeviceFlags				3.6.0
cudaGetDeviceProperties						hipGetDeviceProperties				1.6.0
cudaInitDevice	12.0									
cudaIpcCloseMemHandle						hipIpcCloseMemHandle				1.6.0
cudaIpcGetEventHandle						hipIpcGetEventHandle				1.6.0
cudaIpcGetMemHandle						hipIpcGetMemHandle				1.6.0
cudaIpcOpenEventHandle						hipIpcOpenEventHandle				1.6.0
cudaIpcOpenMemHandle						hipIpcOpenMemHandle				1.6.0
cudaSetDevice						hipSetDevice				1.6.0
cudaSetDeviceFlags						hipSetDeviceFlags				1.6.0
cudaSetValidDevices						hipSetValidDevices				6.2.0

9.1.2 2. Device Management [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaDeviceGetSharedMemCo	12.4				hipDeviceGetSharedMemCo	1.6.0					
cudaDeviceSetSharedMemCo	12.4				hipDeviceSetSharedMemCo	1.6.0					

9.1.3 3. Error Handling

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaGetErrorName					hipGetErrorName	1.6.0					
cudaGetErrorString					hipGetErrorString	1.6.0					
cudaGetLastError					hipGetLastError	1.6.0					
cudaPeekAtLastError					hipPeekAtLastError	1.6.0					

9.1.4 4. Stream Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaCtxResetPersistingI	11.0										
cudaStreamAddCallback					hipStreamAddCallback	1.6.0					
cudaStreamAttachMemAsyr					hipStreamAttachMemAsy	3.7.0					
cudaStreamBeginCapture	10.0				hipStreamBeginCaptur	4.3.0					
cudaStreamBeginCaptureI	12.3				hipStreamBeginCaptur	6.2.0					
cudaStreamCopyAttribute	11.0				hipStreamCopyAttribu	7.2.0					7.2.0
cudaStreamCreate					hipStreamCreate	1.6.0					
cudaStreamCreateWithFla					hipStreamCreateWithFl	1.6.0					
cudaStreamCreateWithPri					hipStreamCreateWithPri	2.0.0					
cudaStreamDestroy					hipStreamDestroy	1.6.0					
cudaStreamEndCapture	10.0				hipStreamEndCapture	4.3.0					
cudaStreamGetAttribute	11.0				hipStreamGetAttribut	7.1.0					
cudaStreamGetCaptureInf	10.1		13.0		hipStreamGetCaptureIr	5.0.0					13.0
cudaStreamGetCaptureInf	12.3										
cudaStreamGetDevice	12.8										
cudaStreamGetFlags					hipStreamGetFlags	1.6.0					
cudaStreamGetId	12.0				hipStreamGetId	7.1.0					
cudaStreamGetPriority					hipStreamGetPriority	2.0.0					
cudaStreamIsCapturing	10.0				hipStreamIsCapturing	5.0.0					
cudaStreamQuery					hipStreamQuery	1.6.0					
cudaStreamSetAttribute	11.0				hipStreamSetAttribut	7.1.0					
cudaStreamSynchronize					hipStreamSynchronize	1.6.0					
cudaStreamUpdateCapture	11.3		13.0		hipStreamUpdateCaptu	5.0.0					13.0
cudaStreamUpdateCapture	12.3										
cudaStreamWaitEvent					hipStreamWaitEvent	1.6.0					
cudaThreadExchangeStre	10.1				hipThreadExchangeStr	5.2.0					

9.1.5 5. Event Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaEventCreate					hipEventCreate	1.6.0					
cudaEventCreateWithFlags					hipEventCreateWithFlags	1.6.0					
cudaEventDestroy					hipEventDestroy	1.6.0					
cudaEventElapsedTime					hipEventElapsedTime	1.6.0					
cudaEventElapsedTime_v2	12.8										
cudaEventQuery					hipEventQuery	1.6.0					
cudaEventRecord					hipEventRecord	1.6.0					
cudaEventRecordWithFlags	11.1				hipEventRecordWithFlags	6.4.0					
cudaEventSynchronize					hipEventSynchronize	1.6.0					

9.1.6 6. External Resource Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaDestroyExternalMemory	10.0				hipDestroyExternalMem	4.3.0					
cudaDestroyExternalSemaphor	10.0				hipDestroyExternalSem	4.4.0					
cudaExternalMemoryGetMapped	10.0				hipExternalMemoryGetM	4.3.0					
cudaExternalMemoryGetMapped	10.0										
cudaImportExternalMemory	10.0				hipImportExternalMemo	4.3.0					
cudaImportExternalSemaphore	10.0				hipImportExternalSema	4.4.0					
cudaSignalExternalSemaphore	10.0				hipSignalExternalSema	4.4.0					
cudaWaitExternalSemaphores	10.0				hipWaitExternalSemaph	4.4.0					

9.1.7 7. Execution Control

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaFuncGetAttributes					hipFuncGetAttributes	1.9.0					
cudaFuncGetName	12.3										
cudaFuncGetParamInfo	12.4										
cudaFuncSetAttribute	9.0				hipFuncSetAttribute	3.9.0					
cudaFuncSetCacheConfig					hipFuncSetCacheConfig	1.6.0					
cudaGetParameterBuffer											
cudaGetParameterBufferV											
cudaLaunchCooperativeKe	9.0				hipLaunchCooperativeKe	2.6.0					
cudaLaunchCooperativeKe	9.0	11.3		13.0	hipLaunchCooperativeKe	2.6.0					
cudaLaunchHostFunc	10.0				hipLaunchHostFunc	5.2.0					
cudaLaunchKernel					hipLaunchKernel	1.6.0					
cudaLaunchKernelExC	11.8				hipLaunchKernelExC	7.0.0					
cudaSetDoubleForDevice		10.0		13.0							
cudaSetDoubleForHost		10.0		13.0							

9.1.8 8. Execution Control [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaFuncSetSharedMemConf		12.4			hipFuncSetSharedMemConf	3.9.0					

9.1.9 9. Occupancy

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaOccupancyAvailableDy	11.0				hipOccupancyAvailableDy	7.2.0					7.2.0
cudaOccupancyMaxActiveBl					hipOccupancyMaxActiveBl	1.6.0					
cudaOccupancyMaxActiveBl					hipOccupancyMaxActiveBl	2.6.0					Flags
cudaOccupancyMaxActiveC	11.8										
cudaOccupancyMaxPotentia					hipOccupancyMaxPotentia	1.6.0					
cudaOccupancyMaxPotentia					hipOccupancyMaxPotentia	5.5.0					
cudaOccupancyMaxPotentia					hipOccupancyMaxPotentia	5.5.0					hFlags
cudaOccupancyMaxPotentia					hipOccupancyMaxPotentia	3.5.0					
cudaOccupancyMaxPotentia	11.8										

9.1.10 10. Memory Management

CUDA	A	D	C	R	HIP	A	D	C	R
cudaArrayGetInfo					hipArrayGetInfo	5.6.0			
cudaArrayGetMemoryRequirements	11.6								
cudaArrayGetPlane	11.2								
cudaArrayGetSparseProperties	11.1								
cudaDeviceRegisterAsyncNotification	12.4								
cudaDeviceUnregisterAsyncNotification	12.4								
cudaFree					hipFree	1.5.0			
cudaFreeArray					hipFreeArray	1.6.0			
cudaFreeHost					hipHostFree	1.6.0			
cudaFreeMipmappedArray					hipFreeMipmappedArray	3.5.0			
cudaGetMipmappedArrayLevel					hipGetMipmappedArrayLevel	3.5.0			
cudaGetSymbolAddress					hipGetSymbolAddress	2.0.0			
cudaGetSymbolSize					hipGetSymbolSize	2.0.0			
cudaHostAlloc					hipHostAlloc	1.6.0			
cudaHostGetDevicePointer					hipHostGetDevicePointer	1.6.0			
cudaHostGetFlags					hipHostGetFlags	1.6.0			
cudaHostRegister					hipHostRegister	1.6.0			
cudaHostUnregister					hipHostUnregister	1.6.0			
cudaMalloc					hipMalloc	1.5.0			
cudaMalloc3D					hipMalloc3D	1.9.0			
cudaMalloc3DArray					hipMalloc3DArray	1.7.0			
cudaMallocArray					hipMallocArray	1.6.0			
cudaMallocHost					hipHostMalloc	1.6.0			
cudaMallocManaged					hipMallocManaged	2.5.0			
cudaMallocMipmappedArray					hipMallocMipmappedArray	3.5.0			

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Table 2 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
cudaMallocPitch					hipMallocPitch	1.6.0			
cudaMemAdvise	8.0		13.0		hipMemAdvise	3.7.0			
cudaMemAdvise_v2	12.2								
cudaMemDiscardAndPrefetchBatchAsync	13.0								
cudaMemDiscardBatchAsync	13.0								
cudaMemGetInfo					hipMemGetInfo	1.6.0			
cudaMemPrefetchAsync	8.0		13.0		hipMemPrefetchAsync	3.7.0			
cudaMemPrefetchAsync_v2	12.2								
cudaMemPrefetchBatchAsync	13.0								
cudaMemRangeGetAttribute	8.0				hipMemRangeGetAttribute	3.7.0			
cudaMemRangeGetAttributes	8.0				hipMemRangeGetAttributes	3.7.0			
cudaMemcpy					hipMemcpy	1.5.0			
cudaMemcpy2D					hipMemcpy2D	1.6.0			
cudaMemcpy2DArrayToArray					hipMemcpy2DArrayToArray	6.2.0			
cudaMemcpy2DAsync					hipMemcpy2DAsync	1.6.0			
cudaMemcpy2DFromArray					hipMemcpy2DFromArray	3.0.0			
cudaMemcpy2DFromArrayAsync					hipMemcpy2DFromArrayAsync	3.0.0			
cudaMemcpy2DToArray					hipMemcpy2DToArray	1.6.0			
cudaMemcpy2DToArrayAsync					hipMemcpy2DToArrayAsync	4.3.0			
cudaMemcpy3D					hipMemcpy3D	1.6.0			
cudaMemcpy3DAsync					hipMemcpy3DAsync	2.8.0			
cudaMemcpy3DBatchAsync	12.8		13.0		hipMemcpy3DBatchAsync	7.1.0			
cudaMemcpy3DPeer					hipMemcpy3DPeer	7.1.0			
cudaMemcpy3DPeerAsync					hipMemcpy3DPeerAsync	7.1.0			
cudaMemcpyAsync					hipMemcpyAsync	1.6.0			
cudaMemcpyBatchAsync	12.8		13.0		hipMemcpyBatchAsync	7.1.0			
cudaMemcpyFromSymbol					hipMemcpyFromSymbol	1.6.0			
cudaMemcpyFromSymbolAsync					hipMemcpyFromSymbolAsync	1.6.0			
cudaMemcpyPeer					hipMemcpyPeer	1.6.0			
cudaMemcpyPeerAsync					hipMemcpyPeerAsync	1.6.0			
cudaMemcpyToSymbol					hipMemcpyToSymbol	1.6.0			
cudaMemcpyToSymbolAsync					hipMemcpyToSymbolAsync	1.6.0			
cudaMemset					hipMemset	1.6.0			
cudaMemset2D					hipMemset2D	1.7.0			
cudaMemset2DAsync					hipMemset2DAsync	1.9.0			
cudaMemset3D					hipMemset3D	1.9.0			
cudaMemset3DAsync					hipMemset3DAsync	1.9.0			
cudaMemsetAsync					hipMemsetAsync	1.6.0			
make_cudaExtent					make_hipExtent	1.7.0			
make_cudaPitchedPtr					make_hipPitchedPtr	1.7.0			
make_cudaPos					make_hipPos	1.7.0			

9.1.11 11. Memory Management [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaMemcpyFromArrayToArray		10.1									
cudaMemcpyFromArray		10.1			hipMemcpyFromArray	1.9.0	3.8.0				
cudaMemcpyFromArrayAsync		10.1									
cudaMemcpyToArray		10.1			hipMemcpyToArray	1.6.0	3.8.0				
cudaMemcpyToArrayAsync		10.1									

9.1.12 12. Stream Ordered Memory Allocator

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaFreeAsync		11.2			hipFreeAsync		5.2.0				
cudaMallocAsync		11.2			hipMallocAsync		5.2.0				
cudaMallocFromPoolAsync		11.2			hipMallocFromPoolAsync		5.2.0				
cudaMemGetDefaultMemPool		13.0									
cudaMemGetMemPool		13.0									
cudaMemPoolCreate		11.2			hipMemPoolCreate		5.2.0				
cudaMemPoolDestroy		11.2			hipMemPoolDestroy		5.2.0				
cudaMemPoolExportPointer		11.2			hipMemPoolExportPointer		5.2.0				
cudaMemPoolExportToShare		11.2			hipMemPoolExportToShare		5.2.0				
cudaMemPoolGetAccess		11.2			hipMemPoolGetAccess		5.2.0				
cudaMemPoolGetAttribute		11.2			hipMemPoolGetAttribute		5.2.0				
cudaMemPoolImportFromShare		11.2			hipMemPoolImportFromShare		5.2.0				
cudaMemPoolImportPointer		11.2			hipMemPoolImportPointer		5.2.0				
cudaMemPoolSetAccess		11.2			hipMemPoolSetAccess		5.2.0				
cudaMemPoolSetAttribute		11.2			hipMemPoolSetAttribute		5.2.0				
cudaMemPoolTrimTo		11.2			hipMemPoolTrimTo		5.2.0				
cudaMemSetMemPool		13.0									

9.1.13 13. Unified Addressing

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaPointerGetAttributes					hipPointerGetAttributes	1.6.0					

9.1.14 14. Peer Device Memory Access

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaDeviceCanAccessPeer					hipDeviceCanAccessPeer	1.9.0					
cudaDeviceDisablePeerAcce					hipDeviceDisablePeerAcce	1.9.0					
cudaDeviceEnablePeerAcces					hipDeviceEnablePeerAcces	1.9.0					

9.1.15 15. OpenGL Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaGLGetDevices					hipGLGetDevices	4.5.0					
cudaGraphicsGLRegisterBuf					hipGraphicsGLRegisterBuf	4.5.0					
cudaGraphicsGLRegisterIma					hipGraphicsGLRegisterIma	5.1.0					
cudaWGLGetDevice											

9.1.16 16. OpenGL Interoperability [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaGLMapBufferObject						10.0					
cudaGLMapBufferObjectAsync						10.0					
cudaGLRegisterBufferObject						10.0					
cudaGLSetBufferObjectMapFlags						10.0					
cudaGLSetGLDevice						10.0					
cudaGLUnmapBufferObject						10.0					
cudaGLUnmapBufferObjectAsync						10.0					
cudaGLUnregisterBufferObject						10.0					

9.1.17 17. Direct3D 9 Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaD3D9GetDevice											
cudaD3D9GetDevices											
cudaD3D9GetDirect3DDevice											
cudaD3D9SetDirect3DDevice											
cudaGraphicsD3D9RegisterResource											

9.1.18 18. Direct3D 9 Interoperability [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaD3D9MapResources											10.0
cudaD3D9RegisterResource											
cudaD3D9ResourceGetMappedArray											10.0
cudaD3D9ResourceGetMappedPitch											10.0
cudaD3D9ResourceGetMappedPointer											10.0
cudaD3D9ResourceGetMappedSize											10.0
cudaD3D9ResourceGetSurfaceDimensions											10.0
cudaD3D9ResourceSetMapFlags											10.0
cudaD3D9UnmapResources											10.0
cudaD3D9UnregisterResource											10.0

9.1.19 19. Direct3D 10 Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaD3D10GetDevice											
cudaD3D10GetDevices											
cudaGraphicsD3D10RegisterResource											

9.1.20 20. Direct3D 10 Interoperability [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaD3D10GetDirect3DDevice											
cudaD3D10MapResources											
cudaD3D10RegisterResource											
cudaD3D10ResourceGetMappedArray											
cudaD3D10ResourceGetMappedPitch											
cudaD3D10ResourceGetMappedPointer											
cudaD3D10ResourceGetMappedSize											
cudaD3D10ResourceGetSurfaceDimensions											
cudaD3D10ResourceSetMapFlags											
cudaD3D10SetDirect3DDevice											
cudaD3D10UnmapResources											
cudaD3D10UnregisterResource											

9.1.21 21. Direct3D 11 Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaD3D11GetDevice											
cudaD3D11GetDevices											
cudaGraphicsD3D11RegisterResource											

9.1.22 22. Direct3D 11 Interoperability [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaD3D11GetDirect3DDevice											
cudaD3D11SetDirect3DDevice											

9.1.23 23. VDPAU Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaGraphicsVDPAURegisterOutputSurface											
cudaGraphicsVDPAURegisterVideoSurface											
cudaVDPAUGetDevice											
cudaVDPAUSetVDPAUDevice											

9.1.24 24. EGL Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaEGLStreamConsumerAcquireFrame	9.1										
cudaEGLStreamConsumerConnect	9.1										
cudaEGLStreamConsumerConnectWithFlags	9.1										
cudaEGLStreamConsumerDisconnect	9.1										
cudaEGLStreamConsumerReleaseFrame	9.1										
cudaEGLStreamProducerConnect	9.1										
cudaEGLStreamProducerDisconnect	9.1										
cudaEGLStreamProducerPresentFrame	9.1										
cudaEGLStreamProducerReturnFrame	9.1										
cudaEventCreateFromEGLSync	9.1										
cudaGraphicsEGLRegisterImage	9.1										
cudaGraphicsResourceGetMappedEglFrame	9.1										

9.1.25 25. Graphics Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaGraphicsMapResources					hipGraphicsMapResources	4.5.0					
cudaGraphicsResourceGetMapP											
cudaGraphicsResourceGetMapP					hipGraphicsResourceGetM	4.5.0					
cudaGraphicsResourceSetMapF											
cudaGraphicsSubResourceGetM					hipGraphicsSubResourceC	5.1.0					
cudaGraphicsUnmapResources					hipGraphicsUnmapResourc	4.5.0					
cudaGraphicsUnregisterResou					hipGraphicsUnregisterRe	4.5.0					

9.1.26 26. Texture Object Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaCreateChannelDesc					hipCreateChannelDesc	1.6.0					
cudaCreateTextureObject					hipCreateTextureObject	1.7.0					
cudaCreateTextureObject	11.8			12.0							
cudaDestroyTextureObject					hipDestroyTextureObject	1.7.0					
cudaGetChannelDesc					hipGetChannelDesc	1.7.0					
cudaGetTextureObjectReso					hipGetTextureObjectReso	1.7.0					
cudaGetTextureObjectReso					hipGetTextureObjectReso	1.7.0					
cudaGetTextureObjectText					hipGetTextureObjectText	1.7.0					
cudaGetTextureObjectText	11.8			12.0							

9.1.27 27. Surface Object Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaCreateSurfaceObject					hipCreateSurfaceObjec	1.9.0					
cudaDestroySurfaceObject					hipDestroySurfaceObjec	1.9.0					
cudaGetSurfaceObjectResourceI											

9.1.28 28. Version Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaDriverGetVersion					hipDriverGetVersion	1.6.0					
cudaRuntimeGetVersion					hipRuntimeGetVersion	1.6.0					

9.1.29 29. Error Log Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaLogsCurrent					13.0						
cudaLogsDumpToFile					13.0						
cudaLogsDumpToMemory					13.0						
cudaLogsRegisterCallback					13.0						
cudaLogsUnregisterCallback					13.0						

9.1.30 30. Graph Management

CUDA	A	D	C	R	HIP
cudaDeviceGetGraphMemAttribute	11.4				hipDeviceGetGraphMemAttribute
cudaDeviceGraphMemTrim	11.4				hipDeviceGraphMemTrim
cudaDeviceSetGraphMemAttribute	11.4				hipDeviceSetGraphMemAttribute
cudaGraphAddChildGraphNode	10.0				hipGraphAddChildGraphNode
cudaGraphAddDependencies	10.0		13.0		hipGraphAddDependencies
cudaGraphAddDependencies_v2	12.3				
cudaGraphAddEmptyNode	10.0				hipGraphAddEmptyNode
cudaGraphAddEventRecordNode	11.1				hipGraphAddEventRecordNode
cudaGraphAddEventWaitNode	11.1				hipGraphAddEventWaitNode
cudaGraphAddExternalSemaphoresSignalNode	11.2				hipGraphAddExternalSemaphoresSi
cudaGraphAddExternalSemaphoresWaitNode	11.2				hipGraphAddExternalSemaphoresWa
cudaGraphAddHostNode	10.0				hipGraphAddHostNode
cudaGraphAddKernelNode	10.0				hipGraphAddKernelNode
cudaGraphAddMemAllocNode	11.4				hipGraphAddMemAllocNode
cudaGraphAddMemFreeNode	11.4				hipGraphAddMemFreeNode
cudaGraphAddMemcpyNode	10.0				hipGraphAddMemcpyNode
cudaGraphAddMemcpyNode1D	11.1				hipGraphAddMemcpyNode1D
cudaGraphAddMemcpyNodeFromSymbol	11.1				hipGraphAddMemcpyNodeFromSymbol
cudaGraphAddMemcpyNodeToSymbol	11.1				hipGraphAddMemcpyNodeToSymbol
cudaGraphAddMemsetNode	10.0				hipGraphAddMemsetNode
cudaGraphAddNode	12.2		13.0		hipGraphAddNode
cudaGraphAddNode_v2	12.3				
cudaGraphChildGraphNodeGetGraph	10.0				hipGraphChildGraphNodeGetGraph

Table 3 – continued from previous page

CUDA	A	D	C	R	HIP
cudaGraphClone	10.0				hipGraphClone
cudaGraphConditionalHandleCreate	12.3				
cudaGraphCreate	10.0				hipGraphCreate
cudaGraphDebugDotPrint	11.3				hipGraphDebugDotPrint
cudaGraphDestroy	10.0				hipGraphDestroy
cudaGraphDestroyNode	10.0				hipGraphDestroyNode
cudaGraphEventRecordNodeGetEvent	11.1				hipGraphEventRecordNodeGetEvent
cudaGraphEventRecordNodeSetEvent	11.1				hipGraphEventRecordNodeSetEvent
cudaGraphEventWaitNodeGetEvent	11.1				hipGraphEventWaitNodeGetEvent
cudaGraphEventWaitNodeSetEvent	11.1				hipGraphEventWaitNodeSetEvent
cudaGraphExecChildGraphNodeSetParams	11.1				hipGraphExecChildGraphNodeSetParams
cudaGraphExecDestroy	10.0				hipGraphExecDestroy
cudaGraphExecEventRecordNodeSetEvent	11.1				hipGraphExecEventRecordNodeSetEvent
cudaGraphExecEventWaitNodeSetEvent	11.1				hipGraphExecEventWaitNodeSetEvent
cudaGraphExecExternalSemaphoresSignalNodeSetParams	11.2				hipGraphExecExternalSemaphoresSignalNodeSetParams
cudaGraphExecExternalSemaphoresWaitNodeSetParams	11.2				hipGraphExecExternalSemaphoresWaitNodeSetParams
cudaGraphExecGetFlags	12.0				hipGraphExecGetFlags
cudaGraphExecHostNodeSetParams	11.0				hipGraphExecHostNodeSetParams
cudaGraphExecKernelNodeSetParams	11.0				hipGraphExecKernelNodeSetParams
cudaGraphExecMemcpyNodeSetParams	11.0				hipGraphExecMemcpyNodeSetParams
cudaGraphExecMemcpyNodeSetParams1D	11.1				hipGraphExecMemcpyNodeSetParams1D
cudaGraphExecMemcpyNodeSetParamsFromSymbol	11.1				hipGraphExecMemcpyNodeSetParamsFromSymbol
cudaGraphExecMemcpyNodeSetParamsToSymbol	11.1				hipGraphExecMemcpyNodeSetParamsToSymbol
cudaGraphExecMemsetNodeSetParams	11.0				hipGraphExecMemsetNodeSetParams
cudaGraphExecNodeSetParams	12.2				hipGraphExecNodeSetParams
cudaGraphExecUpdate	11.0				hipGraphExecUpdate
cudaGraphExternalSemaphoresSignalNodeGetParams	11.2				hipGraphExternalSemaphoresSignalNodeGetParams
cudaGraphExternalSemaphoresSignalNodeSetParams	11.2				hipGraphExternalSemaphoresSignalNodeSetParams
cudaGraphExternalSemaphoresWaitNodeGetParams	11.2				hipGraphExternalSemaphoresWaitNodeGetParams
cudaGraphExternalSemaphoresWaitNodeSetParams	11.2				hipGraphExternalSemaphoresWaitNodeSetParams
cudaGraphGetEdges	10.0		13.0		hipGraphGetEdges
cudaGraphGetEdges_v2	12.3				
cudaGraphGetNodes	10.0				hipGraphGetNodes
cudaGraphGetRootNodes	10.0				hipGraphGetRootNodes
cudaGraphHostNodeGetParams	10.0				hipGraphHostNodeGetParams
cudaGraphHostNodeSetParams	10.0				hipGraphHostNodeSetParams
cudaGraphInstantiate	10.0				hipGraphInstantiate
cudaGraphInstantiateWithFlags	11.4				hipGraphInstantiateWithFlags
cudaGraphInstantiateWithParams	12.0				hipGraphInstantiateWithParams
cudaGraphKernelNodeCopyAttributes	11.0		13.0		hipGraphKernelNodeCopyAttributes
cudaGraphKernelNodeGetAttribute	11.0				hipGraphKernelNodeGetAttribute
cudaGraphKernelNodeGetParams	11.0				hipGraphKernelNodeGetParams
cudaGraphKernelNodeSetAttribute	11.0				hipGraphKernelNodeSetAttribute
cudaGraphKernelNodeSetParams	11.0				hipGraphKernelNodeSetParams
cudaGraphLaunch	11.0				hipGraphLaunch
cudaGraphMemAllocNodeGetParams	11.4				hipGraphMemAllocNodeGetParams
cudaGraphMemFreeNodeGetParams	11.4				hipGraphMemFreeNodeGetParams
cudaGraphMemcpyNodeGetParams	11.0				hipGraphMemcpyNodeGetParams
cudaGraphMemcpyNodeSetParams	11.0				hipGraphMemcpyNodeSetParams
cudaGraphMemcpyNodeSetParams1D	11.1				hipGraphMemcpyNodeSetParams1D

Table 3 – continued from previous page

CUDA	A	D	C	R	HIP
cudaGraphMemcpyNodeSetParamsFromSymbol	11.1				hipGraphMemcpyNodeSetParamsFromSymbol
cudaGraphMemcpyNodeSetParamsToSymbol	11.1				hipGraphMemcpyNodeSetParamsToSymbol
cudaGraphMemsetNodeGetParams	11.0				hipGraphMemsetNodeGetParams
cudaGraphMemsetNodeSetParams	11.0				hipGraphMemsetNodeSetParams
cudaGraphNodeFindInClone	11.0				hipGraphNodeFindInClone
cudaGraphNodeGetDependencies	11.0		13.0		hipGraphNodeGetDependencies
cudaGraphNodeGetDependencies_v2	12.3				
cudaGraphNodeGetDependentNodes	11.0		13.0		hipGraphNodeGetDependentNodes
cudaGraphNodeGetDependentNodes_v2	12.3				
cudaGraphNodeGetEnabled	11.6				hipGraphNodeGetEnabled
cudaGraphNodeGetType	11.0				hipGraphNodeGetType
cudaGraphNodeSetEnabled	11.6				hipGraphNodeSetEnabled
cudaGraphNodeSetParams	12.2				hipGraphNodeSetParams
cudaGraphReleaseUserObject	11.3				hipGraphReleaseUserObject
cudaGraphRemoveDependencies	11.0		13.0		hipGraphRemoveDependencies
cudaGraphRemoveDependencies_v2	12.3				
cudaGraphRetainUserObject	11.3				hipGraphRetainUserObject
cudaGraphUpload	11.1				hipGraphUpload
cudaUserObjectCreate	11.3				hipUserObjectCreate
cudaUserObjectRelease	11.3				hipUserObjectRelease
cudaUserObjectRetain	11.3				hipUserObjectRetain

9.1.31 31. Driver Entry Point Access

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	
cudaGetDriverEntryPoint	11.3	13.0	12.0		hipGetDriverEntryPoint	7.1.0				11.3	11.4	11.5
cudaGetDriverEntryPoint	12.5									11.6	11.7	11.8

9.1.32 32. Library Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaKernelSetAttributeFor	12.8										
cudaLibraryEnumerateKerne	12.8				hipLibraryEnumerateKe	7.2.0					7.2.0
cudaLibraryGetGlobal	12.8										
cudaLibraryGetKernel	12.8				hipLibraryGetKernel	7.1.0					
cudaLibraryGetKernelCount	12.8				hipLibraryGetKernelCo	7.1.0					
cudaLibraryGetManaged	12.8										
cudaLibraryGetUnifiedFunc	12.8										
cudaLibraryLoadData	12.8				hipLibraryLoadData	7.1.0					
cudaLibraryLoadFromFile	12.8				hipLibraryLoadFromFil	7.1.0					
cudaLibraryUnload	12.8				hipLibraryUnload	7.1.0					

9.1.33 33. C++ API Routines

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaGetKernel	12.1										

9.1.34 34. Interactions with the CUDA Driver API

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaGetFuncBySymbol	11.0				hipGetFuncBySymbol	6.2.0					

9.1.35 35. Profiler Control

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaProfilerStart					hipProfilerStart	1.6.0	3.0.0				
cudaProfilerStop					hipProfilerStop	1.6.0	3.0.0				

9.1.36 36. Data types used by CUDA Runtime

CUDA	A	D	C	R	HIP
CUDART_2_OVER_PI					HIP_2_OVER_PI
CUDART_2_OVER_PI_F					HIP_2_OVER_PI_F
CUDART_3PIO4					HIP_3PIO4
CUDART_3PIO4_F					HIP_3PIO4_F
CUDART_DBL2INT_CVT					HIP_DBL2INT_CVT
CUDART_INF					HIP_INF
CUDART_INF_F					HIP_INF_F
CUDART_L2E					HIP_L2E
CUDART_L2E_F					HIP_L2E_F
CUDART_L2E_HI					HIP_L2E_HI
CUDART_L2E_LO					HIP_L2E_LO
CUDART_L2T					HIP_L2T
CUDART_L2T_F					HIP_L2T_F
CUDART_LG2					HIP_LG2
CUDART_LG2_F					HIP_LG2_F
CUDART_LG2_HI					HIP_LG2_HI
CUDART_LG2_LO					HIP_LG2_LO
CUDART_LG2_X_1024					HIP_LG2_X_1024
CUDART_LG2_X_1075					HIP_LG2_X_1075
CUDART_LGE					HIP_LGE
CUDART_LGE_F					HIP_LGE_F
CUDART_LGE_HI					HIP_LGE_HI
CUDART_LGE_LO					HIP_LGE_LO
CUDART_LN2					HIP_LN2
CUDART_LN2_F					HIP_LN2_F
CUDART_LN2_HI					HIP_LN2_HI
CUDART_LN2_LO					HIP_LN2_LO
CUDART_LN2_X_1024					HIP_LN2_X_1024
CUDART_LN2_X_1025					HIP_LN2_X_1025
CUDART_LN2_X_1075					HIP_LN2_X_1075
CUDART_LNPI					HIP_LNPI
CUDART_LNPI_F					HIP_LNPI_F
CUDART_LNT					HIP_LNT
CUDART_LNT_F					HIP_LNT_F
CUDART_LNT_HI					HIP_LNT_HI
CUDART_LNT_LO					HIP_LNT_LO
CUDART_MAX_NORMAL_F					HIP_MAX_NORMAL_F
CUDART_MIN_DENORM					HIP_MIN_DENORM
CUDART_MIN_DENORM_F					HIP_MIN_DENORM_F
CUDART_NAN					HIP_NAN
CUDART_NAN_F					HIP_NAN_F
CUDART_NEG_ZERO					HIP_NEG_ZERO
CUDART_NEG_ZERO_F					HIP_NEG_ZERO_F
CUDART_NORM_HUGE_F					HIP_NORM_HUGE_F
CUDART_ONE					HIP_ONE
CUDART_ONE_F					HIP_ONE_F
CUDART_PI					HIP_PI
CUDART_PIO2					HIP_PIO2
CUDART_PIO2_F					HIP_PIO2_F

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CUDA	A	D	C	R	HIP
CUDART_PIO2_HI					HIP_PIO2_HI
CUDART_PIO2_LO					HIP_PIO2_LO
CUDART_PIO4					HIP_PIO4
CUDART_PIO4_F					HIP_PIO4_F
CUDART_PIO4_HI					HIP_PIO4_HI
CUDART_PIO4_LO					HIP_PIO4_LO
CUDART_PI_F					HIP_PI_F
CUDART_PI_HI					HIP_PI_HI
CUDART_PI_LO					HIP_PI_LO
CUDART_REMQUO_BITS_F					HIP_REMQUO_BITS_F
CUDART_REMQUO_MASK_F					HIP_REMQUO_MASK_F
CUDART_SQRT_2OPI					HIP_SQRT_2OPI
CUDART_SQRT_2PI					HIP_SQRT_2PI
CUDART_SQRT_2PI_HI					HIP_SQRT_2PI_HI
CUDART_SQRT_2PI_LO					HIP_SQRT_2PI_LO
CUDART_SQRT_2_OVER_PI_F					HIP_SQRT_2_OVER_PI_F
CUDART_SQRT_HALF					HIP_SQRT_HALF
CUDART_SQRT_HALF_F					HIP_SQRT_HALF_F
CUDART_SQRT_HALF_HI					HIP_SQRT_HALF_HI
CUDART_SQRT_HALF_HI_F					HIP_SQRT_HALF_HI_F
CUDART_SQRT_HALF_LO					HIP_SQRT_HALF_LO
CUDART_SQRT_HALF_LO_F					HIP_SQRT_HALF_LO_F
CUDART_SQRT_PIO2					HIP_SQRT_PIO2
CUDART_SQRT_PIO2_HI					HIP_SQRT_PIO2_HI
CUDART_SQRT_PIO2_LO					HIP_SQRT_PIO2_LO
CUDART_SQRT_TWO					HIP_SQRT_TWO
CUDART_SQRT_TWO_F					HIP_SQRT_TWO_F
CUDART_THIRD					HIP_THIRD
CUDART_THIRD_F					HIP_THIRD_F
CUDART_TRIG_PLOSS					HIP_TRIG_PLOSS
CUDART_TRIG_PLOSS_F					HIP_TRIG_PLOSS_F
CUDART_TWOTHIRD					HIP_TWOTHIRD
CUDART_TWO_TO_126_F					HIP_TWO_TO_126_F
CUDART_TWO_TO_23					HIP_TWO_TO_23
CUDART_TWO_TO_23_F					HIP_TWO_TO_23_F
CUDART_TWO_TO_24_F					HIP_TWO_TO_24_F
CUDART_TWO_TO_31_F					HIP_TWO_TO_31_F
CUDART_TWO_TO_32_F					HIP_TWO_TO_32_F
CUDART_TWO_TO_52					HIP_TWO_TO_52
CUDART_TWO_TO_53					HIP_TWO_TO_53
CUDART_TWO_TO_54					HIP_TWO_TO_54
CUDART_TWO_TO_M1022					HIP_TWO_TO_M1022
CUDART_TWO_TO_M126_F					HIP_TWO_TO_M126_F
CUDART_TWO_TO_M54					HIP_TWO_TO_M54
CUDART_ZERO					HIP_ZERO
CUDART_ZERO_F					HIP_ZERO_F
CUDA_EGL_MAX_PLANES				9.1	
CUDA_EMULATION_STRATEGY_DEFAULT				13.0	
CUDA_EMULATION_STRATEGY_EAGER				13.0	
CUDA_EMULATION_STRATEGY_PERFORMANT				13.0	

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CUDA	A	D	C	R	HIP
CUDA_IPC_HANDLE_SIZE					HIP_IPC_HANDLE_SIZE
CUDALogLevel	13.0				
CUDALogLevel_enum	13.0				
CUeglStreamConnection_st	9.1				
CUevent_st					hipEvent_t
CUexternalMemory_st	10.0				
CUexternalSemaphore_st	10.0				
CUgraphExec_st	10.0				hipGraphExec
CUgraphNode_st	10.0				hipGraphNode
CUgraph_st	10.0				hipGraph
CUlogsCallbackEntry_st	13.0				
CUstream_st					hipStream_t
CUuuid_st					hipUUID_t
cudaAccessPolicyWindow	11.0				hipAccessPolicyWindow
cudaAccessProperty	11.0				hipAccessProperty
cudaAccessPropertyNormal	11.0				hipAccessPropertyNormal
cudaAccessPropertyPersisting	11.0				hipAccessPropertyPersisting
cudaAccessPropertyStreaming	11.0				hipAccessPropertyStreaming
cudaAddressModeBorder					hipAddressModeBorder
cudaAddressModeClamp					hipAddressModeClamp
cudaAddressModeMirror					hipAddressModeMirror
cudaAddressModeWrap					hipAddressModeWrap
cudaArray					hipArray
cudaArrayColorAttachment	10.0				
cudaArrayCubemap					hipArrayCubemap
cudaArrayDefault					hipArrayDefault
cudaArrayDeferredMapping	11.6				
cudaArrayLayered					hipArrayLayered
cudaArrayMemoryRequirements	11.6				
cudaArraySparse	11.1				
cudaArraySparseProperties	11.1				
cudaArraySparsePropertiesSingleMipTail	11.1				
cudaArraySurfaceLoadStore					hipArraySurfaceLoadStore
cudaArrayTextureGather					hipArrayTextureGather
cudaArray_const_t					hipArray_const_t
cudaArray_t					hipArray_t
cudaAsyncCallback	12.4				
cudaAsyncCallbackEntry	12.4				
cudaAsyncCallbackHandle_t	12.4				
cudaAsyncNotificationInfo	12.4				
cudaAsyncNotificationInfo_t	12.4				
cudaAtomicCapabilityReduction	13.0				
cudaAtomicCapabilityScalar128	13.0				
cudaAtomicCapabilityScalar32	13.0				
cudaAtomicCapabilityScalar64	13.0				
cudaAtomicCapabilitySigned	13.0				
cudaAtomicCapabilityUnsigned	13.0				
cudaAtomicCapabilityVector32x4	13.0				
cudaAtomicOperation	13.0				
cudaAtomicOperationAnd	13.0				

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CUDA	A	D	C	R	HIP
cudaAtomicOperationCAS	13.0				
cudaAtomicOperationCapability	13.0				
cudaAtomicOperationExchange	13.0				
cudaAtomicOperationFloatAdd	13.0				
cudaAtomicOperationFloatMax	13.0				
cudaAtomicOperationFloatMin	13.0				
cudaAtomicOperationIntegerAdd	13.0				
cudaAtomicOperationIntegerDecrement	13.0				
cudaAtomicOperationIntegerIncrement	13.0				
cudaAtomicOperationIntegerMax	13.0				
cudaAtomicOperationIntegerMin	13.0				
cudaAtomicOperationOr	13.0				
cudaAtomicOperationXOR	13.0				
cudaBoundaryModeClamp					hipBoundaryModeClamp
cudaBoundaryModeTrap					hipBoundaryModeTrap
cudaBoundaryModeZero					hipBoundaryModeZero
cudaCGScope	9.0				
cudaCGScopeGrid	9.0				
cudaCGScopeInvalid	9.0				
cudaCGScopeMultiGrid	9.0				
cudaCSV				12.0	
cudaChannelFormatDesc					hipChannelFormatDesc
cudaChannelFormatKind					hipChannelFormatKind
cudaChannelFormatKindFloat					hipChannelFormatKindF
cudaChannelFormatKindNV12	11.2				
cudaChannelFormatKindNone					hipChannelFormatKindN
cudaChannelFormatKindSigned					hipChannelFormatKindS
cudaChannelFormatKindSignedBlockCompressed4	11.5				
cudaChannelFormatKindSignedBlockCompressed5	11.5				
cudaChannelFormatKindSignedBlockCompressed6H	11.5				
cudaChannelFormatKindSignedNormalized16X1	11.5				
cudaChannelFormatKindSignedNormalized16X2	11.5				
cudaChannelFormatKindSignedNormalized16X4	11.5				
cudaChannelFormatKindSignedNormalized8X1	11.5				
cudaChannelFormatKindSignedNormalized8X2	11.5				
cudaChannelFormatKindSignedNormalized8X4	11.5				
cudaChannelFormatKindUnsigned					hipChannelFormatKindU
cudaChannelFormatKindUnsignedBlockCompressed1	11.5				
cudaChannelFormatKindUnsignedBlockCompressed1SRGB	11.5				
cudaChannelFormatKindUnsignedBlockCompressed2	11.5				
cudaChannelFormatKindUnsignedBlockCompressed2SRGB	11.5				
cudaChannelFormatKindUnsignedBlockCompressed3	11.5				
cudaChannelFormatKindUnsignedBlockCompressed3SRGB	11.5				
cudaChannelFormatKindUnsignedBlockCompressed4	11.5				
cudaChannelFormatKindUnsignedBlockCompressed5	11.5				
cudaChannelFormatKindUnsignedBlockCompressed6H	11.5				
cudaChannelFormatKindUnsignedBlockCompressed7	11.5				
cudaChannelFormatKindUnsignedBlockCompressed7SRGB	11.5				
cudaChannelFormatKindUnsignedNormalized1010102	12.8				
cudaChannelFormatKindUnsignedNormalized16X1	11.5				

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CUDA	A	D	C	R	HIP
cudaChannelFormatKindUnsignedNormalized16X2	11.5				
cudaChannelFormatKindUnsignedNormalized16X4	11.5				
cudaChannelFormatKindUnsignedNormalized8X1	11.5				
cudaChannelFormatKindUnsignedNormalized8X2	11.5				
cudaChannelFormatKindUnsignedNormalized8X4	11.5				
cudaChildGraphNodeParams	12.2				hipChildGraphNodeParam
cudaClusterSchedulingPolicy	11.8				
cudaClusterSchedulingPolicyDefault	11.8				
cudaClusterSchedulingPolicyLoadBalancing	11.8				
cudaClusterSchedulingPolicySpread	11.8				
cudaComputeMode					hipComputeMode
cudaComputeModeDefault					hipComputeModeDefault
cudaComputeModeExclusive					hipComputeModeExclusi
cudaComputeModeExclusiveProcess					hipComputeModeExclusi
cudaComputeModeProhibited					hipComputeModeProhibi
cudaConditionalNodeParams	12.3				
cudaCooperativeLaunchMultiDeviceNoPostSync	9.0			13.0	hipCooperativeLaunchM
cudaCooperativeLaunchMultiDeviceNoPreSync	9.0			13.0	hipCooperativeLaunchM
cudaCpuDeviceId	8.0				hipCpuDeviceId
cudaD3D10DeviceList					
cudaD3D10DeviceListAll					
cudaD3D10DeviceListCurrentFrame					
cudaD3D10DeviceListNextFrame					
cudaD3D10MapFlags					
cudaD3D10MapFlagsNone					
cudaD3D10MapFlagsReadOnly					
cudaD3D10MapFlagsWriteDiscard					
cudaD3D10RegisterFlags					
cudaD3D10RegisterFlagsArray					
cudaD3D10RegisterFlagsNone					
cudaD3D11DeviceList					
cudaD3D11DeviceListAll					
cudaD3D11DeviceListCurrentFrame					
cudaD3D11DeviceListNextFrame					
cudaD3D9DeviceList					
cudaD3D9DeviceListAll					
cudaD3D9DeviceListCurrentFrame					
cudaD3D9DeviceListNextFrame					
cudaD3D9MapFlags					
cudaD3D9MapFlagsNone					
cudaD3D9MapFlagsReadOnly					
cudaD3D9MapFlagsWriteDiscard					
cudaD3D9RegisterFlags					
cudaD3D9RegisterFlagsArray					
cudaD3D9RegisterFlagsNone					
cudaDevAttrAsyncEngineCount					hipDeviceAttributeAsyn
cudaDevAttrCanFlushRemoteWrites	9.2				
cudaDevAttrCanMapHostMemory					hipDeviceAttributeCan
cudaDevAttrCanUseHostPointerForRegisteredMem	8.0				hipDeviceAttributeCan
cudaDevAttrClockRate					hipDeviceAttributeClo

Table 4 – continued from previous page

CUDA	A	D	C	R	HIP
cudaDevAttrClusterLaunch	11.8				
cudaDevAttrComputeCapabilityMajor					hipDeviceAttributeComp
cudaDevAttrComputeCapabilityMinor					hipDeviceAttributeComp
cudaDevAttrComputeMode					hipDeviceAttributeComp
cudaDevAttrComputePreemptionSupported	8.0				hipDeviceAttributeComp
cudaDevAttrConcurrentKernels					hipDeviceAttributeCono
cudaDevAttrConcurrentManagedAccess	8.0				hipDeviceAttributeCono
cudaDevAttrCooperativeLaunch	9.0				hipDeviceAttributeCoop
cudaDevAttrCooperativeMultiDeviceLaunch	9.0	11.4		13.0	hipDeviceAttributeCoop
cudaDevAttrD3D12CigSupported	12.5				
cudaDevAttrDeferredMappingCudaArraySupported	11.6				
cudaDevAttrDirectManagedMemAccessFromHost	9.2				hipDeviceAttributeDire
cudaDevAttrEccEnabled					hipDeviceAttributeEccE
cudaDevAttrGPUDirectRDMAFlushWritesOptions	11.3				
cudaDevAttrGPUDirectRDMASupported	11.3				
cudaDevAttrGPUDirectRDMAWritesOrdering	11.3				
cudaDevAttrGlobalL1CacheSupported					hipDeviceAttributeGlob
cudaDevAttrGlobalMemoryBusWidth					hipDeviceAttributeMemo
cudaDevAttrGpuOverlap					hipDeviceAttributeAsyn
cudaDevAttrGpuPciDeviceId	12.8				
cudaDevAttrGpuPciSubsystemId	12.8				
cudaDevAttrHostMemoryPoolsSupported	13.0				
cudaDevAttrHostNativeAtomicSupported	8.0				hipDeviceAttributeHos
cudaDevAttrHostNumaId	12.2				hipDeviceAttributeHos
cudaDevAttrHostNumaMemoryPoolsSupported	12.9				
cudaDevAttrHostNumaMultinodeIpcSupported	12.8				
cudaDevAttrHostRegisterReadOnlySupported	11.1				
cudaDevAttrHostRegisterSupported	9.2				hipDeviceAttributeHos
cudaDevAttrIntegrated					hipDeviceAttributeInte
cudaDevAttrIpcEventSupport	12.0				
cudaDevAttrIsMultiGpuBoard					hipDeviceAttributeIsM
cudaDevAttrKernelExecTimeout					hipDeviceAttributeKer
cudaDevAttrL2CacheSize					hipDeviceAttributeL2Ca
cudaDevAttrLocalL1CacheSupported					hipDeviceAttributeLoca
cudaDevAttrManagedMemory					hipDeviceAttributeMana
cudaDevAttrMax	11.4				
cudaDevAttrMaxAccessPolicyWindowSize	11.3				
cudaDevAttrMaxBlockDimX					hipDeviceAttributeMaxl
cudaDevAttrMaxBlockDimY					hipDeviceAttributeMaxl
cudaDevAttrMaxBlockDimZ					hipDeviceAttributeMaxl
cudaDevAttrMaxBlocksPerMultiprocessor	11.0				hipDeviceAttributeMaxl
cudaDevAttrMaxGridDimX					hipDeviceAttributeMax
cudaDevAttrMaxGridDimY					hipDeviceAttributeMax
cudaDevAttrMaxGridDimZ					hipDeviceAttributeMax
cudaDevAttrMaxPersistingL2CacheSize	11.3				
cudaDevAttrMaxPitch					hipDeviceAttributeMaxl
cudaDevAttrMaxRegistersPerBlock					hipDeviceAttributeMaxl
cudaDevAttrMaxRegistersPerMultiprocessor					hipDeviceAttributeMaxl
cudaDevAttrMaxSharedMemoryPerBlock					hipDeviceAttributeMax
cudaDevAttrMaxSharedMemoryPerBlockOptin	9.0				hipDeviceAttributeShar

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CUDA	A	D	C	R	HIP
cudaDevAttrMaxSharedMemoryPerMultiprocessor					hipDeviceAttributeMax
cudaDevAttrMaxSurface1DLayeredLayers					
cudaDevAttrMaxSurface1DLayeredWidth					hipDeviceAttributeMax
cudaDevAttrMaxSurface1DWidth					hipDeviceAttributeMax
cudaDevAttrMaxSurface2DHeight					hipDeviceAttributeMax
cudaDevAttrMaxSurface2DLayeredHeight					hipDeviceAttributeMax
cudaDevAttrMaxSurface2DLayeredLayers					
cudaDevAttrMaxSurface2DLayeredWidth					hipDeviceAttributeMax
cudaDevAttrMaxSurface2DWidth					hipDeviceAttributeMax
cudaDevAttrMaxSurface3DDepth					hipDeviceAttributeMax
cudaDevAttrMaxSurface3DHeight					hipDeviceAttributeMax
cudaDevAttrMaxSurface3DWidth					hipDeviceAttributeMax
cudaDevAttrMaxSurfaceCubemapLayeredLayers					
cudaDevAttrMaxSurfaceCubemapLayeredWidth					hipDeviceAttributeMax
cudaDevAttrMaxSurfaceCubemapWidth					hipDeviceAttributeMax
cudaDevAttrMaxTexture1DLayeredLayers					
cudaDevAttrMaxTexture1DLayeredWidth					hipDeviceAttributeMax
cudaDevAttrMaxTexture1DLinearWidth					hipDeviceAttributeMax
cudaDevAttrMaxTexture1DMipmappedWidth					hipDeviceAttributeMax
cudaDevAttrMaxTexture1DWidth					hipDeviceAttributeMax
cudaDevAttrMaxTexture2DGatherHeight					hipDeviceAttributeMax
cudaDevAttrMaxTexture2DGatherWidth					hipDeviceAttributeMax
cudaDevAttrMaxTexture2DHeight					hipDeviceAttributeMax
cudaDevAttrMaxTexture2DLayeredHeight					hipDeviceAttributeMax
cudaDevAttrMaxTexture2DLayeredLayers					
cudaDevAttrMaxTexture2DLayeredWidth					hipDeviceAttributeMax
cudaDevAttrMaxTexture2DLinearHeight					hipDeviceAttributeMax
cudaDevAttrMaxTexture2DLinearPitch					hipDeviceAttributeMax
cudaDevAttrMaxTexture2DLinearWidth					hipDeviceAttributeMax
cudaDevAttrMaxTexture2DMipmappedHeight					hipDeviceAttributeMax
cudaDevAttrMaxTexture2DMipmappedWidth					hipDeviceAttributeMax
cudaDevAttrMaxTexture2DWidth					hipDeviceAttributeMax
cudaDevAttrMaxTexture3DDepth					hipDeviceAttributeMax
cudaDevAttrMaxTexture3DDepthAlt					hipDeviceAttributeMax
cudaDevAttrMaxTexture3DHeight					hipDeviceAttributeMax
cudaDevAttrMaxTexture3DHeightAlt					hipDeviceAttributeMax
cudaDevAttrMaxTexture3DWidth					hipDeviceAttributeMax
cudaDevAttrMaxTexture3DWidthAlt					hipDeviceAttributeMax
cudaDevAttrMaxTextureCubemapLayeredLayers					
cudaDevAttrMaxTextureCubemapLayeredWidth					hipDeviceAttributeMax
cudaDevAttrMaxTextureCubemapWidth					hipDeviceAttributeMax
cudaDevAttrMaxThreadsPerBlock					hipDeviceAttributeMax
cudaDevAttrMaxThreadsPerMultiProcessor					hipDeviceAttributeMax
cudaDevAttrMaxTimelineSemaphoreInteropSupported	11.2	11.5		13.0	
cudaDevAttrMemSyncDomainCount	12.0				
cudaDevAttrMemoryClockRate					hipDeviceAttributeMem
cudaDevAttrMemoryPoolSupportedHandleTypes	11.3				
cudaDevAttrMemoryPoolsSupported	11.2				hipDeviceAttributeMem
cudaDevAttrMpsEnabled	12.3				
cudaDevAttrMultiGpuBoardGroupID					hipDeviceAttributeMul

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CUDA	A	D	C	R	HIP
cudaDevAttrMultiProcessorCount					hipDeviceAttributeMul
cudaDevAttrNumaConfig	12.2				
cudaDevAttrNumaId	12.2				
cudaDevAttrOnlyPartialHostNativeAtomicSupported	13.0				
cudaDevAttrPageableMemoryAccess	8.0				hipDeviceAttributePage
cudaDevAttrPageableMemoryAccessUsesHostPageTables	9.2				hipDeviceAttributePage
cudaDevAttrPciBusId					hipDeviceAttributePciB
cudaDevAttrPciDeviceId					hipDeviceAttributePciD
cudaDevAttrPciDomainId					hipDeviceAttributePciD
cudaDevAttrReserved122	12.0				
cudaDevAttrReserved123	12.0				
cudaDevAttrReserved124	12.0				
cudaDevAttrReserved127	12.1				
cudaDevAttrReserved128	12.1				
cudaDevAttrReserved129	12.1				
cudaDevAttrReserved132	12.1				
cudaDevAttrReserved141	12.9				
cudaDevAttrReserved145	13.0				
cudaDevAttrReserved92	9.0				
cudaDevAttrReserved93	9.0				
cudaDevAttrReserved94	9.0				hipDeviceAttributeCanb
cudaDevAttrReserved96	13.0				hipDeviceAttributeCoop
cudaDevAttrReservedSharedMemoryPerBlock	11.0				
cudaDevAttrSingleToDoublePrecisionPerfRatio	8.0				hipDeviceAttributeSing
cudaDevAttrSparseCudaArraySupported	11.1				
cudaDevAttrStreamPrioritiesSupported					hipDeviceAttributeStre
cudaDevAttrSurfaceAlignment					hipDeviceAttributeSur
cudaDevAttrTccDriver					hipDeviceAttributeTccD
cudaDevAttrTextureAlignment					hipDeviceAttributeTex
cudaDevAttrTexturePitchAlignment					hipDeviceAttributeTex
cudaDevAttrTimelineSemaphoreInteropSupported	11.5				
cudaDevAttrTotalConstantMemory					hipDeviceAttributeTota
cudaDevAttrUnifiedAddressing					hipDeviceAttributeUni
cudaDevAttrVulkanCigSupported	12.9				
cudaDevAttrWarpSize					hipDeviceAttributeWarp
cudaDevP2PAttrAccessSupported	8.0				hipDevP2PAttrAccessSup
cudaDevP2PAttrCudaArrayAccessSupported	9.2				hipDevP2PAttrHipArray
cudaDevP2PAttrNativeAtomicSupported	8.0				hipDevP2PAttrNativeAt
cudaDevP2PAttrOnlyPartialNativeAtomicSupported	13.0				
cudaDevP2PAttrPerformanceRank	8.0				hipDevP2PAttrPerforman
cudaDeviceAttr					hipDeviceAttribute_t
cudaDeviceBlockingSync					hipDeviceScheduleBlock
cudaDeviceLmemResizeToMax					hipDeviceLmemResizeTo
cudaDeviceMapHost					hipDeviceMapHost
cudaDeviceMask					
cudaDeviceNumaConfig	12.2				
cudaDeviceNumaConfigNone	12.2				
cudaDeviceNumaConfigNumaNode	12.2				
cudaDeviceP2PAttr	8.0				hipDeviceP2PAttr
cudaDeviceProp					hipDeviceProp_t

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CUDA	A	D	C	R	HIP
cudaDevicePropDontCare				12.0	
cudaDeviceScheduleAuto					hipDeviceScheduleAuto
cudaDeviceScheduleBlockingSync					hipDeviceScheduleBlock
cudaDeviceScheduleMask					hipDeviceScheduleMask
cudaDeviceScheduleSpin					hipDeviceScheduleSpin
cudaDeviceScheduleYield					hipDeviceScheduleYield
cudaDeviceSyncMemops	12.1				
cudaDriverEntryPointQueryResult	12.0				hipDriverEntryPointQue
cudaDriverEntryPointSuccess	12.0				hipDriverEntryPointSu
cudaDriverEntryPointSymbolNotFound	12.0				hipDriverEntryPointSyn
cudaDriverEntryPointVersionNotSufficient	12.0				hipDriverEntryPointVer
cudaEglColorFormat	9.1				
cudaEglColorFormatA	9.1				
cudaEglColorFormatABGR	9.1				
cudaEglColorFormatARGB	9.1				
cudaEglColorFormatAYUV	9.1				
cudaEglColorFormatAYUV_ER	9.1				
cudaEglColorFormatBGR	9.1				
cudaEglColorFormatBGRA	9.1				
cudaEglColorFormatBayer10BGGR	9.1				
cudaEglColorFormatBayer10CCCC	11.1				
cudaEglColorFormatBayer10GBRG	9.1				
cudaEglColorFormatBayer10GRBG	9.1				
cudaEglColorFormatBayer10RGGB	9.1				
cudaEglColorFormatBayer12BCCR	11.1				
cudaEglColorFormatBayer12BGGR	9.1				
cudaEglColorFormatBayer12CBRC	11.1				
cudaEglColorFormatBayer12CCCC	11.1				
cudaEglColorFormatBayer12CRBC	11.1				
cudaEglColorFormatBayer12GBRG	9.1				
cudaEglColorFormatBayer12GRBG	9.1				
cudaEglColorFormatBayer12RCCB	11.1				
cudaEglColorFormatBayer12RGGB	9.1				
cudaEglColorFormatBayer14BGGR	9.1				
cudaEglColorFormatBayer14GBRG	9.1				
cudaEglColorFormatBayer14GRBG	9.1				
cudaEglColorFormatBayer14RGGB	9.1				
cudaEglColorFormatBayer20BGGR	9.1				
cudaEglColorFormatBayer20GBRG	9.1				
cudaEglColorFormatBayer20GRBG	9.1				
cudaEglColorFormatBayer20RGGB	9.1				
cudaEglColorFormatBayerBCCR	11.1				
cudaEglColorFormatBayerBGGR	9.1				
cudaEglColorFormatBayerCBRC	11.1				
cudaEglColorFormatBayerCRBC	11.1				
cudaEglColorFormatBayerGBRG	9.1				
cudaEglColorFormatBayerGRBG	9.1				
cudaEglColorFormatBayerIspBGGR	9.2				
cudaEglColorFormatBayerIspGBRG	9.2				
cudaEglColorFormatBayerIspGRBG	9.2				

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CUDA	A	D	C	R	HIP
cudaEglColorFormatBayerIsprGGB	9.2				
cudaEglColorFormatBayerRCCB	11.1				
cudaEglColorFormatBayerRGGGB	9.1				
cudaEglColorFormatL	9.1				
cudaEglColorFormatR	9.1				
cudaEglColorFormatRG	9.1				
cudaEglColorFormatRGB	9.1				
cudaEglColorFormatRGBA	9.1				
cudaEglColorFormatUYVY2020	12.8				
cudaEglColorFormatUYVY422	9.1				
cudaEglColorFormatUYVY709	12.8				
cudaEglColorFormatUYVY709_ER	12.8				
cudaEglColorFormatUYVY_ER	9.1				
cudaEglColorFormatVYUY	11.4				
cudaEglColorFormatVYUY_ER	9.1				
cudaEglColorFormatY	11.2				
cudaEglColorFormatY10V10U10_420SemiPlanar	9.1				
cudaEglColorFormatY10V10U10_420SemiPlanar_2020	11.4				
cudaEglColorFormatY10V10U10_420SemiPlanar_709	11.4				
cudaEglColorFormatY10V10U10_420SemiPlanar_709_ER	11.4				
cudaEglColorFormatY10V10U10_420SemiPlanar_ER	11.4				
cudaEglColorFormatY10V10U10_422SemiPlanar	11.4				
cudaEglColorFormatY10V10U10_422SemiPlanar_2020	11.4				
cudaEglColorFormatY10V10U10_422SemiPlanar_709	11.4				
cudaEglColorFormatY10V10U10_444SemiPlanar	9.1				
cudaEglColorFormatY10V10U10_444SemiPlanar_709_ER	11.4				
cudaEglColorFormatY10V10U10_444SemiPlanar_ER	11.4				
cudaEglColorFormatY10_709_ER	11.4				
cudaEglColorFormatY10_ER	11.4				
cudaEglColorFormatY12V12U12_420SemiPlanar	9.1				
cudaEglColorFormatY12V12U12_420SemiPlanar_709_ER	11.4				
cudaEglColorFormatY12V12U12_420SemiPlanar_ER	11.4				
cudaEglColorFormatY12V12U12_444SemiPlanar	9.1				
cudaEglColorFormatY12V12U12_444SemiPlanar_709_ER	11.4				
cudaEglColorFormatY12V12U12_444SemiPlanar_ER	11.4				
cudaEglColorFormatY12_709_ER	11.4				
cudaEglColorFormatY12_ER	11.4				
cudaEglColorFormatYUV420Planar	9.1				
cudaEglColorFormatYUV420Planar_2020	11.4				
cudaEglColorFormatYUV420Planar_709	11.4				
cudaEglColorFormatYUV420Planar_ER	9.1				
cudaEglColorFormatYUV420SemiPlanar	9.1				
cudaEglColorFormatYUV420SemiPlanar_2020	11.4				
cudaEglColorFormatYUV420SemiPlanar_709	11.4				
cudaEglColorFormatYUV420SemiPlanar_ER	9.1				
cudaEglColorFormatYUV422Planar	9.1				
cudaEglColorFormatYUV422Planar_ER	9.1				
cudaEglColorFormatYUV422SemiPlanar	9.1				
cudaEglColorFormatYUV422SemiPlanar_ER	9.1				
cudaEglColorFormatYUV444Planar	9.1				

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CUDA	A	D	C	R	HIP
cudaEglColorFormatYUV444Planar_ER	9.1				
cudaEglColorFormatYUV444SemiPlanar	9.1				
cudaEglColorFormatYUV444SemiPlanar_ER	9.1				
cudaEglColorFormatYUVA	11.4				
cudaEglColorFormatYUVA_ER	9.1				
cudaEglColorFormatYUV_ER	9.1				
cudaEglColorFormatYUYV422	9.1				
cudaEglColorFormatYUYV_ER	9.1				
cudaEglColorFormatYVU420Planar	9.1				
cudaEglColorFormatYVU420Planar_2020	11.4				
cudaEglColorFormatYVU420Planar_709	11.4				
cudaEglColorFormatYVU420Planar_ER	9.1				
cudaEglColorFormatYVU420SemiPlanar	9.1				
cudaEglColorFormatYVU420SemiPlanar_2020	11.4				
cudaEglColorFormatYVU420SemiPlanar_709	11.4				
cudaEglColorFormatYVU420SemiPlanar_ER	9.1				
cudaEglColorFormatYVU422Planar	9.1				
cudaEglColorFormatYVU422Planar_ER	9.1				
cudaEglColorFormatYVU422SemiPlanar	9.1				
cudaEglColorFormatYVU422SemiPlanar_ER	9.1				
cudaEglColorFormatYVU444Planar	9.1				
cudaEglColorFormatYVU444Planar_ER	9.1				
cudaEglColorFormatYVU444SemiPlanar	9.1				
cudaEglColorFormatYVU444SemiPlanar_ER					
cudaEglColorFormatYVYU	11.4				
cudaEglColorFormatYVYU_ER	9.1				
cudaEglColorFormatY_709_ER	11.4				
cudaEglColorFormatY_ER	11.4				
cudaEglFrame	9.1				
cudaEglFrameType	9.1				
cudaEglFrameTypeArray	9.1				
cudaEglFrameTypePitch	9.1				
cudaEglFrame_st	9.1				
cudaEglPlaneDesc	9.1				
cudaEglPlaneDesc_st	9.1				
cudaEglResourceLocationFlags	9.1				
cudaEglResourceLocationSystem	9.1				
cudaEglResourceLocationVidmem	9.1				
cudaEglStreamConnection	9.1				
cudaEmulationStrategy	13.0				
cudaEmulationStrategy_t	13.0				
cudaEnableDefault	11.3				hipEnableDefault
cudaEnableLegacyStream	11.3				hipEnableLegacyStream
cudaEnablePerThreadDefaultStream	11.3				hipEnablePerThreadDefaultStream
cudaError					hipError_t
cudaErrorAddressOfConstant		3.1			
cudaErrorAlreadyAcquired	10.1				hipErrorAlreadyAcquired
cudaErrorAlreadyMapped	10.1				hipErrorAlreadyMapped
cudaErrorApiFailureBase		4.1			
cudaErrorArrayIsMapped	10.1				hipErrorArrayIsMapped

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CUDA	A	D	C	R	HIP
cudaErrorAssert					hipErrorAssert
cudaErrorCallRequiresNewerDriver	11.1				
cudaErrorCapturedEvent	10.0				hipErrorCapturedEvent
cudaErrorCdpNotSupported	12.0				
cudaErrorCdpVersionMismatch	12.0				
cudaErrorCompatNotSupportedOnDevice	10.1				
cudaErrorContained	12.8				
cudaErrorContextIsDestroyed	10.1				hipErrorContextIsDestr
cudaErrorCooperativeLaunchTooLarge	9.0				hipErrorCooperativeLa
cudaErrorCudartUnloading					hipErrorDeinitialized
cudaErrorDeviceAlreadyInUse					hipErrorContextAlready
cudaErrorDeviceNotLicensed	11.1				
cudaErrorDeviceUninitialized	10.2				hipErrorInvalidContext
cudaErrorDevicesUnavailable					
cudaErrorDuplicateSurfaceName					
cudaErrorDuplicateTextureName					
cudaErrorDuplicateVariableName					
cudaErrorECCUncorrectable					hipErrorECCNotCorrect
cudaErrorExternalDevice					
cudaErrorFileNotFound	10.1				hipErrorFileNotFound
cudaErrorFunctionNotLoaded	12.6				
cudaErrorGraphExecUpdateFailure	10.2				hipErrorGraphExecUpda
cudaErrorHardwareStackError					
cudaErrorHostMemoryAlreadyRegistered					hipErrorHostMemoryAlre
cudaErrorHostMemoryNotRegistered					hipErrorHostMemoryNotl
cudaErrorIllegalAddress					hipErrorIllegalAddress
cudaErrorIllegalInstruction					
cudaErrorIllegalState	10.0				hipErrorIllegalState
cudaErrorIncompatibleDriverContext					
cudaErrorInitializationError					hipErrorNotInitializ
cudaErrorInsufficientDriver					hipErrorInsufficientD
cudaErrorInvalidAddressSpace					
cudaErrorInvalidChannelDescriptor					hipErrorInvalidChanne
cudaErrorInvalidClusterSize	11.8				
cudaErrorInvalidConfiguration					hipErrorInvalidConfig
cudaErrorInvalidDevice					hipErrorInvalidDevice
cudaErrorInvalidDeviceFunction					hipErrorInvalidDevice
cudaErrorInvalidDevicePointer		10.1			hipErrorInvalidDevice
cudaErrorInvalidFilterSetting					
cudaErrorInvalidGraphicsContext					hipErrorInvalidGraphi
cudaErrorInvalidHostPointer		10.1			
cudaErrorInvalidKernelImage					hipErrorInvalidImage
cudaErrorInvalidMemcpyDirection					hipErrorInvalidMemcpy
cudaErrorInvalidNormSetting					
cudaErrorInvalidPc					
cudaErrorInvalidPitchValue					hipErrorInvalidPitchV
cudaErrorInvalidPtx					hipErrorInvalidKernel
cudaErrorInvalidResourceConfiguration	12.6				
cudaErrorInvalidResourceHandle					hipErrorInvalidHandle
cudaErrorInvalidResourceType	12.6				

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CUDA	A	D	C	R	HIP
cudaErrorInvalidSource	10.1				hipErrorInvalidSource
cudaErrorInvalidSurface					
cudaErrorInvalidSymbol					hipErrorInvalidSymbol
cudaErrorInvalidTexture					hipErrorInvalidTexture
cudaErrorInvalidTextureBinding					
cudaErrorInvalidValue					hipErrorInvalidValue
cudaErrorJitCompilationDisabled	11.2				
cudaErrorJitCompilerNotFound	9.0				
cudaErrorLaunchFailure					hipErrorLaunchFailure
cudaErrorLaunchFileScopedSurf					
cudaErrorLaunchFileScopedTex					
cudaErrorLaunchIncompatibleTexturing	10.1				
cudaErrorLaunchMaxDepthExceeded					
cudaErrorLaunchOutOfResources					hipErrorLaunchOutOfRes
cudaErrorLaunchPendingCountExceeded					
cudaErrorLaunchTimeout					hipErrorLaunchTimeOut
cudaErrorLossyQuery	12.3				hipErrorLossyQuery
cudaErrorMapBufferObjectFailed					hipErrorMapFailed
cudaErrorMemoryAllocation					hipErrorOutOfMemory
cudaErrorMemoryValueTooLarge		3.1			
cudaErrorMisalignedAddress					
cudaErrorMissingConfiguration					hipErrorMissingConfigu
cudaErrorMixedDeviceExecution		3.1			
cudaErrorMpsClientTerminated	11.8				
cudaErrorMpsConnectionFailed	11.4				
cudaErrorMpsMaxClientsReached	11.4				
cudaErrorMpsMaxConnectionsReached	11.4				
cudaErrorMpsRpcFailure	11.4				
cudaErrorMpsServerNotReady	11.4				
cudaErrorNoDevice					hipErrorNoDevice
cudaErrorNoKernelImageForDevice					hipErrorNoBinaryForGpu
cudaErrorNotMapped	10.1				hipErrorNotMapped
cudaErrorNotMappedAsArray	10.1				hipErrorNotMappedAsArr
cudaErrorNotMappedAsPointer	10.1				hipErrorNotMappedAsPo
cudaErrorNotPermitted					
cudaErrorNotReady					hipErrorNotReady
cudaErrorNotSupported					hipErrorNotSupported
cudaErrorNotYetImplemented		4.1			
cudaErrorNvlinkUncorrectable	8.0				
cudaErrorOperatingSystem					hipErrorOperatingSyste
cudaErrorPeerAccessAlreadyEnabled					hipErrorPeerAccessAlre
cudaErrorPeerAccessNotEnabled					hipErrorPeerAccessNotl
cudaErrorPeerAccessUnsupported					hipErrorPeerAccessUnsu
cudaErrorPriorLaunchFailure		3.1			hipErrorPriorLaunchFa
cudaErrorProfilerAlreadyStarted		5.0			hipErrorProfilerAlread
cudaErrorProfilerAlreadyStopped		5.0			hipErrorProfilerAlread
cudaErrorProfilerDisabled					hipErrorProfilerDisab
cudaErrorProfilerNotInitialized		5.0			hipErrorProfilerNotIn
cudaErrorSetOnActiveProcess					hipErrorSetOnActivePro
cudaErrorSharedObjectInitFailed					hipErrorSharedObjectIn

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CUDA	A	D	C	R	HIP
cudaErrorSharedObjectSymbolNotFound					hipErrorSharedObjectSy
cudaErrorSoftwareValidityNotEstablished	11.2				
cudaErrorStartupFailure					
cudaErrorStreamCaptureImplicit	10.0				hipErrorStreamCapture
cudaErrorStreamCaptureInvalidated	10.0				hipErrorStreamCapture
cudaErrorStreamCaptureIsolation	10.0				hipErrorStreamCapture
cudaErrorStreamCaptureMerge	10.0				hipErrorStreamCapture
cudaErrorStreamCaptureUnjoined	10.0				hipErrorStreamCapture
cudaErrorStreamCaptureUnmatched	10.0				hipErrorStreamCapture
cudaErrorStreamCaptureUnsupported	10.0				hipErrorStreamCapture
cudaErrorStreamCaptureWrongThread	10.1				hipErrorStreamCapture
cudaErrorStubLibrary	11.1				
cudaErrorSymbolNotFound	10.1				hipErrorNotFound
cudaErrorSyncDepthExceeded					
cudaErrorSynchronizationError		3.1			
cudaErrorSystemDriverMismatch	10.1				
cudaErrorSystemNotReady	10.0				
cudaErrorTensorMemoryLeak	12.8				
cudaErrorTextureFetchFailed		3.1			
cudaErrorTextureNotBound		3.1			
cudaErrorTimeout	10.2				
cudaErrorTooManyPeers					
cudaErrorUnknown					hipErrorUnknown
cudaErrorUnmapBufferObjectFailed					hipErrorUnmapFailed
cudaErrorUnsupportedDevSideSync	12.1				
cudaErrorUnsupportedExecAffinity	11.4				
cudaErrorUnsupportedLimit					hipErrorUnsupportedLin
cudaErrorUnsupportedPtxVersion	11.1				
cudaError_t					hipError_t
cudaEventBlockingSync					hipEventBlockingSync
cudaEventDefault					hipEventDefault
cudaEventDisableTiming					hipEventDisableTiming
cudaEventInterprocess					hipEventInterprocess
cudaEventRecordDefault	11.1				hipEventRecordDefault
cudaEventRecordExternal	11.1				hipEventRecordExternal
cudaEventRecordNodeParams	12.2				hipEventRecordNodePar
cudaEventWaitDefault	11.1				
cudaEventWaitExternal					
cudaEventWaitNodeParams	12.2				hipEventWaitNodeParam
cudaEvent_t					hipEvent_t
cudaExtent					hipExtent
cudaExternalMemoryBufferDesc	10.0				hipExternalMemoryBuffe
cudaExternalMemoryDedicated	10.0				hipExternalMemoryDedi
cudaExternalMemoryHandleDesc	10.0				hipExternalMemoryHand
cudaExternalMemoryHandleType	10.0				hipExternalMemoryHand
cudaExternalMemoryHandleTypeD3D11Resource	10.0				hipExternalMemoryHand
cudaExternalMemoryHandleTypeD3D11ResourceKmt	10.2				hipExternalMemoryHand
cudaExternalMemoryHandleTypeD3D12Heap	10.0				hipExternalMemoryHand
cudaExternalMemoryHandleTypeD3D12Resource	10.0				hipExternalMemoryHand
cudaExternalMemoryHandleTypeNvSciBuf	10.2				

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CUDA	A	D	C	R	HIP
cudaExternalMemoryHandleTypeOpaqueFd	10.0				hipExternalMemoryHandl
cudaExternalMemoryHandleTypeOpaqueWin32	10.0				hipExternalMemoryHandl
cudaExternalMemoryHandleTypeOpaqueWin32Kmt	10.0				hipExternalMemoryHandl
cudaExternalMemoryMipmappedArrayDesc	10.0				
cudaExternalMemory_t	10.0				hipExternalMemory_t
cudaExternalSemaphoreHandleDesc	10.0				hipExternalSemaphoreHa
cudaExternalSemaphoreHandleType	10.0				hipExternalSemaphoreHa
cudaExternalSemaphoreHandleTypeD3D11Fence	10.2				
cudaExternalSemaphoreHandleTypeD3D12Fence	10.0				hipExternalSemaphoreHa
cudaExternalSemaphoreHandleTypeKeyedMutex	10.2				
cudaExternalSemaphoreHandleTypeKeyedMutexKmt	10.2				
cudaExternalSemaphoreHandleTypeNvSciSync	10.2				
cudaExternalSemaphoreHandleTypeOpaqueFd	10.0				hipExternalSemaphoreHa
cudaExternalSemaphoreHandleTypeOpaqueWin32	10.0				hipExternalSemaphoreHa
cudaExternalSemaphoreHandleTypeOpaqueWin32Kmt	10.0				hipExternalSemaphoreHa
cudaExternalSemaphoreHandleTypeTimelineSemaphoreFd	11.2				
cudaExternalSemaphoreHandleTypeTimelineSemaphoreWin32	11.2				
cudaExternalSemaphoreSignalNodeParams	11.2				hipExternalSemaphoresS
cudaExternalSemaphoreSignalNodeParamsV2	12.2				hipExternalSemaphoresS
cudaExternalSemaphoreSignalParams	10.0		13.0		hipExternalSemaphoresS
cudaExternalSemaphoreSignalParams_v1	11.2	11.2		11.3	hipExternalSemaphoresS
cudaExternalSemaphoreSignalSkipNvSciBufMemSync	10.2				
cudaExternalSemaphoreWaitNodeParams	11.2				hipExternalSemaphoreW
cudaExternalSemaphoreWaitNodeParamsV2	12.2				hipExternalSemaphoreW
cudaExternalSemaphoreWaitParams	10.0		13.0		hipExternalSemaphoreW
cudaExternalSemaphoreWaitParams_v1	11.2	11.2		11.3	hipExternalSemaphoreW
cudaExternalSemaphoreWaitSkipNvSciBufMemSync	10.2				
cudaExternalSemaphore_t	10.0				hipExternalSemaphore_t
cudaFilterModeLinear					hipFilterModeLinear
cudaFilterModePoint					hipFilterModePoint
cudaFlushGPUDirectRDMAWritesOptionHost	11.3				hipFlushGPUDirectRDMA
cudaFlushGPUDirectRDMAWritesOptionMemOps	11.3				hipFlushGPUDirectRDMA
cudaFlushGPUDirectRDMAWritesOptions	11.3				hipFlushGPUDirectRDMA
cudaFlushGPUDirectRDMAWritesScope	11.3				
cudaFlushGPUDirectRDMAWritesTarget	11.3				
cudaFlushGPUDirectRDMAWritesTargetCurrentDevice	11.3				
cudaFlushGPUDirectRDMAWritesToAllDevices	11.3				
cudaFlushGPUDirectRDMAWritesToOwner	11.3				
cudaFormatModeAuto					
cudaFormatModeForced					
cudaFuncAttribute	9.0				hipFuncAttribute
cudaFuncAttributeClusterDimMustBeSet	11.8				
cudaFuncAttributeClusterSchedulingPolicyPreference	11.8				
cudaFuncAttributeMax	9.0				hipFuncAttributeMax
cudaFuncAttributeMaxDynamicSharedMemorySize	9.0				hipFuncAttributeMaxDy
cudaFuncAttributeNonPortableClusterSizeAllowed	11.8				
cudaFuncAttributePreferredSharedMemoryCarveout	9.0				hipFuncAttributePrefer
cudaFuncAttributeRequiredClusterDepth	11.8				
cudaFuncAttributeRequiredClusterHeight	11.8				
cudaFuncAttributeRequiredClusterWidth	11.8				

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CUDA	A	D	C	R	HIP
cudaFuncAttributes					hipFuncAttributes
cudaFuncCache					hipFuncCache_t
cudaFuncCachePreferEqual					hipFuncCachePreferEqual
cudaFuncCachePreferL1					hipFuncCachePreferL1
cudaFuncCachePreferNone					hipFuncCachePreferNone
cudaFuncCachePreferShared					hipFuncCachePreferShared
cudaFunction_t	11.0				hipFunction_t
cudaGLDeviceList					hipGLDeviceList
cudaGLDeviceListAll					hipGLDeviceListAll
cudaGLDeviceListCurrentFrame					hipGLDeviceListCurrentFrame
cudaGLDeviceListNextFrame					hipGLDeviceListNextFrame
cudaGLMapFlags					
cudaGLMapFlagsNone					
cudaGLMapFlagsReadOnly					
cudaGLMapFlagsWriteDiscard					
cudaGPUDirectRDMAWritesOrdering	11.3				hipGPUDirectRDMAWritesOrdering
cudaGPUDirectRDMAWritesOrderingAllDevices	11.3				hipGPUDirectRDMAWritesOrderingAllDevices
cudaGPUDirectRDMAWritesOrderingNone	11.3				hipGPUDirectRDMAWritesOrderingNone
cudaGPUDirectRDMAWritesOrderingOwner	11.3				hipGPUDirectRDMAWritesOrderingOwner
cudaGetDriverEntryPointFlags	11.3				
cudaGraphChildGraphNodeOwnership	12.9				
cudaGraphChildGraphOwnershipClone	12.9				
cudaGraphChildGraphOwnershipMove	12.9				
cudaGraphCondAssignDefault	12.3				
cudaGraphCondTypeIf	12.3				
cudaGraphCondTypeSwitch	12.8				
cudaGraphCondTypeWhile	12.3				
cudaGraphConditionalHandle	12.3				
cudaGraphConditionalHandleFlags	12.3				
cudaGraphConditionalNodeType	12.3				
cudaGraphDebugDotFlags	11.3				hipGraphDebugDotFlags
cudaGraphDebugDotFlagsConditionalNodeParams	12.3				
cudaGraphDebugDotFlagsEventNodeParams	11.3				hipGraphDebugDotFlagsEventNodeParams
cudaGraphDebugDotFlagsExtSemasSignalNodeParams	11.3				hipGraphDebugDotFlagsExtSemasSignalNodeParams
cudaGraphDebugDotFlagsExtSemasWaitNodeParams	11.3				hipGraphDebugDotFlagsExtSemasWaitNodeParams
cudaGraphDebugDotFlagsHandles	11.3				hipGraphDebugDotFlagsHandles
cudaGraphDebugDotFlagsHostNodeParams	11.3				hipGraphDebugDotFlagsHostNodeParams
cudaGraphDebugDotFlagsKernelNodeAttributes	11.3				hipGraphDebugDotFlagsKernelNodeAttributes
cudaGraphDebugDotFlagsKernelNodeParams	11.3				hipGraphDebugDotFlagsKernelNodeParams
cudaGraphDebugDotFlagsMemcpyNodeParams	11.3				hipGraphDebugDotFlagsMemcpyNodeParams
cudaGraphDebugDotFlagsMemsetNodeParams	11.3				hipGraphDebugDotFlagsMemsetNodeParams
cudaGraphDebugDotFlagsVerbose	11.3				hipGraphDebugDotFlagsVerbose
cudaGraphDependencyType	12.3				hipGraphDependencyType
cudaGraphDependencyTypeDefault	12.3				hipGraphDependencyTypeDefault
cudaGraphDependencyTypeProgrammatic	12.3				hipGraphDependencyTypeProgrammatic
cudaGraphDependencyType_enum	12.3				hipGraphDependencyType_enum
cudaGraphDeviceNode_t	12.4				
cudaGraphEdgeData	12.3				hipGraphEdgeData
cudaGraphEdgeData_st	12.3				hipGraphEdgeData_st
cudaGraphExecUpdateError	10.2				hipGraphExecUpdateError

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CUDA	A	D	C	R	HIP
cudaGraphExecUpdateErrorAttributesChanged	11.6				
cudaGraphExecUpdateErrorFunctionChanged	10.2				hipGraphExecUpdateError
cudaGraphExecUpdateErrorNodeTypeChanged	10.2				hipGraphExecUpdateError
cudaGraphExecUpdateErrorNotSupported	10.2				hipGraphExecUpdateError
cudaGraphExecUpdateErrorParametersChanged	10.2				hipGraphExecUpdateError
cudaGraphExecUpdateErrorTopologyChanged	10.2				hipGraphExecUpdateError
cudaGraphExecUpdateErrorUnsupportedFunctionChange	11.2				hipGraphExecUpdateError
cudaGraphExecUpdateResult	10.2				hipGraphExecUpdateResu
cudaGraphExecUpdateResultInfo	12.0				
cudaGraphExecUpdateResultInfo_st	12.0				
cudaGraphExecUpdateSuccess	10.2				hipGraphExecUpdateSuc
cudaGraphExec_t	10.0				hipGraphExec_t
cudaGraphInstantiateConditionalHandleUnused	12.8				
cudaGraphInstantiateError	12.0				hipGraphInstantiateErr
cudaGraphInstantiateFlagAutoFreeOnLaunch	11.4				hipGraphInstantiateFla
cudaGraphInstantiateFlagDeviceLaunch	12.0				hipGraphInstantiateFla
cudaGraphInstantiateFlagUpload	12.0				hipGraphInstantiateFla
cudaGraphInstantiateFlagUseNodePriority	11.7				hipGraphInstantiateFla
cudaGraphInstantiateFlags	11.4				hipGraphInstantiateFla
cudaGraphInstantiateInvalidStructure	12.0				hipGraphInstantiateInv
cudaGraphInstantiateMultipleDevicesNotSupported	12.0				hipGraphInstantiateMu
cudaGraphInstantiateNodeOperationNotSupported	12.0				hipGraphInstantiateNo
cudaGraphInstantiateParams	12.0				hipGraphInstantiatePa
cudaGraphInstantiateParams_st	12.0				hipGraphInstantiatePa
cudaGraphInstantiateResult	12.0				hipGraphInstantiateRes
cudaGraphInstantiateSuccess	12.0				hipGraphInstantiateSu
cudaGraphKernelNodeField	12.4				
cudaGraphKernelNodeFieldEnabled	12.4				
cudaGraphKernelNodeFieldGridDim	12.4				
cudaGraphKernelNodeFieldInvalid	12.4				
cudaGraphKernelNodeFieldParam	12.4				
cudaGraphKernelNodePortDefault	12.3				hipGraphKernelNodePor
cudaGraphKernelNodePortLaunchCompletion	12.3				hipGraphKernelNodePor
cudaGraphKernelNodePortProgrammatic	12.3				hipGraphKernelNodePor
cudaGraphKernelNodeUpdate	12.4				
cudaGraphMemAttrReservedMemCurrent	11.4				hipGraphMemAttrReserv
cudaGraphMemAttrReservedMemHigh	11.4				hipGraphMemAttrReserv
cudaGraphMemAttrUsedMemCurrent	11.4				hipGraphMemAttrUsedMem
cudaGraphMemAttrUsedMemHigh	11.4				hipGraphMemAttrUsedMem
cudaGraphMemAttributeType	11.4				hipGraphMemAttributeTy
cudaGraphNodeParams	12.2				hipGraphNodeParams
cudaGraphNodeType	10.0				hipGraphNodeType
cudaGraphNodeTypeConditional	12.3				hipGraphNodeTypeCondi
cudaGraphNodeTypeCount	10.0				hipGraphNodeTypeCount
cudaGraphNodeTypeEmpty	10.0				hipGraphNodeTypeEmpty
cudaGraphNodeTypeEventRecord	11.1				hipGraphNodeTypeEvent
cudaGraphNodeTypeExtSemaphoreSignal	11.4				hipGraphNodeTypeExtSem
cudaGraphNodeTypeExtSemaphoreWait	11.4				hipGraphNodeTypeExtSem
cudaGraphNodeTypeGraph	10.0				hipGraphNodeTypeGraph
cudaGraphNodeTypeHost	10.0				hipGraphNodeTypeHost

Table 4 – continued from previous page

CUDA	A	D	C	R	HIP
cudaGraphNodeTypeKernel	10.0				hipGraphNodeTypeKernel
cudaGraphNodeTypeMemAlloc	11.4				hipGraphNodeTypeMemAlloc
cudaGraphNodeTypeMemFree	11.4				hipGraphNodeTypeMemFree
cudaGraphNodeTypeMemcpy	10.0				hipGraphNodeTypeMemcpy
cudaGraphNodeTypeMemset	10.0				hipGraphNodeTypeMemset
cudaGraphNodeTypeWaitEvent	11.1				hipGraphNodeTypeWaitEvent
cudaGraphNode_t	10.0				hipGraphNode_t
cudaGraphUserObjectMove	11.3				hipGraphUserObjectMove
cudaGraph_t	10.0				hipGraph_t
cudaGraphicsCubeFace					
cudaGraphicsCubeFaceNegativeX					
cudaGraphicsCubeFaceNegativeY					
cudaGraphicsCubeFaceNegativeZ					
cudaGraphicsCubeFacePositiveX					
cudaGraphicsCubeFacePositiveY					
cudaGraphicsCubeFacePositiveZ					
cudaGraphicsMapFlags					
cudaGraphicsMapFlagsNone					
cudaGraphicsMapFlagsReadOnly					
cudaGraphicsMapFlagsWriteDiscard					
cudaGraphicsRegisterFlags					hipGraphicsRegisterFlags
cudaGraphicsRegisterFlagsNone					hipGraphicsRegisterFlagsNone
cudaGraphicsRegisterFlagsReadOnly					hipGraphicsRegisterFlagsReadOnly
cudaGraphicsRegisterFlagsSurfaceLoadStore					hipGraphicsRegisterFlagsSurfaceLoadStore
cudaGraphicsRegisterFlagsTextureGather					hipGraphicsRegisterFlagsTextureGather
cudaGraphicsRegisterFlagsWriteDiscard					hipGraphicsRegisterFlagsWriteDiscard
cudaGraphicsResource					hipGraphicsResource
cudaGraphicsResource_t					hipGraphicsResource_t
cudaHostAllocDefault					hipHostMallocDefault
cudaHostAllocMapped					hipHostMallocMapped
cudaHostAllocPortable					hipHostMallocPortable
cudaHostAllocWriteCombined					hipHostMallocWriteCombined
cudaHostFn_t	10.0				hipHostFn_t
cudaHostNodeParams	10.0				hipHostNodeParams
cudaHostNodeParamsV2	12.2				
cudaHostRegisterDefault					hipHostRegisterDefault
cudaHostRegisterIoMemory	7.5				hipHostRegisterIoMemory
cudaHostRegisterMapped					hipHostRegisterMapped
cudaHostRegisterPortable					hipHostRegisterPortable
cudaHostRegisterReadOnly	11.1				hipHostRegisterReadOnly
cudaInitDeviceFlagsAreValid	12.0				
cudaInvalidDeviceId	8.0				hipInvalidDeviceId
cudaIpcEventHandle_st					hipIpcEventHandle_st
cudaIpcEventHandle_t					hipIpcEventHandle_t
cudaIpcMemHandle_st					hipIpcMemHandle_st
cudaIpcMemHandle_t					hipIpcMemHandle_t
cudaIpcMemLazyEnablePeerAccess					hipIpcMemLazyEnablePeerAccess
cudaJitCacheMode	12.8				hipJitOptionCacheMode
cudaJitCacheOptionCA	12.8				
cudaJitCacheOptionCG	12.8				

Table 4 – continued from previous page

CUDA	A	D	C	R	HIP
cudaJitCacheOptionNone	12.8				
cudaJitErrorLogBuffer	12.8				hipJitOptionErrorLogBu
cudaJitErrorLogBufferSizeBytes	12.8				hipJitOptionErrorLogBu
cudaJitFallbackStrategy	12.8				hipJitOptionFallbackS
cudaJitGenerateDebugInfo	12.8				hipJitOptionGenerateD
cudaJitGenerateLineInfo	12.8				hipJitOptionGenerateL
cudaJitInfoLogBuffer	12.8				hipJitOptionInfoLogBu
cudaJitInfoLogBufferSizeBytes	12.8				hipJitOptionInfoLogBu
cudaJitLogVerbose	12.8				hipJitOptionLogVerbose
cudaJitMaxRegisters	12.8				hipJitOptionMaxRegiste
cudaJitMaxThreadsPerBlock	12.8				hipJitOptionMaxThread
cudaJitMinCtaPerSm	12.8				hipJitOptionMinCTAPER
cudaJitOptimizationLevel	12.8				hipJitOptionOptimizat
cudaJitOption	12.8				hipJitOption
cudaJitOverrideDirectiveValues	12.8				hipJitOptionOverridenD
cudaJitPositionIndependentCode	12.8				hipJitOptionPositionIn
cudaJitThreadsPerBlock	12.8				hipJitOptionThreadsPer
cudaJitWallTime	12.8				hipJitOptionWallTime
cudaJit_CacheMode	12.8				
cudaJit_Fallback	12.8				
cudaKernelNodeAttrID	11.0				hipKernelNodeAttrID
cudaKernelNodeAttrValue	11.0				hipKernelNodeAttrValue
cudaKernelNodeAttributeAccessPolicyWindow	11.0				hipKernelNodeAttribute
cudaKernelNodeAttributeClusterDimension	11.8				
cudaKernelNodeAttributeClusterSchedulingPolicyPreference	11.8				
cudaKernelNodeAttributeCooperative	11.0				hipKernelNodeAttribute
cudaKernelNodeAttributeDeviceUpdatableKernelNode	12.4				
cudaKernelNodeAttributeMemSyncDomain	12.0				
cudaKernelNodeAttributeMemSyncDomainMap	12.0				
cudaKernelNodeAttributeNvlinkUtilCentricScheduling	13.0				
cudaKernelNodeAttributePreferredSharedMemoryCarveout	12.5				
cudaKernelNodeAttributePriority	11.7				hipKernelNodeAttribute
cudaKernelNodeParams	10.0				hipKernelNodeParams
cudaKernelNodeParamsV2	12.2				
cudaKernel_t	12.1				hipKernel_t
cudaKeyValuePair				12.0	
cudaLaunchAttribute	11.8				hipLaunchAttribute
cudaLaunchAttributeAccessPolicyWindow	11.8				hipLaunchAttributeAcc
cudaLaunchAttributeClusterDimension	11.8				
cudaLaunchAttributeClusterSchedulingPolicyPreference	11.8				
cudaLaunchAttributeCooperative	11.8				hipLaunchAttributeCoop
cudaLaunchAttributeDeviceUpdatableKernelNode	12.4				
cudaLaunchAttributeID	11.8				hipLaunchAttributeID
cudaLaunchAttributeIgnore	11.8				
cudaLaunchAttributeLaunchCompletionEvent	12.3				
cudaLaunchAttributeMemSyncDomain	12.0				hipLaunchAttributeMem
cudaLaunchAttributeMemSyncDomainMap	12.0				hipLaunchAttributeMem
cudaLaunchAttributeNvlinkUtilCentricScheduling	13.0				
cudaLaunchAttributePreferredClusterDimension	12.8				
cudaLaunchAttributePreferredSharedMemoryCarveout	12.5				

Table 4 – continued from previous page

CUDA	A	D	C	R	HIP
cudaLaunchAttributePriority	11.8				hipLaunchAttributePri
cudaLaunchAttributeProgrammaticEvent	11.8				
cudaLaunchAttributeProgrammaticStreamSerialization	11.8				
cudaLaunchAttributeSynchronizationPolicy	11.8				hipLaunchAttributeSyn
cudaLaunchAttributeValue	11.8		13.0		hipLaunchAttributeValu
cudaLaunchAttribute_st	11.8				hipLaunchAttribute_st
cudaLaunchConfig_st	11.8				hipLaunchConfig_st
cudaLaunchConfig_t	11.8				hipLaunchConfig_t
cudaLaunchMemSyncDomain	12.0				hipLaunchMemSyncDomain
cudaLaunchMemSyncDomainDefault	12.0				hipLaunchMemSyncDomain
cudaLaunchMemSyncDomainMap	12.0				hipLaunchMemSyncDomain
cudaLaunchMemSyncDomainMap_st	12.0				hipLaunchMemSyncDomain
cudaLaunchMemSyncDomainRemote	12.0				hipLaunchMemSyncDomain
cudaLaunchParams	9.0			13.0	hipLaunchParams
cudaLibraryBinaryIsPreserved	12.8				hipLibraryBinaryIsPres
cudaLibraryHostUniversalFunctionAndDataTable	12.8				hipLibraryHostUniversa
cudaLibraryOption	12.8				hipLibraryOption
cudaLibrary_t	12.8				hipLibrary_t
cudaLimit					hipLimit_t
cudaLimitDevRuntimePendingLaunchCount					
cudaLimitDevRuntimeSyncDepth					
cudaLimitMallocHeapSize					hipLimitMallocHeapSize
cudaLimitMaxL2FetchGranularity	10.0				
cudaLimitPersistingL2CacheSize	11.0				
cudaLimitPrintfFifoSize					hipLimitPrintfFifoSize
cudaLimitStackSize					hipLimitStackSize
cudaLogIterator	13.0				
cudaLogLevelError	13.0				
cudaLogLevelWarning	13.0				
cudaLogsCallbackHandle	13.0				
cudaLogsCallback_t	13.0				
cudaMemAccessDesc	11.2				hipMemAccessDesc
cudaMemAccessFlags	11.2				hipMemAccessFlags
cudaMemAccessFlagsProtNone	11.2				hipMemAccessFlagsProtl
cudaMemAccessFlagsProtRead	11.2				hipMemAccessFlagsProtl
cudaMemAccessFlagsProtReadWrite	11.2				hipMemAccessFlagsProtl
cudaMemAdviseSetAccessedBy	8.0				hipMemAdviseSetAccesse
cudaMemAdviseSetPreferredLocation	8.0				hipMemAdviseSetPrefer
cudaMemAdviseSetReadMostly	8.0				hipMemAdviseSetReadMos
cudaMemAdviseUnsetAccessedBy	8.0				hipMemAdviseUnsetAcces
cudaMemAdviseUnsetPreferredLocation	8.0				hipMemAdviseUnsetPrefe
cudaMemAdviseUnsetReadMostly	8.0				hipMemAdviseUnsetReadl
cudaMemAllocNodeParams	11.4				hipMemAllocNodeParams
cudaMemAllocNodeParamsV2	12.2				
cudaMemAllocationHandleType	11.2				hipMemAllocationHandle
cudaMemAllocationType	11.2				hipMemAllocationType
cudaMemAllocationTypeInvalid	11.2				hipMemAllocationTypeIn
cudaMemAllocationTypeManaged	13.0				
cudaMemAllocationTypeMax	11.2				hipMemAllocationTypeMa
cudaMemAllocationTypePinned	11.2				hipMemAllocationTypeP

Table 4 – continued from previous page

CUDA	A	D	C	R	HIP
cudaMemAttachGlobal					hipMemAttachGlobal
cudaMemAttachHost					hipMemAttachHost
cudaMemAttachSingle					hipMemAttachSingle
cudaMemFabricHandle_st	12.3				
cudaMemFabricHandle_t	12.3				
cudaMemFreeNodeParams	12.2				hipMemFreeNodeParams
cudaMemHandleTypeFabric	12.4				
cudaMemHandleTypeNone	11.2				hipMemHandleTypeNone
cudaMemHandleTypePosixFileDescriptor	11.2				hipMemHandleTypePosixFileDescriptor
cudaMemHandleTypeWin32	11.2				hipMemHandleTypeWin32
cudaMemHandleTypeWin32Kmt	11.2				hipMemHandleTypeWin32Kmt
cudaMemLocation	11.2				hipMemLocation
cudaMemLocationType	11.2				hipMemLocationType
cudaMemLocationTypeDevice	11.2				hipMemLocationTypeDevice
cudaMemLocationTypeHost	12.2				hipMemLocationTypeHost
cudaMemLocationTypeHostNuma	12.2				hipMemLocationTypeHostNuma
cudaMemLocationTypeHostNumaCurrent	12.2				hipMemLocationTypeHostNumaCurrent
cudaMemLocationTypeInvalid	11.2				hipMemLocationTypeInvalid
cudaMemLocationTypeNone	13.0				hipMemLocationTypeNone
cudaMemPoolAttr	11.2				hipMemPoolAttr
cudaMemPoolAttrReleaseThreshold	11.2				hipMemPoolAttrReleaseThreshold
cudaMemPoolAttrReservedMemCurrent	11.3				hipMemPoolAttrReservedMemCurrent
cudaMemPoolAttrReservedMemHigh	11.3				hipMemPoolAttrReservedMemHigh
cudaMemPoolAttrUsedMemCurrent	11.3				hipMemPoolAttrUsedMemCurrent
cudaMemPoolAttrUsedMemHigh	11.3				hipMemPoolAttrUsedMemHigh
cudaMemPoolCreateUsageHwDecompress	12.8				
cudaMemPoolProps	11.2				hipMemPoolProps
cudaMemPoolPtrExportData	11.2				hipMemPoolPtrExportData
cudaMemPoolReuseAllowInternalDependencies	11.2				hipMemPoolReuseAllowInternalDependencies
cudaMemPoolReuseAllowOpportunistic	11.2				hipMemPoolReuseAllowOpportunistic
cudaMemPoolReuseFollowEventDependencies	11.2				hipMemPoolReuseFollowEventDependencies
cudaMemPool_t	11.2				hipMemPool_t
cudaMemRangeAttribute	8.0				hipMemRangeAttribute
cudaMemRangeAttributeAccessedBy	8.0				hipMemRangeAttributeAccessedBy
cudaMemRangeAttributeLastPrefetchLocation	8.0				hipMemRangeAttributeLastPrefetchLocation
cudaMemRangeAttributeLastPrefetchLocationId	12.2				
cudaMemRangeAttributeLastPrefetchLocationType	12.2				
cudaMemRangeAttributePreferredLocation	8.0				hipMemRangeAttributePreferredLocation
cudaMemRangeAttributePreferredLocationId	12.2				
cudaMemRangeAttributePreferredLocationType	12.2				
cudaMemRangeAttributeReadMostly	8.0				hipMemRangeAttributeReadMostly
cudaMemcpy3DBatchOp	12.8				hipMemcpy3DBatchOp
cudaMemcpy3DOperand	12.8				hipMemcpy3DOperand
cudaMemcpy3DOperandType	12.8				hipMemcpy3DOperandType
cudaMemcpy3DParms					hipMemcpy3DParms
cudaMemcpy3DPeerParms					hipMemcpy3DPeerParms
cudaMemcpyAttributes	12.8				hipMemcpyAttributes
cudaMemcpyDefault					hipMemcpyDefault
cudaMemcpyDeviceToDevice					hipMemcpyDeviceToDevice
cudaMemcpyDeviceToHost					hipMemcpyDeviceToHost

Table 4 – continued from previous page

CUDA	A	D	C	R	HIP
cudaMemcpyFlagDefault	12.8				hipMemcpyFlagDefault
cudaMemcpyFlagPreferOverlapWithCompute	12.8				hipMemcpyFlagPreferOverlapWithCompute
cudaMemcpyFlags	12.8				hipMemcpyFlags
cudaMemcpyHostToDevice					hipMemcpyHostToDevice
cudaMemcpyHostToHost					hipMemcpyHostToHost
cudaMemcpyKind					hipMemcpyKind
cudaMemcpyNodeParams	12.2				hipMemcpyNodeParams
cudaMemcpyOperandTypeArray	12.8				hipMemcpyOperandTypeArray
cudaMemcpyOperandTypeMax	12.8				hipMemcpyOperandTypeMax
cudaMemcpyOperandTypePointer	12.8				hipMemcpyOperandTypePointer
cudaMemcpySrcAccessOrder	12.8				hipMemcpySrcAccessOrder
cudaMemcpySrcAccessOrderAny	12.8				hipMemcpySrcAccessOrderAny
cudaMemcpySrcAccessOrderDuringApiCall	12.8				hipMemcpySrcAccessOrderDuringApiCall
cudaMemcpySrcAccessOrderInvalid	12.8				hipMemcpySrcAccessOrderInvalid
cudaMemcpySrcAccessOrderMax	12.8				hipMemcpySrcAccessOrderMax
cudaMemcpySrcAccessOrderStream	12.8				hipMemcpySrcAccessOrderStream
cudaMemoryAdvise	8.0				hipMemoryAdvise
cudaMemoryType					hipMemoryType
cudaMemoryTypeDevice					hipMemoryTypeDevice
cudaMemoryTypeHost					hipMemoryTypeHost
cudaMemoryTypeManaged	10.0				hipMemoryTypeManaged
cudaMemoryTypeUnregistered					
cudaMemsetParams	10.0				hipMemsetParams
cudaMemsetParamsV2	12.2				
cudaMipmappedArray					hipMipmappedArray
cudaMipmappedArray_const_t					hipMipmappedArray_const_t
cudaMipmappedArray_t					hipMipmappedArray_t
cudaNvSciSyncAttrSignal	10.2				
cudaNvSciSyncAttrWait	10.2				
cudaOccupancyDefault					hipOccupancyDefault
cudaOccupancyDisableCachingOverride					hipOccupancyDisableCachingOverride
cudaOffset3D	12.8				hipOffset3D
cudaOutputMode				12.0	
cudaOutputMode_t				12.0	
cudaPitchedPtr					hipPitchedPtr
cudaPointerAttributes					hipPointerAttribute_t
cudaPos					hipPos
cudaPreferBinary	12.8				
cudaPreferPtx	12.8				
cudaReadModeElementType					hipReadModeElementType
cudaReadModeNormalizedFloat					hipReadModeNormalizedFloat
cudaResViewFormatFloat1					hipResViewFormatFloat1
cudaResViewFormatFloat2					hipResViewFormatFloat2
cudaResViewFormatFloat4					hipResViewFormatFloat4
cudaResViewFormatHalf1					hipResViewFormatHalf1
cudaResViewFormatHalf2					hipResViewFormatHalf2
cudaResViewFormatHalf4					hipResViewFormatHalf4
cudaResViewFormatNone					hipResViewFormatNone
cudaResViewFormatSignedBlockCompressed4					hipResViewFormatSignedBlockCompressed4
cudaResViewFormatSignedBlockCompressed5					hipResViewFormatSignedBlockCompressed5

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CUDA	A	D	C	R	HIP
cudaResViewFormatSignedBlockCompressed6H					hipResViewFormatSignedBlockCompressed6H
cudaResViewFormatSignedChar1					hipResViewFormatSignedChar1
cudaResViewFormatSignedChar2					hipResViewFormatSignedChar2
cudaResViewFormatSignedChar4					hipResViewFormatSignedChar4
cudaResViewFormatSignedInt1					hipResViewFormatSignedInt1
cudaResViewFormatSignedInt2					hipResViewFormatSignedInt2
cudaResViewFormatSignedInt4					hipResViewFormatSignedInt4
cudaResViewFormatSignedShort1					hipResViewFormatSignedShort1
cudaResViewFormatSignedShort2					hipResViewFormatSignedShort2
cudaResViewFormatSignedShort4					hipResViewFormatSignedShort4
cudaResViewFormatUnsignedBlockCompressed1					hipResViewFormatUnsignedBlockCompressed1
cudaResViewFormatUnsignedBlockCompressed2					hipResViewFormatUnsignedBlockCompressed2
cudaResViewFormatUnsignedBlockCompressed3					hipResViewFormatUnsignedBlockCompressed3
cudaResViewFormatUnsignedBlockCompressed4					hipResViewFormatUnsignedBlockCompressed4
cudaResViewFormatUnsignedBlockCompressed5					hipResViewFormatUnsignedBlockCompressed5
cudaResViewFormatUnsignedBlockCompressed6H					hipResViewFormatUnsignedBlockCompressed6H
cudaResViewFormatUnsignedBlockCompressed7					hipResViewFormatUnsignedBlockCompressed7
cudaResViewFormatUnsignedChar1					hipResViewFormatUnsignedChar1
cudaResViewFormatUnsignedChar2					hipResViewFormatUnsignedChar2
cudaResViewFormatUnsignedChar4					hipResViewFormatUnsignedChar4
cudaResViewFormatUnsignedInt1					hipResViewFormatUnsignedInt1
cudaResViewFormatUnsignedInt2					hipResViewFormatUnsignedInt2
cudaResViewFormatUnsignedInt4					hipResViewFormatUnsignedInt4
cudaResViewFormatUnsignedShort1					hipResViewFormatUnsignedShort1
cudaResViewFormatUnsignedShort2					hipResViewFormatUnsignedShort2
cudaResViewFormatUnsignedShort4					hipResViewFormatUnsignedShort4
cudaResourceDesc					hipResourceDesc
cudaResourceType					hipResourceType
cudaResourceTypeArray					hipResourceTypeArray
cudaResourceTypeLinear					hipResourceTypeLinear
cudaResourceTypeMipmappedArray					hipResourceTypeMipmappedArray
cudaResourceTypePitch2D					hipResourceTypePitch2D
cudaResourceViewDesc					hipResourceViewDesc
cudaResourceViewFormat					hipResourceViewFormat
cudaSharedCarveout		9.0			
cudaSharedMemBankSizeDefault					hipSharedMemBankSizeDefault
cudaSharedMemBankSizeEightByte					hipSharedMemBankSizeEightByte
cudaSharedMemBankSizeFourByte					hipSharedMemBankSizeFourByte
cudaSharedMemConfig			12.4		hipSharedMemConfig
cudaSharedmemCarveoutDefault		9.0			
cudaSharedmemCarveoutMaxL1		9.0			
cudaSharedmemCarveoutMaxShared		9.0			
cudaStreamAddCaptureDependencies		11.3			hipStreamAddCaptureDependencies
cudaStreamAttrID		11.0			hipLaunchAttributeID
cudaStreamAttrValue		11.0			hipLaunchAttributeValue
cudaStreamAttributeAccessPolicyWindow		11.0			hipLaunchAttributeAccessPolicyWindow
cudaStreamAttributeMemSyncDomain		12.0			hipLaunchAttributeMemSyncDomain
cudaStreamAttributeMemSyncDomainMap		12.0			hipLaunchAttributeMemSyncDomainMap
cudaStreamAttributePriority		12.0			hipLaunchAttributePriority
cudaStreamAttributeSynchronizationPolicy		11.0			hipLaunchAttributeSynchronizationPolicy

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CUDA	A	D	C	R	HIP
cudaStreamCallback_t					hipStreamCallback_t
cudaStreamCaptureMode	10.1				hipStreamCaptureMode
cudaStreamCaptureModeGlobal	10.1				hipStreamCaptureModeGlobal
cudaStreamCaptureModeRelaxed	10.1				hipStreamCaptureModeRelaxed
cudaStreamCaptureModeThreadLocal	10.1				hipStreamCaptureModeThreadLocal
cudaStreamCaptureStatus	10.0				hipStreamCaptureStatus
cudaStreamCaptureStatusActive	10.0				hipStreamCaptureStatusActive
cudaStreamCaptureStatusInvalidated	10.0				hipStreamCaptureStatusInvalidated
cudaStreamCaptureStatusNone	10.0				hipStreamCaptureStatusNone
cudaStreamDefault					hipStreamDefault
cudaStreamLegacy	9.0				hipStreamLegacy
cudaStreamNonBlocking					hipStreamNonBlocking
cudaStreamPerThread					hipStreamPerThread
cudaStreamSetCaptureDependencies	11.3				hipStreamSetCaptureDependencies
cudaStreamUpdateCaptureDependenciesFlags	11.3				hipStreamUpdateCaptureDependenciesFlags
cudaStream_t					hipStream_t
cudaSuccess					hipSuccess
cudaSurfaceBoundaryMode					hipSurfaceBoundaryMode
cudaSurfaceFormatMode					hipSurfaceFormatMode
cudaSurfaceObject_t					hipSurfaceObject_t
cudaSyncPolicyAuto	11.0				hipSyncPolicyAuto
cudaSyncPolicyBlockingSync	11.0				hipSyncPolicyBlockingSync
cudaSyncPolicySpin	11.0				hipSyncPolicySpin
cudaSyncPolicyYield	11.0				hipSyncPolicyYield
cudaSynchronizationPolicy	11.0				hipSynchronizationPolicy
cudaTextureAddressMode					hipTextureAddressMode
cudaTextureDesc					hipTextureDesc
cudaTextureFilterMode					hipTextureFilterMode
cudaTextureObject_t					hipTextureObject_t
cudaTextureReadMode					hipTextureReadMode
cudaTextureType1D					hipTextureType1D
cudaTextureType1DLayered					hipTextureType1DLayered
cudaTextureType2D					hipTextureType2D
cudaTextureType2DLayered					hipTextureType2DLayered
cudaTextureType3D					hipTextureType3D
cudaTextureTypeCubemap					hipTextureTypeCubemap
cudaTextureTypeCubemapLayered					hipTextureTypeCubemapLayered
cudaUUID_t					hipUUID
cudaUserObjectFlags	11.3				hipUserObjectFlags
cudaUserObjectNoDestructorSync	11.3				hipUserObjectNoDestructorSync
cudaUserObjectRetainFlags	11.3				hipUserObjectRetainFlags
cudaUserObject_t	11.3				hipUserObject_t
cudaLibraryHostUniversalFunctionAndDataTable	12.8				hipLibraryHostUniversalFunctionAndDataTable
libraryPropertyType	8.0				hipLibraryPropertyType
libraryPropertyType_t	8.0				hipLibraryPropertyType_t
surfaceReference				12.0	hipSurfaceReference
texture				12.0	hipTexture
textureReference					hipTextureReference

9.1.37 37. Execution Control [REMOVED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaConfigureCall				10.1	hipConfigureCall	1.9.0					
cudaLaunch				10.1	hipLaunchByPtr	1.9.0					
cudaSetupArgument				10.1	hipSetupArgument	1.9.0					

9.1.38 38. Texture Reference Management [REMOVED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaBindTexture		11.0		12.0	hipBindTexture	1.6.0	3.8.0				
cudaBindTexture2D		11.0		12.0	hipBindTexture2D	1.7.0	3.8.0				
cudaBindTextureToArray		11.0		12.0	hipBindTextureToArray	1.6.0	3.8.0				
cudaBindTextureToMipmap		11.0		12.0	hipBindTextureToMipmap	1.7.0	5.7.0				
cudaGetTextureAlignment		11.0		12.0	hipGetTextureAlignment	1.9.0	3.8.0				
cudaGetTextureReference		11.0		12.0	hipGetTextureReference	1.7.0	5.3.0				
cudaUnbindTexture		11.0		12.0	hipUnbindTexture	1.6.0	3.8.0				

9.1.39 39. Surface Reference Management [REMOVED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaBindSurfaceToArray				11.0	12.0						
cudaGetSurfaceReference				11.0	12.0						

9.1.40 40. Profiler Control [REMOVED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaProfilerInitialize				11.0	12.0						

9.1.41 41. Thread Management [REMOVED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cudaThreadExit		10.0			hipDeviceReset	1.6.0					
cudaThreadGetCacheConfi		10.0			hipDeviceGetCacheConfi	1.6.0					
cudaThreadGetLimit		10.0		13.0							
cudaThreadSetCacheConfi		10.0			hipDeviceSetCacheConfi	1.6.0					
cudaThreadSetLimit		10.0		13.0							
cudaThreadSynchronize		10.0			hipDeviceSynchronize	1.6.0					

9.2 CUDA Driver API supported by HIP

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

9.2.1 1. CUDA Driver Data Types

CUDA	A	D	C	R	HIP
CIG_DATA_TYPE_D3D12_COMMAND_QUEUE	12.5				
CIG_DATA_TYPE_NV_BLOB	12.9				
CUCoredumpGenerationFlags	12.5				
CUDA_ARRAY3D_2DARRAY		5.0			
CUDA_ARRAY3D_COLOR_ATTACHMENT	10.0				
CUDA_ARRAY3D_CUBEMAP					hipArrayCubemap
CUDA_ARRAY3D_DEFERRED_MAPPING	11.6				
CUDA_ARRAY3D_DEPTH_TEXTURE					
CUDA_ARRAY3D_DESCRIPTOR					HIP_ARRAY3D_DES
CUDA_ARRAY3D_DESCRIPTOR_st					HIP_ARRAY3D_DES
CUDA_ARRAY3D_DESCRIPTOR_v2	11.3				HIP_ARRAY3D_DES
CUDA_ARRAY3D_LAYERED					hipArrayLayered
CUDA_ARRAY3D_SPARSE	11.1				
CUDA_ARRAY3D_SURFACE_LDST					hipArraySurface
CUDA_ARRAY3D_TEXTURE_GATHER					hipArrayTexture
CUDA_ARRAY3D_VIDEO_ENCODE_DECODE	12.5				
CUDA_ARRAY_DESCRIPTOR					HIP_ARRAY_DES
CUDA_ARRAY_DESCRIPTOR_st					HIP_ARRAY_DES
CUDA_ARRAY_DESCRIPTOR_v1					HIP_ARRAY_DES
CUDA_ARRAY_DESCRIPTOR_v1_st					HIP_ARRAY_DES
CUDA_ARRAY_DESCRIPTOR_v2	11.3				HIP_ARRAY_DES
CUDA_ARRAY_MEMORY_REQUIREMENTS	11.6				
CUDA_ARRAY_MEMORY_REQUIREMENTS_st	11.6				
CUDA_ARRAY_MEMORY_REQUIREMENTS_v1	11.6				
CUDA_ARRAY_SPARSE_PROPERTIES	11.1				
CUDA_ARRAY_SPARSE_PROPERTIES_st	11.1				

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CUDA	A	D	C	R	HIP
CUDA_ARRAY_SPARSE_PROPERTIES_v1	11.3				
CUDA_BATCH_MEM_OP_NODE_PARAMS	11.7				hipBatchMemOpN
CUDA_BATCH_MEM_OP_NODE_PARAMS_st	11.7			12.2	hipBatchMemOpN
CUDA_BATCH_MEM_OP_NODE_PARAMS_v1	12.2				hipBatchMemOpN
CUDA_BATCH_MEM_OP_NODE_PARAMS_v1_st	12.2				hipBatchMemOpN
CUDA_BATCH_MEM_OP_NODE_PARAMS_v2	12.2				hipBatchMemOpN
CUDA_BATCH_MEM_OP_NODE_PARAMS_v2_st	12.2				hipBatchMemOpN
CUDA_CB					
CUDA_CHILD_GRAPH_NODE_PARAMS	12.2				hipChildGraphN
CUDA_CHILD_GRAPH_NODE_PARAMS_st	12.2				hipChildGraphN
CUDA_CONDITIONAL_NODE_PARAMS	12.3				
CUDA_COOPERATIVE_LAUNCH_MULTI_DEVICE_NO_POST_LAUNCH_SYNC	9.0				hipCooperativel
CUDA_COOPERATIVE_LAUNCH_MULTI_DEVICE_NO_PRE_LAUNCH_SYNC	9.0				hipCooperativel
CUDA_ERROR_ALREADY_ACQUIRED					hipErrorAlready
CUDA_ERROR_ALREADY_MAPPED					hipErrorAlready
CUDA_ERROR_ARRAY_IS_MAPPED					hipErrorArrayIs
CUDA_ERROR_ASSERT					hipErrorAssert
CUDA_ERROR_CALL_REQUIRES_NEWER_DRIVER	13.0				
CUDA_ERROR_CAPTURED_EVENT	10.0				hipErrorCaptur
CUDA_ERROR_CDP_NOT_SUPPORTED	12.0				
CUDA_ERROR_CDP_VERSION_MISMATCH	12.0				
CUDA_ERROR_COMPAT_NOT_SUPPORTED_ON_DEVICE	10.1				
CUDA_ERROR_CONTAINED	12.8				
CUDA_ERROR_CONTEXT_ALREADY_CURRENT		3.2			hipErrorContext
CUDA_ERROR_CONTEXT_ALREADY_IN_USE					hipErrorContext
CUDA_ERROR_CONTEXT_IS_DESTROYED					hipErrorContext
CUDA_ERROR_COOPERATIVE_LAUNCH_TOO_LARGE	9.0				hipErrorCooper
CUDA_ERROR_DEINITIALIZED					hipErrorDeinit
CUDA_ERROR_DEVICE_NOT_LICENSED	11.1				
CUDA_ERROR_DEVICE_UNAVAILABLE	11.7				
CUDA_ERROR_ECC_UNCORRECTABLE					hipErrorECCNot
CUDA_ERROR_EXTERNAL_DEVICE	11.4				
CUDA_ERROR_FILE_NOT_FOUND					hipErrorFileNo
CUDA_ERROR_FUNCTION_NOT_LOADED	12.4				
CUDA_ERROR_GRAPH_EXEC_UPDATE_FAILURE	10.2				hipErrorGraphE
CUDA_ERROR_HARDWARE_STACK_ERROR					
CUDA_ERROR_HOST_MEMORY_ALREADY_REGISTERED					hipErrorHostMem
CUDA_ERROR_HOST_MEMORY_NOT_REGISTERED					hipErrorHostMem
CUDA_ERROR_ILLEGAL_ADDRESS					hipErrorIllega
CUDA_ERROR_ILLEGAL_INSTRUCTION					
CUDA_ERROR_ILLEGAL_STATE	10.0				hipErrorIllega
CUDA_ERROR_INVALID_ADDRESS_SPACE					
CUDA_ERROR_INVALID_CLUSTER_SIZE	11.8				
CUDA_ERROR_INVALID_CONTEXT					hipErrorInvalid
CUDA_ERROR_INVALID_DEVICE					hipErrorInvalid
CUDA_ERROR_INVALID_GRAPHICS_CONTEXT					hipErrorInvalid
CUDA_ERROR_INVALID_HANDLE					hipErrorInvalid
CUDA_ERROR_INVALID_IMAGE					hipErrorInvalid
CUDA_ERROR_INVALID_PC					
CUDA_ERROR_INVALID_PTX					hipErrorInvalid

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CUDA	A	D	C	R	HIP
CUDA_ERROR_INVALID_RESOURCE_CONFIGURATION	12.4				
CUDA_ERROR_INVALID_RESOURCE_TYPE	12.4				
CUDA_ERROR_INVALID_SOURCE					hipErrorInvalidSource
CUDA_ERROR_INVALID_VALUE					hipErrorInvalidValue
CUDA_ERROR_JIT_COMPILATION_DISABLED	11.2				
CUDA_ERROR_JIT_COMPILER_NOT_FOUND	9.0				
CUDA_ERROR_KEY_ROTATION	12.8				
CUDA_ERROR_LAUNCH_FAILED					hipErrorLaunchFailed
CUDA_ERROR_LAUNCH_INCOMPATIBLE_TEXTURING					
CUDA_ERROR_LAUNCH_OUT_OF_RESOURCES					hipErrorLaunchOutOfResources
CUDA_ERROR_LAUNCH_TIMEOUT					hipErrorLaunchTimeout
CUDA_ERROR_LOSSY_QUERY					
CUDA_ERROR_MAP_FAILED					hipErrorMapFailed
CUDA_ERROR_MISALIGNED_ADDRESS					
CUDA_ERROR_MPS_CLIENT_TERMINATED	11.8				
CUDA_ERROR_MPS_CONNECTION_FAILED	11.4				
CUDA_ERROR_MPS_MAX_CLIENTS_REACHED	11.4				
CUDA_ERROR_MPS_MAX_CONNECTIONS_REACHED	11.4				
CUDA_ERROR_MPS_RPC_FAILURE	11.4				
CUDA_ERROR_MPS_SERVER_NOT_READY	11.4				
CUDA_ERROR_NOT_FOUND					hipErrorNotFound
CUDA_ERROR_NOT_INITIALIZED					hipErrorNotInitialized
CUDA_ERROR_NOT_MAPPED					hipErrorNotMapped
CUDA_ERROR_NOT_MAPPED_AS_ARRAY					hipErrorNotMappedAsArray
CUDA_ERROR_NOT_MAPPED_AS_POINTER					hipErrorNotMappedAsPointer
CUDA_ERROR_NOT_PERMITTED					
CUDA_ERROR_NOT_READY					hipErrorNotReady
CUDA_ERROR_NOT_SUPPORTED					hipErrorNotSupported
CUDA_ERROR_NO_BINARY_FOR_GPU					hipErrorNoBinaryForGPU
CUDA_ERROR_NO_DEVICE					hipErrorNoDevice
CUDA_ERROR_NVLINK_UNCORRECTABLE	8.0				
CUDA_ERROR_OPERATING_SYSTEM					hipErrorOperatingSystem
CUDA_ERROR_OUT_OF_MEMORY					hipErrorOutOfMemory
CUDA_ERROR_PEER_ACCESS_ALREADY_ENABLED					hipErrorPeerAccessAlreadyEnabled
CUDA_ERROR_PEER_ACCESS_NOT_ENABLED					hipErrorPeerAccessNotEnabled
CUDA_ERROR_PEER_ACCESS_UNSUPPORTED					hipErrorPeerAccessUnsupported
CUDA_ERROR_PRIMARY_CONTEXT_ACTIVE					hipErrorSetOnActivePrimaryContext
CUDA_ERROR_PROFILER_ALREADY_STARTED		5.0			hipErrorProfilerAlreadyStarted
CUDA_ERROR_PROFILER_ALREADY_STOPPED		5.0			hipErrorProfilerAlreadyStopped
CUDA_ERROR_PROFILER_DISABLED					hipErrorProfilerDisabled
CUDA_ERROR_PROFILER_NOT_INITIALIZED		5.0			hipErrorProfilerNotInitialized
CUDA_ERROR_SHARED_OBJECT_INIT_FAILED					hipErrorSharedObjectInitFailed
CUDA_ERROR_SHARED_OBJECT_SYMBOL_NOT_FOUND					hipErrorSharedObjectSymbolNotFound
CUDA_ERROR_STREAM_CAPTURE_IMPLICIT	10.0				hipErrorStreamCaptureImplicit
CUDA_ERROR_STREAM_CAPTURE_INVALIDATED	10.0				hipErrorStreamCaptureInvalidated
CUDA_ERROR_STREAM_CAPTURE_ISOLATION	10.0				hipErrorStreamCaptureIsolation
CUDA_ERROR_STREAM_CAPTURE_MERGE	10.0				hipErrorStreamCaptureMerge
CUDA_ERROR_STREAM_CAPTURE_UNJOINED	10.0				hipErrorStreamCaptureUnjoined
CUDA_ERROR_STREAM_CAPTURE_UNMATCHED	10.0				hipErrorStreamCaptureUnmatched
CUDA_ERROR_STREAM_CAPTURE_UNSUPPORTED	10.0				hipErrorStreamCaptureUnsupported

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CUDA	A	D	C	R	HIP
CUDA_ERROR_STREAM_CAPTURE_WRONG_THREAD	10.1				hipErrorStream
CUDA_ERROR_STUB_LIBRARY	11.1				
CUDA_ERROR_SYSTEM_DRIVER_MISMATCH	10.1				
CUDA_ERROR_SYSTEM_NOT_READY	10.0				
CUDA_ERROR_TENSOR_MEMORY_LEAK	12.8				
CUDA_ERROR_TIMEOUT	10.2				
CUDA_ERROR_TOO_MANY_PEERS					
CUDA_ERROR_UNKNOWN					hipErrorUnknown
CUDA_ERROR_UNMAP_FAILED					hipErrorUnmapF
CUDA_ERROR_UNSUPPORTED_DEVSIDE_SYNC	12.1				
CUDA_ERROR_UNSUPPORTED_EXEC_AFFINITY	11.4				
CUDA_ERROR_UNSUPPORTED_LIMIT					hipErrorUnsupp
CUDA_ERROR_UNSUPPORTED_PTX_VERSION	11.1				
CUDA_EVENT_RECORD_NODE_PARAMS	12.2				hipEventRecord
CUDA_EVENT_RECORD_NODE_PARAMS_st	12.2				hipEventRecord
CUDA_EVENT_WAIT_NODE_PARAMS	12.2				hipEventWaitNo
CUDA_EVENT_WAIT_NODE_PARAMS_st	12.2				hipEventWaitNo
CUDA_EXTERNAL_MEMORY_BUFFER_DESC	10.0				hipExternalMem
CUDA_EXTERNAL_MEMORY_BUFFER_DESC_st	10.0				hipExternalMem
CUDA_EXTERNAL_MEMORY_BUFFER_DESC_v1	11.3				hipExternalMem
CUDA_EXTERNAL_MEMORY_DEDICATED	10.0				hipExternalMem
CUDA_EXTERNAL_MEMORY_HANDLE_DESC	10.0				hipExternalMem
CUDA_EXTERNAL_MEMORY_HANDLE_DESC_st	10.0				hipExternalMem
CUDA_EXTERNAL_MEMORY_HANDLE_DESC_v1	11.3				hipExternalMem
CUDA_EXTERNAL_MEMORY_MIPMAPPED_ARRAY_DESC	10.0				
CUDA_EXTERNAL_MEMORY_MIPMAPPED_ARRAY_DESC_st	10.0				
CUDA_EXTERNAL_MEMORY_MIPMAPPED_ARRAY_DESC_v1	11.3				
CUDA_EXTERNAL_SEMAPHORE_HANDLE_DESC	10.0				hipExternalSema
CUDA_EXTERNAL_SEMAPHORE_HANDLE_DESC_st	10.0				hipExternalSema
CUDA_EXTERNAL_SEMAPHORE_HANDLE_DESC_v1	11.3				hipExternalSema
CUDA_EXTERNAL_SEMAPHORE_SIGNAL_PARAMS	10.0				hipExternalSema
CUDA_EXTERNAL_SEMAPHORE_SIGNAL_PARAMS_st	10.0				hipExternalSema
CUDA_EXTERNAL_SEMAPHORE_SIGNAL_PARAMS_v1	11.3				hipExternalSema
CUDA_EXTERNAL_SEMAPHORE_SIGNAL_SKIP_NVSCIBUF_MEMSYNC	10.2				
CUDA_EXTERNAL_SEMAPHORE_WAIT_PARAMS	10.0				hipExternalSema
CUDA_EXTERNAL_SEMAPHORE_WAIT_PARAMS_st	10.0				hipExternalSema
CUDA_EXTERNAL_SEMAPHORE_WAIT_PARAMS_v1	11.3				hipExternalSema
CUDA_EXTERNAL_SEMAPHORE_WAIT_SKIP_NVSCIBUF_MEMSYNC	10.2				
CUDA_EXT_SEM_SIGNAL_NODE_PARAMS	11.2				hipExternalSema
CUDA_EXT_SEM_SIGNAL_NODE_PARAMS_st	11.2				hipExternalSema
CUDA_EXT_SEM_SIGNAL_NODE_PARAMS_v1	11.3				hipExternalSema
CUDA_EXT_SEM_SIGNAL_NODE_PARAMS_v2	12.2				hipExternalSema
CUDA_EXT_SEM_SIGNAL_NODE_PARAMS_v2_st	12.2				hipExternalSema
CUDA_EXT_SEM_WAIT_NODE_PARAMS	11.2				hipExternalSema
CUDA_EXT_SEM_WAIT_NODE_PARAMS_st	11.2				hipExternalSema
CUDA_EXT_SEM_WAIT_NODE_PARAMS_v1	11.3				hipExternalSema
CUDA_EXT_SEM_WAIT_NODE_PARAMS_v2	12.2				hipExternalSema
CUDA_EXT_SEM_WAIT_NODE_PARAMS_v2_st	12.2				hipExternalSema
CUDA_GRAPH_INSTANTIATE_CONDITIONAL_HANDLE_UNUSED	12.8				
CUDA_GRAPH_INSTANTIATE_ERROR	12.0				hipGraphInstan

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CUDA	A	D	C	R	HIP
CUDA_GRAPH_INSTANTIATE_FLAG_AUTO_FREE_ON_LAUNCH	11.4				hipGraphInstan
CUDA_GRAPH_INSTANTIATE_FLAG_DEVICE_LAUNCH	12.0				hipGraphInstan
CUDA_GRAPH_INSTANTIATE_FLAG_UPLOAD	12.0				hipGraphInstan
CUDA_GRAPH_INSTANTIATE_FLAG_USE_NODE_PRIORITY	11.7				hipGraphInstan
CUDA_GRAPH_INSTANTIATE_INVALID_STRUCTURE	12.0				hipGraphInstan
CUDA_GRAPH_INSTANTIATE_MULTIPLE_CTXS_NOT_SUPPORTED	12.0				hipGraphInstan
CUDA_GRAPH_INSTANTIATE_NODE_OPERATION_NOT_SUPPORTED	12.0				hipGraphInstan
CUDA_GRAPH_INSTANTIATE_PARAMS	12.0				hipGraphInstan
CUDA_GRAPH_INSTANTIATE_PARAMS_st	12.0				hipGraphInstan
CUDA_GRAPH_INSTANTIATE_SUCCESS	12.0				hipGraphInstan
CUDA_HOST_NODE_PARAMS	10.0				hipHostNodePar
CUDA_HOST_NODE_PARAMS_st	10.0				hipHostNodePar
CUDA_HOST_NODE_PARAMS_v1	11.3				hipHostNodePar
CUDA_HOST_NODE_PARAMS_v2	12.2				
CUDA_HOST_NODE_PARAMS_v2_st	12.2				
CUDA_KERNEL_NODE_PARAMS	10.0				hipKernelNodeP
CUDA_KERNEL_NODE_PARAMS_st	10.0				hipKernelNodeP
CUDA_KERNEL_NODE_PARAMS_v1	11.3				hipKernelNodeP
CUDA_KERNEL_NODE_PARAMS_v2	12.0				
CUDA_KERNEL_NODE_PARAMS_v2_st	12.0				
CUDA_KERNEL_NODE_PARAMS_v3	12.2				
CUDA_KERNEL_NODE_PARAMS_v3_st	12.2				
CUDA_LAUNCH_PARAMS	9.0				hipFunctionLau
CUDA_LAUNCH_PARAMS_st	9.0				hipFunctionLau
CUDA_LAUNCH_PARAMS_v1	11.3				hipFunctionLau
CUDA_MEMCPY2D					hip_Memcpy2D
CUDA_MEMCPY2D_st					hip_Memcpy2D
CUDA_MEMCPY2D_v1					hip_Memcpy2D
CUDA_MEMCPY2D_v1_st					hip_Memcpy2D
CUDA_MEMCPY2D_v2	11.3				hip_Memcpy2D
CUDA_MEMCPY3D					HIP_MEMCPY3D
CUDA_MEMCPY3D_BATCH_OP	12.8				hipMemcpy3DBat
CUDA_MEMCPY3D_BATCH_OP_st	12.8				hipMemcpy3DBat
CUDA_MEMCPY3D_BATCH_OP_v1	12.8				hipMemcpy3DBat
CUDA_MEMCPY3D_PEER					
CUDA_MEMCPY3D_PEER_st					
CUDA_MEMCPY3D_PEER_v1	11.3				
CUDA_MEMCPY3D_st					HIP_MEMCPY3D
CUDA_MEMCPY3D_v1					HIP_MEMCPY3D
CUDA_MEMCPY3D_v1_st					HIP_MEMCPY3D
CUDA_MEMCPY3D_v2	11.3				HIP_MEMCPY3D
CUDA_MEMCPY_NODE_PARAMS	12.2				hipMemcpyNodeP
CUDA_MEMCPY_NODE_PARAMS_st	12.2				hipMemcpyNodeP
CUDA_MEMSET_NODE_PARAMS	10.0				hipMemsetParam
CUDA_MEMSET_NODE_PARAMS_st	10.0				hipMemsetParam
CUDA_MEMSET_NODE_PARAMS_v1	11.3				hipMemsetParam
CUDA_MEMSET_NODE_PARAMS_v2	12.2				
CUDA_MEMSET_NODE_PARAMS_v2_st	12.2				
CUDA_MEM_ALLOC_NODE_PARAMS	11.4				hipMemAllocNode
CUDA_MEM_ALLOC_NODE_PARAMS_st	11.4			12.2	hipMemAllocNode

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CUDA	A	D	C	R	HIP
CUDA_MEM_ALLOC_NODE_PARAMS_v1	12.2				hipMemAllocNode
CUDA_MEM_ALLOC_NODE_PARAMS_v1_st	12.2				hipMemAllocNode
CUDA_MEM_ALLOC_NODE_PARAMS_v2	12.2				
CUDA_MEM_ALLOC_NODE_PARAMS_v2_st	12.2				
CUDA_MEM_FREE_NODE_PARAMS	12.2				hipMemFreeNode
CUDA_MEM_FREE_NODE_PARAMS_st	12.2				hipMemFreeNode
CUDA_NVSCISYNC_ATTR_SIGNAL	10.2				
CUDA_NVSCISYNC_ATTR_WAIT	10.2				
CUDA_POINTER_ATTRIBUTE_ACCESS_FLAGS	11.1				
CUDA_POINTER_ATTRIBUTE_ACCESS_FLAGS_enum	11.1				
CUDA_POINTER_ATTRIBUTE_P2P_TOKENS					
CUDA_POINTER_ATTRIBUTE_P2P_TOKENS_st					
CUDA_POINTER_ATTRIBUTE_P2P_TOKENS_v1	11.3				
CUDA_RESOURCE_DESC					HIP_RESOURCE_D
CUDA_RESOURCE_DESC_st					HIP_RESOURCE_D
CUDA_RESOURCE_DESC_v1	11.3				HIP_RESOURCE_D
CUDA_RESOURCE_VIEW_DESC					HIP_RESOURCE_V
CUDA_RESOURCE_VIEW_DESC_st					HIP_RESOURCE_V
CUDA_RESOURCE_VIEW_DESC_v1	11.3				HIP_RESOURCE_V
CUDA_SUCCESS					hipSuccess
CUDA_TEXTURE_DESC					HIP_TEXTURE_DE
CUDA_TEXTURE_DESC_st					HIP_TEXTURE_DE
CUDA_TEXTURE_DESC_v1	11.3				HIP_TEXTURE_DE
CUGLDeviceList					hipGLDeviceLis
CUGLDeviceList_enum					hipGLDeviceLis
CUGLmap_flags					
CUGLmap_flags_enum					
CUGPUDirectRDMAWritesOrdering	11.3				hipGPUDirectRD
CUGPUDirectRDMAWritesOrdering_enum	11.3				hipGPUDirectRD
CU_ACCESS_PROPERTY_NORMAL	11.0				hipAccessProper
CU_ACCESS_PROPERTY_PERSISTING	11.0				hipAccessProper
CU_ACCESS_PROPERTY_STREAMING	11.0				hipAccessProper
CU_AD_FORMAT_AYUV	12.5				
CU_AD_FORMAT_BC1_UNORM	11.5				
CU_AD_FORMAT_BC1_UNORM_SRGB	11.5				
CU_AD_FORMAT_BC2_UNORM	11.5				
CU_AD_FORMAT_BC2_UNORM_SRGB	11.5				
CU_AD_FORMAT_BC3_UNORM	11.5				
CU_AD_FORMAT_BC3_UNORM_SRGB	11.5				
CU_AD_FORMAT_BC4_SNORM	11.5				
CU_AD_FORMAT_BC4_UNORM	11.5				
CU_AD_FORMAT_BC5_SNORM	11.5				
CU_AD_FORMAT_BC5_UNORM	11.5				
CU_AD_FORMAT_BC6H_SF16	11.5				
CU_AD_FORMAT_BC6H_UF16	11.5				
CU_AD_FORMAT_BC7_UNORM	11.5				
CU_AD_FORMAT_BC7_UNORM_SRGB	11.5				
CU_AD_FORMAT_FLOAT					HIP_AD_FORMAT_I
CU_AD_FORMAT_HALF					HIP_AD_FORMAT_I
CU_AD_FORMAT_MAX	12.5				

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CUDA	A	D	C	R	HIP
CU_AD_FORMAT_NV12	11.2				
CU_AD_FORMAT_NV16	12.5				
CU_AD_FORMAT_P010	12.5				
CU_AD_FORMAT_P016	12.5				
CU_AD_FORMAT_P210	12.5				
CU_AD_FORMAT_P216	12.5				
CU_AD_FORMAT_SIGNED_INT16					HIP_AD_FORMAT_...
CU_AD_FORMAT_SIGNED_INT32					HIP_AD_FORMAT_...
CU_AD_FORMAT_SIGNED_INT8					HIP_AD_FORMAT_...
CU_AD_FORMAT_SNORM_INT16X1	11.5				
CU_AD_FORMAT_SNORM_INT16X2	11.5				
CU_AD_FORMAT_SNORM_INT16X4	11.5				
CU_AD_FORMAT_SNORM_INT8X1	11.5				
CU_AD_FORMAT_SNORM_INT8X2	11.5				
CU_AD_FORMAT_SNORM_INT8X4	11.5				
CU_AD_FORMAT_UNORM_INT16X1	11.5				
CU_AD_FORMAT_UNORM_INT16X2	11.5				
CU_AD_FORMAT_UNORM_INT16X4	11.5				
CU_AD_FORMAT_UNORM_INT8X1	11.5				
CU_AD_FORMAT_UNORM_INT8X2	11.5				
CU_AD_FORMAT_UNORM_INT8X4	11.5				
CU_AD_FORMAT_UNORM_INT_101010_2	12.8				
CU_AD_FORMAT_UNSIGNED_INT16					HIP_AD_FORMAT_...
CU_AD_FORMAT_UNSIGNED_INT32					HIP_AD_FORMAT_...
CU_AD_FORMAT_UNSIGNED_INT8					HIP_AD_FORMAT_...
CU_AD_FORMAT_Y210	12.5				
CU_AD_FORMAT_Y216	12.5				
CU_AD_FORMAT_Y410	12.5				
CU_AD_FORMAT_Y416	12.5				
CU_AD_FORMAT_Y444_PLANAR10	12.5				
CU_AD_FORMAT_Y444_PLANAR8	12.5				
CU_AD_FORMAT_YUV444_16bit_SemiPlanar	12.8				
CU_AD_FORMAT_YUV444_8bit_SemiPlanar	12.8				
CU_AD_FORMAT_YUY2	12.5				
CU_ARRAY_SPARSE_PROPERTIES_SINGLE_MIPTAIL	11.1				
CU_ARRAY_SPARSE_SUBRESOURCE_TYPE_MIPTAIL	11.1				hipArraySparse...
CU_ARRAY_SPARSE_SUBRESOURCE_TYPE_SPARSE_LEVEL	11.1				hipArraySparse...
CU_ASYNC_NOTIFICATION_TYPE_OVER_BUDGET	12.4				
CU_ATOMIC_CAPABILITY_REDUCTION	13.0				
CU_ATOMIC_CAPABILITY_SCALAR_128	13.0				
CU_ATOMIC_CAPABILITY_SCALAR_32	13.0				
CU_ATOMIC_CAPABILITY_SCALAR_64	13.0				
CU_ATOMIC_CAPABILITY_SIGNED	13.0				
CU_ATOMIC_CAPABILITY_UNSIGNED	13.0				
CU_ATOMIC_CAPABILITY_VECTOR_32x4	13.0				
CU_ATOMIC_OPERATION_AND	13.0				
CU_ATOMIC_OPERATION_CAS	13.0				
CU_ATOMIC_OPERATION_EXCHANGE	13.0				
CU_ATOMIC_OPERATION_FLOAT_ADD	13.0				
CU_ATOMIC_OPERATION_FLOAT_MAX	13.0				

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CUDA	A	D	C	R	HIP
CU_ATOMIC_OPERATION_FLOAT_MIN	13.0				
CU_ATOMIC_OPERATION_INTEGER_ADD	13.0				
CU_ATOMIC_OPERATION_INTEGER_DECREMENT	13.0				
CU_ATOMIC_OPERATION_INTEGER_INCREMENT	13.0				
CU_ATOMIC_OPERATION_INTEGER_MAX	13.0				
CU_ATOMIC_OPERATION_INTEGER_MIN	13.0				
CU_ATOMIC_OPERATION_MAX	13.0				
CU_ATOMIC_OPERATION_OR	13.0				
CU_ATOMIC_OPERATION_XOR	13.0				
CU_CLUSTER_SCHEDULING_POLICY_DEFAULT	11.8				
CU_CLUSTER_SCHEDULING_POLICY_LOAD_BALANCING	11.8				
CU_CLUSTER_SCHEDULING_POLICY_SPREAD	11.8				
CU_COMPUTEMODE_DEFAULT					hipComputeModel
CU_COMPUTEMODE_EXCLUSIVE				8.0	hipComputeModel
CU_COMPUTEMODE_EXCLUSIVE_PROCESS					hipComputeModel
CU_COMPUTEMODE_PROHIBITED					hipComputeModel
CU_COMPUTE_ACCELERATED_TARGET_BASE	12.0				
CU_COMPUTE_FAMILY_TARGET_BASE	12.9				
CU_COREDUMP_DEFAULT_FLAGS	12.5				
CU_COREDUMP_ENABLE_ON_EXCEPTION	12.1				
CU_COREDUMP_ENABLE_USER_TRIGGER	12.1				
CU_COREDUMP_FILE	12.1				
CU_COREDUMP_GENERATION_FLAGS	12.5				
CU_COREDUMP_LIGHTWEIGHT	12.1				
CU_COREDUMP_LIGHTWEIGHT_FLAGS	12.5				
CU_COREDUMP_MAX	12.1				
CU_COREDUMP_PIPE	12.1				
CU_COREDUMP_SKIP_ABORT	12.5				
CU_COREDUMP_SKIP_CONSTBANK_MEMORY	12.6				
CU_COREDUMP_SKIP_GLOBAL_MEMORY	12.5				
CU_COREDUMP_SKIP_LOCAL_MEMORY	12.5				
CU_COREDUMP_SKIP_NONRELOCATED_ELF_IMAGES	12.5				
CU_COREDUMP_SKIP_SHARED_MEMORY	12.5				
CU_COREDUMP_TRIGGER_HOST	12.1				
CU_CTX_BLOCKING_SYNC		4.0			hipDeviceSched
CU_CTX_COREDUMP_ENABLE	12.1				
CU_CTX_FLAGS_MASK					
CU_CTX_LMEM_RESIZE_TO_MAX					hipDeviceLmemR
CU_CTX_MAP_HOST					hipDeviceMapHo
CU_CTX_SCHED_AUTO					hipDeviceSched
CU_CTX_SCHED_BLOCKING_SYNC					hipDeviceSched
CU_CTX_SCHED_MASK					hipDeviceSched
CU_CTX_SCHED_SPIN					hipDeviceSched
CU_CTX_SCHED_YIELD					hipDeviceSched
CU_CTX_SYNC_MEMOPS	12.1				
CU_CTX_USER_COREDUMP_ENABLE	12.1				
CU_CUBEMAP_FACE_NEGATIVE_X					
CU_CUBEMAP_FACE_NEGATIVE_Y					
CU_CUBEMAP_FACE_NEGATIVE_Z					
CU_CUBEMAP_FACE_POSITIVE_X					

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CUDA	A	D	C	R	HIP
CU_CUBEMAP_FACE_POSITIVE_Y					
CU_CUBEMAP_FACE_POSITIVE_Z					
CU_D3D10_DEVICE_LIST_ALL					
CU_D3D10_DEVICE_LIST_CURRENT_FRAME					
CU_D3D10_DEVICE_LIST_NEXT_FRAME					
CU_D3D10_MAPRESOURCE_FLAGS_NONE					
CU_D3D10_MAPRESOURCE_FLAGS_READONLY					
CU_D3D10_MAPRESOURCE_FLAGS_WRITEDISCARD					
CU_D3D10_REGISTER_FLAGS_ARRAY					
CU_D3D10_REGISTER_FLAGS_NONE					
CU_D3D11_DEVICE_LIST_ALL					
CU_D3D11_DEVICE_LIST_CURRENT_FRAME					
CU_D3D11_DEVICE_LIST_NEXT_FRAME					
CU_D3D9_DEVICE_LIST_ALL					
CU_D3D9_DEVICE_LIST_CURRENT_FRAME					
CU_D3D9_DEVICE_LIST_NEXT_FRAME					
CU_D3D9_MAPRESOURCE_FLAGS_NONE					
CU_D3D9_MAPRESOURCE_FLAGS_READONLY					
CU_D3D9_MAPRESOURCE_FLAGS_WRITEDISCARD					
CU_D3D9_REGISTER_FLAGS_ARRAY					
CU_D3D9_REGISTER_FLAGS_NONE					
CU_DEVICE_ATTRIBUTE_ASYNC_ENGINE_COUNT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_CAN_FLUSH_REMOTE_WRITES	9.2				
CU_DEVICE_ATTRIBUTE_CAN_MAP_HOST_MEMORY					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_CAN_TEX2D_GATHER		5.0			
CU_DEVICE_ATTRIBUTE_CAN_USE_64_BIT_STREAM_MEM_OPS	9.0				
CU_DEVICE_ATTRIBUTE_CAN_USE_64_BIT_STREAM_MEM_OPS_V1	12.0	12.0			
CU_DEVICE_ATTRIBUTE_CAN_USE_64_BIT_STREAM_MEM_OPS_V2	11.7			12.0	
CU_DEVICE_ATTRIBUTE_CAN_USE_HOST_POINTER_FOR_REGISTERED_MEM	9.0				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_CAN_USE_STREAM_MEM_OPS	9.0			12.0	
CU_DEVICE_ATTRIBUTE_CAN_USE_STREAM_MEM_OPS_V1	12.0	12.0			
CU_DEVICE_ATTRIBUTE_CAN_USE_STREAM_WAIT_VALUE_NOR	9.0				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_CAN_USE_STREAM_WAIT_VALUE_NOR_V1	12.0	12.0			hipDeviceAttri
CU_DEVICE_ATTRIBUTE_CAN_USE_STREAM_WAIT_VALUE_NOR_V2	11.7			12.0	
CU_DEVICE_ATTRIBUTE_CLOCK_RATE					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_CLUSTER_LAUNCH	11.8				
CU_DEVICE_ATTRIBUTE_COMPUTE_CAPABILITY_MAJOR					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_COMPUTE_CAPABILITY_MINOR					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_COMPUTE_MODE					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_COMPUTE_PREEMPTION_SUPPORTED	8.0				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_CONCURRENT_KERNELS					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_CONCURRENT_MANAGED_ACCESS	8.0				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_COOPERATIVE_LAUNCH	9.0				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_COOPERATIVE_MULTI_DEVICE_LAUNCH	9.0				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_D3D12_CIG_SUPPORTED	12.5				
CU_DEVICE_ATTRIBUTE_DEFERRED_MAPPING_CUDA_ARRAY_SUPPORTED	11.6				
CU_DEVICE_ATTRIBUTE_DIRECT_MANAGED_MEM_ACCESS_FROM_HOST	9.2				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_DMA_BUF_SUPPORTED	11.7				
CU_DEVICE_ATTRIBUTE_ECC_ENABLED					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_GENERIC_COMPRESSION_SUPPORTED	11.0				

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CUDA	A	D	C	R	HIP
CU_DEVICE_ATTRIBUTE_GLOBAL_L1_CACHE_SUPPORTED					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_GLOBAL_MEMORY_BUS_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_GPU_DIRECT_RDMA_FLUSH_WRITES_OPTIONS	11.3				
CU_DEVICE_ATTRIBUTE_GPU_DIRECT_RDMA_SUPPORTED	11.3				
CU_DEVICE_ATTRIBUTE_GPU_DIRECT_RDMA_WITH_CUDA_VMM_SUPPORTED	11.0				
CU_DEVICE_ATTRIBUTE_GPU_DIRECT_RDMA_WRITES_ORDERING	11.3				
CU_DEVICE_ATTRIBUTE_GPU_OVERLAP		5.0			hipDeviceAttri
CU_DEVICE_ATTRIBUTE_GPU_PCI_DEVICE_ID	12.8				
CU_DEVICE_ATTRIBUTE_GPU_PCI_SUBSYSTEM_ID	12.8				
CU_DEVICE_ATTRIBUTE_HANDLE_TYPE_FABRIC_SUPPORTED	12.3				
CU_DEVICE_ATTRIBUTE_HANDLE_TYPE_POSIX_FILE_DESCRIPTOR_SUPPORTED	10.2				
CU_DEVICE_ATTRIBUTE_HANDLE_TYPE_WIN32_HANDLE_SUPPORTED	10.2				
CU_DEVICE_ATTRIBUTE_HANDLE_TYPE_WIN32_KMT_HANDLE_SUPPORTED	10.2				
CU_DEVICE_ATTRIBUTE_HOST_ALLOC_DMA_BUF_SUPPORTED	13.0				
CU_DEVICE_ATTRIBUTE_HOST_MEMORY_POOLS_SUPPORTED	13.0				
CU_DEVICE_ATTRIBUTE_HOST_NATIVE_ATOMIC_SUPPORTED	8.0				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_HOST_NUMA_ID	12.2				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_HOST_NUMA_MEMORY_POOLS_SUPPORTED	12.9				
CU_DEVICE_ATTRIBUTE_HOST_NUMA_MULTINODE_IPC_SUPPORTED	12.8				
CU_DEVICE_ATTRIBUTE_HOST_NUMA_VIRTUAL_MEMORY_MANAGEMENT_SUPPORTED	12.9				
CU_DEVICE_ATTRIBUTE_HOST_REGISTER_SUPPORTED	9.2				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_HOST_VIRTUAL_MEMORY_MANAGEMENT_SUPPORTED	13.0				
CU_DEVICE_ATTRIBUTE_INTEGRATED					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_IPC_EVENT_SUPPORTED	12.0				
CU_DEVICE_ATTRIBUTE_KERNEL_EXEC_TIMEOUT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_L2_CACHE_SIZE					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_LOCAL_L1_CACHE_SUPPORTED					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MANAGED_MEMORY					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX					
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACE1D_LAYERED_LAYERS					
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACE1D_LAYERED_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACE1D_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACE2D_HEIGHT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACE2D_LAYERED_HEIGHT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACE2D_LAYERED_LAYERS					
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACE2D_LAYERED_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACE2D_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACE3D_DEPTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACE3D_HEIGHT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACE3D_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACECUBEMAP_LAYERED_LAYERS					
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACECUBEMAP_LAYERED_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_SURFACECUBEMAP_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE1D_LAYERED_LAYERS					
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE1D_LAYERED_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE1D_LINEAR_WIDTH		11.2			hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE1D_MIPMAPPED_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE1D_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_ARRAY_HEIGHT		5.0			hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_ARRAY_NUMSLICES		5.0			

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CUDA	A	D	C	R	HIP
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_ARRAY_WIDTH		5.0			hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_GATHER_HEIGHT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_GATHER_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_HEIGHT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_LAYERED_HEIGHT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_LAYERED_LAYERS					
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_LAYERED_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_LINEAR_HEIGHT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_LINEAR_PITCH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_LINEAR_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_MIPMAPPED_HEIGHT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_MIPMAPPED_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE3D_DEPTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE3D_DEPTH_ALTERNATE					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE3D_HEIGHT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE3D_HEIGHT_ALTERNATE					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE3D_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE3D_WIDTH_ALTERNATE					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURECUBEMAP_LAYERED_LAYERS					
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURECUBEMAP_LAYERED_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURECUBEMAP_WIDTH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_ACCESS_POLICY_WINDOW_SIZE		11.0			
CU_DEVICE_ATTRIBUTE_MAX_BLOCKS_PER_MULTIPROCESSOR		11.0			hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_BLOCK_DIM_X					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_BLOCK_DIM_Y					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_BLOCK_DIM_Z					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_GRID_DIM_X					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_GRID_DIM_Y					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_GRID_DIM_Z					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_PERSISTING_L2_CACHE_SIZE		11.0			
CU_DEVICE_ATTRIBUTE_MAX_PITCH					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_REGISTERS_PER_BLOCK					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_REGISTERS_PER_MULTIPROCESSOR					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_SHARED_MEMORY_PER_BLOCK					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_SHARED_MEMORY_PER_BLOCK_OPTIN		9.0			hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_SHARED_MEMORY_PER_MULTIPROCESSOR					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_THREADS_PER_BLOCK					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MAX_THREADS_PER_MULTIPROCESSOR					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MEMORY_CLOCK_RATE					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MEMORY_POOLS_SUPPORTED		11.2			hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MEMPOOL_SUPPORTED_HANDLE_TYPES		11.3			
CU_DEVICE_ATTRIBUTE_MEM_DECOMPRESS_ALGORITHM_MASK		12.8			
CU_DEVICE_ATTRIBUTE_MEM_DECOMPRESS_MAXIMUM_LENGTH		12.8			
CU_DEVICE_ATTRIBUTE_MEM_SYNC_DOMAIN_COUNT		12.0			
CU_DEVICE_ATTRIBUTE_MPS_ENABLED		12.3			
CU_DEVICE_ATTRIBUTE_MULTICAST_SUPPORTED		12.1			
CU_DEVICE_ATTRIBUTE_MULTIPROCESSOR_COUNT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MULTI_GPU_BOARD					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_MULTI_GPU_BOARD_GROUP_ID					hipDeviceAttri

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CUDA	A	D	C	R	HIP
CU_DEVICE_ATTRIBUTE_NUMA_CONFIG	12.2				
CU_DEVICE_ATTRIBUTE_NUMA_ID	12.2				
CU_DEVICE_ATTRIBUTE_ONLY_PARTIAL_HOST_NATIVE_ATOMIC_SUPPORTED	13.0				
CU_DEVICE_ATTRIBUTE_PAGEABLE_MEMORY_ACCESS	8.0				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_PAGEABLE_MEMORY_ACCESS_USES_HOST_PAGE_TABLES	9.2				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_PCI_BUS_ID					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_PCI_DEVICE_ID					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_PCI_DOMAIN_ID					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_READ_ONLY_HOST_REGISTER_SUPPORTED	11.1				
CU_DEVICE_ATTRIBUTE_REGISTERS_PER_BLOCK		5.0			hipDeviceAttri
CU_DEVICE_ATTRIBUTE_RESERVED_SHARED_MEMORY_PER_BLOCK	11.0				
CU_DEVICE_ATTRIBUTE_SHARED_MEMORY_PER_BLOCK		5.0			hipDeviceAttri
CU_DEVICE_ATTRIBUTE_SINGLE_TO_DOUBLE_PRECISION_PERF_RATIO	8.0				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_SPARSE_CUDA_ARRAY_SUPPORTED	11.1				
CU_DEVICE_ATTRIBUTE_STREAM_PRIORITIES_SUPPORTED					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_SURFACE_ALIGNMENT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_TCC_DRIVER					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_TENSOR_MAP_ACCESS_SUPPORTED	12.0				
CU_DEVICE_ATTRIBUTE_TEXTURE_ALIGNMENT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_TEXTURE_PITCH_ALIGNMENT					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_TIMELINE_SEMAPHORE_INTEROP_SUPPORTED	11.2				
CU_DEVICE_ATTRIBUTE_TOTAL_CONSTANT_MEMORY					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_UNIFIED_ADDRESSING					hipDeviceAttri
CU_DEVICE_ATTRIBUTE_UNIFIED_FUNCTION_POINTERS	12.0				
CU_DEVICE_ATTRIBUTE_VIRTUAL_ADDRESS_MANAGEMENT_SUPPORTED	10.2	11.2			
CU_DEVICE_ATTRIBUTE_VIRTUAL_MEMORY_MANAGEMENT_SUPPORTED	11.2				hipDeviceAttri
CU_DEVICE_ATTRIBUTE_VULKAN_CIG_SUPPORTED	12.9				
CU_DEVICE_ATTRIBUTE_WARP_SIZE					hipDeviceAttri
CU_DEVICE_CPU	8.0				hipCpuDeviceId
CU_DEVICE_INVALID	8.0				hipInvalidDevi
CU_DEVICE_NUMA_CONFIG_NONE	12.2				
CU_DEVICE_NUMA_CONFIG_NUMA_NODE	12.2				
CU_DEVICE_P2P_ATTRIBUTE_ACCESS_ACCESS_SUPPORTED	10.1	10.1			hipDevP2PAttrH
CU_DEVICE_P2P_ATTRIBUTE_ACCESS_SUPPORTED	8.0				hipDevP2PAttrA
CU_DEVICE_P2P_ATTRIBUTE_ARRAY_ACCESS_ACCESS_SUPPORTED	9.2	10.0		10.1	hipDevP2PAttrH
CU_DEVICE_P2P_ATTRIBUTE_CUDA_ARRAY_ACCESS_SUPPORTED	10.0				hipDevP2PAttrH
CU_DEVICE_P2P_ATTRIBUTE_NATIVE_ATOMIC_SUPPORTED	8.0				hipDevP2PAttrN
CU_DEVICE_P2P_ATTRIBUTE_ONLY_PARTIAL_NATIVE_ATOMIC_SUPPORTED	13.0				
CU_DEVICE_P2P_ATTRIBUTE_PERFORMANCE_RANK	8.0				hipDevP2PAttrP
CU_DEV_RESOURCE_TYPE_INVALID	12.4				
CU_DEV_RESOURCE_TYPE_MAX	12.4				
CU_DEV_RESOURCE_TYPE_SM	12.4				
CU_DEV_SM_RESOURCE_SPLIT_IGNORE_SM_COSCHEDULING	12.5				
CU_DEV_SM_RESOURCE_SPLIT_MAX_POTENTIAL_CLUSTER_SIZE	12.5				
CU_EGL_COLOR_FORMAT_A	9.1				
CU_EGL_COLOR_FORMAT_ABGR	9.1				
CU_EGL_COLOR_FORMAT_ARGB	9.0				
CU_EGL_COLOR_FORMAT_AYUV	9.1				
CU_EGL_COLOR_FORMAT_AYUV_ER	9.1				
CU_EGL_COLOR_FORMAT_BAYER10_BGGR	9.1				

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CUDA	A	D	C	R	HIP
CU_EGL_COLOR_FORMAT_BAYER10_GBRG	9.1				
CU_EGL_COLOR_FORMAT_BAYER10_GRBG	9.1				
CU_EGL_COLOR_FORMAT_BAYER10_RGGB	9.1				
CU_EGL_COLOR_FORMAT_BAYER12_BGGR	9.1				
CU_EGL_COLOR_FORMAT_BAYER12_GBRG	9.1				
CU_EGL_COLOR_FORMAT_BAYER12_GRBG	9.1				
CU_EGL_COLOR_FORMAT_BAYER12_RGGB	9.1				
CU_EGL_COLOR_FORMAT_BAYER14_BGGR	9.1				
CU_EGL_COLOR_FORMAT_BAYER14_GBRG	9.1				
CU_EGL_COLOR_FORMAT_BAYER14_GRBG	9.1				
CU_EGL_COLOR_FORMAT_BAYER14_RGGB	9.1				
CU_EGL_COLOR_FORMAT_BAYER20_BGGR	9.1				
CU_EGL_COLOR_FORMAT_BAYER20_GBRG	9.1				
CU_EGL_COLOR_FORMAT_BAYER20_GRBG	9.1				
CU_EGL_COLOR_FORMAT_BAYER20_RGGB	9.1				
CU_EGL_COLOR_FORMAT_BAYER_BGGR	9.1				
CU_EGL_COLOR_FORMAT_BAYER_GBRG	9.1				
CU_EGL_COLOR_FORMAT_BAYER_GRBG	9.1				
CU_EGL_COLOR_FORMAT_BAYER_ISP_BGGR	9.2				
CU_EGL_COLOR_FORMAT_BAYER_ISP_GBRG	9.2				
CU_EGL_COLOR_FORMAT_BAYER_ISP_GRBG	9.2				
CU_EGL_COLOR_FORMAT_BAYER_ISP_RGGB	9.2				
CU_EGL_COLOR_FORMAT_BAYER_RGGB	9.1				
CU_EGL_COLOR_FORMAT_BGR	9.0				
CU_EGL_COLOR_FORMAT_BGRA	9.1				
CU_EGL_COLOR_FORMAT_L	9.0				
CU_EGL_COLOR_FORMAT_MAX	9.0				
CU_EGL_COLOR_FORMAT_R	9.0				
CU_EGL_COLOR_FORMAT_RG	9.1				
CU_EGL_COLOR_FORMAT_RGB	9.0				
CU_EGL_COLOR_FORMAT_RGBA					
CU_EGL_COLOR_FORMAT_UYVY_422	9.0				
CU_EGL_COLOR_FORMAT_UYVY_ER	9.1				
CU_EGL_COLOR_FORMAT_VYUY_ER	9.1				
CU_EGL_COLOR_FORMAT_Y10V10U10_420_SEMIPLANAR	9.1				
CU_EGL_COLOR_FORMAT_Y10V10U10_444_SEMIPLANAR	9.1				
CU_EGL_COLOR_FORMAT_Y12V12U12_420_SEMIPLANAR	9.1				
CU_EGL_COLOR_FORMAT_Y12V12U12_444_SEMIPLANAR	9.1				
CU_EGL_COLOR_FORMAT_YUV420_PLANAR	9.0				
CU_EGL_COLOR_FORMAT_YUV420_PLANAR_ER	9.1				
CU_EGL_COLOR_FORMAT_YUV420_SEMIPLANAR	9.0				
CU_EGL_COLOR_FORMAT_YUV420_SEMIPLANAR_ER	9.1				
CU_EGL_COLOR_FORMAT_YUV422_PLANAR	9.0				
CU_EGL_COLOR_FORMAT_YUV422_PLANAR_ER	9.1				
CU_EGL_COLOR_FORMAT_YUV422_SEMIPLANAR	9.0				
CU_EGL_COLOR_FORMAT_YUV422_SEMIPLANAR_ER	9.1				
CU_EGL_COLOR_FORMAT_YUV444_PLANAR	9.0				
CU_EGL_COLOR_FORMAT_YUV444_PLANAR_ER	9.1				
CU_EGL_COLOR_FORMAT_YUV444_SEMIPLANAR	9.0				
CU_EGL_COLOR_FORMAT_YUV444_SEMIPLANAR_ER	9.1				

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CUDA	A	D	C	R	HIP
CU_EGL_COLOR_FORMAT_YUVA_ER	9.1				
CU_EGL_COLOR_FORMAT_YUV_ER	9.1				
CU_EGL_COLOR_FORMAT_YUYV_422	9.0				
CU_EGL_COLOR_FORMAT_YUYV_ER	9.1				
CU_EGL_COLOR_FORMAT_YVU420_PLANAR	9.1				
CU_EGL_COLOR_FORMAT_YVU420_PLANAR_ER	9.1				
CU_EGL_COLOR_FORMAT_YVU420_SEMIPLANAR	9.1				
CU_EGL_COLOR_FORMAT_YVU420_SEMIPLANAR_ER	9.1				
CU_EGL_COLOR_FORMAT_YVU422_PLANAR	9.1				
CU_EGL_COLOR_FORMAT_YVU422_PLANAR_ER	9.1				
CU_EGL_COLOR_FORMAT_YVU422_SEMIPLANAR	9.1				
CU_EGL_COLOR_FORMAT_YVU422_SEMIPLANAR_ER	9.1				
CU_EGL_COLOR_FORMAT_YVU444_PLANAR	9.1				
CU_EGL_COLOR_FORMAT_YVU444_PLANAR_ER	9.1				
CU_EGL_COLOR_FORMAT_YVU444_SEMIPLANAR	9.1				
CU_EGL_COLOR_FORMAT_YVU444_SEMIPLANAR_ER	9.1				
CU_EGL_COLOR_FORMAT_YVYU_ER	9.1				
CU_EGL_FRAME_TYPE_ARRAY	9.0				
CU_EGL_FRAME_TYPE_PITCH	9.0				
CU_EGL_RESOURCE_LOCATION_SYSMEM	9.0				
CU_EGL_RESOURCE_LOCATION_VIDMEM	9.0				
CU_EVENT_BLOCKING_SYNC					hipEventBlockingSync
CU_EVENT_DEFAULT					hipEventDefault
CU_EVENT_DISABLE_TIMING					hipEventDisableTiming
CU_EVENT_INTERPROCESS					hipEventInterprocess
CU_EVENT_RECORD_DEFAULT	11.1				hipEventRecordDefault
CU_EVENT_RECORD_EXTERNAL	11.1				hipEventRecordExternal
CU_EVENT_SCHED_AUTO	11.8				
CU_EVENT_SCHED_BLOCKING_SYNC	11.8				
CU_EVENT_SCHED_SPIN	11.8				
CU_EVENT_SCHED_YIELD	11.8				
CU_EVENT_WAIT_DEFAULT	11.1				
CU_EVENT_WAIT_EXTERNAL	11.1				
CU_EXEC_AFFINITY_TYPE_MAX	11.4				
CU_EXEC_AFFINITY_TYPE_SM_COUNT	11.4				
CU_EXTERNAL_MEMORY_HANDLE_TYPE_D3D11_RESOURCE	10.2				hipExternalMemoryHandleTypeD3D11Resource
CU_EXTERNAL_MEMORY_HANDLE_TYPE_D3D11_RESOURCE_KMT	10.2				hipExternalMemoryHandleTypeD3D11ResourceKMT
CU_EXTERNAL_MEMORY_HANDLE_TYPE_D3D12_HEAP	10.0				hipExternalMemoryHandleTypeD3D12Heap
CU_EXTERNAL_MEMORY_HANDLE_TYPE_D3D12_RESOURCE	10.0				hipExternalMemoryHandleTypeD3D12Resource
CU_EXTERNAL_MEMORY_HANDLE_TYPE_DMABUF_FD	13.0				
CU_EXTERNAL_MEMORY_HANDLE_TYPE_NVSCIBUF	10.2				
CU_EXTERNAL_MEMORY_HANDLE_TYPE_OPAQUE_FD	10.0				hipExternalMemoryHandleTypeOpaqueFd
CU_EXTERNAL_MEMORY_HANDLE_TYPE_OPAQUE_WIN32	10.0				hipExternalMemoryHandleTypeOpaqueWin32
CU_EXTERNAL_MEMORY_HANDLE_TYPE_OPAQUE_WIN32_KMT	10.0				hipExternalMemoryHandleTypeOpaqueWin32KMT
CU_EXTERNAL_SEMAPHORE_HANDLE_TYPE_D3D11_FENCE	10.2				
CU_EXTERNAL_SEMAPHORE_HANDLE_TYPE_D3D11_KEYED_MUTEX	10.2				
CU_EXTERNAL_SEMAPHORE_HANDLE_TYPE_D3D11_KEYED_MUTEX_KMT	10.2				
CU_EXTERNAL_SEMAPHORE_HANDLE_TYPE_D3D12_FENCE	10.0				hipExternalSemaphoreHandleTypeD3D12Fence
CU_EXTERNAL_SEMAPHORE_HANDLE_TYPE_NVSCISYNC	10.2				
CU_EXTERNAL_SEMAPHORE_HANDLE_TYPE_OPAQUE_FD	10.0				hipExternalSemaphoreHandleTypeOpaqueFd

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CUDA	A	D	C	R	HIP
CU_EXTERNAL_SEMAPHORE_HANDLE_TYPE_OPAQUE_WIN32	10.0				hipExternalSem
CU_EXTERNAL_SEMAPHORE_HANDLE_TYPE_OPAQUE_WIN32_KMT	10.0				hipExternalSem
CU_EXTERNAL_SEMAPHORE_HANDLE_TYPE_TIMELINE_SEMAPHORE_FD	11.2				
CU_EXTERNAL_SEMAPHORE_HANDLE_TYPE_TIMELINE_SEMAPHORE_WIN32	11.2				
CU_FLUSH_GPU_DIRECT_RDMA_WRITES_OPTION_HOST	11.3				hipFlushGPUDir
CU_FLUSH_GPU_DIRECT_RDMA_WRITES_OPTION_MEMOPS	11.3				hipFlushGPUDir
CU_FLUSH_GPU_DIRECT_RDMA_WRITES_TARGET_CURRENT_CTX	11.3				
CU_FLUSH_GPU_DIRECT_RDMA_WRITES_TO_ALL_DEVICES	11.3				
CU_FLUSH_GPU_DIRECT_RDMA_WRITES_TO_OWNER	11.3				
CU_FUNCTION_LOADING_STATE_LOADED	12.4				
CU_FUNCTION_LOADING_STATE_MAX	12.4				
CU_FUNCTION_LOADING_STATE_UNLOADED	12.4				
CU_FUNC_ATTRIBUTE_BINARY_VERSION					HIP_FUNC_ATTRI
CU_FUNC_ATTRIBUTE_CACHE_MODE_CA					HIP_FUNC_ATTRI
CU_FUNC_ATTRIBUTE_CLUSTER_SCHEDULING_POLICY_PREFERENCE	11.8				
CU_FUNC_ATTRIBUTE_CLUSTER_SIZE_MUST_BE_SET	11.8				
CU_FUNC_ATTRIBUTE_CONST_SIZE_BYTES					HIP_FUNC_ATTRI
CU_FUNC_ATTRIBUTE_LOCAL_SIZE_BYTES					HIP_FUNC_ATTRI
CU_FUNC_ATTRIBUTE_MAX					HIP_FUNC_ATTRI
CU_FUNC_ATTRIBUTE_MAX_DYNAMIC_SHARED_SIZE_BYTES	9.0				HIP_FUNC_ATTRI
CU_FUNC_ATTRIBUTE_MAX_THREADS_PER_BLOCK					HIP_FUNC_ATTRI
CU_FUNC_ATTRIBUTE_NON_PORTABLE_CLUSTER_SIZE_ALLOWED	11.8				
CU_FUNC_ATTRIBUTE_NUM_REGS					HIP_FUNC_ATTRI
CU_FUNC_ATTRIBUTE_PREFERRED_SHARED_MEMORY_CARVEOUT	9.0				HIP_FUNC_ATTRI
CU_FUNC_ATTRIBUTE_PTX_VERSION					HIP_FUNC_ATTRI
CU_FUNC_ATTRIBUTE_REQUIRED_CLUSTER_DEPTH	11.8				
CU_FUNC_ATTRIBUTE_REQUIRED_CLUSTER_HEIGHT	11.8				
CU_FUNC_ATTRIBUTE_REQUIRED_CLUSTER_WIDTH	11.8				
CU_FUNC_ATTRIBUTE_SHARED_SIZE_BYTES					HIP_FUNC_ATTRI
CU_FUNC_CACHE_PREFER_EQUAL					hipFuncCachePr
CU_FUNC_CACHE_PREFER_L1					hipFuncCachePr
CU_FUNC_CACHE_PREFER_NONE					hipFuncCachePr
CU_FUNC_CACHE_PREFER_SHARED					hipFuncCachePr
CU_GET_PROC_ADDRESS_DEFAULT	11.3				hipEnableDefau
CU_GET_PROC_ADDRESS_LEGACY_STREAM	11.3				hipEnableLegacy
CU_GET_PROC_ADDRESS_PER_THREAD_DEFAULT_STREAM	11.3				hipEnablePerTh
CU_GET_PROC_ADDRESS_SUCCESS	12.0				HIP_GET_PROC_A
CU_GET_PROC_ADDRESS_SYMBOL_NOT_FOUND	12.0				HIP_GET_PROC_A
CU_GET_PROC_ADDRESS_VERSION_NOT_SUFFICIENT	12.0				HIP_GET_PROC_A
CU_GL_DEVICE_LIST_ALL					hipGLDeviceLis
CU_GL_DEVICE_LIST_CURRENT_FRAME					hipGLDeviceLis
CU_GL_DEVICE_LIST_NEXT_FRAME					hipGLDeviceLis
CU_GL_MAP_RESOURCE_FLAGS_NONE					
CU_GL_MAP_RESOURCE_FLAGS_READ_ONLY					
CU_GL_MAP_RESOURCE_FLAGS_WRITE_DISCARD					
CU_GPU_DIRECT_RDMA_WRITES_ORDERING_ALL_DEVICES	11.3				hipGPUDirectRD
CU_GPU_DIRECT_RDMA_WRITES_ORDERING_NONE	11.3				hipGPUDirectRD
CU_GPU_DIRECT_RDMA_WRITES_ORDERING_OWNER	11.3				hipGPUDirectRD
CU_GRAPHICS_MAP_RESOURCE_FLAGS_NONE					
CU_GRAPHICS_MAP_RESOURCE_FLAGS_READ_ONLY					

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CUDA	A	D	C	R	HIP
CU_GRAPHICS_MAP_RESOURCE_FLAGS_WRITE_DISCARD					
CU_GRAPHICS_REGISTER_FLAGS_NONE					hipGraphicsReg
CU_GRAPHICS_REGISTER_FLAGS_READ_ONLY					hipGraphicsReg
CU_GRAPHICS_REGISTER_FLAGS_SURFACE_LDST					hipGraphicsReg
CU_GRAPHICS_REGISTER_FLAGS_TEXTURE_GATHER					hipGraphicsReg
CU_GRAPHICS_REGISTER_FLAGS_WRITE_DISCARD					hipGraphicsReg
CU_GRAPH_CHILD_GRAPH_OWNERSHIP_CLONE	12.9				
CU_GRAPH_CHILD_GRAPH_OWNERSHIP_MOVE	12.9				
CU_GRAPH_COND_ASSIGN_DEFAULT	12.3				
CU_GRAPH_COND_TYPE_IF	12.3				
CU_GRAPH_COND_TYPE_SWITCH	12.8				
CU_GRAPH_COND_TYPE_WHILE	12.3				
CU_GRAPH_DEBUG_DOT_FLAGS_BATCH_MEM_OP_NODE_PARAMS	11.7				
CU_GRAPH_DEBUG_DOT_FLAGS_CONDITIONAL_NODE_PARAMS	12.3				
CU_GRAPH_DEBUG_DOT_FLAGS_EVENT_NODE_PARAMS	11.3				hipGraphDebugD
CU_GRAPH_DEBUG_DOT_FLAGS_EXTRA_TOPO_INFO	12.0				
CU_GRAPH_DEBUG_DOT_FLAGS_EXT_SEMAS_SIGNAL_NODE_PARAMS	11.3				hipGraphDebugD
CU_GRAPH_DEBUG_DOT_FLAGS_EXT_SEMAS_WAIT_NODE_PARAMS	11.3				hipGraphDebugD
CU_GRAPH_DEBUG_DOT_FLAGS_HANDLES	11.3				hipGraphDebugD
CU_GRAPH_DEBUG_DOT_FLAGS_HOST_NODE_PARAMS	11.3				hipGraphDebugD
CU_GRAPH_DEBUG_DOT_FLAGS_KERNEL_NODE_ATTRIBUTES	11.3				hipGraphDebugD
CU_GRAPH_DEBUG_DOT_FLAGS_KERNEL_NODE_PARAMS	11.3				hipGraphDebugD
CU_GRAPH_DEBUG_DOT_FLAGS_MEMCPY_NODE_PARAMS	11.3				hipGraphDebugD
CU_GRAPH_DEBUG_DOT_FLAGS_MEMSET_NODE_PARAMS	11.3				hipGraphDebugD
CU_GRAPH_DEBUG_DOT_FLAGS_MEM_ALLOC_NODE_PARAMS	11.4				
CU_GRAPH_DEBUG_DOT_FLAGS_MEM_FREE_NODE_PARAMS	11.4				
CU_GRAPH_DEBUG_DOT_FLAGS_RUNTIME_TYPES	11.3				hipGraphDebugD
CU_GRAPH_DEBUG_DOT_FLAGS_VERBOSE	11.3				hipGraphDebugD
CU_GRAPH_DEPENDENCY_TYPE_DEFAULT	12.3				hipGraphDepend
CU_GRAPH_DEPENDENCY_TYPE_PROGRAMMATIC	12.3				hipGraphDepend
CU_GRAPH_EXEC_UPDATE_ERROR	10.2				hipGraphExecUp
CU_GRAPH_EXEC_UPDATE_ERROR_ATTRIBUTES_CHANGED	11.6				
CU_GRAPH_EXEC_UPDATE_ERROR_FUNCTION_CHANGED	10.2				hipGraphExecUp
CU_GRAPH_EXEC_UPDATE_ERROR_NODE_TYPE_CHANGED	10.2				hipGraphExecUp
CU_GRAPH_EXEC_UPDATE_ERROR_NOT_SUPPORTED	10.2				hipGraphExecUp
CU_GRAPH_EXEC_UPDATE_ERROR_PARAMETERS_CHANGED	10.2				hipGraphExecUp
CU_GRAPH_EXEC_UPDATE_ERROR_TOPOLOGY_CHANGED	10.2				hipGraphExecUp
CU_GRAPH_EXEC_UPDATE_ERROR_UNSUPPORTED_FUNCTION_CHANGE	11.2				hipGraphExecUp
CU_GRAPH_EXEC_UPDATE_SUCCESS	10.2				hipGraphExecUp
CU_GRAPH_KERNEL_NODE_PORT_DEFAULT	12.3				hipGraphKernel
CU_GRAPH_KERNEL_NODE_PORT_LAUNCH_ORDER	12.3				hipGraphKernel
CU_GRAPH_KERNEL_NODE_PORT_PROGRAMMATIC	12.3				hipGraphKernel
CU_GRAPH_MEM_ATTR_RESERVED_MEM_CURRENT	11.4				hipGraphMemAtt
CU_GRAPH_MEM_ATTR_RESERVED_MEM_HIGH	11.4				hipGraphMemAtt
CU_GRAPH_MEM_ATTR_USED_MEM_CURRENT	11.4				hipGraphMemAtt
CU_GRAPH_MEM_ATTR_USED_MEM_HIGH	11.4				hipGraphMemAtt
CU_GRAPH_NODE_TYPE_BATCH_MEM_OP	11.7				hipGraphNodeTyp
CU_GRAPH_NODE_TYPE_CONDITIONAL	12.3				
CU_GRAPH_NODE_TYPE_COUNT	10.0			11.0	hipGraphNodeTyp
CU_GRAPH_NODE_TYPE_EMPTY	10.0				hipGraphNodeTyp

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CUDA	A	D	C	R	HIP
CU_GRAPH_NODE_TYPE_EVENT_RECORD	11.1				hipGraphNodeTyp
CU_GRAPH_NODE_TYPE_EXT_SEMAS_SIGNAL	11.2				hipGraphNodeTyp
CU_GRAPH_NODE_TYPE_EXT_SEMAS_WAIT	11.2				hipGraphNodeTyp
CU_GRAPH_NODE_TYPE_GRAPH	10.0				hipGraphNodeTyp
CU_GRAPH_NODE_TYPE_HOST	10.0				hipGraphNodeTyp
CU_GRAPH_NODE_TYPE_KERNEL	10.0				hipGraphNodeTyp
CU_GRAPH_NODE_TYPE_MEMCPY	10.0				hipGraphNodeTyp
CU_GRAPH_NODE_TYPE_MEMSET	10.0				hipGraphNodeTyp
CU_GRAPH_NODE_TYPE_MEM_ALLOC	11.4				hipGraphNodeTyp
CU_GRAPH_NODE_TYPE_MEM_FREE	11.4				hipGraphNodeTyp
CU_GRAPH_NODE_TYPE_WAIT_EVENT	11.1				hipGraphNodeTyp
CU_GRAPH_USER_OBJECT_MOVE	11.3				hipGraphUserObj
CU_GREEN_CTX_DEFAULT_STREAM	12.4				
CU_IPC_HANDLE_SIZE					HIP_IPC_HANDLE
CU_IPC_MEM_LAZY_ENABLE_PEER_ACCESS					hipIpcMemLazyEn
CU_JIT_CACHE_MODE					hipJitOptionCa
CU_JIT_CACHE_OPTION_CA					
CU_JIT_CACHE_OPTION_CG					
CU_JIT_CACHE_OPTION_NONE					
CU_JIT_ERROR_LOG_BUFFER					hipJitOptionErr
CU_JIT_ERROR_LOG_BUFFER_SIZE_BYTES					hipJitOptionErr
CU_JIT_FALLBACK_STRATEGY					hipJitOptionFa
CU_JIT_FAST_COMPILE	8.0				hipJitOptionFa
CU_JIT_FMA	11.4	12.0			hipJitOptionFma
CU_JIT_FTZ	11.4	12.0			hipJitOptionFtz
CU_JIT_GENERATE_DEBUG_INFO					hipJitOptionGen
CU_JIT_GENERATE_LINE_INFO					hipJitOptionGen
CU_JIT_GLOBAL_SYMBOL_ADDRESSES	10.0				hipJitOptionGlo
CU_JIT_GLOBAL_SYMBOL_COUNT	10.0				hipJitOptionGlo
CU_JIT_GLOBAL_SYMBOL_NAMES	10.0				hipJitOptionGlo
CU_JIT_INFO_LOG_BUFFER					hipJitOptionIn
CU_JIT_INFO_LOG_BUFFER_SIZE_BYTES					hipJitOptionIn
CU_JIT_INPUT_CUBIN					hipJitInputCubi
CU_JIT_INPUT_FATBINARY					hipJitInputFatl
CU_JIT_INPUT_LIBRARY					hipJitInputLibr
CU_JIT_INPUT_NVVM	11.4	12.0			hipJitInputNvvr
CU_JIT_INPUT_OBJECT					hipJitInputObj
CU_JIT_INPUT_PTX					hipJitInputPtx
CU_JIT_LOG_VERBOSE					hipJitOptionLog
CU_JIT_LTO	11.4	12.0			hipJitOptionLto
CU_JIT_MAX_REGISTERS					hipJitOptionMax
CU_JIT_MAX_THREADS_PER_BLOCK	12.4				hipJitOptionMax
CU_JIT_MIN_CTA_PER_SM	12.3				hipJitOptionMin
CU_JIT_NEW_SM3X_OPT	8.0				hipJitOptionSm
CU_JIT_NUM_INPUT_TYPES					hipJitNumLegacy
CU_JIT_NUM_OPTIONS					hipJitOptionNum
CU_JIT_OPTIMIZATION_LEVEL					hipJitOptionOpt
CU_JIT_OPTIMIZE_UNUSED_DEVICE_VARIABLES	11.7	12.0			
CU_JIT_OVERRIDE_DIRECTIVE_VALUES	12.4				hipJitOptionOvr
CU_JIT_POSITION_INDEPENDENT_CODE	12.0				hipJitOptionPos

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CUDA	A	D	C	R	HIP
CU_JIT_PREC_DIV	11.4	12.0			hipJitOptionPre
CU_JIT_PREC_SQRT	11.4	12.0			hipJitOptionPre
CU_JIT_REFERENCED_KERNEL_COUNT	11.7	12.0			
CU_JIT_REFERENCED_KERNEL_NAMES	11.7	12.0			
CU_JIT_REFERENCED_VARIABLE_COUNT	11.7	12.0			
CU_JIT_REFERENCED_VARIABLE_NAMES	11.7	12.0			
CU_JIT_SPLIT_COMPILE	13.0				
CU_JIT_TARGET					hipJitOptionTar
CU_JIT_TARGET_FROM_CUCONTEXT					hipJitOptionTar
CU_JIT_THREADS_PER_BLOCK					hipJitOptionThr
CU_JIT_WALL_TIME					hipJitOptionWa
CU_KERNEL_NODE_ATTRIBUTE_ACCESS_POLICY_WINDOW	11.0				hipKernelNodeA
CU_KERNEL_NODE_ATTRIBUTE_CLUSTER_DIMENSION	11.8				
CU_KERNEL_NODE_ATTRIBUTE_CLUSTER_SCHEDULING_POLICY_PREFERENCE	11.8				
CU_KERNEL_NODE_ATTRIBUTE_COOPERATIVE	11.0				hipKernelNodeA
CU_KERNEL_NODE_ATTRIBUTE_DEVICE_UPDATABLE_KERNEL_NODE	12.4				
CU_KERNEL_NODE_ATTRIBUTE_MEM_SYNC_DOMAIN	12.0				
CU_KERNEL_NODE_ATTRIBUTE_MEM_SYNC_DOMAIN_MAP	12.0				
CU_KERNEL_NODE_ATTRIBUTE_PREFERRED_CLUSTER_DIMENSION	12.8				
CU_KERNEL_NODE_ATTRIBUTE_PREFERRED_SHARED_MEMORY_CARVEOUT	12.5				
CU_KERNEL_NODE_ATTRIBUTE_PRIORITY	11.7				hipKernelNodeA
CU_LAUNCH_ATTRIBUTE_ACCESS_POLICY_WINDOW	11.8				hipLaunchAttri
CU_LAUNCH_ATTRIBUTE_CLUSTER_DIMENSION	11.8				
CU_LAUNCH_ATTRIBUTE_CLUSTER_SCHEDULING_POLICY_PREFERENCE	11.8				
CU_LAUNCH_ATTRIBUTE_COOPERATIVE	11.8				hipLaunchAttri
CU_LAUNCH_ATTRIBUTE_DEVICE_UPDATABLE_KERNEL_NODE	12.4				
CU_LAUNCH_ATTRIBUTE_IGNORE	11.8				
CU_LAUNCH_ATTRIBUTE_LAUNCH_COMPLETION_EVENT	12.3				
CU_LAUNCH_ATTRIBUTE_MAX	12.1				hipLaunchAttri
CU_LAUNCH_ATTRIBUTE_MEM_SYNC_DOMAIN	12.0				hipLaunchAttri
CU_LAUNCH_ATTRIBUTE_MEM_SYNC_DOMAIN_MAP	12.0				hipLaunchAttri
CU_LAUNCH_ATTRIBUTE_NVLINK_UTIL_CENTRIC_SCHEDULING	13.0				
CU_LAUNCH_ATTRIBUTE_PREFERRED_CLUSTER_DIMENSION	12.8				
CU_LAUNCH_ATTRIBUTE_PREFERRED_SHARED_MEMORY_CARVEOUT	12.5				
CU_LAUNCH_ATTRIBUTE_PRIORITY	11.8				hipLaunchAttri
CU_LAUNCH_ATTRIBUTE_PROGRAMMATIC_EVENT	11.8				
CU_LAUNCH_ATTRIBUTE_PROGRAMMATIC_STREAM_SERIALIZATION	11.8				
CU_LAUNCH_ATTRIBUTE_SYNCHRONIZATION_POLICY	11.8				hipLaunchAttri
CU_LAUNCH_KERNEL_REQUIRED_BLOCK_DIM	12.9				
CU_LAUNCH_MEM_SYNC_DOMAIN_DEFAULT	12.0				hipLaunchMemSyn
CU_LAUNCH_MEM_SYNC_DOMAIN_REMOTE	12.0				hipLaunchMemSyn
CU_LAUNCH_PARAM_BUFFER_POINTER					HIP_LAUNCH_PARA
CU_LAUNCH_PARAM_BUFFER_POINTER_AS_INT	11.7				
CU_LAUNCH_PARAM_BUFFER_SIZE					HIP_LAUNCH_PARA
CU_LAUNCH_PARAM_BUFFER_SIZE_AS_INT	11.7				
CU_LAUNCH_PARAM_END					HIP_LAUNCH_PARA
CU_LAUNCH_PARAM_END_AS_INT	11.7				
CU_LIBRARY_BINARY_IS_PRESERVED	12.0				hipLibraryBinar
CU_LIBRARY_HOST_UNIVERSAL_FUNCTION_AND_DATA_TABLE	12.0				hipLibraryHost
CU_LIBRARY_NUM_OPTIONS	12.0				

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CUDA	A	D	C	R	HIP
CU_LIMIT_CIG_ENABLED	12.5				
CU_LIMIT_CIG_SHMEM_FALLBACK_ENABLED	12.5				
CU_LIMIT_DEV_RUNTIME_PENDING_LAUNCH_COUNT					
CU_LIMIT_DEV_RUNTIME_SYNC_DEPTH					
CU_LIMIT_MALLOC_HEAP_SIZE					hipLimitMalloc
CU_LIMIT_MAX					
CU_LIMIT_MAX_L2_FETCH_GRANULARITY	10.0				
CU_LIMIT_PERSISTING_L2_CACHE_SIZE	11.0				
CU_LIMIT_PRINTF_FIFO_SIZE					hipLimitPrintf
CU_LIMIT_SHMEM_SIZE	12.5				
CU_LIMIT_STACK_SIZE					hipLimitStackS
CU_LOG_LEVEL_ERROR	12.9				
CU_LOG_LEVEL_WARNING	12.9				
CU_MEMCPY_FLAG_DEFAULT	12.8				hipMemcpyFlagD
CU_MEMCPY_FLAG_PREFER_OVERLAP_WITH_COMPUTE	12.8				hipMemcpyFlagP
CU_MEMCPY_OPERAND_TYPE_ARRAY	12.8				hipMemcpyOperan
CU_MEMCPY_OPERAND_TYPE_MAX	12.8				hipMemcpyOperan
CU_MEMCPY_OPERAND_TYPE_POINTER	12.8				hipMemcpyOperan
CU_MEMCPY_SRC_ACCESS_ORDER_ANY	12.8				hipMemcpySrcAcc
CU_MEMCPY_SRC_ACCESS_ORDER_DURING_API_CALL	12.8				hipMemcpySrcAcc
CU_MEMCPY_SRC_ACCESS_ORDER_INVALID	12.8				hipMemcpySrcAcc
CU_MEMCPY_SRC_ACCESS_ORDER_MAX	12.8				hipMemcpySrcAcc
CU_MEMCPY_SRC_ACCESS_ORDER_STREAM	12.8				hipMemcpySrcAcc
CU_MEMHOSTALLOC_DEVICEMAP					hipHostMallocM
CU_MEMHOSTALLOC_PORTABLE					hipHostMallocP
CU_MEMHOSTALLOC_WRITECOMBINED					hipHostMallocW
CU_MEMHOSTREGISTER_DEVICEMAP					hipHostRegister
CU_MEMHOSTREGISTER_IOMEMORY	7.5				hipHostRegister
CU_MEMHOSTREGISTER_PORTABLE					hipHostRegister
CU_MEMHOSTREGISTER_READ_ONLY	11.1				hipHostRegister
CU_MEMORYTYPE_ARRAY					hipMemoryTypeA
CU_MEMORYTYPE_DEVICE					hipMemoryTypeD
CU_MEMORYTYPE_HOST					hipMemoryTypeH
CU_MEMORYTYPE_UNIFIED					hipMemoryTypeU
CU_MEMPOOL_ATTR_RELEASE_THRESHOLD	11.2				hipMemPoolAttr
CU_MEMPOOL_ATTR_RESERVED_MEM_CURRENT	11.3				hipMemPoolAttr
CU_MEMPOOL_ATTR_RESERVED_MEM_HIGH	11.3				hipMemPoolAttr
CU_MEMPOOL_ATTR_REUSE_ALLOW_INTERNAL_DEPENDENCIES	11.2				hipMemPoolReus
CU_MEMPOOL_ATTR_REUSE_ALLOW_OPPORTUNISTIC	11.2				hipMemPoolReus
CU_MEMPOOL_ATTR_REUSE_FOLLOW_EVENT_DEPENDENCIES	11.2				hipMemPoolReus
CU_MEMPOOL_ATTR_USED_MEM_CURRENT	11.3				hipMemPoolAttr
CU_MEMPOOL_ATTR_USED_MEM_HIGH	11.3				hipMemPoolAttr
CU_MEM_ACCESS_FLAGS_PROT_MAX	10.2				
CU_MEM_ACCESS_FLAGS_PROT_NONE	10.2				hipMemAccessFla
CU_MEM_ACCESS_FLAGS_PROT_READ	10.2				hipMemAccessFla
CU_MEM_ACCESS_FLAGS_PROT_READWRITE	10.2				hipMemAccessFla
CU_MEM_ADVISE_SET_ACCESSED_BY	8.0				hipMemAdviseSe
CU_MEM_ADVISE_SET_PREFERRED_LOCATION	8.0				hipMemAdviseSe
CU_MEM_ADVISE_SET_READ_MOSTLY	8.0				hipMemAdviseSe
CU_MEM_ADVISE_UNSET_ACCESSED_BY	8.0				hipMemAdviseUns

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CUDA	A	D	C	R	HIP
CU_MEM_ADVICE_UNSET_PREFERRED_LOCATION	8.0				hipMemAdviseUn
CU_MEM_ADVICE_UNSET_READ_MOSTLY	8.0				hipMemAdviseUn
CU_MEM_ALLOCATION_TYPE_INVALID	10.2				hipMemAllocati
CU_MEM_ALLOCATION_TYPE_MANAGED	13.0				
CU_MEM_ALLOCATION_TYPE_MAX	10.2				hipMemAllocati
CU_MEM_ALLOCATION_TYPE_PINNED	10.2				hipMemAllocati
CU_MEM_ALLOC_GRANULARITY_MINIMUM	10.2				hipMemAllocati
CU_MEM_ALLOC_GRANULARITY_RECOMMENDED	10.2				hipMemAllocati
CU_MEM_ATTACH_GLOBAL					hipMemAttachGlo
CU_MEM_ATTACH_HOST					hipMemAttachHo
CU_MEM_ATTACH_SINGLE					hipMemAttachSin
CU_MEM_CREATE_USAGE_HW_DECOMPRESS	12.8				
CU_MEM_CREATE_USAGE_TILE_POOL	11.1				
CU_MEM_DECOMPRESS_ALGORITHM_DEFLATE	12.8				
CU_MEM_DECOMPRESS_ALGORITHM_LZ4	12.9				
CU_MEM_DECOMPRESS_ALGORITHM_SNAPPY	12.8				
CU_MEM_DECOMPRESS_UNSUPPORTED	12.8				
CU_MEM_HANDLE_TYPE_FABRIC	12.3				
CU_MEM_HANDLE_TYPE_GENERIC	11.1				hipMemHandleTyp
CU_MEM_HANDLE_TYPE_MAX	10.2				
CU_MEM_HANDLE_TYPE_NONE	11.2				hipMemHandleTyp
CU_MEM_HANDLE_TYPE_POSIX_FILE_DESCRIPTOR	10.2				hipMemHandleTyp
CU_MEM_HANDLE_TYPE_WIN32	10.2				hipMemHandleTyp
CU_MEM_HANDLE_TYPE_WIN32_KMT	10.2				hipMemHandleTyp
CU_MEM_LOCATION_TYPE_DEVICE	10.2				hipMemLocation
CU_MEM_LOCATION_TYPE_HOST	12.2				hipMemLocation
CU_MEM_LOCATION_TYPE_HOST_NUMA	12.2				hipMemLocation
CU_MEM_LOCATION_TYPE_HOST_NUMA_CURRENT	12.2				hipMemLocation
CU_MEM_LOCATION_TYPE_INVALID	10.2				hipMemLocation
CU_MEM_LOCATION_TYPE_MAX	10.2				
CU_MEM_LOCATION_TYPE_NONE	13.0				hipMemLocation
CU_MEM_OPERATION_TYPE_MAP	11.1				hipMemOperatio
CU_MEM_OPERATION_TYPE_UNMAP	11.1				hipMemOperatio
CU_MEM_POOL_CREATE_USAGE_HW_DECOMPRESS	12.8				
CU_MEM_RANGE_ATTRIBUTE_ACCESSED_BY	8.0				hipMemRangeAtt
CU_MEM_RANGE_ATTRIBUTE_LAST_PREFETCH_LOCATION	8.0				hipMemRangeAtt
CU_MEM_RANGE_ATTRIBUTE_LAST_PREFETCH_LOCATION_ID	12.2				
CU_MEM_RANGE_ATTRIBUTE_LAST_PREFETCH_LOCATION_TYPE	12.2				
CU_MEM_RANGE_ATTRIBUTE_PREFERRED_LOCATION	8.0				hipMemRangeAtt
CU_MEM_RANGE_ATTRIBUTE_PREFERRED_LOCATION_ID	12.2				
CU_MEM_RANGE_ATTRIBUTE_PREFERRED_LOCATION_TYPE	12.2				
CU_MEM_RANGE_ATTRIBUTE_READ_MOSTLY	8.0				hipMemRangeAtt
CU_MEM_RANGE_FLAG_DMA_BUF_MAPPING_TYPE_PCIE	12.8				hipMemRangeFla
CU_MEM_RANGE_HANDLE_TYPE_DMA_BUF_FD	11.7				hipMemRangeHan
CU_MEM_RANGE_HANDLE_TYPE_MAX	11.7				hipMemRangeHan
CU_MODULE_EAGER_LOADING	11.7				
CU_MODULE_LAZY_LOADING	11.7				
CU_MULTICAST_GRANULARITY_MINIMUM	12.1				
CU_MULTICAST_GRANULARITY_RECOMMENDED	12.1				
CU_OCCUPANCY_DEFAULT					hipOccupancyDe

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CUDA	A	D	C	R	HIP
CU_OCCUPANCY_DISABLE_CACHING_OVERRIDE					hipOccupancyDis
CU_PARAM_TR_DEFAULT					
CU_POINTER_ATTRIBUTE_ACCESS_FLAGS	11.1				HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_ACCESS_FLAG_NONE	11.1				
CU_POINTER_ATTRIBUTE_ACCESS_FLAG_READ	11.1				
CU_POINTER_ATTRIBUTE_ACCESS_FLAG_READWRITE	11.1				
CU_POINTER_ATTRIBUTE_ALLOWED_HANDLE_TYPES	10.2				HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_BUFFER_ID					HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_CONTEXT					HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_DEVICE_ORDINAL	9.2				HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_DEVICE_POINTER					HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_HOST_POINTER					HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_IS_GPU_DIRECT_RDMA_CAPABLE	11.0				HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_IS_HW_DECOMPRESS_CAPABLE	12.8				
CU_POINTER_ATTRIBUTE_IS_LEGACY_CUDA_IPC_CAPABLE	10.2				HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_IS_MANAGED					HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_MAPPED	10.2				HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_MAPPING_BASE_ADDR	11.7				
CU_POINTER_ATTRIBUTE_MAPPING_SIZE	11.7				
CU_POINTER_ATTRIBUTE_MEMORY_BLOCK_ID	11.7				
CU_POINTER_ATTRIBUTE_MEMORY_TYPE					HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_MEMPOOL_HANDLE	11.3				HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_P2P_TOKENS					HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_RANGE_SIZE	10.2				HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_RANGE_START_ADDR	10.2				HIP_POINTER_AT
CU_POINTER_ATTRIBUTE_SYNC_MEMOPS					HIP_POINTER_AT
CU_PREFER_BINARY					
CU_PREFER_PTX					
CU_PROCESS_STATE_CHECKPOINTED	12.8				
CU_PROCESS_STATE_FAILED	12.8				
CU_PROCESS_STATE_LOCKED	12.8				
CU_PROCESS_STATE_RUNNING	12.8				
CU_RESOURCE_TYPE_ARRAY					HIP_RESOURCE_T
CU_RESOURCE_TYPE_LINEAR					HIP_RESOURCE_T
CU_RESOURCE_TYPE_MIPMAPPED_ARRAY					HIP_RESOURCE_T
CU_RESOURCE_TYPE_PITCH2D					HIP_RESOURCE_T
CU_RES_VIEW_FORMAT_FLOAT_1X16					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_FLOAT_1X32					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_FLOAT_2X16					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_FLOAT_2X32					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_FLOAT_4X16					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_FLOAT_4X32					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_NONE					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_SIGNED_BC4					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_SIGNED_BC5					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_SIGNED_BC6H					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_SINT_1X16					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_SINT_1X32					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_SINT_1X8					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_SINT_2X16					HIP_RES_VIEW_F

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CUDA	A	D	C	R	HIP
CU_RES_VIEW_FORMAT_SINT_2X32					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_SINT_2X8					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_SINT_4X16					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_SINT_4X32					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_SINT_4X8					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UINT_1X16					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UINT_1X32					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UINT_1X8					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UINT_2X16					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UINT_2X32					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UINT_2X8					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UINT_4X16					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UINT_4X32					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UINT_4X8					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UNSIGNED_BC1					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UNSIGNED_BC2					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UNSIGNED_BC3					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UNSIGNED_BC4					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UNSIGNED_BC5					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UNSIGNED_BC6H					HIP_RES_VIEW_F
CU_RES_VIEW_FORMAT_UNSIGNED_BC7					HIP_RES_VIEW_F
CU_SHARED_MEM_CARVEOUT_DEFAULT		9.0			
CU_SHARED_MEM_CARVEOUT_MAX_L1		9.0			
CU_SHARED_MEM_CARVEOUT_MAX_SHARED		9.0			
CU_SHARED_MEM_CONFIG_DEFAULT_BANK_SIZE					hipSharedMemBar
CU_SHARED_MEM_CONFIG_EIGHT_BYTE_BANK_SIZE					hipSharedMemBar
CU_SHARED_MEM_CONFIG_FOUR_BYTE_BANK_SIZE					hipSharedMemBar
CU_STREAM_ADD_CAPTURE_DEPENDENCIES		11.3			hipStreamAddCap
CU_STREAM_ATTRIBUTE_ACCESS_POLICY_WINDOW		11.0			hipLaunchAttri
CU_STREAM_ATTRIBUTE_MEM_SYNC_DOMAIN		12.0			hipLaunchAttri
CU_STREAM_ATTRIBUTE_MEM_SYNC_DOMAIN_MAP		12.0			hipLaunchAttri
CU_STREAM_ATTRIBUTE_PRIORITY		12.0			hipLaunchAttri
CU_STREAM_ATTRIBUTE_SYNCHRONIZATION_POLICY		11.0			hipLaunchAttri
CU_STREAM_CAPTURE_MODE_GLOBAL		10.1			hipStreamCaptu
CU_STREAM_CAPTURE_MODE_RELAXED		10.1			hipStreamCaptu
CU_STREAM_CAPTURE_MODE_THREAD_LOCAL		10.1			hipStreamCaptu
CU_STREAM_CAPTURE_STATUS_ACTIVE		10.0			hipStreamCaptu
CU_STREAM_CAPTURE_STATUS_INVALIDATED		10.0			hipStreamCaptu
CU_STREAM_CAPTURE_STATUS_NONE		10.0			hipStreamCaptu
CU_STREAM_DEFAULT					hipStreamDefau
CU_STREAM_LEGACY					hipStreamLegacy
CU_STREAM_MEMORY_BARRIER_TYPE_GPU		11.7			
CU_STREAM_MEMORY_BARRIER_TYPE_SYS		11.7			
CU_STREAM_MEM_OP_BARRIER		11.7			hipStreamMemOpl
CU_STREAM_MEM_OP_FLUSH_REMOTE_WRITES		8.0			hipStreamMemOpl
CU_STREAM_MEM_OP_WAIT_VALUE_32		8.0			hipStreamMemOpl
CU_STREAM_MEM_OP_WAIT_VALUE_64		9.0			hipStreamMemOpl
CU_STREAM_MEM_OP_WRITE_VALUE_32		8.0			hipStreamMemOpl
CU_STREAM_MEM_OP_WRITE_VALUE_64		9.0			hipStreamMemOpl
CU_STREAM_NON_BLOCKING					hipStreamNonBl

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CUDA	A	D	C	R	HIP
CU_STREAM_PER_THREAD					hipStreamPerThread
CU_STREAM_SET_CAPTURE_DEPENDENCIES	11.3				hipStreamSetCaptureDependencies
CU_STREAM_WAIT_VALUE_AND	8.0				hipStreamWaitValueAnd
CU_STREAM_WAIT_VALUE_EQ	8.0				hipStreamWaitValueEq
CU_STREAM_WAIT_VALUE_FLUSH	8.0				
CU_STREAM_WAIT_VALUE_GEQ	8.0				hipStreamWaitValueGeq
CU_STREAM_WAIT_VALUE_NOR	9.0				hipStreamWaitValueNor
CU_STREAM_WRITE_VALUE_DEFAULT	8.0				
CU_STREAM_WRITE_VALUE_NO_MEMORY_BARRIER	8.0				
CU_SYNC_POLICY_AUTO	11.0				hipSyncPolicyAuto
CU_SYNC_POLICY_BLOCKING_SYNC	11.0				hipSyncPolicyBlockingSync
CU_SYNC_POLICY_SPIN	11.0				hipSyncPolicySpin
CU_SYNC_POLICY_YIELD	11.0				hipSyncPolicyYield
CU_TARGET_COMPUTE_10				9.0	
CU_TARGET_COMPUTE_100	12.8				
CU_TARGET_COMPUTE_100A	12.8				
CU_TARGET_COMPUTE_100F	12.9				
CU_TARGET_COMPUTE_101	12.8			13.0	
CU_TARGET_COMPUTE_101A	12.8			13.0	
CU_TARGET_COMPUTE_101F	12.9			13.0	
CU_TARGET_COMPUTE_103	12.9				
CU_TARGET_COMPUTE_103A	12.9				
CU_TARGET_COMPUTE_103F	12.9				
CU_TARGET_COMPUTE_11				9.0	
CU_TARGET_COMPUTE_110	13.0				
CU_TARGET_COMPUTE_110A	13.0				
CU_TARGET_COMPUTE_110F	13.0				
CU_TARGET_COMPUTE_12				9.0	
CU_TARGET_COMPUTE_120	12.8				
CU_TARGET_COMPUTE_120A	12.8				
CU_TARGET_COMPUTE_120F	12.9				
CU_TARGET_COMPUTE_121	12.9				
CU_TARGET_COMPUTE_121A	12.9				
CU_TARGET_COMPUTE_121F	12.9				
CU_TARGET_COMPUTE_13				9.0	
CU_TARGET_COMPUTE_20				12.0	
CU_TARGET_COMPUTE_21				12.0	
CU_TARGET_COMPUTE_30					
CU_TARGET_COMPUTE_32					
CU_TARGET_COMPUTE_35					
CU_TARGET_COMPUTE_37					
CU_TARGET_COMPUTE_50					
CU_TARGET_COMPUTE_52					
CU_TARGET_COMPUTE_53	8.0				
CU_TARGET_COMPUTE_60	8.0				
CU_TARGET_COMPUTE_61	8.0				
CU_TARGET_COMPUTE_62	8.0				
CU_TARGET_COMPUTE_70	9.0				
CU_TARGET_COMPUTE_72	10.1				
CU_TARGET_COMPUTE_73	9.1			10.0	

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CUDA	A	D	C	R	HIP
CU_TARGET_COMPUTE_75	9.1				
CU_TARGET_COMPUTE_80	11.0				
CU_TARGET_COMPUTE_86	11.1				
CU_TARGET_COMPUTE_87	11.7				
CU_TARGET_COMPUTE_89	11.8				
CU_TARGET_COMPUTE_90	11.8				
CU_TARGET_COMPUTE_90A	12.0				
CU_TENSOR_MAP_DATA_TYPE_16U4_ALIGN16B	12.8				
CU_TENSOR_MAP_DATA_TYPE_16U4_ALIGN8B	12.8				
CU_TENSOR_MAP_DATA_TYPE_16U6_ALIGN16B	12.8				
CU_TENSOR_MAP_DATA_TYPE_BFLOAT16	12.0				
CU_TENSOR_MAP_DATA_TYPE_FLOAT16	12.0				
CU_TENSOR_MAP_DATA_TYPE_FLOAT32	12.0				
CU_TENSOR_MAP_DATA_TYPE_FLOAT32_FTZ	12.0				
CU_TENSOR_MAP_DATA_TYPE_FLOAT64	12.0				
CU_TENSOR_MAP_DATA_TYPE_INT32	12.0				
CU_TENSOR_MAP_DATA_TYPE_INT64	12.0				
CU_TENSOR_MAP_DATA_TYPE_TFLOAT32	12.0				
CU_TENSOR_MAP_DATA_TYPE_TFLOAT32_FTZ	12.0				
CU_TENSOR_MAP_DATA_TYPE_UINT16	12.0				
CU_TENSOR_MAP_DATA_TYPE_UINT32	12.0				
CU_TENSOR_MAP_DATA_TYPE_UINT64	12.0				
CU_TENSOR_MAP_DATA_TYPE_UINT8	12.0				
CU_TENSOR_MAP_FLOAT_OOB_FILL_NAN_REQUEST_ZERO_FMA	12.0				
CU_TENSOR_MAP_FLOAT_OOB_FILL_NONE	12.0				
CU_TENSOR_MAP_IM2COL_WIDE_MODE_W	12.8				
CU_TENSOR_MAP_IM2COL_WIDE_MODE_W128	12.8				
CU_TENSOR_MAP_INTERLEAVE_16B	12.0				
CU_TENSOR_MAP_INTERLEAVE_32B	12.0				
CU_TENSOR_MAP_INTERLEAVE_NONE	12.0				
CU_TENSOR_MAP_L2_PROMOTION_L2_128B	12.0				
CU_TENSOR_MAP_L2_PROMOTION_L2_256B	12.0				
CU_TENSOR_MAP_L2_PROMOTION_L2_64B	12.0				
CU_TENSOR_MAP_L2_PROMOTION_NONE	12.0				
CU_TENSOR_MAP_NUM_QWORDS	12.0				
CU_TENSOR_MAP_SWIZZLE_128B	12.0				
CU_TENSOR_MAP_SWIZZLE_128B_ATOM_32B	12.8				
CU_TENSOR_MAP_SWIZZLE_128B_ATOM_32B_FLIP_8B	12.8				
CU_TENSOR_MAP_SWIZZLE_128B_ATOM_64B	12.8				
CU_TENSOR_MAP_SWIZZLE_32B	12.0				
CU_TENSOR_MAP_SWIZZLE_64B	12.0				
CU_TENSOR_MAP_SWIZZLE_NONE	12.0				
CU_TRSA_OVERRIDE_FORMAT					HIP_TRSA_OVERRIDE_FORMAT
CU_TRSF_DISABLE_TRILINEAR_OPTIMIZATION	11.0				
CU_TRSF_NORMALIZED_COORDINATES					HIP_TRSF_NORMALIZED_COORDINATES
CU_TRSF_READ_AS_INTEGER					HIP_TRSF_READ_AS_INTEGER
CU_TRSF_SEAMLESS_CUBEMAP	11.6				
CU_TRSF_SRGB					HIP_TRSF_SRGB
CU_TR_ADDRESS_MODE_BORDER					HIP_TR_ADDRESS_MODE_BORDER
CU_TR_ADDRESS_MODE_CLAMP					HIP_TR_ADDRESS_MODE_CLAMP

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CUDA	A	D	C	R	HIP
CU_TR_ADDRESS_MODE_MIRROR					HIP_TR_ADDRESS...
CU_TR_ADDRESS_MODE_WRAP					HIP_TR_ADDRESS...
CU_TR_FILTER_MODE_LINEAR					HIP_TR_FILTER_I...
CU_TR_FILTER_MODE_POINT					HIP_TR_FILTER_I...
CU_USER_OBJECT_NO_DESTRUCTOR_SYNC	11.3				hipUserObjectNo...
CUaccessPolicyWindow	11.0				hipAccessPolicy...
CUaccessPolicyWindow_st	11.0				hipAccessPolicy...
CUaccessProperty	11.0				hipAccessProper...
CUaccessProperty_enum	11.0				hipAccessProper...
CUaddress_mode					HIPaddress_mod...
CUaddress_mode_enum					HIPaddress_mod...
CUarray					hipArray_t
CUarrayMapInfo	11.1				hipArrayMapInf...
CUarrayMapInfo_st	11.1				hipArrayMapInf...
CUarrayMapInfo_v1	11.3				hipArrayMapInf...
CUarraySparseSubresourceType	11.1				hipArraySparse...
CUarraySparseSubresourceType_enum	11.1				hipArraySparse...
CUarray_cubemap_face					
CUarray_cubemap_face_enum					
CUarray_format					hipArray_Forma...
CUarray_format_enum					hipArray_Forma...
CUarray_st					hipArray
CUasyncCallback	12.4				
CUasyncCallbackEntry_st	12.4				
CUasyncCallbackHandle	12.4				
CUasyncNotificationInfo	12.4				
CUasyncNotificationInfo_st	12.4				
CUasyncNotificationType	12.4				
CUasyncNotificationType_enum	12.4				
CUatomicOperation	13.0				
CUatomicOperationCapability	13.0				
CUatomicOperationCapability_enum	13.0				
CUatomicOperation_enum	13.0				
CUcheckpointCheckpointArgs	12.8				
CUcheckpointCheckpointArgs_st	12.8				
CUcheckpointGpuPair	13.0				
CUcheckpointGpuPair_st	13.0				
CUcheckpointLockArgs	12.8				
CUcheckpointLockArgs_st	12.8				
CUcheckpointRestoreArgs	12.8				
CUcheckpointRestoreArgs_st	12.8				
CUcheckpointUnlockArgs	12.8				
CUcheckpointUnlockArgs_st	12.8				
CUcigDataType	12.5				
CUcigDataType_enum	12.5				
CUclusterSchedulingPolicy	11.8				
CUclusterSchedulingPolicy_enum	11.8				
CUcomputemode					hipComputeMode...
CUcomputemode_enum					hipComputeMode...
CUcontext					hipCtx_t

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CUDA	A	D	C	R	HIP
CUcoredumpSettings	12.1				
CUcoredumpSettings_enum	12.1				
CUctxCigParam	12.5				
CUctxCigParam_st	12.5				
CUctxCreateParams	12.5				
CUctxCreateParams_st	12.5				
CUctx_flags					
CUctx_flags_enum					
CUctx_st					hipCtx_t
CUd3d10DeviceList					
CUd3d10DeviceList_enum					
CUd3d10map_flags					
CUd3d10map_flags_enum					
CUd3d10register_flags					
CUd3d10register_flags_enum					
CUd3d11DeviceList					
CUd3d11DeviceList_enum					
CUd3d9DeviceList					
CUd3d9DeviceList_enum					
CUd3d9map_flags					
CUd3d9map_flags_enum					
CUd3d9register_flags					
CUd3d9register_flags_enum					
CUdevResource	12.4				
CUdevResourceDesc	12.4				
CUdevResourceDesc_st	12.4				
CUdevResourceType	12.4				
CUdevResource_st	12.4				
CUdevSmResource	12.4				
CUdevSmResourceSplit_flags	12.5				
CUdevSmResource_st	12.4				
CUdevice					hipDevice_t
CUdeviceNumaConfig	12.2				
CUdeviceNumaConfig_enum	12.2				
CUdevice_P2PAttribute	8.0				hipDeviceP2PAttr
CUdevice_P2PAttribute_enum	8.0				hipDeviceP2PAttr
CUdevice_attribute					hipDeviceAttr
CUdevice_attribute_enum					hipDeviceAttr
CUdevice_v1	11.3				hipDevice_t
CUdeviceptr					hipDeviceptr_t
CUdeviceptr_v1					hipDeviceptr_t
CUdeviceptr_v2	11.3				hipDeviceptr_t
CUdevprop					
CUdevprop_st					
CUdevprop_v1	11.3				
CUdriverProcAddressQueryResult	12.0				hipDriverProcAd
CUdriverProcAddressQueryResult_enum	12.0				hipDriverProcAd
CUdriverProcAddress_flags	11.3				
CUdriverProcAddress_flags_enum	11.3				
CUeglColorFormat	9.0				

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CUDA	A	D	C	R	HIP
CUeglColorFormat_e_enum	9.0				
CUeglFrameType	9.0				
CUeglFrameType_e_enum	9.0				
CUeglResourceLocationFlags	9.0				
CUeglResourceLocationFlags_e_enum	9.0				
CUeglStreamConnection	9.0				
CUeglStreamConnection_st	9.0				
CUevent					hipEvent_t
CUevent_flags					
CUevent_flags_e_enum					
CUevent_record_flags	11.1				
CUevent_record_flags_e_enum	11.1				
CUevent_sched_flags	11.8				
CUevent_sched_flags_e_enum	11.8				
CUevent_st					hipEvent_t
CUevent_wait_flags	11.1				
CUevent_wait_flags_e_enum					
CUexecAffinityParam	11.4				
CUexecAffinityParam_st	11.4				
CUexecAffinityParam_v1	11.4				
CUexecAffinitySmCount	11.4				
CUexecAffinitySmCount_st	11.4				
CUexecAffinitySmCount_v1	11.4				
CUexecAffinityType	11.4				
CUexecAffinityType_e_enum	11.4				
CUextMemory_st	10.0				
CUextSemaphore_st	10.0				
CUextent3D	12.8				
CUextent3D_st	12.8				
CUextent3D_v1	12.8				
CUexternalMemory	10.0				hipExternalMem
CUexternalMemoryHandleType	10.0				hipExternalMem
CUexternalMemoryHandleType_e_enum	10.0				hipExternalMem
CUexternalSemaphore	10.0				hipExternalSema
CUexternalSemaphoreHandleType	10.0				hipExternalSema
CUexternalSemaphoreHandleType_e_enum	10.0				hipExternalSema
CUfilter_mode					HIPfilter_mode
CUfilter_mode_e_enum					HIPfilter_mode
CUflushGPUDirectRDMAWritesOptions	11.3				hipFlushGPUDir
CUflushGPUDirectRDMAWritesOptions_e_enum	11.3				hipFlushGPUDir
CUflushGPUDirectRDMAWritesScope	11.3				
CUflushGPUDirectRDMAWritesScope_e_enum	11.3				
CUflushGPUDirectRDMAWritesTarget	11.3				
CUflushGPUDirectRDMAWritesTarget_e_enum	11.3				
CUfunc_cache					hipFuncCache_t
CUfunc_cache_e_enum					hipFuncCache_t
CUfunc_st					hipModuleSymb
CUfunction					hipFunction_t
CUfunctionLoadingState	12.4				
CUfunctionLoadingState_e_enum	12.4				

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CUDA	A	D	C	R	HIP
CUfunction_attribute					hipFunction_at
CUfunction_attribute_enum					hipFunction_at
CUgraph	10.0				hipGraph_t
CUgraphChildGraphNodeOwnership	12.9				
CUgraphChildGraphNodeOwnership_enum	12.9				
CUgraphConditionalHandle	12.3				
CUgraphConditionalNodeType	12.3				
CUgraphConditionalNodeType_enum	12.3				
CUgraphDebugDot_flags	11.3				hipGraphDebugD
CUgraphDebugDot_flags_enum	11.3				hipGraphDebugD
CUgraphDependencyType	12.3				hipGraphDepend
CUgraphDependencyType_enum	12.3				hipGraphDepend
CUgraphDeviceNode	12.4				
CUgraphDeviceUpdatableNode_st	12.4				
CUgraphEdgeData	12.3				hipGraphEdgeDa
CUgraphEdgeData_st	12.3				hipGraphEdgeDa
CUgraphExec	10.0				hipGraphExec_t
CUgraphExecUpdateResult	10.2				hipGraphExecUp
CUgraphExecUpdateResultInfo	12.0				
CUgraphExecUpdateResultInfo_st	12.0				
CUgraphExecUpdateResultInfo_v1	12.0				
CUgraphExecUpdateResult_enum	10.2				hipGraphExecUp
CUgraphExec_st	10.0				hipGraphExec
CUgraphInstantiateResult	12.0				hipGraphInstan
CUgraphInstantiateResult_enum	12.0				hipGraphInstan
CUgraphInstantiate_flags	11.4				hipGraphInstan
CUgraphInstantiate_flags_enum	11.4				hipGraphInstan
CUgraphMem_attribute	11.4				hipGraphMemAtt
CUgraphMem_attribute_enum	11.4				hipGraphMemAtt
CUgraphNode	10.0				hipGraphNode_t
CUgraphNodeParams	12.2				hipGraphNodePa
CUgraphNodeParams_st	12.2				hipGraphNodePa
CUgraphNodeType	10.0				hipGraphNodeTy
CUgraphNodeType_enum	10.0				hipGraphNodeTy
CUgraphNode_st	10.0				hipGraphNode
CUgraph_st	10.0				hipGraph
CUgraphicsMapResourceFlags					
CUgraphicsMapResourceFlags_enum					
CUgraphicsRegisterFlags					hipGraphicsReg
CUgraphicsRegisterFlags_enum					hipGraphicsReg
CUgraphicsResource					hipGraphicsRes
CUgraphicsResource_st					hipGraphicsRes
CUgreenCtx	12.4				
CUgreenCtxCreate_flags	12.4				
CUgreenCtx_st	12.4				
CUhostFn	10.0				hipHostFn_t
CUipcEventHandle					hipIpcEventHan
CUipcEventHandle_st					hipIpcEventHan
CUipcEventHandle_v1	11.3				hipIpcEventHan
CUipcMemHandle					hipIpcMemHandl

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CUDA	A	D	C	R	HIP
CUipcMemHandle_st					hipIpcMemHandle_st
CUipcMemHandle_v1	11.3				hipIpcMemHandle_v1
CUipcMem_flags					
CUipcMem_flags_enum					
CUjitInputType					hipJitInputType
CUjitInputType_enum					hipJitInputType_enum
CUjit_cacheMode					
CUjit_cacheMode_enum					
CUjit_fallback					
CUjit_fallback_enum					
CUjit_option					hipJitOption
CUjit_option_enum					hipJitOption_enum
CUjit_target					
CUjit_target_enum					
CUkern_st	12.0				hipKernel_t
CUkernel	12.0				hipKernel_t
CUkernelNodeAttrID	11.0				hipKernelNodeAttrID
CUkernelNodeAttrID_enum	11.0			11.8	hipKernelNodeAttrID_enum
CUkernelNodeAttrValue	11.0				hipKernelNodeAttrValue
CUkernelNodeAttrValue_union	11.0			11.8	hipKernelNodeAttrValue_union
CUkernelNodeAttrValue_v1	11.3				hipKernelNodeAttrValue_v1
CUlaunchAttribute	11.8				hipLaunchAttribute
CUlaunchAttributeID	11.8				hipLaunchAttributeID
CUlaunchAttributeID_enum	11.8				hipLaunchAttributeID_enum
CUlaunchAttributeValue	11.8				hipLaunchAttributeValue
CUlaunchAttributeValue_union	11.8				hipLaunchAttributeValue_union
CUlaunchAttribute_st	11.8				hipLaunchAttribute_st
CUlaunchConfig	11.8				HIP_LAUNCH_CONFIG
CUlaunchConfig_st	11.8				HIP_LAUNCH_CONFIG_st
CUlaunchMemSyncDomain	12.0				hipLaunchMemSyncDomain
CUlaunchMemSyncDomainMap	12.0				hipLaunchMemSyncDomainMap
CUlaunchMemSyncDomainMap_st	12.0				hipLaunchMemSyncDomainMap_st
CUlaunchMemSyncDomain_enum	12.0				hipLaunchMemSyncDomain_enum
CUlib_st	12.0				hipLibrary_t
CUlibrary	12.0				hipLibrary_t
CUlibraryHostUniversalFunctionAndDataTable	12.0				
CUlibraryHostUniversalFunctionAndDataTable_st	12.0				
CUlibraryOption	12.0				hipLibraryOption
CUlibraryOption_enum	12.0				hipLibraryOption_enum
CUlimit					hipLimit_t
CUlimit_enum					hipLimit_t
CUlinkState					hiprtcLinkState
CUlinkState_st					hiprtcLinkState_st
CUlogIterator	12.9				
CUlogLevel	12.9				
CUlogLevel_enum	12.9				
CUlogsCallback	12.9				
CUlogsCallbackEntry_st	12.9				
CUlogsCallbackHandle	12.9				
CUmemAccessDesc	10.2				hipMemAccessDesc

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CUDA	A	D	C	R	HIP
CUMemAccessDesc_st	10.2				hipMemAccessDesc_st
CUMemAccessDesc_v1	11.3				hipMemAccessDesc_v1
CUMemAccess_flags	10.2				hipMemAccessFlags
CUMemAccess_flags_enum	10.2				hipMemAccessFlags_enum
CUMemAllocationGranularity_flags	10.2				hipMemAllocationGranularity_flags
CUMemAllocationGranularity_flags_enum	10.2				hipMemAllocationGranularity_flags_enum
CUMemAllocationHandleType	10.2				hipMemAllocationHandleType
CUMemAllocationHandleType_enum	10.2				hipMemAllocationHandleType_enum
CUMemAllocationProp	10.2				hipMemAllocationProp
CUMemAllocationProp_st	10.2				hipMemAllocationProp_st
CUMemAllocationProp_v1	11.3				hipMemAllocationProp_v1
CUMemAllocationType	10.2				hipMemAllocationType
CUMemAllocationType_enum	10.2				hipMemAllocationType_enum
CUMemAttach_flags					
CUMemAttach_flags_enum					
CUMemDecompressAlgorithm	12.8				
CUMemDecompressAlgorithm_enum	12.8				
CUMemDecompressParams	12.8				
CUMemDecompressParams_st	12.8				
CUMemFabricHandle	12.3				
CUMemFabricHandle_st	12.3				
CUMemFabricHandle_v1	12.3				
CUMemGenericAllocationHandle	10.2				hipMemGenericAllocationHandle
CUMemGenericAllocationHandle_v1	11.3				hipMemGenericAllocationHandle_v1
CUMemHandleType	11.1				hipMemHandleType
CUMemHandleType_enum	11.1				hipMemHandleType_enum
CUMemLocation	10.2				hipMemLocation
CUMemLocationType	10.2				hipMemLocationType
CUMemLocationType_enum	10.2				hipMemLocationType_enum
CUMemLocation_st	10.2				hipMemLocation_st
CUMemLocation_v1	11.3				hipMemLocation_v1
CUMemOperationType	11.1				hipMemOperationType
CUMemOperationType_enum	11.1				hipMemOperationType_enum
CUMemPoolHandle_st	11.2				hipMemPoolHandle_st
CUMemPoolProps	11.2				hipMemPoolProps
CUMemPoolProps_st	11.2				hipMemPoolProps_st
CUMemPoolProps_v1	11.3				hipMemPoolProps_v1
CUMemPoolPtrExportData	11.2				hipMemPoolPtrExportData
CUMemPoolPtrExportData_st	11.2				hipMemPoolPtrExportData_st
CUMemPoolPtrExportData_v1	11.3				hipMemPoolPtrExportData_v1
CUMemPool_attribute	11.2				hipMemPoolAttribute
CUMemPool_attribute_enum	11.2				hipMemPoolAttribute_enum
CUMemRangeFlags	12.8				hipMemRangeFlags
CUMemRangeFlags_enum	12.8				hipMemRangeFlags_enum
CUMemRangeHandleType	11.7				hipMemRangeHandleType
CUMemRangeHandleType_enum	11.7				hipMemRangeHandleType_enum
CUMem_advise	8.0				hipMemoryAdvise
CUMem_advise_enum	8.0				hipMemoryAdvise_enum
CUMem_range_attribute	8.0				hipMemRangeAttribute
CUMem_range_attribute_enum	8.0				hipMemRangeAttribute_enum

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CUDA	A	D	C	R	HIP
CUmemcpy3DOperand	12.8				hipMemcpy3DOperand
CUmemcpy3DOperandType	12.8				hipMemcpy3DOperandType
CUmemcpy3DOperandType_enum	12.8				hipMemcpy3DOperandType_enum
CUmemcpy3DOperand_st	12.8				hipMemcpy3DOperand_st
CUmemcpy3DOperand_v1	12.8				hipMemcpy3DOperand_v1
CUmemcpyAttributes	12.8				hipMemcpyAttributes
CUmemcpyAttributes_st	12.8				hipMemcpyAttributes_st
CUmemcpyAttributes_v1	12.8				hipMemcpyAttributes_v1
CUmemcpyFlags	12.8				hipMemcpyFlags
CUmemcpyFlags_enum	12.8				hipMemcpyFlags_enum
CUmemcpySrcAccessOrder	12.8				hipMemcpySrcAccessOrder
CUmemcpySrcAccessOrder_enum	12.8				hipMemcpySrcAccessOrder_enum
CUmemoryPool	11.2				hipMemPool_t
CUmemorytype					hipMemoryType
CUmemorytype_enum					hipMemoryType_enum
CUmipmappedArray					hipMipmappedArray
CUmipmappedArray_st					hipMipmappedArray_st
CUmod_st					hipModule_t
CUmodule					hipModule_t
CUmoduleLoadingMode	11.7				
CUmoduleLoadingMode_enum	11.7				
CUmulticastGranularity_flags	12.1				
CUmulticastGranularity_flags_enum	12.1				
CUmulticastObjectProp	12.1				
CUmulticastObjectProp_st	12.1				
CUmulticastObjectProp_v1	12.1				
CUoccupancyB2DSize					void*
CUoccupancy_flags					
CUoccupancy_flags_enum					
CUoffset3D	12.8				hipOffset3D
CUoffset3D_st	12.8				hipOffset3D_st
CUoffset3D_v1	12.8				hipOffset3D_v1
CUpointer_attribute					hipPointer_attribute
CUpointer_attribute_enum					hipPointer_attribute_enum
CUprocessState	12.8				
CUprocessState_enum	12.8				
CUresourceViewFormat					HIPResourceViewFormat
CUresourceViewFormat_enum					HIPResourceViewFormat_enum
CUresourcetype					HIPResourcetype
CUresourcetype_enum					HIPResourcetype_enum
CUresult					hipError_t
CUshared_carveout	9.0				
CUshared_carveout_enum	9.0				
CUsharedconfig					hipSharedMemConfig
CUsharedconfig_enum					hipSharedMemConfig_enum
CUstream					hipStream_t
CUstreamAttrID	11.0				hipLaunchAttribute
CUstreamAttrID_enum	11.0			11.8	hipLaunchAttribute_enum
CUstreamAttrValue	11.0				hipLaunchAttribute_value
CUstreamAttrValue_union	11.0			11.8	hipLaunchAttribute_union

Table 5 – continued from previous page

CUDA	A	D	C	R	HIP
CUstreamAttrValue_v1	11.3				hipLaunchAttri
CUstreamBatchMemOpParams	8.0				hipStreamBatch
CUstreamBatchMemOpParams_union	8.0				hipStreamBatch
CUstreamBatchMemOpParams_v1	11.3				hipStreamBatch
CUstreamBatchMemOpType	8.0				hipStreamBatch
CUstreamBatchMemOpType_enum	8.0				hipStreamBatch
CUstreamCallback					hipStreamCallb
CUstreamCaptureMode	10.1				hipStreamCaptu
CUstreamCaptureMode_enum	10.1				hipStreamCaptu
CUstreamCaptureStatus	10.0				hipStreamCaptu
CUstreamCaptureStatus_enum	10.0				hipStreamCaptu
CUstreamMemOpMemoryBarrierParams_st	11.7				
CUstreamMemoryBarrier_flags	11.7				
CUstreamMemoryBarrier_flags_enum	11.7				
CUstreamUpdateCaptureDependencies_flags	11.3				hipStreamUpdat
CUstreamUpdateCaptureDependencies_flags_enum	11.3				hipStreamUpdat
CUstreamWaitValue_flags	8.0				
CUstreamWaitValue_flags_enum	8.0				
CUstreamWriteValue_flags	8.0				
CUstreamWriteValue_flags_enum	8.0				
CUstream_flags					
CUstream_flags_enum					
CUstream_st					hipStream_t
CUsurfObject					hipSurfaceObje
CUsurfObject_v1	11.3				hipSurfaceObje
CUsurfref					
CUsurfref_st					
CUsynchronizationPolicy	11.0				hipSynchroniza
CUsynchronizationPolicy_enum	11.0				hipSynchroniza
CUtensorMap	12.0				
CUtensorMapDataType	12.0				
CUtensorMapDataType_enum	12.0				
CUtensorMapFloat00Bfill	12.0				
CUtensorMapFloat00Bfill_enum	12.0				
CUtensorMapIm2ColWideMode	12.8				
CUtensorMapIm2ColWideMode_enum	12.8				
CUtensorMapInterleave	12.0				
CUtensorMapInterleave_enum	12.0				
CUtensorMapL2promotion	12.0				
CUtensorMapL2promotion_enum	12.0				
CUtensorMapSwizzle	12.0				
CUtensorMapSwizzle_enum	12.0				
CUtensorMap_st	12.0				
CUtexObject					hipTextureObje
CUtexObject_v1	11.3				hipTextureObje
CUtexref					hipTexRef
CUtexref_st					textureReferen
CUuserObject	11.3				hipUserObject_
CUuserObjectRetain_flags	11.3				hipUserObjectR
CUuserObjectRetain_flags_enum	11.3				hipUserObjectR

Table 5 – continued from previous page

CUDA	A	D	C	R	HIP
CUuserObject_flags	11.3				hipUserObjectF
CUuserObject_flags_enum	11.3				hipUserObjectF
CUuserObject_st	11.3				hipUserObject
CUuuid					hipUUID
CUuuid_st					hipUUID_t
GLenum					GLenum
GLuint					GLuint
NVCL_CTX_SCHED_AUTO	11.8				
NVCL_CTX_SCHED_BLOCKING_SYNC	11.8				
NVCL_CTX_SCHED_SPIN	11.8				
NVCL_CTX_SCHED_YIELD	11.8				
NVCL_EVENT_SCHED_AUTO	11.8				
NVCL_EVENT_SCHED_BLOCKING_SYNC	11.8				
NVCL_EVENT_SCHED_SPIN	11.8				
NVCL_EVENT_SCHED_YIELD	11.8				
__CUDACC__					__HIPCC__
cl_context_flags	11.8				
cl_context_flags_enum	11.8				
cl_event_flags	11.8				
cl_event_flags_enum	11.8				
cudaError_enum					hipError_t
memoryBarrier	11.7				

9.2.2 2. Error Handling

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuGetErrorName					hipDrvGetErrorName	5.4.0					
cuGetErrorString					hipDrvGetErrorString	5.4.0					

9.2.3 3. Initialization

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuInit					hipInit	1.6.0					

9.2.4 4. Version Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuDriverGetVersion					hipDriverGetVersion	1.6.0					

9.2.5 5. Device Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuDeviceGet					hipDeviceGet	1.6.0					
cuDeviceGetAttribute					hipDeviceGetAttribute	1.6.0					
cuDeviceGetCount					hipGetDeviceCount	1.6.0					
cuDeviceGetDefaultMemPool	11.2				hipDeviceGetDefaultMe	5.2.0					
cuDeviceGetExecAffinitySupp	11.4										
cuDeviceGetHostAtomicCapabi	13.0										
cuDeviceGetLuid	10.0										
cuDeviceGetMemPool	11.2				hipDeviceGetMemPool	5.2.0					
cuDeviceGetName					hipDeviceGetName	1.6.0					
cuDeviceGetNvSciSyncAttribu	10.2										
cuDeviceGetTexture1DLinearM	11.1										
cuDeviceGetUuid	9.2				hipDeviceGetUuid	5.2.0					
cuDeviceGetUuid_v2	11.4				hipDeviceGetUuid	5.2.0					
cuDeviceSetMemPool	11.2				hipDeviceSetMemPool	5.2.0					
cuDeviceTotalMem					hipDeviceTotalMem	1.6.0					
cuDeviceTotalMem_v2					hipDeviceTotalMem	1.6.0					
cuFlushGPUDirectRDMAWrites	11.3										

9.2.6 6. Device Management [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuDeviceComputeCapabili†	9.2				hipDeviceComputeCapabili	1.6.0					
cuDeviceGetProperties	9.2										

9.2.7 7. Primary Context Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuDevicePrimaryCtxGetSta					hipDevicePrimaryCtxGet	1.9.0	6.1.0				
cuDevicePrimaryCtxReleas					hipDevicePrimaryCtxRel	1.9.0	6.1.0				
cuDevicePrimaryCtxReleas	11.0				hipDevicePrimaryCtxRel	1.9.0	6.1.0				
cuDevicePrimaryCtxReset					hipDevicePrimaryCtxRes	1.9.0	6.1.0				
cuDevicePrimaryCtxReset_	11.0				hipDevicePrimaryCtxRes	1.9.0	6.1.0				
cuDevicePrimaryCtxRetain					hipDevicePrimaryCtxRet	1.9.0	6.1.0				
cuDevicePrimaryCtxSetFla					hipDevicePrimaryCtxSet	1.9.0	6.1.0				
cuDevicePrimaryCtxSetFla	11.0				hipDevicePrimaryCtxSet	1.9.0	6.1.0				

9.2.8 8. Context Management

CUDA	A	D	C	R	HIP	A	D	C	F
cuCtxCreate			13.0		hipCtxCreate	1.6.0	1.9.0		
cuCtxCreate_v2					hipCtxCreate	1.6.0	1.9.0		
cuCtxCreate_v3	11.4								
cuCtxCreate_v4	12.5								
cuCtxDestroy					hipCtxDestroy	1.6.0	1.9.0		
cuCtxDestroy_v2					hipCtxDestroy	1.6.0	1.9.0		
cuCtxGetApiVersion					hipCtxGetApiVersion	1.9.0	1.9.0	7.0.0	
cuCtxGetCacheConfig					hipCtxGetCacheConfig	1.9.0	1.9.0		
cuCtxGetCurrent					hipCtxGetCurrent	1.6.0	1.9.0		
cuCtxGetDevice					hipCtxGetDevice	1.6.0	1.9.0		
cuCtxGetDevice_v2	13.0								
cuCtxGetExecAffinity	11.4								
cuCtxGetFlags					hipCtxGetFlags	1.9.0	1.9.0		
cuCtxGetId	12.0								
cuCtxGetLimit					hipDeviceGetLimit	1.6.0			
cuCtxGetSharedMemConfig			12.4		hipCtxGetSharedMemConfig	1.9.0	1.9.0		
cuCtxGetStreamPriorityRange					hipDeviceGetStreamPriorityRange	2.0.0			
cuCtxPopCurrent					hipCtxPopCurrent	1.6.0	1.9.0		
cuCtxPopCurrent_v2					hipCtxPopCurrent	1.6.0	1.9.0		
cuCtxPushCurrent					hipCtxPushCurrent	1.6.0	1.9.0		
cuCtxPushCurrent_v2					hipCtxPushCurrent	1.6.0	1.9.0		
cuCtxResetPersistingL2Cache	11.0								
cuCtxSetCacheConfig					hipCtxSetCacheConfig	1.9.0	1.9.0		
cuCtxSetCurrent					hipCtxSetCurrent	1.6.0	1.9.0		
cuCtxSetFlags	12.1								
cuCtxSetLimit					hipDeviceSetLimit	5.3.0			
cuCtxSetSharedMemConfig			12.4		hipCtxSetSharedMemConfig	1.9.0	1.9.0		

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Table 6 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	F
cuCtxSynchronize					hipCtxSynchronize	1.9.0	1.9.0		
cuCtxSynchronize_v2	13.0								
cuCtxWaitEvent	12.5								

9.2.9 9. Context Management [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuCtxAttach											
cuCtxDetach											

9.2.10 10. Module Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuLinkAddData					hiprtcLinkAddData	5.3.0					
cuLinkAddData_v2					hiprtcLinkAddData	5.3.0					
cuLinkAddFile					hiprtcLinkAddFile	5.3.0					
cuLinkAddFile_v2					hiprtcLinkAddFile	5.3.0					
cuLinkComplete					hiprtcLinkComplete	5.3.0					
cuLinkCreate					hiprtcLinkCreate	5.3.0					
cuLinkCreate_v2					hiprtcLinkCreate	5.3.0					
cuLinkDestroy					hiprtcLinkDestroy	5.3.0					
cuModuleEnumerateFunction	12.4										
cuModuleGetFunction					hipModuleGetFunction	1.6.0					
cuModuleGetFunctionCount	12.4				hipModuleGetFunctionCou	7.1.0					
cuModuleGetGlobal					hipModuleGetGlobal	1.6.0					
cuModuleGetGlobal_v2					hipModuleGetGlobal	1.6.0					
cuModuleGetLoadingMode	11.7										
cuModuleLoad					hipModuleLoad	1.6.0					
cuModuleLoadData					hipModuleLoadData	1.6.0					
cuModuleLoadDataEx					hipModuleLoadDataEx	1.6.0					
cuModuleLoadFatBinary					hipModuleLoadFatBinary	7.1.0					
cuModuleUnload					hipModuleUnload	1.6.0					

9.2.11 11. Module Management [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuModuleGetSurfRef	12.0										
cuModuleGetTexRef	12.0				hipModuleGetTexRef	1.7.0					

9.2.12 12. Library Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuKernelGetAttribute	12.0										
cuKernelGetFunction	12.0										
cuKernelGetLibrary	12.5				hipKernelGetLibrary	7.2.0					7.2.0
cuKernelGetName	12.3				hipKernelGetName	7.2.0					7.2.0
cuKernelGetParamInfo	12.4										
cuKernelSetAttribute	12.0										
cuKernelSetCacheConfig	12.0										
cuLibraryEnumerateKerne	12.4				hipLibraryEnumerateKer	7.2.0					7.2.0
cuLibraryGetGlobal	12.0										
cuLibraryGetKernel	12.0				hipLibraryGetKernel	7.1.0					
cuLibraryGetKernelCount	12.4				hipLibraryGetKernelCou	7.1.0					
cuLibraryGetManaged	12.0										
cuLibraryGetModule	12.0										
cuLibraryGetUnifiedFunc	12.0										
cuLibraryLoadData	12.0				hipLibraryLoadData	7.1.0					
cuLibraryLoadFromFile	12.0				hipLibraryLoadFromFile	7.1.0					
cuLibraryUnload	12.0				hipLibraryUnload	7.1.0					

9.2.13 13. Memory Management

CUDA	A	D	C	R	HIP	A	D
cuArray3DCreate					hipArray3DCreate		1.7.1
cuArray3DCreate_v2					hipArray3DCreate		1.7.1
cuArray3DGetDescriptor					hipArray3DGetDescriptor		5.6.0
cuArray3DGetDescriptor_v2					hipArray3DGetDescriptor		5.6.0
cuArrayCreate					hipArrayCreate		1.9.0
cuArrayCreate_v2					hipArrayCreate		1.9.0
cuArrayDestroy					hipArrayDestroy		4.2.0
cuArrayGetDescriptor					hipArrayGetDescriptor		5.6.0
cuArrayGetDescriptor_v2					hipArrayGetDescriptor		5.6.0

Table 7 – continued from previous page

CUDA	A	D	C	R	HIP	A	D
cuArrayGetMemoryRequirements	11.6						
cuArrayGetPlane	11.2						
cuArrayGetSparseProperties	11.1						
cuDeviceGetByPCIBusId					hipDeviceGetByPCIBusId	1.6.0	
cuDeviceGetPCIBusId					hipDeviceGetPCIBusId	1.6.0	
cuDeviceRegisterAsyncNotification	12.4						
cuDeviceUnregisterAsyncNotification	12.4						
cuIpcCloseMemHandle					hipIpcCloseMemHandle	1.6.0	
cuIpcGetEventHandle					hipIpcGetEventHandle	1.6.0	
cuIpcGetMemHandle					hipIpcGetMemHandle	1.6.0	
cuIpcOpenEventHandle					hipIpcOpenEventHandle	1.6.0	
cuIpcOpenMemHandle					hipIpcOpenMemHandle	1.6.0	
cuMemAlloc					hipMalloc	1.5.0	
cuMemAllocHost					hipMemAllocHost	3.0.0	3.0.0
cuMemAllocHost_v2					hipMemAllocHost	3.0.0	3.0.0
cuMemAllocManaged					hipMallocManaged	2.5.0	
cuMemAllocPitch					hipMemAllocPitch	3.0.0	
cuMemAllocPitch_v2					hipMemAllocPitch	3.0.0	
cuMemAlloc_v2					hipMalloc	1.5.0	
cuMemBatchDecompressAsync	12.8						
cuMemFree					hipFree	1.5.0	
cuMemFreeHost					hipHostFree	1.6.0	
cuMemFree_v2					hipFree	1.5.0	
cuMemGetAddressRange					hipMemGetAddressRange	1.9.0	
cuMemGetAddressRange_v2					hipMemGetAddressRange	1.9.0	
cuMemGetHandleForAddressRange	11.7				hipMemGetHandleForAddressRange	7.0.0	
cuMemGetInfo					hipMemGetInfo	1.6.0	
cuMemGetInfo_v2					hipMemGetInfo	1.6.0	
cuMemHostAlloc					hipHostAlloc	1.6.0	
cuMemHostGetDevicePointer					hipHostGetDevicePointer	1.6.0	
cuMemHostGetDevicePointer_v2					hipHostGetDevicePointer	1.6.0	
cuMemHostGetFlags					hipHostGetFlags	1.6.0	
cuMemHostRegister					hipHostRegister	1.6.0	
cuMemHostRegister_v2					hipHostRegister	1.6.0	
cuMemHostUnregister					hipHostUnregister	1.6.0	
cuMemcpy							
cuMemcpy2D					hipMemcpyParam2D	1.7.0	
cuMemcpy2DAsync					hipMemcpyParam2DAsync	2.8.0	
cuMemcpy2DAsync_v2					hipMemcpyParam2DAsync	2.8.0	
cuMemcpy2DUnaligned					hipDrvMemcpy2DUnaligned	4.2.0	
cuMemcpy2DUnaligned_v2					hipDrvMemcpy2DUnaligned	4.2.0	
cuMemcpy2D_v2					hipMemcpyParam2D	1.7.0	
cuMemcpy3D					hipDrvMemcpy3D	3.5.0	
cuMemcpy3DAsync					hipDrvMemcpy3DAsync	3.5.0	
cuMemcpy3DAsync_v2					hipDrvMemcpy3DAsync	3.5.0	
cuMemcpy3DBatchAsync	12.8		13.0		hipMemcpy3DBatchAsync	7.1.0	
cuMemcpy3DPeer							
cuMemcpy3DPeerAsync							
cuMemcpy3D_v2					hipDrvMemcpy3D	3.5.0	
cuMemcpyAsync							

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Table 7 – continued from previous page

CUDA	A	D	C	R	HIP	A	D
cuMemcpyAtoA					hipMemcpyAtoA	6.2.0	
cuMemcpyAtoA_v2					hipMemcpyAtoA	6.2.0	
cuMemcpyAtoD					hipMemcpyAtoD	6.2.0	
cuMemcpyAtoD_v2					hipMemcpyAtoD	6.2.0	
cuMemcpyAtoH					hipMemcpyAtoH	1.9.0	
cuMemcpyAtoHAsync					hipMemcpyAtoHAsync	6.2.0	
cuMemcpyAtoHAsync_v2					hipMemcpyAtoHAsync	6.2.0	
cuMemcpyAtoH_v2					hipMemcpyAtoH	1.9.0	
cuMemcpyBatchAsync	12.8		13.0		hipMemcpyBatchAsync	7.1.0	
cuMemcpyDtoA					hipMemcpyDtoA	6.2.0	
cuMemcpyDtoA_v2					hipMemcpyDtoA	6.2.0	
cuMemcpyDtoD					hipMemcpyDtoD	1.6.0	
cuMemcpyDtoDAsync					hipMemcpyDtoDAsync	1.6.0	
cuMemcpyDtoDAsync_v2					hipMemcpyDtoDAsync	1.6.0	
cuMemcpyDtoD_v2					hipMemcpyDtoD	1.6.0	
cuMemcpyDtoH					hipMemcpyDtoH	1.6.0	
cuMemcpyDtoHAsync					hipMemcpyDtoHAsync	1.6.0	
cuMemcpyDtoHAsync_v2					hipMemcpyDtoHAsync	1.6.0	
cuMemcpyDtoH_v2					hipMemcpyDtoH	1.6.0	
cuMemcpyHtoA					hipMemcpyHtoA	1.9.0	
cuMemcpyHtoAAsync					hipMemcpyHtoAAsync	6.2.0	
cuMemcpyHtoAAsync_v2					hipMemcpyHtoAAsync	6.2.0	
cuMemcpyHtoA_v2					hipMemcpyHtoA	1.9.0	
cuMemcpyHtoD					hipMemcpyHtoD	1.6.0	
cuMemcpyHtoDAsync					hipMemcpyHtoDAsync	1.6.0	
cuMemcpyHtoDAsync_v2					hipMemcpyHtoDAsync	1.6.0	
cuMemcpyHtoD_v2					hipMemcpyHtoD	1.6.0	
cuMemcpyPeer							
cuMemcpyPeerAsync							
cuMemsetD16					hipMemsetD16	3.0.0	
cuMemsetD16Async					hipMemsetD16Async	3.0.0	
cuMemsetD16_v2					hipMemsetD16	3.0.0	
cuMemsetD2D16					hipMemsetD2D16	7.1.0	
cuMemsetD2D16Async					hipMemsetD2D16Async	7.1.0	
cuMemsetD2D16_v2					hipMemsetD2D16	7.1.0	
cuMemsetD2D32					hipMemsetD2D32	7.1.0	
cuMemsetD2D32Async					hipMemsetD2D32Async	7.1.0	
cuMemsetD2D32_v2					hipMemsetD2D32	7.1.0	
cuMemsetD2D8					hipMemsetD2D8	7.1.0	
cuMemsetD2D8Async					hipMemsetD2D8Async	7.1.0	
cuMemsetD2D8_v2					hipMemsetD2D8	7.1.0	
cuMemsetD32					hipMemsetD32	2.3.0	
cuMemsetD32Async					hipMemsetD32Async	2.3.0	
cuMemsetD32_v2					hipMemsetD32	2.3.0	
cuMemsetD8					hipMemsetD8	1.6.0	
cuMemsetD8Async					hipMemsetD8Async	3.0.0	
cuMemsetD8_v2					hipMemsetD8	1.6.0	
cuMipmappedArrayCreate					hipMipmappedArrayCreate	3.5.0	5.7.0
cuMipmappedArrayDestroy					hipMipmappedArrayDestroy	3.5.0	5.7.0
cuMipmappedArrayGetLevel					hipMipmappedArrayGetLevel	3.5.0	5.7.0

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Table 7 – continued from previous page

CUDA	A	D	C	R	HIP	A	D
cuMipmappedArrayGetMemoryRequirements							11.6

9.2.14 14. Virtual Memory Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuMemAddressFree	10.2				hipMemAddressFree	5.2.0					
cuMemAddressReserve	10.2				hipMemAddressReserve	5.2.0					
cuMemCreate	10.2				hipMemCreate	5.2.0					
cuMemExportToShareableHandle	10.2				hipMemExportToShareableHandle	5.2.0					
cuMemGetAccess	10.2				hipMemGetAccess	5.2.0					
cuMemGetAllocationGranularity	10.2				hipMemGetAllocationGranularity	5.2.0					
cuMemGetAllocationProperties	10.2				hipMemGetAllocationProperties	5.2.0					
cuMemImportFromShareableHandle	10.2				hipMemImportFromShareableHandle	5.2.0					
cuMemMap	10.2				hipMemMap	5.2.0					
cuMemMapArrayAsync	11.1				hipMemMapArrayAsync	5.2.0					
cuMemRelease	10.2				hipMemRelease	5.2.0					
cuMemRetainAllocationHandle	11.0				hipMemRetainAllocationHandle	5.2.0					
cuMemSetAccess	10.2				hipMemSetAccess	5.2.0					
cuMemUnmap	10.2				hipMemUnmap	5.2.0					

9.2.15 15. Stream Ordered Memory Allocator

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuMemAllocAsync	11.2				hipMallocAsync	5.2.0					
cuMemAllocFromPoolAsync	11.2				hipMallocFromPoolAsync	5.2.0					
cuMemFreeAsync	11.2				hipFreeAsync	5.2.0					
cuMemGetDefaultMemPool	13.0										
cuMemGetMemPool	13.0										
cuMemPoolCreate	11.2				hipMemPoolCreate	5.2.0					
cuMemPoolDestroy	11.2				hipMemPoolDestroy	5.2.0					
cuMemPoolExportPointer	11.2				hipMemPoolExportPointer	5.2.0					
cuMemPoolExportToShareable	11.2				hipMemPoolExportToShareable	5.2.0					
cuMemPoolGetAccess	11.2				hipMemPoolGetAccess	5.2.0					
cuMemPoolGetAttribute	11.2				hipMemPoolGetAttribute	5.2.0					
cuMemPoolImportFromShareable	11.2				hipMemPoolImportFromShareable	5.2.0					
cuMemPoolImportPointer	11.2				hipMemPoolImportPointer	5.2.0					
cuMemPoolSetAccess	11.2				hipMemPoolSetAccess	5.2.0					
cuMemPoolSetAttribute	11.2				hipMemPoolSetAttribute	5.2.0					
cuMemPoolTrimTo	11.2				hipMemPoolTrimTo	5.2.0					
cuMemSetMemPool	13.0										

9.2.16 16. Multicast Object Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuMulticastAddDevice	12.1										
cuMulticastBindAddr	12.1										
cuMulticastBindMem	12.1										
cuMulticastCreate	12.1										
cuMulticastGetGranularity	12.1										
cuMulticastUnbind	12.1										

9.2.17 17. Unified Addressing

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuMemAdvise	8.0		13.0		hipMemAdvise	3.7.0				13.0	
cuMemAdvise_v2	12.2										
cuMemDiscardAndPrefetchBa	13.0										
cuMemDiscardBatchAsync	13.0										
cuMemPrefetchAsync	8.0		13.0		hipMemPrefetchAsync	3.7.0				13.0	
cuMemPrefetchAsync_v2	12.2										
cuMemPrefetchBatchAsync	13.0										
cuMemRangeGetAttribute	8.0				hipMemRangeGetAttrib	3.7.0					
cuMemRangeGetAttributes	8.0				hipMemRangeGetAttrib	3.7.0					
cuPointerGetAttribute					hipPointerGetAttribu	5.0.0					
cuPointerGetAttributes					hipDrvPointerGetAttr	5.0.0					
cuPointerSetAttribute					hipPointerSetAttribu	5.5.0					

9.2.18 18. Stream Management

CUDA	A	D	C	R	HIP	A	D
cuStreamAddCallback					hipStreamAddCallback	1.6.0	

Table 8 – continued from previous page

CUDA	A	D	C	R	HIP	A	D
cuStreamAttachMemAsync					hipStreamAttachMemAsync	3.7.0	
cuStreamBeginCapture	10.0				hipStreamBeginCapture	4.3.0	
cuStreamBeginCaptureToGraph	12.3				hipStreamBeginCaptureToGraph	6.2.0	
cuStreamBeginCapture_ptsz	10.1						
cuStreamBeginCapture_v2	10.1				hipStreamBeginCapture	4.3.0	
cuStreamCopyAttributes	11.0				hipStreamCopyAttributes	7.2.0	
cuStreamCreate					hipStreamCreateWithFlags	1.6.0	
cuStreamCreateWithPriority					hipStreamCreateWithPriority	2.0.0	
cuStreamDestroy					hipStreamDestroy	1.6.0	
cuStreamDestroy_v2					hipStreamDestroy	1.6.0	
cuStreamEndCapture	10.0				hipStreamEndCapture	4.3.0	
cuStreamGetAttribute	11.0				hipStreamGetAttribute	7.1.0	
cuStreamGetCaptureInfo	10.1		13.0		hipStreamGetCaptureInfo	5.0.0	
cuStreamGetCaptureInfo_v2	11.3				hipStreamGetCaptureInfo_v2	5.0.0	
cuStreamGetCaptureInfo_v3	12.3						
cuStreamGetCtx	9.2						
cuStreamGetCtx_v2	12.5						
cuStreamGetDevice	12.8						
cuStreamGetFlags					hipStreamGetFlags	1.6.0	
cuStreamGetId	12.0				hipStreamGetId	7.1.0	
cuStreamGetPriority					hipStreamGetPriority	2.0.0	
cuStreamIsCapturing	10.0				hipStreamIsCapturing	5.0.0	
cuStreamQuery					hipStreamQuery	1.6.0	
cuStreamSetAttribute	11.0				hipStreamSetAttribute	7.1.0	
cuStreamSynchronize					hipStreamSynchronize	1.6.0	
cuStreamUpdateCaptureDependencies	11.3		13.0		hipStreamUpdateCaptureDependencies	5.0.0	
cuStreamUpdateCaptureDependencies_v2	12.3						
cuStreamWaitEvent					hipStreamWaitEvent	1.6.0	
cuThreadExchangeStreamCaptureMode	10.1				hipThreadExchangeStreamCaptureMode	5.2.0	

9.2.19 19. Event Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuEventCreate					hipEventCreateWithFlags	1.6.0					
cuEventDestroy					hipEventDestroy	1.6.0					
cuEventDestroy_v2					hipEventDestroy	1.6.0					
cuEventElapsedTime					hipEventElapsedTime	1.6.0					
cuEventElapsedTime_v2	12.8				hipEventElapsedTime	1.6.0					
cuEventQuery					hipEventQuery	1.6.0					
cuEventRecord					hipEventRecord	1.6.0					
cuEventRecordWithFlags	11.1				hipEventRecordWithFlags	6.4.0					
cuEventSynchronize					hipEventSynchronize	1.6.0					

9.2.20 20. External Resource Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuDestroyExternalMemory	10.0				hipDestroyExternalMemc	4.3.0					
cuDestroyExternalSemaphore	10.0				hipDestroyExternalSema	4.4.0					
cuExternalMemoryGetMappedB	10.0				hipExternalMemoryGetMa	4.3.0					
cuExternalMemoryGetMappedM	10.0										
cuImportExternalMemory	10.0				hipImportExternalMemor	4.3.0					
cuImportExternalSemaphore	10.0				hipImportExternalSema	4.4.0					
cuSignalExternalSemaphores	10.0				hipSignalExternalSema	4.4.0					
cuWaitExternalSemaphoresAs	10.0				hipWaitExternalSemaphc	4.4.0					

9.2.21 21. Stream Memory Operations

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuStreamBatchMemOp	8.0				hipStreamBatchMemOp	6.4.0					
cuStreamBatchMemOp_v2	11.7				hipStreamBatchMemOp	6.4.0					
cuStreamWaitValue32	8.0				hipStreamWaitValue32	4.2.0					
cuStreamWaitValue32_v2	11.7				hipStreamWaitValue32	4.2.0					
cuStreamWaitValue64	9.0				hipStreamWaitValue64	4.2.0					
cuStreamWaitValue64_v2	11.7				hipStreamWaitValue64	4.2.0					
cuStreamWriteValue32	8.0				hipStreamWriteValue32	4.2.0					
cuStreamWriteValue32_v2	11.7				hipStreamWriteValue32	4.2.0					
cuStreamWriteValue64	9.0				hipStreamWriteValue64	4.2.0					
cuStreamWriteValue64_v2	11.7				hipStreamWriteValue64	4.2.0					

9.2.22 22. Execution Control

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuFuncGetAttribute					hipFuncGetAttribute	2.8.0					
cuFuncGetModule	11.0										
cuFuncGetName	12.3										
cuFuncGetParamInfo	12.4										
cuFuncIsLoaded	12.4										
cuFuncLoad	12.4										
cuFuncSetAttribute	9.0										
cuFuncSetCacheConfig											
cuFuncSetSharedMemConfig				12.4							
cuLaunchCooperativeKernel	9.0				hipModuleLaunchCooperativeKernel	5.5.0					
cuLaunchCooperativeKernelGroup	9.0	11.3			hipModuleLaunchCooperativeKernelGroup	5.5.0					
cuLaunchHostFunc	10.0				hipLaunchHostFunc	5.2.0					
cuLaunchKernel					hipModuleLaunchKernel	1.6.0					
cuLaunchKernelEx	11.8				hipDrvLaunchKernelEx	7.0.0					

9.2.23 23. Execution Control [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuFuncSetBlockShape		9.2									
cuFuncSetSharedSize		9.2									
cuLaunch		9.2									
cuLaunchGrid		9.2									
cuLaunchGridAsync		9.2									
cuParamSetSize		9.2									
cuParamSetTexRef		9.2									
cuParamSetf		9.2									
cuParamSeti		9.2									
cuParamSetv		9.2									

9.2.24 24. Graph Management

CUDA	A	D	C	R	HIP
cuDeviceGetGraphMemAttribute	11.4				hipDeviceGetGraphMemAttribute
cuDeviceGraphMemTrim	11.4				hipDeviceGraphMemTrim
cuDeviceSetGraphMemAttribute	11.4				hipDeviceSetGraphMemAttribute
cuGraphAddBatchMemOpNode	11.7				hipGraphAddBatchMemOpNode
cuGraphAddChildGraphNode	10.0				hipGraphAddChildGraphNode
cuGraphAddDependencies	10.0		13.0		hipGraphAddDependencies
cuGraphAddDependencies_v2	12.3				
cuGraphAddEmptyNode	10.0				hipGraphAddEmptyNode
cuGraphAddEventRecordNode	11.1				hipGraphAddEventRecordNode
cuGraphAddEventWaitNode	11.1				hipGraphAddEventWaitNode
cuGraphAddExternalSemaphoresSignalNode	11.2				hipGraphAddExternalSemaphoresSignalNode
cuGraphAddExternalSemaphoresWaitNode	11.2				hipGraphAddExternalSemaphoresWaitNode
cuGraphAddHostNode	10.0				hipGraphAddHostNode
cuGraphAddKernelNode	10.0				hipGraphAddKernelNode
cuGraphAddMemAllocNode	11.4				hipGraphAddMemAllocNode
cuGraphAddMemFreeNode	11.4				hipDrvGraphAddMemFreeNode
cuGraphAddMemcpyNode	10.0				hipDrvGraphAddMemcpyNode
cuGraphAddMemsetNode	10.0				hipDrvGraphAddMemsetNode
cuGraphAddNode	12.2		13.0		hipGraphAddNode
cuGraphAddNode_v2	12.3				
cuGraphBatchMemOpNodeGetParams	11.7				hipGraphBatchMemOpNodeGetParams
cuGraphBatchMemOpNodeSetParams	11.7				hipGraphBatchMemOpNodeSetParams
cuGraphChildGraphNodeGetGraph	10.0				hipGraphChildGraphNodeGetGraph

Table 9 – continued from previous page

CUDA	A	D	C	R	HIP
cuGraphClone	10.0				hipGraphClone
cuGraphConditionalHandleCreate	12.3				
cuGraphCreate	10.0				hipGraphCreate
cuGraphDebugDotPrint	11.3				hipGraphDebugDotPrint
cuGraphDestroy	10.0				hipGraphDestroy
cuGraphDestroyNode	10.0				hipGraphDestroyNode
cuGraphEventRecordNodeGetEvent	11.1				hipGraphEventRecordNodeGetEvent
cuGraphEventRecordNodeSetEvent	11.1				hipGraphEventRecordNodeSetEvent
cuGraphEventWaitNodeGetEvent	11.1				hipGraphEventWaitNodeGetEvent
cuGraphEventWaitNodeSetEvent	11.1				hipGraphEventWaitNodeSetEvent
cuGraphExecBatchMemOpNodeSetParams	11.7				hipGraphExecBatchMemOpNodeSetParam
cuGraphExecChildGraphNodeSetParams	11.1				hipGraphExecChildGraphNodeSetParam
cuGraphExecDestroy	10.0				hipGraphExecDestroy
cuGraphExecEventRecordNodeSetEvent	11.1				hipGraphExecEventRecordNodeSetEvent
cuGraphExecEventWaitNodeSetEvent	11.1				hipGraphExecEventWaitNodeSetEvent
cuGraphExecExternalSemaphoresSignalNodeSetParams	11.2				hipGraphExecExternalSemaphoresSigh
cuGraphExecExternalSemaphoresWaitNodeSetParams	11.2				hipGraphExecExternalSemaphoresWai
cuGraphExecGetFlags	12.0				hipGraphExecGetFlags
cuGraphExecHostNodeSetParams	10.2				hipGraphExecHostNodeSetParams
cuGraphExecKernelNodeSetParams	10.1				hipGraphExecKernelNodeSetParams
cuGraphExecMemcpyNodeSetParams	10.2				hipDrvGraphExecMemcpyNodeSetParam
cuGraphExecMemsetNodeSetParams	10.2				hipDrvGraphExecMemsetNodeSetParam
cuGraphExecNodeSetParams	12.2				hipGraphExecNodeSetParams
cuGraphExecUpdate	10.2				hipGraphExecUpdate
cuGraphExternalSemaphoresSignalNodeGetParams	11.2				hipGraphExternalSemaphoresSignalN
cuGraphExternalSemaphoresSignalNodeSetParams	11.2				hipGraphExternalSemaphoresSignalN
cuGraphExternalSemaphoresWaitNodeGetParams	11.2				hipGraphExternalSemaphoresWaitNod
cuGraphExternalSemaphoresWaitNodeSetParams	11.2				hipGraphExternalSemaphoresWaitNod
cuGraphGetEdges	10.0		13.0		hipGraphGetEdges
cuGraphGetEdges_v2	12.3				
cuGraphGetNodes	10.0				hipGraphGetNodes
cuGraphGetRootNodes	10.0				hipGraphGetRootNodes
cuGraphHostNodeGetParams	10.0				hipGraphHostNodeGetParams
cuGraphHostNodeSetParams	10.0				hipGraphHostNodeSetParams
cuGraphInstantiate	10.0				hipGraphInstantiate
cuGraphInstantiateWithFlags	11.4				hipGraphInstantiateWithFlags
cuGraphInstantiateWithParams	12.0				hipGraphInstantiateWithParams
cuGraphInstantiate_v2	11.0				hipGraphInstantiate
cuGraphKernelNodeCopyAttributes	11.0				hipGraphKernelNodeCopyAttributes
cuGraphKernelNodeGetAttribute	11.0				hipGraphKernelNodeGetAttribute
cuGraphKernelNodeGetParams	10.0				hipGraphKernelNodeGetParams
cuGraphKernelNodeSetAttribute	11.0				hipGraphKernelNodeSetAttribute
cuGraphKernelNodeSetParams	10.0				hipGraphKernelNodeSetParams
cuGraphLaunch	10.0				hipGraphLaunch
cuGraphMemAllocNodeGetParams	11.4				hipGraphMemAllocNodeGetParams
cuGraphMemFreeNodeGetParams	11.4				hipGraphMemFreeNodeGetParams
cuGraphMemcpyNodeGetParams	10.0				hipDrvGraphMemcpyNodeGetParams
cuGraphMemcpyNodeSetParams	10.0				hipDrvGraphMemcpyNodeSetParams
cuGraphMemsetNodeGetParams	10.0				hipGraphMemsetNodeGetParams
cuGraphMemsetNodeSetParams	10.0				hipGraphMemsetNodeSetParams

Table 9 – continued from previous page

CUDA	A	D	C	R	HIP
cuGraphNodeFindInClone	10.0				hipGraphNodeFindInClone
cuGraphNodeGetDependencies	10.0		13.0		hipGraphNodeGetDependencies
cuGraphNodeGetDependencies_v2	12.3				
cuGraphNodeGetDependentNodes	10.0		13.0		hipGraphNodeGetDependentNodes
cuGraphNodeGetDependentNodes_v2	12.3				
cuGraphNodeGetEnabled	11.6				hipGraphNodeGetEnabled
cuGraphNodeGetType	10.0				hipGraphNodeGetType
cuGraphNodeSetEnabled	11.6				hipGraphNodeSetEnabled
cuGraphNodeSetParams	12.2				hipGraphNodeSetParams
cuGraphReleaseUserObject	11.3				hipGraphReleaseUserObject
cuGraphRemoveDependencies	10.0		13.0		hipGraphRemoveDependencies
cuGraphRemoveDependencies_v2	12.3				
cuGraphRetainUserObject	11.3				hipGraphRetainUserObject
cuGraphUpload	11.1				hipGraphUpload
cuUserObjectCreate	11.3				hipUserObjectCreate
cuUserObjectRelease	11.3				hipUserObjectRelease
cuUserObjectRetain	11.3				hipUserObjectRetain

9.2.25 25. Occupancy

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuOccupancyAvailableDynamic	11.0				hipOccupancyAvailableDynamic	7.2.0					7.2.0
cuOccupancyMaxActiveBlocksPerMultiprocessor					hipModuleOccupancyMaxActiveBlocksPerMultiprocessor	3.5.0					
cuOccupancyMaxActiveBlocksPerMultiprocessorWithFlags					hipModuleOccupancyMaxActiveBlocksPerMultiprocessorWithFlags	3.5.0					
cuOccupancyMaxActiveClusters	11.8										
cuOccupancyMaxPotentialBlocks					hipModuleOccupancyMaxPotentialBlocks	3.5.0					
cuOccupancyMaxPotentialClusters					hipModuleOccupancyMaxPotentialClusters	3.5.0					
cuOccupancyMaxPotentialGroups	11.8										

9.2.26 26. Texture Reference Management [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuTexRefCreate		11.0									
cuTexRefDestroy		11.0									
cuTexRefGetAddress		11.0			hipTexRefGetAddress	3.0.0	4.3.0				
cuTexRefGetAddressMode		11.0			hipTexRefGetAddressMode	3.0.0	4.3.0				
cuTexRefGetAddress_v2		11.0			hipTexRefGetAddress	3.0.0	4.3.0				
cuTexRefGetArray		11.0			hipTexRefGetArray	3.0.0	6.1.0				
cuTexRefGetBorderColor	8.0	11.0			hipTexRefGetBorderColor	6.1.0	6.1.0				
cuTexRefGetFilterMode		11.0			hipTexRefGetFilterMode	3.5.0	4.3.0				

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Table 10 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuTexRefGetFlags		11.0			hipTexRefGetFlags	3.5.0	4.3.0				
cuTexRefGetFormat		11.0			hipTexRefGetFormat	3.5.0	4.3.0				
cuTexRefGetMaxAnisotropy		11.0			hipTexRefGetMaxAnisotropy	3.5.0	4.3.0				
cuTexRefGetMipmapFilterMode		11.0			hipTexRefGetMipmapFilterMode	3.5.0	4.3.0				
cuTexRefGetMipmapLevelBias		11.0			hipTexRefGetMipmapLevelBias	3.5.0	4.3.0				
cuTexRefGetMipmapLevelClamp		11.0			hipTexRefGetMipmapLevelClamp	3.5.0	4.3.0				
cuTexRefGetMipmappedArray		11.0			hipTexRefGetMipMappedArray	3.5.0	4.3.0				
cuTexRefSetAddress		11.0			hipTexRefSetAddress	1.7.0	4.3.0				
cuTexRefSetAddress2D		11.0			hipTexRefSetAddress2D	1.7.0	4.3.0				
cuTexRefSetAddress2D_v2					hipTexRefSetAddress2D	1.7.0	4.3.0				
cuTexRefSetAddress2D_v3					hipTexRefSetAddress2D	1.7.0	4.3.0				
cuTexRefSetAddressMode		11.0			hipTexRefSetAddressMode	1.9.0	5.3.0				
cuTexRefSetAddress_v2		11.0			hipTexRefSetAddress	1.7.0	4.3.0				
cuTexRefSetArray		11.0			hipTexRefSetArray	1.9.0	5.3.0				
cuTexRefSetBorderColor	8.0	11.0			hipTexRefSetBorderColor	3.5.0	4.3.0				
cuTexRefSetFilterMode		11.0			hipTexRefSetFilterMode	1.9.0	5.3.0				
cuTexRefSetFlags		11.0			hipTexRefSetFlags	1.9.0	5.3.0				
cuTexRefSetFormat		11.0			hipTexRefSetFormat	1.9.0	5.3.0				
cuTexRefSetMaxAnisotropy		11.0			hipTexRefSetMaxAnisotropy	3.5.0	4.3.0				
cuTexRefSetMipmapFilterMode		11.0			hipTexRefSetMipmapFilterMode	3.5.0	5.3.0				
cuTexRefSetMipmapLevelBias		11.0			hipTexRefSetMipmapLevelBias	3.5.0	5.3.0				
cuTexRefSetMipmapLevelClamp		11.0			hipTexRefSetMipmapLevelClamp	3.5.0	5.3.0				
cuTexRefSetMipmappedArray		11.0			hipTexRefSetMipmappedArray	3.5.0	5.3.0				

9.2.27 27. Surface Reference Management [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuSurfRefGetArray		11.0									
cuSurfRefSetArray		11.0									

9.2.28 28. Texture Object Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuTexObjectCreate					hipTexObjectCreate	3.5.0					
cuTexObjectDestroy					hipTexObjectDestroy	3.5.0					
cuTexObjectGetResourceDe					hipTexObjectGetResourceDe	3.5.0					
cuTexObjectGetResourceVi					hipTexObjectGetResourceVi	3.5.0					
cuTexObjectGetTextureDes					hipTexObjectGetTextureDes	3.5.0					

9.2.29 29. Surface Object Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuSurfObjectCreate											
cuSurfObjectDestroy											
cuSurfObjectGetResourceDesc											

9.2.30 30. Tensor Map Object Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuTensorMapEncodeIm2col	12.0										
cuTensorMapEncodeIm2colWide											
cuTensorMapEncodeTiled	12.0										
cuTensorMapReplaceAddress	12.0										

9.2.31 31. Peer Context Memory Access

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuCtxDisablePeerAccess					hipCtxDisablePeerAcc	1.6.0	1.9.0				
cuCtxEnablePeerAccess					hipCtxEnablePeerAcce	1.6.0	1.9.0				
cuDeviceCanAccessPeer					hipDeviceCanAccessPe	1.9.0					
cuDeviceGetP2PAtomicCapabi	13.0										
cuDeviceGetP2PAttribute	8.0				hipDeviceGetP2PAttri	3.8.0					

9.2.32 32. Graphics Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuGraphicsMapResources					hipGraphicsMapResources	4.5.0					
cuGraphicsResourceGetMappe											
cuGraphicsResourceGetMappe					hipGraphicsResourceGetM	4.5.0					
cuGraphicsResourceGetMappe					hipGraphicsResourceGetM	4.5.0					
cuGraphicsResourceSetMapFl											
cuGraphicsResourceSetMapFl											
cuGraphicsSubResourceGetMa					hipGraphicsSubResourceG	5.1.0					
cuGraphicsUnmapResources					hipGraphicsUnmapResourc	4.5.0					
cuGraphicsUnregisterResour					hipGraphicsUnregisterRe	4.5.0					

9.2.33 33. Driver Entry Point Access

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuGetProcAddre	11.3		12.0		hipGetProcAddre	6.2.0	11.3	11.4	11.5	11.6	11.7
							11.8				

9.2.34 34. Coredump Attributes Control API

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuCoredumpGetAttribute					12.1						
cuCoredumpGetAttributeGlobal					12.1						
cuCoredumpSetAttribute					12.1						
cuCoredumpSetAttributeGlobal					12.1						

9.2.35 35. Green Contexts

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuCtxFromGreenCtx	12.4										
cuCtxGetDevResource	12.4										
cuDevResourceGenerateDesc	12.4										
cuDevSmResourceSplitByCount	12.4										
cuDeviceGetDevResource	12.4										
cuGreenCtxCreate	12.4										
cuGreenCtxDestroy	12.4										
cuGreenCtxGetDevResource	12.4										
cuGreenCtxGetId	13.0										
cuGreenCtxRecordEvent	12.4										
cuGreenCtxStreamCreate	12.5										
cuGreenCtxWaitEvent	12.4										
cuStreamGetGreenCtx	12.4										

9.2.36 36. Error Log Management

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuLogsCurrent	12.9										
cuLogsDumpToFile	12.9										
cuLogsDumpToMemory	12.9										
cuLogsRegisterCallback	12.9										
cuLogsUnregisterCallback	12.9										

9.2.37 37. Checkpointing

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuCheckpointProcessCheckpoint											
cuCheckpointProcessGetRestoreThreadId											
cuCheckpointProcessGetState											
cuCheckpointProcessLock											
cuCheckpointProcessRestore											
cuCheckpointProcessUnlock											

9.2.38 38. Profiler Control [DEPRECATED]

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuProfilerInitialize											

9.2.39 39. Profiler Control

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuProfilerStart					hipProfilerStart	1.6.0	3.0.0				
cuProfilerStop					hipProfilerStop	1.6.0	3.0.0				

9.2.40 40. OpenGL Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuGLCtxCreate		9.2									
cuGLGetDevices					hipGLGetDevices	4.5.0					
cuGLInit		9.2									
cuGLMapBufferObject		9.2									
cuGLMapBufferObjectAsync		9.2									
cuGLRegisterBufferObject		9.2									
cuGLSetBufferObjectMapFl		9.2									
cuGLUnmapBufferObject		9.2									
cuGLUnmapBufferObjectAsy		9.2									
cuGLUnregisterBufferObje		9.2									
cuGraphicsGLRegisterBuff					hipGraphicsGLRegisterBuf	4.5.0					
cuGraphicsGLRegisterImag					hipGraphicsGLRegisterIma	5.1.0					
cuWGLGetDevice											

9.2.41 41. Direct3D 9 Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuD3D9CtxCreate											
cuD3D9CtxCreateOnDevice											
cuD3D9GetDevice											
cuD3D9GetDevices											
cuD3D9GetDirect3DDevice											
cuD3D9MapResources		9.2									
cuD3D9RegisterResource		9.2									
cuD3D9ResourceGetMappedArray		9.2									
cuD3D9ResourceGetMappedPitch		9.2									
cuD3D9ResourceGetMappedPointer		9.2									
cuD3D9ResourceGetMappedSize		9.2									
cuD3D9ResourceGetSurfaceDimensions		9.2									
cuD3D9ResourceSetMapFlags		9.2									
cuD3D9UnmapResources		9.2									
cuD3D9UnregisterResource		9.2									
cuGraphicsD3D9RegisterResource											

9.2.42 42. Direct3D 10 Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuD3D10CtxCreate		9.2									
cuD3D10CtxCreateOnDevice		9.2									
cuD3D10GetDevice											
cuD3D10GetDevices											
cuD3D10GetDirect3DDevice		9.2									
cuD3D10MapResources		9.2									
cuD3D10RegisterResource		9.2									
cuD3D10ResourceGetMappedArray		9.2									
cuD3D10ResourceGetMappedPitch		9.2									
cuD3D10ResourceGetMappedPointer		9.2									
cuD3D10ResourceGetMappedSize		9.2									
cuD3D10ResourceGetSurfaceDimensions		9.2									
cuD3D10ResourceSetMapFlags		9.2									
cuD3D10UnmapResources		9.2									
cuD3D10UnregisterResource		9.2									
cuGraphicsD3D10RegisterResource											

9.2.43 43. Direct3D 11 Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuD3D11CtxCreate		9.2									
cuD3D11CtxCreateOnDevice		9.2									
cuD3D11GetDevice											
cuD3D11GetDevices											
cuD3D11GetDirect3DDevice		9.2									
cuGraphicsD3D11RegisterResource											

9.2.44 44. VDPAU Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuGraphicsVDPAURegisterOutputSurface											
cuGraphicsVDPAURegisterVideoSurface											
cuVDPAUCtxCreate											
cuVDPAUGetDevice											

9.2.45 45. EGL Interoperability

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuEGLStreamConsumerAcquireFrame	9.1										
cuEGLStreamConsumerConnect	9.1										
cuEGLStreamConsumerConnectWithFlags	9.1										
cuEGLStreamConsumerDisconnect	9.1										
cuEGLStreamConsumerReleaseFrame	9.1										
cuEGLStreamProducerConnect	9.1										
cuEGLStreamProducerDisconnect	9.1										
cuEGLStreamProducerPresentFrame	9.1										
cuEGLStreamProducerReturnFrame	9.1										
cuEventCreateFromEGLSync	9.1										
cuGraphicsEGLRegisterImage	9.1										
cuGraphicsResourceGetMappedEglFrame	9.1										

9.3 CUCOMPLEX API supported by HIP

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

9.3.1 1. cuComplex Data types

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuComplex					hipComplex	1.6.0					
cuDoubleComplex					hipDoubleComplex	1.6.0					
cuFloatComplex					hipFloatComplex	1.6.0					

9.3.2 2. cuComplex API functions

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cuCabs					hipCabs	1.6.0					
cuCabsf					hipCabsf	1.6.0					
cuCadd					hipCadd	1.6.0					
cuCaddf					hipCaddf	1.6.0					
cuCdiv					hipCdiv	1.6.0					
cuCdivf					hipCdivf	1.6.0					
cuCfma					hipCfma	1.6.0					
cuCfmaf					hipCfmaf	1.6.0					
cuCimag					hipCimag	1.6.0					
cuCimagf					hipCimagf	1.6.0					
cuCmul					hipCmul	1.6.0					
cuCmulf					hipCmulf	1.6.0					
cuComplexDoubleToFloat					hipComplexDoubleToFloat	1.6.0					
cuComplexFloatToDouble					hipComplexFloatToDouble	1.6.0					
cuConj					hipConj	1.6.0					
cuConjf					hipConjf	1.6.0					
cuCreal					hipCreal	1.6.0					
cuCrealf					hipCrealf	1.6.0					
cuCsub					hipCsub	1.6.0					
cuCsubf					hipCsubf	1.6.0					
make_cuComplex					make_hipComplex	1.6.0					
make_cuDoubleComplex					make_hipDoubleComplex	1.6.0					
make_cuFloatComplex					make_hipFloatComplex	1.6.0					

9.4 CUDA DEVICE API supported by HIP

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

9.4.1 1. Device Functions

CUDA	A	D	C	R	HIP	A	D	C	R
_Pow_int									
__activemask	9.0				__activemask	6.2.0			
__all					__all	1.6.0			
__all_sync	9.0				__all_sync	6.2.0			
__any					__any	1.6.0			
__any_sync	9.0				__any_sync	6.2.0			
__assert_fail					__assert_fail	1.9.0			
__assertfail					__assertfail	1.9.0			
__ballot					__ballot	1.6.0			
__ballot_sync	9.0				__ballot_sync	6.2.0			
__bfloat1622float2	11.0				__bfloat1622float2	5.7.0			
__bfloat162bfloat162	11.0		12.2		__bfloat162bfloat162	5.7.0			
__bfloat162char_rz	12.2								
__bfloat162float	11.0				__bfloat162float	5.7.0			
__bfloat162int_rd	11.0								
__bfloat162int_rn	11.0								
__bfloat162int_ru	11.0								
__bfloat162int_rz	11.0								
__bfloat162ll_rd	11.0								
__bfloat162ll_rn	11.0								
__bfloat162ll_ru	11.0								
__bfloat162ll_rz	11.0								
__bfloat162short_rd	11.0								
__bfloat162short_rn	11.0								
__bfloat162short_ru	11.0								
__bfloat162short_rz	11.0								
__bfloat162uchar_rz	12.2								
__bfloat162uint_rd	11.0								
__bfloat162uint_rn	11.0								
__bfloat162uint_ru	11.0								
__bfloat162uint_rz	11.0								
__bfloat162ull_rd	11.0								
__bfloat162ull_rn	11.0								
__bfloat162ull_ru	11.0								
__bfloat162ull_rz	11.0								
__bfloat162ushort_rd	11.0								
__bfloat162ushort_rn	11.0								
__bfloat162ushort_ru	11.0								
__bfloat162ushort_rz	11.0								
__bfloat16_as_short	11.0		12.2		__bfloat16_as_short	5.7.0			
__bfloat16_as_ushort	11.0		12.2		__bfloat16_as_ushort	5.7.0			
__brev					__brev	1.6.0			
__brevll					__brevll	1.6.0			
__brkpt									

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
__byte_perm					__byte_perm	1.6.0			
__clz					__clz	1.6.0			
__clzll					__clzll	1.6.0			
__cosf					__cosf	1.6.0			
__dadd_rd									
__dadd_rn					__dadd_rn	1.6.0			
__dadd_ru									
__dadd_rz									
__ddiv_rd									
__ddiv_rn					__ddiv_rn	1.6.0			
__ddiv_ru									
__ddiv_rz									
__dmul_rd									
__dmul_rn					__dmul_rn	1.6.0			
__dmul_ru									
__dmul_rz									
__double2bfloat16	11.0				__double2bfloat16	5.7.0			
__double2float_rd					__double2float_rd	1.6.0			
__double2float_rn					__double2float_rn	1.6.0			
__double2float_ru					__double2float_ru	1.6.0			
__double2float_rz					__double2float_rz	1.6.0			
__double2half	11.0								
__double2hiint					__double2hiint	1.6.0			
__double2int_rd					__double2int_rd	1.6.0			
__double2int_rn					__double2int_rn	1.6.0			
__double2int_ru					__double2int_ru	1.6.0			
__double2int_rz					__double2int_rz	1.6.0			
__double2ll_rd					__double2ll_rd	1.6.0			
__double2ll_rn					__double2ll_rn	1.6.0			
__double2ll_ru					__double2ll_ru	1.6.0			
__double2ll_rz					__double2ll_rz	1.6.0			
__double2lloint					__double2lloint	1.6.0			
__double2uint_rd					__double2uint_rd	1.6.0			
__double2uint_rn					__double2uint_rn	1.6.0			
__double2uint_ru					__double2uint_ru	1.6.0			
__double2uint_rz					__double2uint_rz	1.6.0			
__double2ull_rd					__double2ull_rd	1.6.0			
__double2ull_rn					__double2ull_rn	1.6.0			
__double2ull_ru					__double2ull_ru	1.6.0			
__double2ull_rz					__double2ull_rz	1.6.0			
__double_as_longlong					__double_as_longlong	1.6.0			
__drcp_rd									
__drcp_rn					__drcp_rn	1.6.0			
__drcp_ru									
__drcp_rz									
__dsqrt_rd									
__dsqrt_rn					__dsqrt_rn	1.6.0			
__dsqrt_ru									
__dsqrt_rz									
__dsub_rd									

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
__dsub_rn					__dsub_rn	1.6.0			
__dsub_ru									
__dsub_rz									
__exp10f					__exp10f	1.6.0			
__expf					__expf	1.6.0			
__fadd_rd									
__fadd_rn					__fadd_rn	1.6.0			
__fadd_ru									
__fadd_rz									
__fdiv_rd									
__fdiv_rn					__fdiv_rn	1.6.0			
__fdiv_ru									
__fdiv_rz									
__fdividef					__fdividef	1.6.0			
__ffs					__ffs	1.6.0			
__ffsll					__ffsll	1.6.0			
__finite									
__finitef									
__finitel									
__float22bfloat162_rn	11.0				__float22bfloat162_rn	5.7.0			
__float22half2_rn					__float22half2_rn	1.6.0			
__float2bfloat16	11.0				__float2bfloat16	5.7.0			
__float2bfloat162_rn	11.0								
__float2bfloat16_rd	11.0								
__float2bfloat16_rn	11.0								
__float2bfloat16_ru	11.0								
__float2bfloat16_rz	11.0								
__float2half					__float2half	1.6.0			
__float2half2_rn					__float2half2_rn	1.6.0			
__float2half_rd					__float2half_rd	1.6.0			
__float2half_rn					__float2half_rn	1.6.0			
__float2half_ru					__float2half_ru	1.6.0			
__float2half_rz					__float2half_rz	1.6.0			
__float2int_rd					__float2int_rd	1.6.0			
__float2int_rn					__float2int_rn	1.6.0			
__float2int_ru					__float2int_ru	1.6.0			
__float2int_rz					__float2int_rz	1.6.0			
__float2ll_rd					__float2ll_rd	1.6.0			
__float2ll_rn					__float2ll_rn	1.6.0			
__float2ll_ru					__float2ll_ru	1.6.0			
__float2ll_rz					__float2ll_rz	1.6.0			
__float2uint_rd					__float2uint_rd	1.6.0			
__float2uint_rn					__float2uint_rn	1.6.0			
__float2uint_ru					__float2uint_ru	1.6.0			
__float2uint_rz					__float2uint_rz	1.6.0			
__float2ull_rd					__float2ull_rd	1.6.0			
__float2ull_rn					__float2ull_rn	1.6.0			
__float2ull_ru					__float2ull_ru	1.6.0			
__float2ull_rz					__float2ull_rz	1.6.0			
__float_as_int					__float_as_int	1.6.0			

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
__float_as_uint					__float_as_uint	1.6.0			
__floats2bfloat162_rn	11.0								
__floats2half2_rn					__floats2half2_rn	1.6.0			
__fma_rd									
__fma_rn					__fma_rn	1.6.0			
__fma_ru									
__fma_rz									
__fmaf_rd									
__fmaf_rn					__fmaf_rn	1.6.0			
__fmaf_ru									
__fmaf_rz									
__fmul_rd									
__fmul_rn					__fmul_rn	1.6.0			
__fmul_ru									
__fmul_rz									
__frcp_rd									
__frcp_rn					__frcp_rn	1.6.0			
__frcp_ru									
__frcp_rz									
__frsqrt_rn					__frsqrt_rn	1.6.0			
__fsqrt_rd									
__fsqrt_rn					__fsqrt_rn	1.6.0			
__fsqrt_ru									
__fsqrt_rz									
__fsub_rd									
__fsub_rn					__fsub_rn	1.6.0			
__fsub_ru									
__fsub_rz									
__funnelshift_l					__funnelshift_l	4.4.0			
__funnelshift_lc					__funnelshift_lc	4.4.0			
__funnelshift_r					__funnelshift_r	4.4.0			
__funnelshift_rc					__funnelshift_rc	4.4.0			
__h2div					__h2div	1.9.0			
__habs					__habs	3.5.0			
__habs2					__habs2	3.5.0			
__hadd					__hadd	1.6.0			
__hadd2					__hadd2	1.6.0			
__hadd2_rn	11.6				__hadd2_rn	7.1.0			
__hadd2_sat					__hadd2_sat	1.6.0			
__hadd_rn	11.6				__hadd_rn	7.1.0			
__hadd_sat					__hadd_sat	1.6.0			
__half22float2					__half22float2	1.6.0			
__half2char_rz	12.2								
__half2float					__half2float	1.6.0			
__half2half2					__half2half2	1.9.0			
__half2int_rd					__half2int_rd	1.6.0			
__half2int_rn					__half2int_rn	1.6.0			
__half2int_ru					__half2int_ru	1.6.0			
__half2int_rz					__half2int_rz	1.6.0			
__half2ll_rd					__half2ll_rd	1.6.0			

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
__half211_rn					__half211_rn	1.6.0			
__half211_ru					__half211_ru	1.6.0			
__half211_rz					__half211_rz	1.6.0			
__half2short_rd					__half2short_rd	1.6.0			
__half2short_rn					__half2short_rn	1.6.0			
__half2short_ru					__half2short_ru	1.6.0			
__half2short_rz					__half2short_rz	1.6.0			
__half2uchar_rz	12.2								
__half2uint_rd					__half2uint_rd	1.6.0			
__half2uint_rn					__half2uint_rn	1.6.0			
__half2uint_ru					__half2uint_ru	1.6.0			
__half2uint_rz					__half2uint_rz	1.6.0			
__half2ull_rd					__half2ull_rd	1.6.0			
__half2ull_rn					__half2ull_rn	1.6.0			
__half2ull_ru					__half2ull_ru	1.6.0			
__half2ull_rz					__half2ull_rz	1.6.0			
__half2ushort_rd					__half2ushort_rd	1.6.0			
__half2ushort_rn					__half2ushort_rn	1.6.0			
__half2ushort_ru					__half2ushort_ru	1.6.0			
__half2ushort_rz					__half2ushort_rz	1.6.0			
__half_as_short					__half_as_short	1.6.0			
__half_as_ushort					__half_as_ushort	1.6.0			
__halves2bfloat162	11.0		12.2		__halves2bfloat162	5.7.0			
__halves2half2					__halves2half2	1.6.0			
__hbeq2					__hbeq2	1.6.0			
__hbequ2					__hbequ2	1.9.0			
__hbge2					__hbge2	1.6.0			
__hbgeu2					__hbgeu2	1.9.0			
__hbg2					__hbg2	1.6.0			
__hbg2u2					__hbg2u2	1.9.0			
__hble2					__hble2	1.6.0			
__hbleu2					__hbleu2	1.9.0			
__hbl2					__hbl2	1.6.0			
__hbl2u2					__hbl2u2	1.9.0			
__hbne2					__hbne2	1.6.0			
__hbneu2					__hbneu2	1.9.0			
__hcmadd	11.1								
__hdiv					__hdiv	1.9.0			
__heq					__heq	1.6.0			
__heq2					__heq2	1.6.0			
__heq2_mask	12.0								
__hequ					__hequ	1.9.0			
__hequ2					__hequ2	1.9.0			
__hequ2_mask	12.0								
__hfma					__hfma	1.6.0			
__hfma2					__hfma2	1.6.0			
__hfma2_relu	11.0								
__hfma2_sat					__hfma2_sat	1.6.0			
__hfma_relu	11.0								
__hfma_sat					__hfma_sat	1.6.0			

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
__hge					__hge	1.6.0			
__hge2					__hge2	1.6.0			
__hge2_mask	12.0								
__hgeu					__hgeu	1.9.0			
__hgeu2					__hgeu2	1.9.0			
__hgeu2_mask	12.0								
__hgt					__hgt	1.6.0			
__hgt2					__hgt2	1.6.0			
__hgt2_mask	12.0								
__hgtu					__hgtu	1.9.0			
__hgtu2					__hgtu2	1.9.0			
__hgtu2_mask	12.0								
__high2bfloat16	11.0		12.2		__high2bfloat16	5.7.0			
__high2bfloat162	11.0		12.2		__high2bfloat162	5.7.0			
__high2float					__high2float	1.6.0			
__high2half					__high2half	1.6.0			
__high2half2					__high2half2	1.6.0			
__highs2bfloat162	11.0		12.2		__highs2bfloat162	5.7.0			
__highs2half2					__highs2half2	1.6.0			
__hiloint2double					__hiloint2double	1.6.0			
__hisinf					__hisinf	1.6.0			
__hisnan					__hisnan	1.6.0			
__hisnan2					__hisnan2	1.6.0			
__hle					__hle	1.6.0			
__hle2					__hle2	1.6.0			
__hle2_mask	12.0								
__hleu					__hleu	1.9.0			
__hleu2					__hleu2	1.9.0			
__hleu2_mask	12.0								
__hlt					__hlt	1.6.0			
__hlt2					__hlt2	1.6.0			
__hlt2_mask	12.0								
__hltu					__hltu	1.9.0			
__hltu2					__hltu2	1.9.0			
__hltu2_mask	12.0								
__hmax	11.0				__hmax	5.5.0			
__hmax2	11.0		12.2		__hmax2	5.7.0			
__hmax2_nan	11.0								
__hmax_nan	11.0				__hmax_nan	5.5.0			
__hmin	11.0				__hmin	5.5.0			
__hmin2	11.0		12.2		__hmin2	5.7.0			
__hmin2_nan	11.0								
__hmin_nan	11.0				__hmin_nan	5.5.0			
__hmul					__hmul	1.6.0			
__hmul2					__hmul2	1.6.0			
__hmul2_rn	11.6				__hmul2_rn	7.1.0			
__hmul2_sat					__hmul2_sat	1.6.0			
__hmul_rn	11.6				__hmul_rn	7.1.0			
__hmul_sat					__hmul_sat	1.6.0			
__hne					__hne	1.6.0			

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
__hne2					__hne2	1.6.0			
__hne2_mask	12.0								
__hneg					__hneg	1.6.0			
__hneg2					__hneg2	1.6.0			
__hneu					__hneu	1.9.0			
__hneu2					__hneu2	1.9.0			
__hneu2_mask	12.0								
__hsub					__hsub	1.6.0			
__hsub2					__hsub2	1.6.0			
__hsub2_rn	11.6				__hsub2_rn	7.1.0			
__hsub2_sat					__hsub2_sat	1.6.0			
__hsub_rn	11.6				__hsub_rn	7.1.0			
__hsub_sat					__hsub_sat	1.6.0			
__int2bfloat16_rd	11.0								
__int2bfloat16_rn	11.0				__int2bfloat16_rn	7.0.0			
__int2bfloat16_ru	11.0								
__int2bfloat16_rz	11.0								
__int2double_rn					__int2double_rn	1.6.0			
__int2float_rd					__int2float_rd	1.6.0			
__int2float_rn					__int2float_rn	1.6.0			
__int2float_ru					__int2float_ru	1.6.0			
__int2float_rz					__int2float_rz	1.6.0			
__int2half_rd					__int2half_rd	1.6.0			
__int2half_rn					__int2half_rn	1.6.0			
__int2half_ru					__int2half_ru	1.6.0			
__int2half_rz					__int2half_rz	1.6.0			
__int_as_float					__int_as_float	1.6.0			
__isinf									
__isinff									
__isinfl									
__isnan									
__isnanf									
__isnanl									
__ldca					__ldca	1.9.0			
__ldcg					__ldcg	1.9.0			
__ldcs					__ldcs	1.9.0			
__ldcv	11.0								
__ldg					__ldg	1.6.0			
__ldlu	11.0								
__l12bfloat16_rd	11.0								
__l12bfloat16_rn	11.0								
__l12bfloat16_ru	11.0								
__l12bfloat16_rz	11.0								
__l12double_rd					__l12double_rd	1.6.0			
__l12double_rn					__l12double_rn	1.6.0			
__l12double_ru					__l12double_ru	1.6.0			
__l12double_rz					__l12double_rz	1.6.0			
__l12float_rd					__l12float_rd	1.6.0			
__l12float_rn					__l12float_rn	1.6.0			
__l12float_ru					__l12float_ru	1.6.0			

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
__ll2float_rz					__ll2float_rz	1.6.0			
__ll2half_rd					__ll2half_rd	1.6.0			
__ll2half_rn					__ll2half_rn	1.6.0			
__ll2half_ru					__ll2half_ru	1.6.0			
__ll2half_rz					__ll2half_rz	1.6.0			
__log10f					__log10f	1.6.0			
__log2f					__log2f	1.6.0			
__logf					__logf	1.6.0			
__longlong_as_double					__longlong_as_double	1.6.0			
__low2bfloat16	11.0		12.2		__low2bfloat16	5.7.0			
__low2bfloat162	11.0		12.2		__low2bfloat162	5.7.0			
__low2float					__low2float	1.6.0			
__low2half					__low2half	1.6.0			
__low2half2					__low2half2	1.6.0			
__lowhigh2highlow					__lowhigh2highlow	1.6.0			
__lows2bfloat162	11.0		12.2		__lows2bfloat162	5.7.0			
__lows2half2					__lows2half2	1.6.0			
__match_all_sync	9.0				__match_all_sync	6.2.0			
__match_any_sync	9.0				__match_any_sync	6.2.0			
__mul24					__mul24	1.6.0			
__mul64hi					__mul64hi	1.6.0			
__mulhi					__mulhi	1.6.0			
__nv_bswap16	12.8								
__nv_bswap32	12.8								
__nv_bswap64	12.8								
__nv_cvt_bfloat162raw_to_e8m0x2	12.8								
__nv_cvt_bfloat16raw2_to_fp4x2	12.8				__hip_cvt_bfloat16raw2_to_fp4x2	7.0.0			
__nv_cvt_bfloat16raw2_to_fp6x2	12.8				__hip_cvt_bfloat16raw2_to_fp6x2	7.0.0			
__nv_cvt_bfloat16raw2_to_fp8x2	11.8				__hip_cvt_bfloat16raw2_to_fp8x2	6.2.0			
__nv_cvt_bfloat16raw_to_e8m0	12.8								
__nv_cvt_bfloat16raw_to_fp4	12.8				__hip_cvt_bfloat16raw_to_fp4	7.0.0			
__nv_cvt_bfloat16raw_to_fp6	12.8				__hip_cvt_bfloat16raw_to_fp6	7.0.0			
__nv_cvt_bfloat16raw_to_fp8	11.8				__hip_cvt_bfloat16raw_to_fp8	6.2.0			
__nv_cvt_double2_to_e8m0x2	12.8								
__nv_cvt_double2_to_fp4x2	12.8				__hip_cvt_double2_to_fp4x2	7.0.0			
__nv_cvt_double2_to_fp6x2	12.8				__hip_cvt_double2_to_fp6x2	7.0.0			
__nv_cvt_double2_to_fp8x2	11.8				__hip_cvt_double2_to_fp8x2	6.2.0			
__nv_cvt_double_to_e8m0	12.8								
__nv_cvt_double_to_fp4	12.8				__hip_cvt_double_to_fp4	7.0.0			
__nv_cvt_double_to_fp6	12.8				__hip_cvt_double_to_fp6	7.0.0			
__nv_cvt_double_to_fp8	11.8				__hip_cvt_double_to_fp8	6.2.0			
__nv_cvt_e8m0_to_bf16raw	12.8								
__nv_cvt_e8m0x2_to_bf162raw	12.8								
__nv_cvt_float2_to_e8m0x2	12.8								
__nv_cvt_float2_to_fp4x2	12.8				__hip_cvt_float2_to_fp4x2	7.0.0			
__nv_cvt_float2_to_fp6x2	12.8				__hip_cvt_float2_to_fp6x2	7.0.0			
__nv_cvt_float2_to_fp8x2	11.8				__hip_cvt_float2_to_fp8x2	6.2.0			
__nv_cvt_float_to_e8m0	12.8								
__nv_cvt_float_to_fp4	12.8				__hip_cvt_float_to_fp4	7.0.0			
__nv_cvt_float_to_fp6	12.8				__hip_cvt_float_to_fp6	7.0.0			

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
__nv_cvt_float_to_fp8	11.8				__hip_cvt_float_to_fp8	6.2.0			
__nv_cvt_fp4_to_halfraw	12.8				__hip_cvt_fp4_to_halfraw	7.0.0			
__nv_cvt_fp4x2_to_halfraw2	12.8				__hip_cvt_fp4x2_to_halfraw2	7.0.0			
__nv_cvt_fp6_to_halfraw	12.8				__hip_cvt_fp6_to_halfraw	7.0.0			
__nv_cvt_fp6x2_to_halfraw2	12.8				__hip_cvt_fp6x2_to_halfraw2	7.0.0			
__nv_cvt_fp8_to_halfraw	11.8				__hip_cvt_fp8_to_halfraw	6.2.0			
__nv_cvt_fp8x2_to_halfraw2	11.8				__hip_cvt_fp8x2_to_halfraw2	6.2.0			
__nv_cvt_halfraw2_to_fp4x2	12.8				__hip_cvt_halfraw2_to_fp4x2	7.0.0			
__nv_cvt_halfraw2_to_fp6x2	12.8				__hip_cvt_halfraw2_to_fp6x2	7.0.0			
__nv_cvt_halfraw2_to_fp8x2	11.8				__hip_cvt_halfraw2_to_fp8x2	6.2.0			
__nv_cvt_halfraw_to_fp4	12.8				__hip_cvt_halfraw_to_fp4	7.0.0			
__nv_cvt_halfraw_to_fp6	12.8				__hip_cvt_halfraw_to_fp6	7.0.0			
__nv_cvt_halfraw_to_fp8	11.8				__hip_cvt_halfraw_to_fp8	6.2.0			
__nv_fp128_acos	12.8								
__nv_fp128_acosh	12.8								
__nv_fp128_add	12.8								
__nv_fp128_asin	12.8								
__nv_fp128_asinh	12.8								
__nv_fp128_atan	12.8								
__nv_fp128_atanh	12.8								
__nv_fp128_ceil	12.8								
__nv_fp128_copysign	12.8								
__nv_fp128_cos	12.8								
__nv_fp128_cosh	12.8								
__nv_fp128_div	12.8								
__nv_fp128_exp	12.8								
__nv_fp128_exp10	12.8								
__nv_fp128_exp2	12.8								
__nv_fp128_expm1	12.8								
__nv_fp128_fabs	12.8								
__nv_fp128_fdim	12.8								
__nv_fp128_floor	12.8								
__nv_fp128_fma	12.8								
__nv_fp128_fmax	12.8								
__nv_fp128_fmin	12.8								
__nv_fp128_fmod	12.8								
__nv_fp128_frexp	12.8								
__nv_fp128_hypot	12.8								
__nv_fp128_ilogb	12.8								
__nv_fp128_isnan	12.8								
__nv_fp128_isunordered	12.8								
__nv_fp128_ldexp	12.8								
__nv_fp128_log	12.8								
__nv_fp128_log10	12.8								
__nv_fp128_log1p	12.8								
__nv_fp128_log2	12.8								
__nv_fp128_modf	12.8								
__nv_fp128_mul	12.8								
__nv_fp128_pow	12.8								
__nv_fp128_remainder	12.8								

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
__nv_fp128_rint	12.8								
__nv_fp128_round	12.8								
__nv_fp128_sin	12.8								
__nv_fp128_sinh	12.8								
__nv_fp128_sqrt	12.8								
__nv_fp128_sub	12.8								
__nv_fp128_tan	12.8								
__nv_fp128_tanh	12.8								
__nv_fp128_trunc	12.8								
__pm0									
__pm1									
__pm2									
__pm3									
__popc					__popc	1.6.0			
__popc11					__popc11	1.6.0			
__powf					__powf	1.6.0			
__prof_trigger									
__reduce_add_sync	11.0				__reduce_add_sync	7.0.0			
__reduce_max_sync	11.0				__reduce_max_sync	7.0.0			
__reduce_min_sync	11.0				__reduce_min_sync	7.0.0			
__rhadd					__rhadd	1.6.0			
__sad					__sad	1.6.0			
__saturatef					__saturatef	1.6.0			
__shfl	7.5	9.0			__shfl	1.6.0			
__shfl_down	7.5	9.0			__shfl_down	1.6.0			
__shfl_down_sync	9.0				__shfl_down_sync	6.2.0			
__shfl_sync	9.0				__shfl_sync	6.2.0			
__shfl_up	7.5	9.0			__shfl_up	1.6.0			
__shfl_up_sync	9.0				__shfl_up_sync	6.2.0			
__shfl_xor	7.5	9.0			__shfl_xor	1.6.0			
__shfl_xor_sync	9.0				__shfl_xor_sync	6.2.0			
__short2bfloat16_rd	11.0								
__short2bfloat16_rn	11.0								
__short2bfloat16_ru	11.0								
__short2bfloat16_rz	11.0								
__short2half_rd					__short2half_rd	1.6.0			
__short2half_rn					__short2half_rn	1.6.0			
__short2half_ru					__short2half_ru	1.6.0			
__short2half_rz					__short2half_rz	1.6.0			
__short_as_bfloat16	11.0		12.2		__short_as_bfloat16	5.7.0			
__short_as_half					__short_as_half	1.9.0			
__signbit									
__signbitf									
__signbitl									
__sincosf					__sincosf	1.6.0			
__sinf					__sinf	1.6.0			
__stcg	11.0								
__stcs	11.0								
__stwb	11.0								
__stwt	11.0								

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
__syncthreads					__syncthreads	1.6.0			
__syncthreads_and					__syncthreads_and	3.7.0			
__syncthreads_count					__syncthreads_count	3.7.0			
__syncthreads_or					__syncthreads_or	3.7.0			
__tanf					__tanf	1.6.0			
__threadfence					__threadfence	1.6.0			
__threadfence_block					__threadfence_block	1.6.0			
__threadfence_system					__threadfence_system	1.6.0			
__trap									
__uhadd					__uhadd	1.6.0			
__uint2bfloat16_rd	11.0								
__uint2bfloat16_rn	11.0								
__uint2bfloat16_ru	11.0								
__uint2bfloat16_rz	11.0								
__uint2double_rn					__uint2double_rn	1.6.0			
__uint2float_rd					__uint2float_rd	1.6.0			
__uint2float_rn					__uint2float_rn	1.6.0			
__uint2float_ru					__uint2float_ru	1.6.0			
__uint2float_rz					__uint2float_rz	1.6.0			
__uint2half_rd					__uint2half_rd	1.6.0			
__uint2half_rn					__uint2half_rn	1.6.0			
__uint2half_ru					__uint2half_ru	1.6.0			
__uint2half_rz					__uint2half_rz	1.6.0			
__uint_as_float					__uint_as_float	1.6.0			
__ull2bfloat16_rd	11.0								
__ull2bfloat16_rn	11.0								
__ull2bfloat16_ru	11.0								
__ull2bfloat16_rz	11.0								
__ull2double_rd					__ull2double_rd	1.6.0			
__ull2double_rn					__ull2double_rn	1.6.0			
__ull2double_ru					__ull2double_ru	1.6.0			
__ull2double_rz					__ull2double_rz	1.6.0			
__ull2float_rd					__ull2float_rd	1.6.0			
__ull2float_rn					__ull2float_rn	1.6.0			
__ull2float_ru					__ull2float_ru	1.6.0			
__ull2float_rz					__ull2float_rz	1.6.0			
__ull2half_rd					__ull2half_rd	1.6.0			
__ull2half_rn					__ull2half_rn	1.6.0			
__ull2half_ru					__ull2half_ru	1.6.0			
__ull2half_rz					__ull2half_rz	1.6.0			
__umul24					__umul24	1.6.0			
__umul64hi					__umul64hi	1.6.0			
__umulhi					__umulhi	1.6.0			
__urhadd					__urhadd	1.6.0			
__usad					__usad	1.6.0			
__ushort2bfloat16_rd	11.0								
__ushort2bfloat16_rn	11.0								
__ushort2bfloat16_ru	11.0								
__ushort2bfloat16_rz	11.0								
__ushort2half_rd					__ushort2half_rd	1.6.0			

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
__ushort2half_rn					__ushort2half_rn	1.6.0			
__ushort2half_ru					__ushort2half_ru	1.6.0			
__ushort2half_rz					__ushort2half_rz	1.6.0			
__ushort_as_bfloat16	11.0		12.2		__ushort_as_bfloat16	5.7.0			
__ushort_as_half					__ushort_as_half	1.6.0			
__vabs2									
__vabs4									
__vabsdiffs2									
__vabsdiffs4									
__vabsdiffu2									
__vabsdiffu4									
__vabsss2									
__vabsss4									
__vadd2									
__vadd4									
__vaddss2									
__vaddss4									
__vaddus2									
__vaddus4									
__vavg2									
__vavg4									
__vavgu2									
__vavgu4									
__vcmp2									
__vcmp4									
__vcmpges2									
__vcmpges4									
__vcmpgeu2									
__vcmpgeu4									
__vcmpgts2									
__vcmpgts4									
__vcmpgtu2									
__vcmpgtu4									
__vcmples2									
__vcmples4									
__vcmpleu4									
__vcmplts2									
__vcmplts4									
__vcmpltu2									
__vcmpltu4									
__vcmpne2									
__vcmpne4									
__vhaddu2									
__vhaddu4									
__vmaxs2									
__vmaxs4									
__vmaxu2									
__vmaxu4									
__vmins2									
__vmins4									

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
__vminu2									
__vminu4									
__vneg2									
__vneg4									
__vnegss2									
__vnegss4									
__vsads2									
__vsads4									
__vsadu2									
__vsadu4									
__vseteq2									
__vseteq4									
__vsetges2									
__vsetges4									
__vsetgeu2									
__vsetgeu4									
__vsetgts2									
__vsetgts4									
__vsetgtu4									
__vsetles2									
__vsetles4									
__vsetleu2									
__vsetleu4									
__vsetlts2									
__vsetlts4									
__vsetltu2									
__vsetltu4									
__vsetne2									
__vsetne4									
__vsub2									
__vsub4									
__vsubss2									
__vsubss4									
__vsubus2									
__vsubus4									
_fdsign									
_ldsign									
abs					abs				1.6.0
acos					acos				1.6.0
acosf					acosf				1.6.0
acosh					acosh				1.6.0
acoshf					acoshf				1.6.0
asin					asin				1.6.0
asinf					asinf				1.6.0
asinh					asinh				1.6.0
asinhf					asinhf				1.6.0
atan					atan				1.6.0
atan2					atan2				1.6.0
atan2f					atan2f				1.6.0
atanf					atanf				1.6.0

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
atanh					atanh	1.6.0			
atanhf					atanhf	1.6.0			
atomicAdd					atomicAdd	1.6.0			
atomicAdd_system					atomicAdd_system	4.3.0			
atomicAnd					atomicAnd	1.6.0			
atomicAnd_system					atomicAnd_system	4.3.0			
atomicCAS					atomicCAS	1.6.0			
atomicCAS_system					atomicCAS_system	4.3.0			
atomicDec					atomicDec	1.6.0			
atomicExch					atomicExch	1.6.0			
atomicExch_system					atomicExch_system	4.3.0			
atomicInc					atomicInc	1.6.0			
atomicMax					atomicMax	1.6.0			
atomicMax_system					atomicMax_system	4.3.0			
atomicMin					atomicMin	1.6.0			
atomicMin_system					atomicMin_system	4.3.0			
atomicOr					atomicOr	1.6.0			
atomicOr_system					atomicOr_system	4.3.0			
atomicSub					atomicSub	1.6.0			
atomicSub_system					atomicSub_system	4.3.0			
atomicXor					atomicXor	1.6.0			
atomicXor_system					atomicXor_system	4.3.0			
cbrt					cbrt	1.6.0			
cbrtf					cbrtf	1.6.0			
ceil					ceil	1.6.0			
ceilf					ceilf	1.6.0			
clock					clock	1.6.0			
clock64					clock64	1.6.0			
copysign					copysign	1.6.0			
copysignf					copysignf	1.6.0			
cos					cos	1.6.0			
cosf					cosf	1.6.0			
cosh					cosh	1.6.0			
coshf					coshf	1.6.0			
cospi					cospi	1.6.0			
cospif					cospif	1.6.0			
cyl_bessel_i0					cyl_bessel_i0	1.9.0			
cyl_bessel_i0f					cyl_bessel_i0f	1.9.0			
cyl_bessel_i1					cyl_bessel_i1	1.9.0			
cyl_bessel_i1f					cyl_bessel_i1f	1.9.0			
erf					erf	1.6.0			
erfc					erfc	1.6.0			
erfcf					erfcf	1.6.0			
erfcinv					erfcinv	1.6.0			
erfcinvf					erfcinvf	1.6.0			
erfcx					erfcx	1.6.0			
erfcxf					erfcxf	1.6.0			
erff					erff	1.6.0			
erfinv					erfinv	1.6.0			
erfinvf					erfinvf	1.6.0			

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
exp					exp	1.6.0			
exp10					exp10	1.6.0			
exp10f					exp10f	1.6.0			
exp2					exp2	1.6.0			
exp2f					exp2f	1.6.0			
expf					expf	1.6.0			
expm1					expm1	1.6.0			
expm1f					expm1f	1.6.0			
fabs					fabs	1.6.0			
fabsf					fabsf	1.6.0			
fdim					fdim	1.6.0			
fdimf					fdimf	1.6.0			
fdivide									
fdividedf					fdividedf	1.6.0			
float2int									
float_as_int									
float_as_uint									
floor					floor	1.6.0			
floorf					floorf	1.6.0			
fma					fma	1.6.0			
fmaf					fmaf	1.6.0			
fmax					fmax	1.6.0			
fmaxf					fmaxf	1.6.0			
fmin					fmin	1.6.0			
fminf					fminf	1.6.0			
fmod					fmod	1.6.0			
fmodf					fmodf	1.6.0			
frexp					frexp	1.6.0			
frexpf					frexpf	1.6.0			
h2ceil					h2ceil	1.6.0			
h2cos					h2cos	1.6.0			
h2exp					h2exp	1.6.0			
h2exp10					h2exp10	1.6.0			
h2exp2					h2exp2	1.6.0			
h2floor					h2floor	1.6.0			
h2log					h2log	1.6.0			
h2log10					h2log10	1.6.0			
h2log2					h2log2	1.6.0			
h2rcp					h2rcp	1.6.0			
h2rint					h2rint	1.9.0			
h2rsqrt					h2rsqrt	1.6.0			
h2sin					h2sin	1.6.0			
h2sqrt					h2sqrt	1.6.0			
h2tanh		12.8							
h2tanh_approx		12.8							
h2trunc					h2trunc	1.6.0			
hceil					hceil	1.6.0			
hcos					hcos	1.6.0			
hexp					hexp	1.6.0			
hexp10					hexp10	1.6.0			

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
hexp2					hexp2	1.6.0			
hfloor					hfloor	1.6.0			
hlog					hlog	1.6.0			
hlog10					hlog10	1.6.0			
hlog2					hlog2	1.6.0			
hrcp					hrcp	1.9.0			
hrint					hrint	1.6.0			
hrsqrt					hrsqrt	1.6.0			
hsin					hsin	1.6.0			
hsqrt					hsqrt	1.6.0			
htanh	12.8								
htanh_approx	12.8								
htrunc					htrunc	1.6.0			
hypot					hypot	1.6.0			
hypotf					hypotf	1.6.0			
ilogb					ilogb	1.6.0			
ilogbf					ilogbf	1.6.0			
int2float									
int_as_float									
isfinite					isfinite	1.6.0			
isinf					isinf	1.6.0			
isnan					isnan	1.6.0			
j0					j0	1.6.0			
j0f					j0f	1.6.0			
j1					j1	1.6.0			
j1f					j1f	1.6.0			
jn					jn	1.6.0			
jnf					jnf	1.6.0			
labs					labs	1.9.0			
ldexp					ldexp	1.6.0			
ldexpf					ldexpf	1.6.0			
lgamma					lgamma	1.6.0			
lgammaf					lgammaf	1.6.0			
llabs					llabs	1.9.0			
llmax									
llmin									
llrint					llrint	1.6.0			
llrintf					llrintf	1.6.0			
llround					llround	1.6.0			
llroundf					llroundf	1.6.0			
log					log	1.6.0			
log10					log10	1.6.0			
log10f					log10f	1.6.0			
log1p					log1p	1.6.0			
log1pf					log1pf	1.6.0			
log2					log2	1.6.0			
log2f					log2f	1.6.0			
logb					logb	1.6.0			
logbf					logbf	1.6.0			
logf					logf	1.6.0			

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
lrint					lrint	1.6.0			
lrintf					lrintf	1.6.0			
lround					lround	1.6.0			
lroundf					lroundf	1.6.0			
make_bfloat162	12.2								
make_char1					make_char1	1.6.0			
make_char2					make_char2	1.6.0			
make_char3					make_char3	1.6.0			
make_char4					make_char4	1.6.0			
make_double1					make_double1	1.6.0			
make_double2					make_double2	1.6.0			
make_double3					make_double3	1.6.0			
make_double4		13.0			make_double4	1.6.0			
make_double4_16a	13.0								
make_double4_32a	13.0								
make_float1					make_float1	1.6.0			
make_float2					make_float2	1.6.0			
make_float3					make_float3	1.6.0			
make_float4					make_float4	1.6.0			
make_half2	12.2				make_half2	4.5.0			
make_int1					make_int1	1.6.0			
make_int2					make_int2	1.6.0			
make_int3					make_int3	1.6.0			
make_int4					make_int4	1.6.0			
make_long1					make_long1	1.6.0			
make_long2					make_long2	1.6.0			
make_long3					make_long3	1.6.0			
make_long4		13.0			make_long4	1.6.0			
make_long4_16a	13.0								
make_long4_32a	13.0								
make_longlong1					make_longlong1	1.6.0			
make_longlong2					make_longlong2	1.6.0			
make_longlong3					make_longlong3	1.6.0			
make_longlong4		13.0			make_longlong4	1.6.0			
make_longlong4_16a	13.0								
make_longlong4_32a	13.0								
make_short1					make_short1	1.6.0			
make_short2					make_short2	1.6.0			
make_short3					make_short3	1.6.0			
make_short4					make_short4	1.6.0			
make_uchar1					make_uchar1	1.6.0			
make_uchar2					make_uchar2	1.6.0			
make_uchar3					make_uchar3	1.6.0			
make_uchar4					make_uchar4	1.6.0			
make_uint1					make_uint1	1.6.0			
make_uint2					make_uint2	1.6.0			
make_uint3					make_uint3	1.6.0			
make_uint4					make_uint4	1.6.0			
make_ulong1					make_ulong1	1.6.0			
make_ulong2					make_ulong2	1.6.0			

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
make_ulong3					make_ulong3	1.6.0			
make_ulong4		13.0			make_ulong4	1.6.0			
make_ulong4_16a	13.0								
make_ulong4_32a	13.0								
make_ulonglong1					make_ulonglong1	1.6.0			
make_ulonglong2					make_ulonglong2	1.6.0			
make_ulonglong3					make_ulonglong3	1.6.0			
make_ulonglong4		13.0			make_ulonglong4	1.6.0			
make_ulonglong4_16a	13.0								
make_ulonglong4_32a	13.0								
make_ushort1					make_ushort1	1.6.0			
make_ushort2					make_ushort2	1.6.0			
make_ushort3					make_ushort3	1.6.0			
make_ushort4					make_ushort4	1.6.0			
max					max	1.6.0			
min					min	1.6.0			
modf					modf	1.9.0			
modff					modff	1.9.0			
mul24									
mul64hi									
mulhi									
nan					nan	1.6.0			
nanf					nanf	1.6.0			
nearbyint					nearbyint	1.6.0			
nearbyintf					nearbyintf	1.6.0			
nextafter					nextafter	1.6.0			
nextafterf					nextafterf	1.9.0			
norm					norm	1.6.0			
norm3d					norm3d	1.6.0			
norm3df					norm3df	1.6.0			
norm4d					norm4d	1.6.0			
norm4df					norm4df	1.6.0			
normcdf					normcdf	1.6.0			
normcdf					normcdf	1.6.0			
normcdfinv					normcdfinv	1.6.0			
normcdfinvf					normcdfinvf	1.6.0			
normf					normf	1.6.0			
pow					pow	1.6.0			
powf					powf	1.6.0			
rcbrt					rcbrt	1.6.0			
rcbrtf					rcbrtf	1.6.0			
remainder					remainder	1.6.0			
remainderf					remainderf	1.6.0			
remquo					remquo	1.9.0			
remquof					remquof	1.6.0			
rhypot					rhypot	1.6.0			
rhypotf					rhypotf	1.6.0			
rint					rint	1.6.0			
rintf					rintf	1.6.0			
rnorm					rnorm	1.6.0			

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Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
rnorm3d					rnorm3d	1.6.0			
rnorm3df					rnorm3df	1.6.0			
rnorm4d					rnorm4d	1.6.0			
rnorm4df					rnorm4df	1.6.0			
rnormf					rnormf	1.6.0			
round					round	1.6.0			
roundf					roundf	1.6.0			
rsqrt					rsqrt	1.6.0			
rsqrtf					rsqrtf	1.6.0			
saturate									
scalbln					scalbln	1.6.0			
scalblnf					scalblnf	1.6.0			
scalbn					scalbn	1.6.0			
scalbnf					scalbnf	1.6.0			
signbit					signbit	1.6.0			
sin					sin	1.6.0			
sincos					sincos	1.6.0			
sincosf					sincosf	1.6.0			
sincospi					sincospi	1.6.0			
sincospif					sincospif	1.6.0			
sinf					sinf	1.6.0			
sinh					sinh	1.6.0			
sinhf					sinhf	1.6.0			
sinpi					sinpi	1.6.0			
sinpif					sinpif	1.6.0			
sqrt					sqrt	1.6.0			
sqrtf					sqrtf	1.6.0			
tan					tan	1.6.0			
tanf					tanf	1.6.0			
tanh					tanh	1.6.0			
tanhf					tanhf	1.6.0			
tgamma					tgamma	1.6.0			
tgammaf					tgammaf	1.6.0			
trunc					trunc	1.6.0			
truncf					truncf	1.6.0			
uint2float									
uint_as_float									
ullmax									
ullmin									
umax									
umin									
umul24									
y0					y0	1.6.0			
y0f					y0f	1.6.0			
y1					y1	1.6.0			
y1f					y1f	1.6.0			
yn					yn	1.6.0			
ynf					ynf	1.6.0			

9.4.2 2. Device Types

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
CUDART_INF_FP16	12.2				HIPRT_INF_FP16	7.0.0					
CUDART_MAX_NORMAL_FP16	12.2				HIPRT_MAX_NORMAL_FP16	7.0.0					
CUDART_MIN_DENORM_FP16	12.2				HIPRT_MIN_DENORM_FP16	7.0.0					
CUDART_NAN_FP16	12.2				HIPRT_NAN_FP16	7.0.0					
CUDART_NEG_ZERO_FP16	12.2				HIPRT_NEG_ZERO_FP16	7.0.0					
CUDART_ONE_FP16	12.2				HIPRT_ONE_FP16	7.0.0					
CUDART_ZERO_FP16	12.2				HIPRT_ZERO_FP16	7.0.0					
__NV_E2M1	12.8				__HIP_E2M1	7.0.0					
__NV_E2M3	12.8				__HIP_E2M3	7.0.0					
__NV_E3M2	12.8				__HIP_E3M2	7.0.0					
__NV_E4M3	11.8				__HIP_E4M3_FNUZ	6.2.0					
__NV_E5M2	11.8				__HIP_E5M2_FNUZ	6.2.0					
__NV_NOSAT	11.8				__HIP_NOSAT	6.2.0					
__NV_SATFINITE	11.8				__HIP_SATFINITE	6.2.0					
__half					__half	1.6.0					
__half2					__half2	1.6.0					
__half2_raw					__half2_raw	1.9.0					
__half_raw					__half_raw	1.9.0					
__nv_bfloat16	11.0				__hip_bfloat16	5.7.0					
__nv_bfloat162	11.0				__hip_bfloat162	5.7.0					
__nv_bfloat162_raw	11.0				__hip_bfloat162_raw	6.2.0					
__nv_bfloat16_raw	11.0				__hip_bfloat16_raw	6.2.0					
__nv_fp4_e2m1	12.8				__hip_fp4_e2m1	7.0.0					
__nv_fp4_interpretation_t	12.8				__hip_fp4_interpretation_t	7.0.0					
__nv_fp4_storage_t	12.8				__hip_fp4_storage_t	7.0.0					
__nv_fp4x2_e2m1	12.8				__hip_fp4x2_e2m1	7.0.0					
__nv_fp4x2_storage_t	12.8				__hip_fp4x2_storage_t	7.0.0					
__nv_fp4x4_e2m1	12.8				__hip_fp4x4_e2m1	7.0.0					
__nv_fp4x4_storage_t	12.8				__hip_fp4x4_storage_t	7.0.0					
__nv_fp6_e2m3	12.8				__hip_fp6_e2m3	7.0.0					
__nv_fp6_e3m2	12.8				__hip_fp6_e3m2	7.0.0					
__nv_fp6_interpretation_t	12.8				__hip_fp6_interpretation_t	7.0.0					
__nv_fp6_storage_t	12.8				__hip_fp6_storage_t	7.0.0					
__nv_fp6x2_e2m3	12.8				__hip_fp6x2_e2m3	7.0.0					
__nv_fp6x2_e3m2	12.8				__hip_fp6x2_e3m2	7.0.0					
__nv_fp6x2_storage_t	12.8				__hip_fp6x2_storage_t	7.0.0					
__nv_fp6x4_e2m3	12.8				__hip_fp6x4_e2m3	7.0.0					
__nv_fp6x4_e3m2	12.8				__hip_fp6x4_e3m2	7.0.0					
__nv_fp6x4_storage_t	12.8				__hip_fp6x4_storage_t	7.0.0					
__nv_fp8_e4m3	11.8				__hip_fp8_e4m3_fnuz	6.2.0					
__nv_fp8_e5m2	11.8				__hip_fp8_e5m2_fnuz	6.2.0					
__nv_fp8_e8m0	12.8										
__nv_fp8_interpretation_t	11.8				__hip_fp8_interpretation_t	6.2.0					
__nv_fp8_storage_t	11.8				__hip_fp8_storage_t	6.2.0					
__nv_fp8x2_e4m3	11.8				__hip_fp8x2_e4m3_fnuz	6.2.0					
__nv_fp8x2_e5m2	11.8				__hip_fp8x2_e5m2_fnuz	6.2.0					
__nv_fp8x2_e8m0	12.8										
__nv_fp8x2_storage_t	11.8				__hip_fp8x2_storage_t	6.2.0					
__nv_fp8x4_e4m3	11.8				__hip_fp8x4_e4m3_fnuz	6.2.0					

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Table 12 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
__nv_fp8x4_e5m2	11.8				__hip_fp8x4_e5m2_fnuz	6.2.0					
__nv_fp8x4_e8m0	12.8										
__nv_fp8x4_storage_t	11.8				__hip_fp8x4_storage_t	6.2.0					
__nv_saturation_t	11.8				__hip_saturation_t	6.2.0					
char1					char1	1.6.0					
char2					char2	1.6.0					
char3					char3	1.6.0					
char4					char4	1.6.0					
cudaRoundMinInf					hipRoundMinInf	7.0.0					
cudaRoundMode					hipRoundMode	7.0.0					
cudaRoundNearest					hipRoundNearest	7.0.0					
cudaRoundPosInf					hipRoundPosInf	7.0.0					
cudaRoundZero					hipRoundZero	7.0.0					
double1					double1	1.6.0					
double2					double2	1.6.0					
double3					double3	1.6.0					
double4		13.0			double4	1.6.0					
double4_16a	13.0										
double4_32a	13.0										
float1					float1	1.6.0					
float2					float2	1.6.0					
float3					float3	1.6.0					
float4					float4	1.6.0					
int1					int1	1.6.0					
int2					int2	1.6.0					
int3					int3	1.6.0					
int4					int4	1.6.0					
long1					long1	1.6.0					
long2					long2	1.6.0					
long3					long3	1.6.0					
long4		13.0			long4	1.6.0					
long4_16a	13.0										
long4_32a	13.0										
longlong1					longlong1	1.6.0					
longlong2					longlong2	1.6.0					
longlong3					longlong3	1.6.0					
longlong4		13.0			longlong4	1.6.0					
longlong4_16a	13.0										
longlong4_32a	13.0										
nv_bfloat16	11.0				hip_bfloat16	3.5.0					
nv_bfloat162	11.0										
short1					short1	1.6.0					
short2					short2	1.6.0					
short3					short3	1.6.0					
short4					short4	1.6.0					
uchar1					uchar1	1.6.0					
uchar2					uchar2	1.6.0					
uchar3					uchar3	1.6.0					
uchar4					uchar4	1.6.0					
uint1					uint1	1.6.0					

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Table 12 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
uint2					uint2	1.6.0					
uint3					uint3	1.6.0					
uint4					uint4	1.6.0					
ulong1					ulong1	1.6.0					
ulong2					ulong2	1.6.0					
ulong3					ulong3	1.6.0					
ulong4			13.0		ulong4	1.6.0					
ulong4_16a	13.0										
ulong4_32a	13.0										
ulonglong1					ulonglong1	1.6.0					
ulonglong2					ulonglong2	1.6.0					
ulonglong3					ulonglong3	1.6.0					
ulonglong4			13.0		ulonglong4	1.6.0					
ulonglong4_16a	13.0										
ulonglong4_32a	13.0										
ushort1					ushort1	1.6.0					
ushort2					ushort2	1.6.0					
ushort3					ushort3	1.6.0					
ushort4					ushort4	1.6.0					

9.5 CUDA RTC API supported by HIP

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

9.5.1 1. RTC Data types

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
NVRTC_ERROR_BUILTIN_OPEF					HIPRTC_ERROR_BUILTIN_OPE	2.6.0					
NVRTC_ERROR_CANCELLED	12.8										
NVRTC_ERROR_COMPILATION					HIPRTC_ERROR_COMPILATION	2.6.0					
NVRTC_ERROR_INTERNAL_ERF	8.0				HIPRTC_ERROR_INTERNAL_ER	2.6.0					
NVRTC_ERROR_INVALID_INPU					HIPRTC_ERROR_INVALID_INP	2.6.0					
NVRTC_ERROR_INVALID_OPTI					HIPRTC_ERROR_INVALID_OPT	2.6.0					
NVRTC_ERROR_INVALID_PROG					HIPRTC_ERROR_INVALID_PRO	2.6.0					
NVRTC_ERROR_NAME_EXPRESS	8.0				HIPRTC_ERROR_NAME_EXPRES	2.6.0					
NVRTC_ERROR_NO_LOWERED_M	8.0				HIPRTC_ERROR_NO_LOWERED_	2.6.0					
NVRTC_ERROR_NO_NAME_EXPF	8.0				HIPRTC_ERROR_NO_NAME_EXP	2.6.0					
NVRTC_ERROR_NO_PCH_CREA1	12.8										
NVRTC_ERROR_OUT_OF_MEMOF					HIPRTC_ERROR_OUT_OF_MEMO	2.6.0					
NVRTC_ERROR_PCH_CREATE	12.8										
NVRTC_ERROR_PCH_CREATE_F	12.8										
NVRTC_ERROR_PROGRAM_CREA					HIPRTC_ERROR_PROGRAM_CRE	2.6.0					
NVRTC_ERROR_TIME_FILE_WF	12.1										
NVRTC_ERROR_TIME_TRACE_F	13.0										
NVRTC_SUCCESS					HIPRTC_SUCCESS	2.6.0					
_nvrtcProgram					_hiprtcProgram	2.6.0					
nvrtcProgram					hiprtcProgram	2.6.0					
nvrtcResult					hiprtcResult	2.6.0					

9.5.2 2. RTC API functions

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
nvrtcAddNameExpression	8.0				hiprtcAddNameExpres	2.6.0					
nvrtcCompileProgram			8.0		hiprtcCompilePrograr	2.6.0	7.0.0				
nvrtcCreateProgram			8.0		hiprtcCreateProgram	2.6.0	7.0.0				
nvrtcDestroyProgram					hiprtcDestroyPrograr	2.6.0					
nvrtcGetCUBIN	11.1				hiprtcGetBitcode	5.3.0					
nvrtcGetCUBINSize	11.1				hiprtcGetBitcodeSiz	5.3.0					
nvrtcGetErrorString					hiprtcGetErrorStrin	2.6.0					
nvrtcGetLTOIR	12.0										
nvrtcGetLTOIRSize	12.0										
nvrtcGetLoweredName	8.0				hiprtcGetLoweredNam	2.6.0					
nvrtcGetNVVM	11.4	12.0		13.0							
nvrtcGetNVVMSize	11.4	12.0		13.0							
nvrtcGetNumSupportedArch	11.2										
nvrtcGetOptiXIR	12.0										
nvrtcGetOptiXIRSize	12.0										
nvrtcGetPCHCreateStatus	12.8										
nvrtcGetPCHHeapSize	12.8										
nvrtcGetPCHHeapSizeReq	12.8										
nvrtcGetPTX					hiprtcGetCode	2.6.0					
nvrtcGetPTXSize					hiprtcGetCodeSize	2.6.0					
nvrtcGetProgramLog					hiprtcGetProgramLog	2.6.0					
nvrtcGetProgramLogSize					hiprtcGetProgramLog	2.6.0					
nvrtcGetSupportedArchs	11.2										
nvrtcSetFlowCallback	12.8										
nvrtcSetPCHHeapSize	12.8										
nvrtcVersion					hiprtcVersion	2.6.0					

9.6 CUBLAS API supported by HIP

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

9.6.1 1. CUBLAS Data types

CUDA	A	D	C	R	HIP
CUBLAS_ATOMICS_ALLOWED					HIPBLAS_ATOMICS_ALLOWED
CUBLAS_ATOMICS_NOT_ALLOWED					HIPBLAS_ATOMICS_NOT_ALLOWED
CUBLAS_COMPUTE_16F	11.0				HIPBLAS_COMPUTE_16F
CUBLAS_COMPUTE_16F_PEDANTIC	11.0				HIPBLAS_COMPUTE_16F_PEDANTIC
CUBLAS_COMPUTE_32F	11.0				HIPBLAS_COMPUTE_32F
CUBLAS_COMPUTE_32F_EMULATED_16BFX9	12.9				
CUBLAS_COMPUTE_32F_FAST_16BF	11.0				HIPBLAS_COMPUTE_32F_FAST_16BF
CUBLAS_COMPUTE_32F_FAST_16F	11.0				HIPBLAS_COMPUTE_32F_FAST_16F
CUBLAS_COMPUTE_32F_FAST_TF32	11.0				HIPBLAS_COMPUTE_32F_FAST_TF32
CUBLAS_COMPUTE_32F_PEDANTIC	11.0				HIPBLAS_COMPUTE_32F_PEDANTIC
CUBLAS_COMPUTE_32I	11.0				HIPBLAS_COMPUTE_32I
CUBLAS_COMPUTE_32I_PEDANTIC	11.0				HIPBLAS_COMPUTE_32I_PEDANTIC
CUBLAS_COMPUTE_64F	11.0				HIPBLAS_COMPUTE_64F
CUBLAS_COMPUTE_64F_PEDANTIC	11.0				HIPBLAS_COMPUTE_64F_PEDANTIC
CUBLAS_DEFAULT_MATH	9.0				HIPBLAS_DEFAULT_MATH
CUBLAS_DIAG_NON_UNIT					HIPBLAS_DIAG_NON_UNIT
CUBLAS_DIAG_UNIT					HIPBLAS_DIAG_UNIT
CUBLAS_EMULATION_STRATEGY_DEFAULT	12.9				
CUBLAS_EMULATION_STRATEGY_EAGER	12.9				
CUBLAS_EMULATION_STRATEGY_PERFORMANT	12.9				
CUBLAS_FILL_MODE_FULL	10.1				HIPBLAS_FILL_MODE_FULL
CUBLAS_FILL_MODE_LOWER					HIPBLAS_FILL_MODE_LOWER
CUBLAS_FILL_MODE_UPPER					HIPBLAS_FILL_MODE_UPPER
CUBLAS_FP32_EMULATED_BF16X9_MATH	12.9				HIPBLAS_FP32_EMULATED_BF16X9_MATH
CUBLAS_GEMM_ALGO0	8.0				
CUBLAS_GEMM_ALGO0_TENSOR_OP	9.0				
CUBLAS_GEMM_ALGO1	8.0				
CUBLAS_GEMM_ALGO10	9.0				
CUBLAS_GEMM_ALGO10_TENSOR_OP	9.2				
CUBLAS_GEMM_ALGO11	9.0				
CUBLAS_GEMM_ALGO11_TENSOR_OP	9.2				
CUBLAS_GEMM_ALGO12	9.0				
CUBLAS_GEMM_ALGO12_TENSOR_OP	9.2				
CUBLAS_GEMM_ALGO13	9.0				
CUBLAS_GEMM_ALGO13_TENSOR_OP	9.2				
CUBLAS_GEMM_ALGO14	9.0				
CUBLAS_GEMM_ALGO14_TENSOR_OP	9.2				
CUBLAS_GEMM_ALGO15	9.0				
CUBLAS_GEMM_ALGO15_TENSOR_OP	9.2				
CUBLAS_GEMM_ALGO16	9.0				
CUBLAS_GEMM_ALGO17	9.0				
CUBLAS_GEMM_ALGO18	9.2				
CUBLAS_GEMM_ALGO19	9.2				
CUBLAS_GEMM_ALGO1_TENSOR_OP	9.0				

Table 13 – continued from previous page

CUDA	A	D	C	R	HIP
CUBLAS_GEMM_ALG02	8.0				
CUBLAS_GEMM_ALG020	9.2				
CUBLAS_GEMM_ALG021	9.2				
CUBLAS_GEMM_ALG022	9.2				
CUBLAS_GEMM_ALG023	9.2				
CUBLAS_GEMM_ALG02_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG03	8.0				
CUBLAS_GEMM_ALG03_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG04	8.0				
CUBLAS_GEMM_ALG04_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG05	8.0				
CUBLAS_GEMM_ALG05_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG06	8.0				
CUBLAS_GEMM_ALG06_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG07	8.0				
CUBLAS_GEMM_ALG07_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG08	9.0				
CUBLAS_GEMM_ALG08_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG09	9.0				
CUBLAS_GEMM_ALG09_TENSOR_OP	9.2				
CUBLAS_GEMM_AUTOTUNE	13.0				
CUBLAS_GEMM_DEFAULT	9.0				HIPBLAS_GEMM_DEFAULT
CUBLAS_GEMM_DEFAULT_TENSOR_OP	9.0				
CUBLAS_GEMM_DFALT	8.0				HIPBLAS_GEMM_DEFAULT
CUBLAS_GEMM_DFALT_TENSOR_OP	9.0				
CUBLAS_MATH_DISALLOW_REDUCED_PRECISION_REDUCTION	11.0				HIPBLAS_MATH_DISALLOW_REDUCED_PRECISION_REDUCTION
CUBLAS_OP_C					HIPBLAS_OP_C
CUBLAS_OP_CONJG	10.1				
CUBLAS_OP_HERMITAN	10.1				HIPBLAS_OP_C
CUBLAS_OP_N					HIPBLAS_OP_N
CUBLAS_OP_T					HIPBLAS_OP_T
CUBLAS_PEDANTIC_MATH	11.0				HIPBLAS_PEDANTIC_MATH
CUBLAS_POINTER_MODE_DEVICE					HIPBLAS_POINTER_MODE_DEVICE
CUBLAS_POINTER_MODE_HOST					HIPBLAS_POINTER_MODE_HOST
CUBLAS_SIDE_LEFT					HIPBLAS_SIDE_LEFT
CUBLAS_SIDE_RIGHT					HIPBLAS_SIDE_RIGHT
CUBLAS_STATUS_ALLOC_FAILED					HIPBLAS_STATUS_ALLOC_FAILED
CUBLAS_STATUS_ARCH_MISMATCH					HIPBLAS_STATUS_ARCH_MISMATCH
CUBLAS_STATUS_EXECUTION_FAILED					HIPBLAS_STATUS_EXECUTION_FAILED
CUBLAS_STATUS_INTERNAL_ERROR					HIPBLAS_STATUS_INTERNAL_ERROR
CUBLAS_STATUS_INVALID_VALUE					HIPBLAS_STATUS_INVALID_VALUE
CUBLAS_STATUS_LICENSE_ERROR					HIPBLAS_STATUS_UNKNOWN
CUBLAS_STATUS_MAPPING_ERROR					HIPBLAS_STATUS_MAPPING_ERROR
CUBLAS_STATUS_NOT_INITIALIZED					HIPBLAS_STATUS_NOT_INITIALIZED
CUBLAS_STATUS_NOT_SUPPORTED					HIPBLAS_STATUS_NOT_SUPPORTED
CUBLAS_STATUS_SUCCESS					HIPBLAS_STATUS_SUCCESS
CUBLAS_TENSOR_OP_MATH	9.0	11.0			HIPBLAS_TENSOR_OP_MATH
CUBLAS_TF32_TENSOR_OP_MATH	11.0				HIPBLAS_TF32_TENSOR_OP_MATH
cublasAtomicMode_t					hipblasAtomicMode_t
cublasComputeType_t	11.0				hipblasComputeType_t

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CUDA	A	D	C	R	HIP
cublasContext					
cublasDiagType_t					hipblasDiagType_t
cublasEmulationStrategy_t	12.9				hipblasEmulationStrategy_t
cublasFillMode_t					hipblasFillMode_t
cublasGemmAlgo_t	8.0				hipblasGemmAlgo_t
cublasHandle_t					hipblasHandle_t
cublasMath_t	9.0				hipblasMath_t
cublasOperation_t					hipblasOperation_t
cublasPointerMode_t					hipblasPointerMode_t
cublasSideMode_t					hipblasSideMode_t
cublasStatus					hipblasStatus_t
cublasStatus_t					hipblasStatus_t

9.6.2 2. CUDA Library Data types

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
CUDA_C_16BF					HIP_C_16BF	5.5.0					
CUDA_C_16F	8.0				HIP_C_16F	3.0.0					
CUDA_C_16I	11.0				HIP_C_16I	5.5.0					
CUDA_C_16U	11.0				HIP_C_16U	5.5.0					
CUDA_C_32F	8.0				HIP_C_32F	3.0.0					
CUDA_C_32I	8.0				HIP_C_32I	5.5.0					
CUDA_C_32U	8.0				HIP_C_32U	5.5.0					
CUDA_C_4I	11.0				HIP_C_4I	5.5.0					
CUDA_C_4U	11.0				HIP_C_4U	5.5.0					
CUDA_C_64F	8.0				HIP_C_64F	3.0.0					
CUDA_C_64I	11.0				HIP_C_64I	5.5.0					
CUDA_C_64U	11.0				HIP_C_64U	5.5.0					
CUDA_C_8I	8.0				HIP_C_8I	5.5.0					
CUDA_C_8U	8.0				HIP_C_8U	5.5.0					
CUDA_R_16BF					HIP_R_16BF	5.5.0					
CUDA_R_16F	8.0				HIP_R_16F	3.0.0					
CUDA_R_16I	11.0				HIP_R_16I	5.5.0					
CUDA_R_16U	11.0				HIP_R_16U	5.5.0					
CUDA_R_32F	8.0				HIP_R_32F	3.0.0					
CUDA_R_32I	8.0				HIP_R_32I	5.5.0					
CUDA_R_32U	8.0				HIP_R_32U	5.5.0					
CUDA_R_4F_E2M1	12.8				HIP_R_4F_E2M1	7.0.0					
CUDA_R_4I	11.0				HIP_R_4I	5.5.0					
CUDA_R_4U	11.0				HIP_R_4U	5.5.0					
CUDA_R_64F	8.0				HIP_R_64F	3.0.0					
CUDA_R_64I	11.0				HIP_R_64I	5.5.0					
CUDA_R_64U	11.0				HIP_R_64U	5.5.0					
CUDA_R_6F_E2M3	12.8				HIP_R_6F_E2M3	7.0.0					
CUDA_R_6F_E3M2	12.8				HIP_R_6F_E3M2	7.0.0					
CUDA_R_8F_E4M3	11.8				HIP_R_8F_E4M3	6.3.0					
CUDA_R_8F_E5M2	11.8				HIP_R_8F_E5M2	6.3.0					
CUDA_R_8F_UE4M3	12.8				HIP_R_8F_E4M3	6.3.0					
CUDA_R_8F_UE8M0	12.8				HIP_R_8F_UE8M0	7.0.0					

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CUDA	A	D	C	R	HIP	A	D	C	R	U	E
CUDA_R_8I	8.0				HIP_R_8I	5.5.0					
CUDA_R_8U	8.0				HIP_R_8U	5.5.0					
cublasDataType_t	7.5				hipDataType	3.0.0					
cudaDataType	8.0				hipDataType	3.0.0					
cudaDataType_t	8.0				hipDataType	3.0.0					

9.6.3 3. CUBLASLt Data types

CUDA	A	D	C	R	HIP
CUBLASLT_ALGO_CAP_ATOMIC_SYNC	12.2			13.0	
CUBLASLT_ALGO_CAP_CTA_SWIZZLING_SUPPORT	10.1				
CUBLASLT_ALGO_CAP_CUSTOM_MEMORY_ORDER	10.1				
CUBLASLT_ALGO_CAP_CUSTOM_OPTION_MAX	10.1				
CUBLASLT_ALGO_CAP_EPILOGUE_MASK	10.1				
CUBLASLT_ALGO_CAP_FLOATING_POINT_EMULATION_SUPPORT	12.9				
CUBLASLT_ALGO_CAP_LD_NEGATIVE	11.0				
CUBLASLT_ALGO_CAP_MIN_ALIGNMENT_A_BYTES	11.0				
CUBLASLT_ALGO_CAP_MIN_ALIGNMENT_B_BYTES	11.0				
CUBLASLT_ALGO_CAP_MIN_ALIGNMENT_C_BYTES	11.0				
CUBLASLT_ALGO_CAP_MIN_ALIGNMENT_D_BYTES	11.0				
CUBLASLT_ALGO_CAP_NUMERICAL_IMPL_FLAGS	11.0				
CUBLASLT_ALGO_CAP_OUT_OF_PLACE_RESULT_SUPPORT	10.1				
CUBLASLT_ALGO_CAP_POINTER_ARRAY_BATCH_SUPPORT	12.9				
CUBLASLT_ALGO_CAP_POINTER_MODE_MASK	10.1				
CUBLASLT_ALGO_CAP_REDUCTION_SCHEME_MASK	10.1				
CUBLASLT_ALGO_CAP_SPLITK_SUPPORT	10.1				
CUBLASLT_ALGO_CAP_STAGES_IDS	11.0				
CUBLASLT_ALGO_CAP_STRIDED_BATCH_SUPPORT	10.1				
CUBLASLT_ALGO_CAP_TILE_IDS	10.1				
CUBLASLT_ALGO_CAP_UPLD_SUPPORT	10.1				
CUBLASLT_ALGO_CONFIG_CLUSTER_SHAPE_ID	11.8				
CUBLASLT_ALGO_CONFIG_CTA_SWIZZLING	10.1				
CUBLASLT_ALGO_CONFIG_CUSTOM_OPTION	10.1				
CUBLASLT_ALGO_CONFIG_ID	10.1				
CUBLASLT_ALGO_CONFIG_INNER_SHAPE_ID	11.8				
CUBLASLT_ALGO_CONFIG_REDUCTION_SCHEME	10.1				
CUBLASLT_ALGO_CONFIG_SPLITK_NUM	10.1				
CUBLASLT_ALGO_CONFIG_STAGES_ID	11.0				
CUBLASLT_ALGO_CONFIG_TILE_ID	10.1				
CUBLASLT_BATCH_MODE_POINTER_ARRAY	12.9				
CUBLASLT_BATCH_MODE_STRIDED	12.9				
CUBLASLT_CLUSTER_SHAPE_10x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_11x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_12x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_13x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_14x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_15x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_16x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x10x1	11.8				

Table 15 – continued from previous page

CUDA	A	D	C	R	HIP
CUBLASLT_CLUSTER_SHAPE_1x11x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x12x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x13x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x14x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x15x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x16x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x3x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x4x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x5x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x6x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x7x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x8x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x9x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x3x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x4x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x5x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x6x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x7x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x8x1	11.8				
CUBLASLT_CLUSTER_SHAPE_3x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_3x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_3x3x1	11.8				
CUBLASLT_CLUSTER_SHAPE_3x4x1	11.8				
CUBLASLT_CLUSTER_SHAPE_3x5x1	11.8				
CUBLASLT_CLUSTER_SHAPE_4x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_4x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_4x3x1	11.8				
CUBLASLT_CLUSTER_SHAPE_4x4x1	11.8				
CUBLASLT_CLUSTER_SHAPE_5x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_5x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_5x3x1	11.8				
CUBLASLT_CLUSTER_SHAPE_6x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_6x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_7x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_7x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_8x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_8x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_9x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_AUTO	11.8				
CUBLASLT_CLUSTER_SHAPE_END	11.8				
CUBLASLT_EPILOGUE_BGRADA	11.4				HIPBLASLT_EPILOGUE_BGRA
CUBLASLT_EPILOGUE_BGRADB	11.4				HIPBLASLT_EPILOGUE_BGRA
CUBLASLT_EPILOGUE_BIAS	10.1				HIPBLASLT_EPILOGUE_BIAS
CUBLASLT_EPILOGUE_DEFAULT	10.1				HIPBLASLT_EPILOGUE_DEFA
CUBLASLT_EPILOGUE_DGELU	11.6				HIPBLASLT_EPILOGUE_DGELU
CUBLASLT_EPILOGUE_DGELU_BGRAD	11.3				HIPBLASLT_EPILOGUE_DGELU

Table 15 – continued from previous page

CUDA	A	D	C	R	HIP
CUBLASLT_EPILOGUE_DRELU	11.6				
CUBLASLT_EPILOGUE_DRELU_BGRAD	11.3				
CUBLASLT_EPILOGUE_GELU	11.3				HIPBLASLT_EPILOGUE_GELU
CUBLASLT_EPILOGUE_GELU_AUX	11.3				HIPBLASLT_EPILOGUE_GELU
CUBLASLT_EPILOGUE_GELU_AUX_BIAS	11.3				HIPBLASLT_EPILOGUE_GELU
CUBLASLT_EPILOGUE_GELU_BIAS	11.3				HIPBLASLT_EPILOGUE_GELU
CUBLASLT_EPILOGUE_RELU	10.1				HIPBLASLT_EPILOGUE_RELU
CUBLASLT_EPILOGUE_RELU_AUX	11.3				HIPBLASLT_EPILOGUE_RELU
CUBLASLT_EPILOGUE_RELU_AUX_BIAS	11.3				HIPBLASLT_EPILOGUE_RELU
CUBLASLT_EPILOGUE_RELU_BIAS	10.1				HIPBLASLT_EPILOGUE_RELU
CUBLASLT_MATMUL_DESC_ALPHA_VECTOR_BATCH_STRIDE	11.4				
CUBLASLT_MATMUL_DESC_AMAX_D_POINTER	11.8				HIPBLASLT_MATMUL_DESC_A
CUBLASLT_MATMUL_DESC_ATOMIC_SYNC_IN_COUNTERS_POINTER	12.2			13.0	
CUBLASLT_MATMUL_DESC_ATOMIC_SYNC_NUM_CHUNKS_D_COLS	12.2	12.8		13.0	
CUBLASLT_MATMUL_DESC_ATOMIC_SYNC_NUM_CHUNKS_D_ROWS	12.2	12.8		13.0	
CUBLASLT_MATMUL_DESC_ATOMIC_SYNC_OUT_COUNTERS_POINTER	12.2			13.0	
CUBLASLT_MATMUL_DESC_A_SCALE_MODE	12.8				HIPBLASLT_MATMUL_DESC_A
CUBLASLT_MATMUL_DESC_A_SCALE_POINTER	11.8				HIPBLASLT_MATMUL_DESC_A
CUBLASLT_MATMUL_DESC_BIAS_BATCH_STRIDE	11.3				
CUBLASLT_MATMUL_DESC_BIAS_DATA_TYPE	11.8				HIPBLASLT_MATMUL_DESC_B
CUBLASLT_MATMUL_DESC_BIAS_POINTER	10.1				HIPBLASLT_MATMUL_DESC_B
CUBLASLT_MATMUL_DESC_B_SCALE_MODE	12.8				HIPBLASLT_MATMUL_DESC_B
CUBLASLT_MATMUL_DESC_B_SCALE_POINTER	11.8				HIPBLASLT_MATMUL_DESC_B
CUBLASLT_MATMUL_DESC_COMPUTE_TYPE	10.1				
CUBLASLT_MATMUL_DESC_C_SCALE_MODE	12.8				
CUBLASLT_MATMUL_DESC_C_SCALE_POINTER	11.8				HIPBLASLT_MATMUL_DESC_C
CUBLASLT_MATMUL_DESC_D_OUT_SCALE_MODE	12.8				
CUBLASLT_MATMUL_DESC_D_OUT_SCALE_POINTER	12.8				
CUBLASLT_MATMUL_DESC_D_SCALE_MODE	12.8				
CUBLASLT_MATMUL_DESC_D_SCALE_POINTER	11.8				HIPBLASLT_MATMUL_DESC_D
CUBLASLT_MATMUL_DESC_EPILOGUE	10.1				HIPBLASLT_MATMUL_DESC_E
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_AMAX_POINTER	11.8				
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_BATCH_STRIDE	11.3				HIPBLASLT_MATMUL_DESC_E
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_DATA_TYPE	11.8				HIPBLASLT_MATMUL_DESC_E
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_LD	11.3				HIPBLASLT_MATMUL_DESC_E
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_POINTER	11.3				HIPBLASLT_MATMUL_DESC_E
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_SCALE_MODE	12.8				
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_SCALE_POINTER	11.8				HIPBLASLT_MATMUL_DESC_E
CUBLASLT_MATMUL_DESC_FAST_ACCUM	11.8				
CUBLASLT_MATMUL_DESC_FILL_MODE	10.1				
CUBLASLT_MATMUL_DESC_POINTER_MODE	10.1				HIPBLASLT_MATMUL_DESC_P
CUBLASLT_MATMUL_DESC_SCALE_TYPE	10.1				
CUBLASLT_MATMUL_DESC_SM_COUNT_TARGET	11.5				
CUBLASLT_MATMUL_DESC_TRANSA	10.1				HIPBLASLT_MATMUL_DESC_T
CUBLASLT_MATMUL_DESC_TRANSB	10.1				HIPBLASLT_MATMUL_DESC_T
CUBLASLT_MATMUL_DESC_TRANSC	10.1				
CUBLASLT_MATMUL_INNER_SHAPE_END	11.8				
CUBLASLT_MATMUL_INNER_SHAPE_MMA16816	11.8				
CUBLASLT_MATMUL_INNER_SHAPE_MMA1684	11.8				
CUBLASLT_MATMUL_INNER_SHAPE_MMA1688	11.8				

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CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_INNER_SHAPE_MMA884	11.8				
CUBLASLT_MATMUL_INNER_SHAPE_UNDEFINED	11.8				
CUBLASLT_MATMUL_MATRIX_SCALE_BLK128x128_32F	12.9				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_MATRIX_SCALE_END	12.8				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_MATRIX_SCALE_OUTER_VEC_32F	12.9				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_MATRIX_SCALE_SCALAR_32F	12.8				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_MATRIX_SCALE_VEC128_32F	12.9				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_MATRIX_SCALE_VEC16_UE4M3	12.8				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_MATRIX_SCALE_VEC32_UE8M0	12.8				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_PREF_IMPL_MASK	11.0				
CUBLASLT_MATMUL_PREF_MAX WAVES_COUNT	10.1				
CUBLASLT_MATMUL_PREF_MAX_WORKSPACE_BYTES	10.1				HIPBLASLT_MATMUL_PREF_M
CUBLASLT_MATMUL_PREF_MIN_ALIGNMENT_A_BYTES	10.1				
CUBLASLT_MATMUL_PREF_MIN_ALIGNMENT_B_BYTES	10.1				
CUBLASLT_MATMUL_PREF_MIN_ALIGNMENT_C_BYTES	10.1				
CUBLASLT_MATMUL_PREF_MIN_ALIGNMENT_D_BYTES	10.1				
CUBLASLT_MATMUL_PREF_REDUCTION_SCHEME_MASK	10.1				
CUBLASLT_MATMUL_PREF_SEARCH_MODE	10.1				HIPBLASLT_MATMUL_PREF_S
CUBLASLT_MATMUL_STAGES_128x1	11.0				
CUBLASLT_MATMUL_STAGES_128x2	11.0				
CUBLASLT_MATMUL_STAGES_128x3	11.0				
CUBLASLT_MATMUL_STAGES_128x4	11.0				
CUBLASLT_MATMUL_STAGES_128x5	11.0				
CUBLASLT_MATMUL_STAGES_128x6	11.0				
CUBLASLT_MATMUL_STAGES_128xAUTO	11.8				
CUBLASLT_MATMUL_STAGES_16x1	11.0				
CUBLASLT_MATMUL_STAGES_16x10	11.0				
CUBLASLT_MATMUL_STAGES_16x2	11.0				
CUBLASLT_MATMUL_STAGES_16x3	11.0				
CUBLASLT_MATMUL_STAGES_16x4	11.0				
CUBLASLT_MATMUL_STAGES_16x5	11.0				
CUBLASLT_MATMUL_STAGES_16x6	11.0				
CUBLASLT_MATMUL_STAGES_16xAUTO	11.8				
CUBLASLT_MATMUL_STAGES_256xAUTO	12.8				
CUBLASLT_MATMUL_STAGES_32x1	11.0				
CUBLASLT_MATMUL_STAGES_32x10	11.0				
CUBLASLT_MATMUL_STAGES_32x2	11.0				
CUBLASLT_MATMUL_STAGES_32x3	11.0				
CUBLASLT_MATMUL_STAGES_32x4	11.0				
CUBLASLT_MATMUL_STAGES_32x5	11.0				
CUBLASLT_MATMUL_STAGES_32x6	11.0				
CUBLASLT_MATMUL_STAGES_32xAUTO	11.8				
CUBLASLT_MATMUL_STAGES_64x1	11.0				
CUBLASLT_MATMUL_STAGES_64x2	11.0				
CUBLASLT_MATMUL_STAGES_64x3	11.0				
CUBLASLT_MATMUL_STAGES_64x4	11.0				
CUBLASLT_MATMUL_STAGES_64x5	11.0				
CUBLASLT_MATMUL_STAGES_64x6	11.0				
CUBLASLT_MATMUL_STAGES_64xAUTO	11.8				
CUBLASLT_MATMUL_STAGES_768xAUTO	13.0				

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CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_STAGES_8x3	11.8				
CUBLASLT_MATMUL_STAGES_8x4	11.0				
CUBLASLT_MATMUL_STAGES_8x5	11.2				
CUBLASLT_MATMUL_STAGES_8xAUTO	11.8				
CUBLASLT_MATMUL_STAGES_END	11.0				
CUBLASLT_MATMUL_STAGES_UNDEFINED	11.0				
CUBLASLT_MATMUL_TILE_104x128	12.6				
CUBLASLT_MATMUL_TILE_104x192	12.6				
CUBLASLT_MATMUL_TILE_104x256	12.6				
CUBLASLT_MATMUL_TILE_104x320	12.6				
CUBLASLT_MATMUL_TILE_104x384	12.6				
CUBLASLT_MATMUL_TILE_104x448	12.6				
CUBLASLT_MATMUL_TILE_104x64	12.6				
CUBLASLT_MATMUL_TILE_112x128	12.6				
CUBLASLT_MATMUL_TILE_112x192	12.6				
CUBLASLT_MATMUL_TILE_112x256	12.6				
CUBLASLT_MATMUL_TILE_112x320	12.6				
CUBLASLT_MATMUL_TILE_112x384	12.6				
CUBLASLT_MATMUL_TILE_112x64	12.6				
CUBLASLT_MATMUL_TILE_120x128	12.6				
CUBLASLT_MATMUL_TILE_120x192	12.6				
CUBLASLT_MATMUL_TILE_120x256	12.6				
CUBLASLT_MATMUL_TILE_120x320	12.6				
CUBLASLT_MATMUL_TILE_120x384	12.6				
CUBLASLT_MATMUL_TILE_120x64	12.6				
CUBLASLT_MATMUL_TILE_128x104	12.6				
CUBLASLT_MATMUL_TILE_128x112	12.6				
CUBLASLT_MATMUL_TILE_128x120	12.6				
CUBLASLT_MATMUL_TILE_128x128	10.1				
CUBLASLT_MATMUL_TILE_128x136	12.6				
CUBLASLT_MATMUL_TILE_128x144	12.6				
CUBLASLT_MATMUL_TILE_128x152	12.6				
CUBLASLT_MATMUL_TILE_128x16	12.6				
CUBLASLT_MATMUL_TILE_128x160	11.3				
CUBLASLT_MATMUL_TILE_128x168	12.6				
CUBLASLT_MATMUL_TILE_128x176	12.6				
CUBLASLT_MATMUL_TILE_128x184	12.6				
CUBLASLT_MATMUL_TILE_128x192	11.8				
CUBLASLT_MATMUL_TILE_128x200	12.6				
CUBLASLT_MATMUL_TILE_128x208	12.6				
CUBLASLT_MATMUL_TILE_128x216	12.6				
CUBLASLT_MATMUL_TILE_128x224	12.6				
CUBLASLT_MATMUL_TILE_128x232	12.6				
CUBLASLT_MATMUL_TILE_128x24	12.6				
CUBLASLT_MATMUL_TILE_128x240	12.6				
CUBLASLT_MATMUL_TILE_128x248	12.6				
CUBLASLT_MATMUL_TILE_128x256	10.1				
CUBLASLT_MATMUL_TILE_128x264	12.6				
CUBLASLT_MATMUL_TILE_128x272	12.6				
CUBLASLT_MATMUL_TILE_128x280	12.6				

Table 15 – continued from previous page

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_128x288	12.6				
CUBLASLT_MATMUL_TILE_128x296	12.6				
CUBLASLT_MATMUL_TILE_128x304	12.6				
CUBLASLT_MATMUL_TILE_128x312	12.6				
CUBLASLT_MATMUL_TILE_128x32	10.1				
CUBLASLT_MATMUL_TILE_128x320	12.6				
CUBLASLT_MATMUL_TILE_128x328	12.6				
CUBLASLT_MATMUL_TILE_128x336	12.6				
CUBLASLT_MATMUL_TILE_128x344	12.6				
CUBLASLT_MATMUL_TILE_128x352	12.6				
CUBLASLT_MATMUL_TILE_128x360	12.6				
CUBLASLT_MATMUL_TILE_128x368	12.6				
CUBLASLT_MATMUL_TILE_128x376	12.6				
CUBLASLT_MATMUL_TILE_128x384	12.6				
CUBLASLT_MATMUL_TILE_128x392	12.6				
CUBLASLT_MATMUL_TILE_128x40	12.6				
CUBLASLT_MATMUL_TILE_128x400	12.6				
CUBLASLT_MATMUL_TILE_128x408	12.6				
CUBLASLT_MATMUL_TILE_128x416	12.6				
CUBLASLT_MATMUL_TILE_128x424	12.6				
CUBLASLT_MATMUL_TILE_128x432	12.6				
CUBLASLT_MATMUL_TILE_128x440	12.6				
CUBLASLT_MATMUL_TILE_128x448	12.6				
CUBLASLT_MATMUL_TILE_128x456	12.6				
CUBLASLT_MATMUL_TILE_128x464	12.6				
CUBLASLT_MATMUL_TILE_128x472	12.6				
CUBLASLT_MATMUL_TILE_128x48	12.6				
CUBLASLT_MATMUL_TILE_128x480	12.6				
CUBLASLT_MATMUL_TILE_128x488	12.6				
CUBLASLT_MATMUL_TILE_128x496	12.6				
CUBLASLT_MATMUL_TILE_128x504	12.6				
CUBLASLT_MATMUL_TILE_128x512	12.6				
CUBLASLT_MATMUL_TILE_128x56	12.6				
CUBLASLT_MATMUL_TILE_128x64	10.1				
CUBLASLT_MATMUL_TILE_128x72	12.6				
CUBLASLT_MATMUL_TILE_128x8	12.6				
CUBLASLT_MATMUL_TILE_128x80	12.6				
CUBLASLT_MATMUL_TILE_128x88	12.6				
CUBLASLT_MATMUL_TILE_128x96	11.8				
CUBLASLT_MATMUL_TILE_136x128	12.6				
CUBLASLT_MATMUL_TILE_136x192	12.6				
CUBLASLT_MATMUL_TILE_136x256	12.6				
CUBLASLT_MATMUL_TILE_136x320	12.6				
CUBLASLT_MATMUL_TILE_136x64	12.6				
CUBLASLT_MATMUL_TILE_144x128	12.6				
CUBLASLT_MATMUL_TILE_144x192	12.6				
CUBLASLT_MATMUL_TILE_144x256	12.6				
CUBLASLT_MATMUL_TILE_144x320	12.6				
CUBLASLT_MATMUL_TILE_144x64	12.6				
CUBLASLT_MATMUL_TILE_152x128	12.6				

Table 15 – continued from previous page

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_152x192	12.6				
CUBLASLT_MATMUL_TILE_152x256	12.6				
CUBLASLT_MATMUL_TILE_152x320	12.6				
CUBLASLT_MATMUL_TILE_152x64	12.6				
CUBLASLT_MATMUL_TILE_160x128	11.3				
CUBLASLT_MATMUL_TILE_160x192	12.6				
CUBLASLT_MATMUL_TILE_160x256	12.6				
CUBLASLT_MATMUL_TILE_160x64	12.6				
CUBLASLT_MATMUL_TILE_168x128	12.6				
CUBLASLT_MATMUL_TILE_168x192	12.6				
CUBLASLT_MATMUL_TILE_168x256	12.6				
CUBLASLT_MATMUL_TILE_168x64	12.6				
CUBLASLT_MATMUL_TILE_16x128	12.6				
CUBLASLT_MATMUL_TILE_16x16	10.1				
CUBLASLT_MATMUL_TILE_16x192	12.6				
CUBLASLT_MATMUL_TILE_16x256	12.6				
CUBLASLT_MATMUL_TILE_16x32	10.1				
CUBLASLT_MATMUL_TILE_16x320	12.6				
CUBLASLT_MATMUL_TILE_16x384	12.6				
CUBLASLT_MATMUL_TILE_16x448	12.6				
CUBLASLT_MATMUL_TILE_16x512	12.6				
CUBLASLT_MATMUL_TILE_16x576	12.6				
CUBLASLT_MATMUL_TILE_16x64	12.6				
CUBLASLT_MATMUL_TILE_16x640	12.6				
CUBLASLT_MATMUL_TILE_16x704	12.6				
CUBLASLT_MATMUL_TILE_16x768	12.6				
CUBLASLT_MATMUL_TILE_16x8	10.1				
CUBLASLT_MATMUL_TILE_176x128	12.6				
CUBLASLT_MATMUL_TILE_176x192	12.6				
CUBLASLT_MATMUL_TILE_176x256	12.6				
CUBLASLT_MATMUL_TILE_176x64	12.6				
CUBLASLT_MATMUL_TILE_184x128	12.6				
CUBLASLT_MATMUL_TILE_184x192	12.6				
CUBLASLT_MATMUL_TILE_184x256	12.6				
CUBLASLT_MATMUL_TILE_184x64	12.6				
CUBLASLT_MATMUL_TILE_192x104	12.6				
CUBLASLT_MATMUL_TILE_192x112	12.6				
CUBLASLT_MATMUL_TILE_192x120	12.6				
CUBLASLT_MATMUL_TILE_192x128	11.3				
CUBLASLT_MATMUL_TILE_192x136	12.6				
CUBLASLT_MATMUL_TILE_192x144	12.6				
CUBLASLT_MATMUL_TILE_192x152	12.6				
CUBLASLT_MATMUL_TILE_192x16	12.6				
CUBLASLT_MATMUL_TILE_192x160	12.6				
CUBLASLT_MATMUL_TILE_192x168	12.6				
CUBLASLT_MATMUL_TILE_192x176	12.6				
CUBLASLT_MATMUL_TILE_192x184	12.6				
CUBLASLT_MATMUL_TILE_192x192	12.6				
CUBLASLT_MATMUL_TILE_192x200	12.6				
CUBLASLT_MATMUL_TILE_192x208	12.6				

Table 15 – continued from previous page

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_192x216	12.6				
CUBLASLT_MATMUL_TILE_192x224	12.6				
CUBLASLT_MATMUL_TILE_192x232	12.6				
CUBLASLT_MATMUL_TILE_192x24	12.6				
CUBLASLT_MATMUL_TILE_192x240	12.6				
CUBLASLT_MATMUL_TILE_192x248	12.6				
CUBLASLT_MATMUL_TILE_192x256	12.6				
CUBLASLT_MATMUL_TILE_192x264	12.6				
CUBLASLT_MATMUL_TILE_192x272	12.6				
CUBLASLT_MATMUL_TILE_192x280	12.6				
CUBLASLT_MATMUL_TILE_192x288	12.6				
CUBLASLT_MATMUL_TILE_192x296	12.6				
CUBLASLT_MATMUL_TILE_192x304	12.6				
CUBLASLT_MATMUL_TILE_192x312	12.6				
CUBLASLT_MATMUL_TILE_192x32	12.6				
CUBLASLT_MATMUL_TILE_192x320	12.6				
CUBLASLT_MATMUL_TILE_192x328	12.6				
CUBLASLT_MATMUL_TILE_192x336	12.6				
CUBLASLT_MATMUL_TILE_192x40	12.6				
CUBLASLT_MATMUL_TILE_192x48	12.6				
CUBLASLT_MATMUL_TILE_192x56	12.6				
CUBLASLT_MATMUL_TILE_192x64	12.6				
CUBLASLT_MATMUL_TILE_192x72	12.6				
CUBLASLT_MATMUL_TILE_192x8	12.6				
CUBLASLT_MATMUL_TILE_192x80	12.6				
CUBLASLT_MATMUL_TILE_192x88	12.6				
CUBLASLT_MATMUL_TILE_192x96	12.6				
CUBLASLT_MATMUL_TILE_200x128	12.6				
CUBLASLT_MATMUL_TILE_200x192	12.6				
CUBLASLT_MATMUL_TILE_200x64	12.6				
CUBLASLT_MATMUL_TILE_208x128	12.6				
CUBLASLT_MATMUL_TILE_208x192	12.6				
CUBLASLT_MATMUL_TILE_208x64	12.6				
CUBLASLT_MATMUL_TILE_216x128	12.6				
CUBLASLT_MATMUL_TILE_216x192	12.6				
CUBLASLT_MATMUL_TILE_216x64	12.6				
CUBLASLT_MATMUL_TILE_224x128	12.6				
CUBLASLT_MATMUL_TILE_224x192	12.6				
CUBLASLT_MATMUL_TILE_224x64	12.6				
CUBLASLT_MATMUL_TILE_232x128	12.6				
CUBLASLT_MATMUL_TILE_232x192	12.6				
CUBLASLT_MATMUL_TILE_232x64	12.6				
CUBLASLT_MATMUL_TILE_240x128	12.6				
CUBLASLT_MATMUL_TILE_240x192	12.6				
CUBLASLT_MATMUL_TILE_240x64	12.6				
CUBLASLT_MATMUL_TILE_248x128	12.6				
CUBLASLT_MATMUL_TILE_248x192	12.6				
CUBLASLT_MATMUL_TILE_248x64	12.6				
CUBLASLT_MATMUL_TILE_24x128	12.6				
CUBLASLT_MATMUL_TILE_24x192	12.6				

Table 15 – continued from previous page

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_24x256	12.6				
CUBLASLT_MATMUL_TILE_24x320	12.6				
CUBLASLT_MATMUL_TILE_24x384	12.6				
CUBLASLT_MATMUL_TILE_24x448	12.6				
CUBLASLT_MATMUL_TILE_24x512	12.6				
CUBLASLT_MATMUL_TILE_24x576	12.6				
CUBLASLT_MATMUL_TILE_24x64	12.6				
CUBLASLT_MATMUL_TILE_24x640	12.6				
CUBLASLT_MATMUL_TILE_24x704	12.6				
CUBLASLT_MATMUL_TILE_24x768	12.6				
CUBLASLT_MATMUL_TILE_256x1024	12.8				
CUBLASLT_MATMUL_TILE_256x104	12.6				
CUBLASLT_MATMUL_TILE_256x112	12.6				
CUBLASLT_MATMUL_TILE_256x120	12.6				
CUBLASLT_MATMUL_TILE_256x128	10.1				
CUBLASLT_MATMUL_TILE_256x136	12.6				
CUBLASLT_MATMUL_TILE_256x144	12.6				
CUBLASLT_MATMUL_TILE_256x152	12.6				
CUBLASLT_MATMUL_TILE_256x16	12.6				
CUBLASLT_MATMUL_TILE_256x160	12.6				
CUBLASLT_MATMUL_TILE_256x168	12.6				
CUBLASLT_MATMUL_TILE_256x176	12.6				
CUBLASLT_MATMUL_TILE_256x184	12.6				
CUBLASLT_MATMUL_TILE_256x192	12.6				
CUBLASLT_MATMUL_TILE_256x200	12.6				
CUBLASLT_MATMUL_TILE_256x208	12.6				
CUBLASLT_MATMUL_TILE_256x216	12.6				
CUBLASLT_MATMUL_TILE_256x224	12.6				
CUBLASLT_MATMUL_TILE_256x232	12.6				
CUBLASLT_MATMUL_TILE_256x24	12.6				
CUBLASLT_MATMUL_TILE_256x240	12.6				
CUBLASLT_MATMUL_TILE_256x248	12.6				
CUBLASLT_MATMUL_TILE_256x256	12.6				
CUBLASLT_MATMUL_TILE_256x32	12.1				
CUBLASLT_MATMUL_TILE_256x40	12.6				
CUBLASLT_MATMUL_TILE_256x48	12.6				
CUBLASLT_MATMUL_TILE_256x512	12.8				
CUBLASLT_MATMUL_TILE_256x56	12.6				
CUBLASLT_MATMUL_TILE_256x64	10.1				
CUBLASLT_MATMUL_TILE_256x72	12.6				
CUBLASLT_MATMUL_TILE_256x8	12.6				
CUBLASLT_MATMUL_TILE_256x80	12.6				
CUBLASLT_MATMUL_TILE_256x88	12.6				
CUBLASLT_MATMUL_TILE_256x96	12.6				
CUBLASLT_MATMUL_TILE_264x128	12.6				
CUBLASLT_MATMUL_TILE_264x64	12.6				
CUBLASLT_MATMUL_TILE_272x128	12.6				
CUBLASLT_MATMUL_TILE_272x64	12.6				
CUBLASLT_MATMUL_TILE_280x128	12.6				
CUBLASLT_MATMUL_TILE_280x64	12.6				

Table 15 – continued from previous page

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_288x128	12.6				
CUBLASLT_MATMUL_TILE_288x64	12.6				
CUBLASLT_MATMUL_TILE_296x128	12.6				
CUBLASLT_MATMUL_TILE_296x64	12.6				
CUBLASLT_MATMUL_TILE_304x128	12.6				
CUBLASLT_MATMUL_TILE_304x64	12.6				
CUBLASLT_MATMUL_TILE_312x128	12.6				
CUBLASLT_MATMUL_TILE_312x64	12.6				
CUBLASLT_MATMUL_TILE_320x104	12.6				
CUBLASLT_MATMUL_TILE_320x112	12.6				
CUBLASLT_MATMUL_TILE_320x120	12.6				
CUBLASLT_MATMUL_TILE_320x128	12.6				
CUBLASLT_MATMUL_TILE_320x136	12.6				
CUBLASLT_MATMUL_TILE_320x144	12.6				
CUBLASLT_MATMUL_TILE_320x152	12.6				
CUBLASLT_MATMUL_TILE_320x16	12.6				
CUBLASLT_MATMUL_TILE_320x160	12.6				
CUBLASLT_MATMUL_TILE_320x168	12.6				
CUBLASLT_MATMUL_TILE_320x176	12.6				
CUBLASLT_MATMUL_TILE_320x184	12.6				
CUBLASLT_MATMUL_TILE_320x192	12.6				
CUBLASLT_MATMUL_TILE_320x200	12.6				
CUBLASLT_MATMUL_TILE_320x24	12.6				
CUBLASLT_MATMUL_TILE_320x32	12.6				
CUBLASLT_MATMUL_TILE_320x40	12.6				
CUBLASLT_MATMUL_TILE_320x48	12.6				
CUBLASLT_MATMUL_TILE_320x56	12.6				
CUBLASLT_MATMUL_TILE_320x64	12.6				
CUBLASLT_MATMUL_TILE_320x72	12.6				
CUBLASLT_MATMUL_TILE_320x8	12.6				
CUBLASLT_MATMUL_TILE_320x80	12.6				
CUBLASLT_MATMUL_TILE_320x88	12.6				
CUBLASLT_MATMUL_TILE_320x96	12.6				
CUBLASLT_MATMUL_TILE_328x128	12.6				
CUBLASLT_MATMUL_TILE_328x64	12.6				
CUBLASLT_MATMUL_TILE_32x128	10.1				
CUBLASLT_MATMUL_TILE_32x16	10.1				
CUBLASLT_MATMUL_TILE_32x192	12.6				
CUBLASLT_MATMUL_TILE_32x256	12.1				
CUBLASLT_MATMUL_TILE_32x32	10.1				
CUBLASLT_MATMUL_TILE_32x320	12.6				
CUBLASLT_MATMUL_TILE_32x384	12.6				
CUBLASLT_MATMUL_TILE_32x448	12.6				
CUBLASLT_MATMUL_TILE_32x512	12.6				
CUBLASLT_MATMUL_TILE_32x576	12.6				
CUBLASLT_MATMUL_TILE_32x64	10.1				
CUBLASLT_MATMUL_TILE_32x640	12.6				
CUBLASLT_MATMUL_TILE_32x704	12.6				
CUBLASLT_MATMUL_TILE_32x768	12.6				
CUBLASLT_MATMUL_TILE_32x8	10.1				

Table 15 – continued from previous page

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_336x128	12.6				
CUBLASLT_MATMUL_TILE_336x64	12.6				
CUBLASLT_MATMUL_TILE_344x128	12.6				
CUBLASLT_MATMUL_TILE_344x64	12.6				
CUBLASLT_MATMUL_TILE_352x128	12.6				
CUBLASLT_MATMUL_TILE_352x64	12.6				
CUBLASLT_MATMUL_TILE_360x128	12.6				
CUBLASLT_MATMUL_TILE_360x64	12.6				
CUBLASLT_MATMUL_TILE_368x128	12.6				
CUBLASLT_MATMUL_TILE_368x64	12.6				
CUBLASLT_MATMUL_TILE_376x128	12.6				
CUBLASLT_MATMUL_TILE_376x64	12.6				
CUBLASLT_MATMUL_TILE_384x104	12.6				
CUBLASLT_MATMUL_TILE_384x112	12.6				
CUBLASLT_MATMUL_TILE_384x120	12.6				
CUBLASLT_MATMUL_TILE_384x128	12.6				
CUBLASLT_MATMUL_TILE_384x136	12.6				
CUBLASLT_MATMUL_TILE_384x144	12.6				
CUBLASLT_MATMUL_TILE_384x152	12.6				
CUBLASLT_MATMUL_TILE_384x16	12.6				
CUBLASLT_MATMUL_TILE_384x160	12.6				
CUBLASLT_MATMUL_TILE_384x168	12.6				
CUBLASLT_MATMUL_TILE_384x24	12.6				
CUBLASLT_MATMUL_TILE_384x32	12.6				
CUBLASLT_MATMUL_TILE_384x40	12.6				
CUBLASLT_MATMUL_TILE_384x48	12.6				
CUBLASLT_MATMUL_TILE_384x56	12.6				
CUBLASLT_MATMUL_TILE_384x64	12.6				
CUBLASLT_MATMUL_TILE_384x72	12.6				
CUBLASLT_MATMUL_TILE_384x8	12.6				
CUBLASLT_MATMUL_TILE_384x80	12.6				
CUBLASLT_MATMUL_TILE_384x88	12.6				
CUBLASLT_MATMUL_TILE_384x96	12.6				
CUBLASLT_MATMUL_TILE_392x64	12.6				
CUBLASLT_MATMUL_TILE_400x64	12.6				
CUBLASLT_MATMUL_TILE_408x64	12.6				
CUBLASLT_MATMUL_TILE_40x128	12.6				
CUBLASLT_MATMUL_TILE_40x192	12.6				
CUBLASLT_MATMUL_TILE_40x256	12.6				
CUBLASLT_MATMUL_TILE_40x320	12.6				
CUBLASLT_MATMUL_TILE_40x384	12.6				
CUBLASLT_MATMUL_TILE_40x448	12.6				
CUBLASLT_MATMUL_TILE_40x512	12.6				
CUBLASLT_MATMUL_TILE_40x576	12.6				
CUBLASLT_MATMUL_TILE_40x64	12.6				
CUBLASLT_MATMUL_TILE_40x640	12.6				
CUBLASLT_MATMUL_TILE_40x704	12.6				
CUBLASLT_MATMUL_TILE_40x768	12.6				
CUBLASLT_MATMUL_TILE_416x64	12.6				
CUBLASLT_MATMUL_TILE_424x64	12.6				

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CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_432x64	12.6				
CUBLASLT_MATMUL_TILE_440x64	12.6				
CUBLASLT_MATMUL_TILE_448x104	12.6				
CUBLASLT_MATMUL_TILE_448x112	12.6				
CUBLASLT_MATMUL_TILE_448x120	12.6				
CUBLASLT_MATMUL_TILE_448x128	12.6				
CUBLASLT_MATMUL_TILE_448x136	12.6				
CUBLASLT_MATMUL_TILE_448x144	12.6				
CUBLASLT_MATMUL_TILE_448x16	12.6				
CUBLASLT_MATMUL_TILE_448x24	12.6				
CUBLASLT_MATMUL_TILE_448x32	12.6				
CUBLASLT_MATMUL_TILE_448x40	12.6				
CUBLASLT_MATMUL_TILE_448x48	12.6				
CUBLASLT_MATMUL_TILE_448x56	12.6				
CUBLASLT_MATMUL_TILE_448x64	12.6				
CUBLASLT_MATMUL_TILE_448x72	12.6				
CUBLASLT_MATMUL_TILE_448x8	12.6				
CUBLASLT_MATMUL_TILE_448x80	12.6				
CUBLASLT_MATMUL_TILE_448x88	12.6				
CUBLASLT_MATMUL_TILE_448x96	12.6				
CUBLASLT_MATMUL_TILE_456x64	12.6				
CUBLASLT_MATMUL_TILE_464x64	12.6				
CUBLASLT_MATMUL_TILE_472x64	12.6				
CUBLASLT_MATMUL_TILE_480x64	12.6				
CUBLASLT_MATMUL_TILE_488x64	12.6				
CUBLASLT_MATMUL_TILE_48x128	12.6				
CUBLASLT_MATMUL_TILE_48x192	12.6				
CUBLASLT_MATMUL_TILE_48x256	12.6				
CUBLASLT_MATMUL_TILE_48x320	12.6				
CUBLASLT_MATMUL_TILE_48x384	12.6				
CUBLASLT_MATMUL_TILE_48x448	12.6				
CUBLASLT_MATMUL_TILE_48x512	12.6				
CUBLASLT_MATMUL_TILE_48x576	12.6				
CUBLASLT_MATMUL_TILE_48x64	12.6				
CUBLASLT_MATMUL_TILE_48x640	12.6				
CUBLASLT_MATMUL_TILE_48x704	12.6				
CUBLASLT_MATMUL_TILE_48x768	12.6				
CUBLASLT_MATMUL_TILE_496x64	12.6				
CUBLASLT_MATMUL_TILE_504x64	12.6				
CUBLASLT_MATMUL_TILE_512x1024	12.8				
CUBLASLT_MATMUL_TILE_512x104	12.6				
CUBLASLT_MATMUL_TILE_512x112	12.6				
CUBLASLT_MATMUL_TILE_512x120	12.6				
CUBLASLT_MATMUL_TILE_512x128	12.6				
CUBLASLT_MATMUL_TILE_512x16	12.6				
CUBLASLT_MATMUL_TILE_512x24	12.6				
CUBLASLT_MATMUL_TILE_512x32	12.6				
CUBLASLT_MATMUL_TILE_512x40	12.6				
CUBLASLT_MATMUL_TILE_512x48	12.6				
CUBLASLT_MATMUL_TILE_512x512	12.8				

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CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_512x56	12.6				
CUBLASLT_MATMUL_TILE_512x64	10.1				
CUBLASLT_MATMUL_TILE_512x72	12.6				
CUBLASLT_MATMUL_TILE_512x8	12.6				
CUBLASLT_MATMUL_TILE_512x80	12.6				
CUBLASLT_MATMUL_TILE_512x88	12.6				
CUBLASLT_MATMUL_TILE_512x96	12.6				
CUBLASLT_MATMUL_TILE_520x64	12.6				
CUBLASLT_MATMUL_TILE_528x64	12.6				
CUBLASLT_MATMUL_TILE_536x64	12.6				
CUBLASLT_MATMUL_TILE_544x64	12.6				
CUBLASLT_MATMUL_TILE_552x64	12.6				
CUBLASLT_MATMUL_TILE_560x64	12.6				
CUBLASLT_MATMUL_TILE_568x64	12.6				
CUBLASLT_MATMUL_TILE_56x128	12.6				
CUBLASLT_MATMUL_TILE_56x192	12.6				
CUBLASLT_MATMUL_TILE_56x256	12.6				
CUBLASLT_MATMUL_TILE_56x320	12.6				
CUBLASLT_MATMUL_TILE_56x384	12.6				
CUBLASLT_MATMUL_TILE_56x448	12.6				
CUBLASLT_MATMUL_TILE_56x512	12.6				
CUBLASLT_MATMUL_TILE_56x576	12.6				
CUBLASLT_MATMUL_TILE_56x640	12.6				
CUBLASLT_MATMUL_TILE_56x704	12.6				
CUBLASLT_MATMUL_TILE_56x768	12.6				
CUBLASLT_MATMUL_TILE_576x104	12.6				
CUBLASLT_MATMUL_TILE_576x112	12.6				
CUBLASLT_MATMUL_TILE_576x16	12.6				
CUBLASLT_MATMUL_TILE_576x24	12.6				
CUBLASLT_MATMUL_TILE_576x32	12.6				
CUBLASLT_MATMUL_TILE_576x40	12.6				
CUBLASLT_MATMUL_TILE_576x48	12.6				
CUBLASLT_MATMUL_TILE_576x56	12.6				
CUBLASLT_MATMUL_TILE_576x64	12.6				
CUBLASLT_MATMUL_TILE_576x72	12.6				
CUBLASLT_MATMUL_TILE_576x8	12.6				
CUBLASLT_MATMUL_TILE_576x80	12.6				
CUBLASLT_MATMUL_TILE_576x88	12.6				
CUBLASLT_MATMUL_TILE_576x96	12.6				
CUBLASLT_MATMUL_TILE_584x64	12.6				
CUBLASLT_MATMUL_TILE_592x64	12.6				
CUBLASLT_MATMUL_TILE_600x64	12.6				
CUBLASLT_MATMUL_TILE_608x64	12.6				
CUBLASLT_MATMUL_TILE_616x64	12.6				
CUBLASLT_MATMUL_TILE_624x64	12.6				
CUBLASLT_MATMUL_TILE_632x64	12.6				
CUBLASLT_MATMUL_TILE_640x16	12.6				
CUBLASLT_MATMUL_TILE_640x24	12.6				
CUBLASLT_MATMUL_TILE_640x32	12.6				
CUBLASLT_MATMUL_TILE_640x40	12.6				

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CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_640x48	12.6				
CUBLASLT_MATMUL_TILE_640x56	12.6				
CUBLASLT_MATMUL_TILE_640x64	12.6				
CUBLASLT_MATMUL_TILE_640x72	12.6				
CUBLASLT_MATMUL_TILE_640x8	12.6				
CUBLASLT_MATMUL_TILE_640x80	12.6				
CUBLASLT_MATMUL_TILE_640x88	12.6				
CUBLASLT_MATMUL_TILE_640x96	12.6				
CUBLASLT_MATMUL_TILE_648x64	12.6				
CUBLASLT_MATMUL_TILE_64x104	12.6				
CUBLASLT_MATMUL_TILE_64x112	12.6				
CUBLASLT_MATMUL_TILE_64x120	12.6				
CUBLASLT_MATMUL_TILE_64x128	10.1				
CUBLASLT_MATMUL_TILE_64x136	12.6				
CUBLASLT_MATMUL_TILE_64x144	12.6				
CUBLASLT_MATMUL_TILE_64x152	12.6				
CUBLASLT_MATMUL_TILE_64x16	12.6				
CUBLASLT_MATMUL_TILE_64x160	12.6				
CUBLASLT_MATMUL_TILE_64x168	12.6				
CUBLASLT_MATMUL_TILE_64x176	12.6				
CUBLASLT_MATMUL_TILE_64x184	12.6				
CUBLASLT_MATMUL_TILE_64x192	12.6				
CUBLASLT_MATMUL_TILE_64x200	12.6				
CUBLASLT_MATMUL_TILE_64x208	12.6				
CUBLASLT_MATMUL_TILE_64x216	12.6				
CUBLASLT_MATMUL_TILE_64x224	12.6				
CUBLASLT_MATMUL_TILE_64x232	12.6				
CUBLASLT_MATMUL_TILE_64x24	12.6				
CUBLASLT_MATMUL_TILE_64x240	12.6				
CUBLASLT_MATMUL_TILE_64x248	12.6				
CUBLASLT_MATMUL_TILE_64x256	10.1				
CUBLASLT_MATMUL_TILE_64x264	12.6				
CUBLASLT_MATMUL_TILE_64x272	12.6				
CUBLASLT_MATMUL_TILE_64x280	12.6				
CUBLASLT_MATMUL_TILE_64x288	12.6				
CUBLASLT_MATMUL_TILE_64x296	12.6				
CUBLASLT_MATMUL_TILE_64x304	12.6				
CUBLASLT_MATMUL_TILE_64x312	12.6				
CUBLASLT_MATMUL_TILE_64x32	10.1				
CUBLASLT_MATMUL_TILE_64x320	12.6				
CUBLASLT_MATMUL_TILE_64x328	12.6				
CUBLASLT_MATMUL_TILE_64x336	12.6				
CUBLASLT_MATMUL_TILE_64x344	12.6				
CUBLASLT_MATMUL_TILE_64x352	12.6				
CUBLASLT_MATMUL_TILE_64x360	12.6				
CUBLASLT_MATMUL_TILE_64x368	12.6				
CUBLASLT_MATMUL_TILE_64x376	12.6				
CUBLASLT_MATMUL_TILE_64x384	12.6				
CUBLASLT_MATMUL_TILE_64x392	12.6				
CUBLASLT_MATMUL_TILE_64x40	12.6				

Table 15 – continued from previous page

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_64x400	12.6				
CUBLASLT_MATMUL_TILE_64x408	12.6				
CUBLASLT_MATMUL_TILE_64x416	12.6				
CUBLASLT_MATMUL_TILE_64x424	12.6				
CUBLASLT_MATMUL_TILE_64x432	12.6				
CUBLASLT_MATMUL_TILE_64x440	12.6				
CUBLASLT_MATMUL_TILE_64x448	12.6				
CUBLASLT_MATMUL_TILE_64x456	12.6				
CUBLASLT_MATMUL_TILE_64x464	12.6				
CUBLASLT_MATMUL_TILE_64x472	12.6				
CUBLASLT_MATMUL_TILE_64x48	12.6				
CUBLASLT_MATMUL_TILE_64x480	12.6				
CUBLASLT_MATMUL_TILE_64x488	12.6				
CUBLASLT_MATMUL_TILE_64x496	12.6				
CUBLASLT_MATMUL_TILE_64x504	12.6				
CUBLASLT_MATMUL_TILE_64x512	10.1				
CUBLASLT_MATMUL_TILE_64x520	12.6				
CUBLASLT_MATMUL_TILE_64x528	12.6				
CUBLASLT_MATMUL_TILE_64x536	12.6				
CUBLASLT_MATMUL_TILE_64x544	12.6				
CUBLASLT_MATMUL_TILE_64x552	12.6				
CUBLASLT_MATMUL_TILE_64x56	12.6				
CUBLASLT_MATMUL_TILE_64x560	12.6				
CUBLASLT_MATMUL_TILE_64x568	12.6				
CUBLASLT_MATMUL_TILE_64x576	12.6				
CUBLASLT_MATMUL_TILE_64x584	12.6				
CUBLASLT_MATMUL_TILE_64x592	12.6				
CUBLASLT_MATMUL_TILE_64x600	12.6				
CUBLASLT_MATMUL_TILE_64x608	12.6				
CUBLASLT_MATMUL_TILE_64x616	12.6				
CUBLASLT_MATMUL_TILE_64x624	12.6				
CUBLASLT_MATMUL_TILE_64x632	12.6				
CUBLASLT_MATMUL_TILE_64x64	10.1				
CUBLASLT_MATMUL_TILE_64x640	12.6				
CUBLASLT_MATMUL_TILE_64x648	12.6				
CUBLASLT_MATMUL_TILE_64x656	12.6				
CUBLASLT_MATMUL_TILE_64x664	12.6				
CUBLASLT_MATMUL_TILE_64x672	12.6				
CUBLASLT_MATMUL_TILE_64x680	12.6				
CUBLASLT_MATMUL_TILE_64x688	12.6				
CUBLASLT_MATMUL_TILE_64x696	12.6				
CUBLASLT_MATMUL_TILE_64x704	12.6				
CUBLASLT_MATMUL_TILE_64x712	12.6				
CUBLASLT_MATMUL_TILE_64x72	12.6				
CUBLASLT_MATMUL_TILE_64x720	12.6				
CUBLASLT_MATMUL_TILE_64x728	12.6				
CUBLASLT_MATMUL_TILE_64x736	12.6				
CUBLASLT_MATMUL_TILE_64x744	12.6				
CUBLASLT_MATMUL_TILE_64x752	12.6				
CUBLASLT_MATMUL_TILE_64x760	12.6				

Table 15 – continued from previous page

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_64x768	12.6				
CUBLASLT_MATMUL_TILE_64x8	10.1				
CUBLASLT_MATMUL_TILE_64x80	12.6				
CUBLASLT_MATMUL_TILE_64x88	12.6				
CUBLASLT_MATMUL_TILE_64x96	11.3				
CUBLASLT_MATMUL_TILE_656x64	12.6				
CUBLASLT_MATMUL_TILE_664x64	12.6				
CUBLASLT_MATMUL_TILE_672x64	12.6				
CUBLASLT_MATMUL_TILE_680x64	12.6				
CUBLASLT_MATMUL_TILE_688x64	12.6				
CUBLASLT_MATMUL_TILE_696x64	12.6				
CUBLASLT_MATMUL_TILE_704x16	12.6				
CUBLASLT_MATMUL_TILE_704x24	12.6				
CUBLASLT_MATMUL_TILE_704x32	12.6				
CUBLASLT_MATMUL_TILE_704x40	12.6				
CUBLASLT_MATMUL_TILE_704x48	12.6				
CUBLASLT_MATMUL_TILE_704x56	12.6				
CUBLASLT_MATMUL_TILE_704x64	12.6				
CUBLASLT_MATMUL_TILE_704x72	12.6				
CUBLASLT_MATMUL_TILE_704x8	12.6				
CUBLASLT_MATMUL_TILE_704x80	12.6				
CUBLASLT_MATMUL_TILE_704x88	12.6				
CUBLASLT_MATMUL_TILE_712x64	12.6				
CUBLASLT_MATMUL_TILE_720x64	12.6				
CUBLASLT_MATMUL_TILE_728x64	12.6				
CUBLASLT_MATMUL_TILE_72x128	12.6				
CUBLASLT_MATMUL_TILE_72x192	12.6				
CUBLASLT_MATMUL_TILE_72x256	12.6				
CUBLASLT_MATMUL_TILE_72x320	12.6				
CUBLASLT_MATMUL_TILE_72x384	12.6				
CUBLASLT_MATMUL_TILE_72x448	12.6				
CUBLASLT_MATMUL_TILE_72x512	12.6				
CUBLASLT_MATMUL_TILE_72x576	12.6				
CUBLASLT_MATMUL_TILE_72x64	12.6				
CUBLASLT_MATMUL_TILE_72x640	12.6				
CUBLASLT_MATMUL_TILE_736x64	12.6				
CUBLASLT_MATMUL_TILE_744x64	12.6				
CUBLASLT_MATMUL_TILE_752x64	12.6				
CUBLASLT_MATMUL_TILE_760x64	12.6				
CUBLASLT_MATMUL_TILE_768x16	12.6				
CUBLASLT_MATMUL_TILE_768x24	12.6				
CUBLASLT_MATMUL_TILE_768x32	12.6				
CUBLASLT_MATMUL_TILE_768x40	12.6				
CUBLASLT_MATMUL_TILE_768x48	12.6				
CUBLASLT_MATMUL_TILE_768x56	12.6				
CUBLASLT_MATMUL_TILE_768x64	12.6				
CUBLASLT_MATMUL_TILE_768x72	12.6				
CUBLASLT_MATMUL_TILE_768x8	12.6				
CUBLASLT_MATMUL_TILE_768x80	12.6				
CUBLASLT_MATMUL_TILE_80x128	12.6				

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CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_80x192	12.6				
CUBLASLT_MATMUL_TILE_80x256	12.6				
CUBLASLT_MATMUL_TILE_80x320	12.6				
CUBLASLT_MATMUL_TILE_80x384	12.6				
CUBLASLT_MATMUL_TILE_80x448	12.6				
CUBLASLT_MATMUL_TILE_80x512	12.6				
CUBLASLT_MATMUL_TILE_80x576	12.6				
CUBLASLT_MATMUL_TILE_80x64	12.6				
CUBLASLT_MATMUL_TILE_88x128	12.6				
CUBLASLT_MATMUL_TILE_88x192	12.6				
CUBLASLT_MATMUL_TILE_88x256	12.6				
CUBLASLT_MATMUL_TILE_88x320	12.6				
CUBLASLT_MATMUL_TILE_88x384	12.6				
CUBLASLT_MATMUL_TILE_88x448	12.6				
CUBLASLT_MATMUL_TILE_88x512	12.6				
CUBLASLT_MATMUL_TILE_88x64	12.6				
CUBLASLT_MATMUL_TILE_8x128	12.6				
CUBLASLT_MATMUL_TILE_8x16	10.1				
CUBLASLT_MATMUL_TILE_8x192	12.6				
CUBLASLT_MATMUL_TILE_8x256	12.6				
CUBLASLT_MATMUL_TILE_8x32	10.1				
CUBLASLT_MATMUL_TILE_8x320	12.6				
CUBLASLT_MATMUL_TILE_8x384	12.6				
CUBLASLT_MATMUL_TILE_8x448	12.6				
CUBLASLT_MATMUL_TILE_8x512	12.6				
CUBLASLT_MATMUL_TILE_8x576	12.6				
CUBLASLT_MATMUL_TILE_8x64	10.1				
CUBLASLT_MATMUL_TILE_8x640	12.6				
CUBLASLT_MATMUL_TILE_8x704	12.6				
CUBLASLT_MATMUL_TILE_8x768	12.6				
CUBLASLT_MATMUL_TILE_8x8	10.1				
CUBLASLT_MATMUL_TILE_96x128	11.3				
CUBLASLT_MATMUL_TILE_96x192	12.6				
CUBLASLT_MATMUL_TILE_96x256	12.6				
CUBLASLT_MATMUL_TILE_96x320	12.6				
CUBLASLT_MATMUL_TILE_96x384	12.6				
CUBLASLT_MATMUL_TILE_96x448	12.6				
CUBLASLT_MATMUL_TILE_96x512	12.6				
CUBLASLT_MATMUL_TILE_96x64	11.3				
CUBLASLT_MATMUL_TILE_END	10.1				
CUBLASLT_MATMUL_TILE_UNDEFINED	10.1				
CUBLASLT_MATRIX_LAYOUT_BATCH_COUNT	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_LAYOUT_BATCH_MODE	12.9				
CUBLASLT_MATRIX_LAYOUT_COLS	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_LAYOUT_LD	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_LAYOUT_ORDER	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_LAYOUT_PLANE_OFFSET	10.1				
CUBLASLT_MATRIX_LAYOUT_ROWS	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_LAYOUT_STRIDED_BATCH_OFFSET	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_LAYOUT_TYPE	10.1				HIPBLASLT_MATRIX_LAYOUT

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CUDA	A	D	C	R	HIP
CUBLASLT_MATRIX_TRANSFORM_DESC_POINTER_MODE	10.1				HIPBLASLT_MATRIX_TRANSF
CUBLASLT_MATRIX_TRANSFORM_DESC_SCALE_TYPE	10.1				HIPBLASLT_MATRIX_TRANSF
CUBLASLT_MATRIX_TRANSFORM_DESC_TRANSA	10.1				HIPBLASLT_MATRIX_TRANSF
CUBLASLT_MATRIX_TRANSFORM_DESC_TRANSB	10.1				HIPBLASLT_MATRIX_TRANSF
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_16F	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_32F	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_32I	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_64F	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_TYPE_MASK	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_DMMA	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_FMA	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_GAUSSIAN	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_HMMA	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_IMMA	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_16BF	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_16F	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_32F	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_64F	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_8F_E4M3	11.8				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_8F_E5M2	11.8				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_8I	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_TF32	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_OP_INPUT_TYPE_MASK	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_OP_TYPE_MASK	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_TENSOR_OP_MASK	11.0				
CUBLASLT_ORDER_COL	10.1				HIPBLASLT_ORDER_COL
CUBLASLT_ORDER_COL32	10.1				
CUBLASLT_ORDER_COL32_2R_4R4	11.0				
CUBLASLT_ORDER_COL4_4R2_8C	10.1				
CUBLASLT_ORDER_ROW	10.1				HIPBLASLT_ORDER_ROW
CUBLASLT_POINTER_MODE_ALPHA_DEVICE_VECTOR_BETA_HOST	11.4				HIPBLASLT_POINTER_MODE_
CUBLASLT_POINTER_MODE_ALPHA_DEVICE_VECTOR_BETA_ZERO	10.1				
CUBLASLT_POINTER_MODE_DEVICE					HIPBLASLT_POINTER_MODE_
CUBLASLT_POINTER_MODE_DEVICE_VECTOR	10.1				
CUBLASLT_POINTER_MODE_HOST	10.1				HIPBLASLT_POINTER_MODE_
CUBLASLT_POINTER_MODE_MASK_ALPHA_DEVICE_VECTOR_BETA_HOST	11.4				
CUBLASLT_POINTER_MODE_MASK_ALPHA_DEVICE_VECTOR_BETA_ZERO	10.1				
CUBLASLT_POINTER_MODE_MASK_DEVICE	10.1				
CUBLASLT_POINTER_MODE_MASK_DEVICE_VECTOR	10.1				
CUBLASLT_POINTER_MODE_MASK_HOST	10.1				
CUBLASLT_REDUCTION_SCHEME_COMPUTE_TYPE	10.1				
CUBLASLT_REDUCTION_SCHEME_INPLACE	10.1				
CUBLASLT_REDUCTION_SCHEME_MASK	10.1				
CUBLASLT_REDUCTION_SCHEME_NONE	10.1				
CUBLASLT_REDUCTION_SCHEME_OUTPUT_TYPE	10.1				
CUBLASLT_SEARCH_BEST_FIT	10.1				
CUBLASLT_SEARCH_LIMITED_BY_ALGO_ID	10.1				
CUBLASLT_SEARCH_RESERVED_02	11.0				
CUBLASLT_SEARCH_RESERVED_03	11.0				
CUBLASLT_SEARCH_RESERVED_04	11.0				

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CUDA	A	D	C	R	HIP
CUBLASLT_SEARCH_RESERVED_05	11.0				
CUBLASLT_SEARCH_RESERVED_06	12.6				
CUBLASLT_SEARCH_RESERVED_07	12.6				
CUBLASLT_SEARCH_RESERVED_08	12.6				
CUBLASLT_SEARCH_RESERVED_09	12.6				
cublasLtBatchMode_t	12.9				
cublasLtClusterShape_t	11.8				
cublasLtContext	10.1				
cublasLtEpilogue_t	10.1				hipblasLtEpilogue_t
cublasLtHandle_t	10.1				hipblasLtHandle_t
cublasLtLoggerCallback_t	11.0				
cublasLtMatmulAlgoCapAttributes_t	10.1				
cublasLtMatmulAlgoConfigAttributes_t	10.1				
cublasLtMatmulAlgo_t	10.1				hipblasLtMatmulAlgo_t
cublasLtMatmulDescAttributes_t	10.1				hipblasLtMatmulDescAttr
cublasLtMatmulDescOpaque_t	11.0				hipblasLtMatmulDescOpaq
cublasLtMatmulDesc_t	10.1				hipblasLtMatmulDesc_t
cublasLtMatmulHeuristicResult_t	10.1				hipblasLtMatmulHeuristi
cublasLtMatmulInnerShape_t	11.8				
cublasLtMatmulMatrixScale_t	12.8				hipblasLtMatmulMatrixSc
cublasLtMatmulPreferenceAttributes_t	10.1				hipblasLtMatmulPreferen
cublasLtMatmulPreferenceOpaque_t	11.0				hipblasLtMatmulPreferen
cublasLtMatmulPreference_t	10.1				hipblasLtMatmulPreferen
cublasLtMatmulSearch_t	10.1				
cublasLtMatmulStages_t	11.0				
cublasLtMatmulTile_t	10.1				
cublasLtMatrixLayoutAttribute_t	10.1				hipblasLtMatrixLayoutAt
cublasLtMatrixLayoutOpaque_t	11.0				hipblasLtMatrixLayoutOp
cublasLtMatrixLayoutStruct	10.1			10.2	hipblasLtMatrixLayoutOp
cublasLtMatrixLayout_t	10.1				hipblasLtMatrixLayout_t
cublasLtMatrixTransformDescAttributes_t	10.1				hipblasLtMatrixTransform
cublasLtMatrixTransformDescOpaque_t	11.0				hipblasLtMatrixTransform
cublasLtMatrixTransformDesc_t	10.1				hipblasLtMatrixTransform
cublasLtNumericalImplFlags_t	11.0				
cublasLtOrder_t	10.1				hipblasLtOrder_t
cublasLtPointerModeMask_t	10.1				
cublasLtPointerMode_t	10.1				hipblasLtPointerMode_t
cublasLtReductionScheme_t	10.1				

9.6.4 4. CUBLAS Helper Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasAlloc											
cublasCreate					hipblasCreate	1.8.2					
cublasCreate_v2					hipblasCreate	1.8.2					
cublasDestroy					hipblasDestroy	1.8.2					
cublasDestroy_v2					hipblasDestroy	1.8.2					
cublasFree											
cublasGetAtomicsMode					hipblasGetAtomicsMode	3.10.0					

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CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasGetCudartVersion	10.1										
cublasGetEmulationStrategy	12.9										
cublasGetError											
cublasGetLoggerCallback	9.2										
cublasGetMathMode	9.0				hipblasGetMathMode	6.1.0					
cublasGetMatrix					hipblasGetMatrix	1.8.2					
cublasGetMatrixAsync					hipblasGetMatrixAsync	3.7.0					
cublasGetMatrixAsync_64	12.0										
cublasGetMatrix_64	12.0										
cublasGetPointerMode					hipblasGetPointerMode	1.8.2					
cublasGetPointerMode_v2					hipblasGetPointerMode	1.8.2					
cublasGetProperty											
cublasGetSmCountTarget	11.3										
cublasGetStatusName	11.4										
cublasGetStatusString	11.4										
cublasGetStream					hipblasGetStream	1.8.2					
cublasGetStream_v2					hipblasGetStream	1.8.2					
cublasGetVector					hipblasGetVector	1.8.2					
cublasGetVectorAsync					hipblasGetVectorAsync	3.7.0					
cublasGetVectorAsync_64	12.0										
cublasGetVector_64	12.0										
cublasGetVersion											
cublasGetVersion_v2											
cublasInit											
cublasLogCallback	9.2										
cublasLoggerConfigure	9.2										
cublasMigrateComputeType	11.0										
cublasSetAtomicsMode					hipblasSetAtomicsMode	3.10.0					
cublasSetEmulationStrategy	12.9										
cublasSetKernelStream											
cublasSetLoggerCallback	9.2										
cublasSetMathMode	9.0				hipblasSetMathMode	6.1.0					
cublasSetMatrix					hipblasSetMatrix	1.8.2					
cublasSetMatrixAsync					hipblasSetMatrixAsync	3.7.0					
cublasSetMatrixAsync_64	12.0										
cublasSetMatrix_64	12.0										
cublasSetPointerMode					hipblasSetPointerMode	1.8.2					
cublasSetPointerMode_v2					hipblasSetPointerMode	1.8.2					
cublasSetSmCountTarget	11.3										
cublasSetStream					hipblasSetStream	1.8.2					
cublasSetStream_v2					hipblasSetStream	1.8.2					
cublasSetVector					hipblasSetVector	1.8.2					
cublasSetVectorAsync					hipblasSetVectorAsync	3.7.0					
cublasSetVectorAsync_64	12.0										
cublasSetVector_64	12.0										
cublasSetWorkspace	11.0				hipblasSetWorkspace	7.0.0					
cublasSetWorkspace_v2	11.0				hipblasSetWorkspace	7.0.0					
cublasShutdown											
cublasXerbla											

9.6.5 5. CUBLAS Level-1 Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasCaxpy					hipblasCaxpy	3.0.0		7.0.0			
cublasCaxpy_64	12.0				hipblasCaxpy_64	6.1.0		7.0.0			
cublasCaxpy_v2					hipblasCaxpy	3.0.0		7.0.0			
cublasCaxpy_v2_64	12.0				hipblasCaxpy_64	6.1.0		7.0.0			
cublasCcopy					hipblasCcopy	3.0.0		7.0.0			
cublasCcopy_64	12.0				hipblasCcopy_64	6.1.0		7.0.0			
cublasCcopy_v2					hipblasCcopy	3.0.0		7.0.0			
cublasCcopy_v2_64	12.0				hipblasCcopy_64	6.1.0		7.0.0			
cublasCdotc					hipblasCdotc	3.0.0		7.0.0			
cublasCdotc_64	12.0				hipblasCdotc_64	6.1.0		7.0.0			
cublasCdotc_v2					hipblasCdotc	3.0.0		7.0.0			
cublasCdotc_v2_64	12.0				hipblasCdotc_64	6.1.0		7.0.0			
cublasCdotu					hipblasCdotu	3.0.0		7.0.0			
cublasCdotu_64	12.0				hipblasCdotu_64	6.1.0		7.0.0			
cublasCdotu_v2					hipblasCdotu	3.0.0		7.0.0			
cublasCdotu_v2_64	12.0				hipblasCdotu_64	6.1.0		7.0.0			
cublasCrot					hipblasCrot	3.0.0		7.0.0			
cublasCrot_64	12.0				hipblasCrot_64	6.1.0		7.0.0			
cublasCrot_v2					hipblasCrot	3.0.0		7.0.0			
cublasCrot_v2_64	12.0				hipblasCrot_64	6.1.0		7.0.0			
cublasCrotg					hipblasCrotg	3.0.0		7.0.0			
cublasCrotg_v2					hipblasCrotg	3.0.0		7.0.0			
cublasCscal					hipblasCscal	1.6.0		7.0.0			
cublasCscal_64	12.0				hipblasCscal_64	6.1.0		7.0.0			
cublasCscal_v2					hipblasCscal	1.6.0		7.0.0			
cublasCscal_v2_64	12.0				hipblasCscal_64	6.1.0		7.0.0			
cublasCsrot					hipblasCsrot	3.0.0		7.0.0			
cublasCsrot_64	12.0				hipblasCsrot_64	6.1.0		7.0.0			
cublasCsrot_v2					hipblasCsrot	3.0.0		7.0.0			
cublasCsrot_v2_64	12.0				hipblasCsrot_64	6.1.0		7.0.0			
cublasCsscal					hipblasCsscal	3.0.0		7.0.0			
cublasCsscal_64	12.0				hipblasCsscal_64	6.1.0		7.0.0			
cublasCsscal_v2					hipblasCsscal	3.0.0		7.0.0			
cublasCsscal_v2_64	12.0				hipblasCsscal_64	6.1.0		7.0.0			
cublasCswap					hipblasCswap	3.0.0		7.0.0			
cublasCswap_64	12.0				hipblasCswap_64	6.1.0		7.0.0			
cublasCswap_v2					hipblasCswap	3.0.0		7.0.0			
cublasCswap_v2_64	12.0				hipblasCswap_64	6.1.0		7.0.0			
cublasDasum					hipblasDasum	1.8.2					
cublasDasum_64	12.0				hipblasDasum_64	6.1.0					
cublasDasum_v2					hipblasDasum	1.8.2					
cublasDasum_v2_64	12.0				hipblasDasum_64	6.1.0					
cublasDaxpy					hipblasDaxpy	1.8.2					
cublasDaxpy_64	12.0				hipblasDaxpy_64	6.1.0					
cublasDaxpy_v2					hipblasDaxpy	1.8.2					
cublasDaxpy_v2_64	12.0				hipblasDaxpy_64	6.1.0					
cublasDcopy					hipblasDcopy	1.8.2					
cublasDcopy_64	12.0				hipblasDcopy_64	6.1.0					
cublasDcopy_v2					hipblasDcopy	1.8.2					

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Table 17 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasDcopy_v2_64	12.0				hipblasDcopy_64	6.1.0					
cublasDdot					hipblasDdot	3.0.0					
cublasDdot_64	12.0				hipblasDdot_64	6.1.0					
cublasDdot_v2					hipblasDdot	3.0.0					
cublasDdot_v2_64	12.0				hipblasDdot_64	6.1.0					
cublasDnrm2					hipblasDnrm2	1.8.2					
cublasDnrm2_64	12.0				hipblasDnrm2_64	6.1.0					
cublasDnrm2_v2					hipblasDnrm2	1.8.2					
cublasDnrm2_v2_64	12.0				hipblasDnrm2_64	6.1.0					
cublasDrot					hipblasDrot	3.0.0					
cublasDrot_64	12.0				hipblasDrot_64	6.1.0					
cublasDrot_v2					hipblasDrot	3.0.0					
cublasDrot_v2_64	12.0				hipblasDrot_64	6.1.0					
cublasDrotg					hipblasDrotg	3.0.0					
cublasDrotg_v2					hipblasDrotg	3.0.0					
cublasDrotm					hipblasDrotm	3.0.0					
cublasDrotm_64	12.0				hipblasDrotm_64	6.1.0					
cublasDrotm_v2					hipblasDrotm	3.0.0					
cublasDrotm_v2_64	12.0				hipblasDrotm_64	6.1.0					
cublasDrotmg					hipblasDrotmg	3.0.0					
cublasDrotmg_v2					hipblasDrotmg	3.0.0					
cublasDscal					hipblasDscal	1.8.2					
cublasDscal_64	12.0				hipblasDscal_64	6.1.0					
cublasDscal_v2					hipblasDscal	1.8.2					
cublasDscal_v2_64	12.0				hipblasDscal_64	6.1.0					
cublasDswap					hipblasDswap	3.0.0					
cublasDswap_64	12.0				hipblasDswap_64	6.1.0					
cublasDswap_v2					hipblasDswap	3.0.0					
cublasDswap_v2_64	12.0				hipblasDswap_64	6.1.0					
cublasDzasum					hipblasDzasum	3.0.0		7.0.0			
cublasDzasum_64	12.0				hipblasDzasum_64	6.1.0		7.0.0			
cublasDzasum_v2					hipblasDzasum	3.0.0		7.0.0			
cublasDzasum_v2_64	12.0				hipblasDzasum_64	6.1.0		7.0.0			
cublasDznrm2					hipblasDznrm2	3.0.0		7.0.0			
cublasDznrm2_64	12.0				hipblasDznrm2_64	6.1.0		7.0.0			
cublasDznrm2_v2					hipblasDznrm2	3.0.0		7.0.0			
cublasDznrm2_v2_64	12.0				hipblasDznrm2_64	6.1.0		7.0.0			
cublasIcamax					hipblasIcamax	3.0.0		7.0.0			
cublasIcamax_64	12.0				hipblasIcamax_64	6.1.0		7.0.0			
cublasIcamax_v2					hipblasIcamax	3.0.0		7.0.0			
cublasIcamax_v2_64	12.0				hipblasIcamax_64	6.1.0		7.0.0			
cublasIcamin					hipblasIcamin	3.0.0		7.0.0			
cublasIcamin_64	12.0				hipblasIcamin_64	6.1.0		7.0.0			
cublasIcamin_v2					hipblasIcamin	3.0.0		7.0.0			
cublasIcamin_v2_64	12.0				hipblasIcamin_64	6.1.0		7.0.0			
cublasIdamax					hipblasIdamax	1.8.2					
cublasIdamax_64	12.0				hipblasIdamax_64	6.1.0					
cublasIdamax_v2					hipblasIdamax	1.8.2					
cublasIdamax_v2_64	12.0				hipblasIdamax_64	6.1.0					
cublasIdamin					hipblasIdamin	3.0.0					

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Table 17 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasIdamin_64					hipblasIdamin_64	6.1.0					
cublasIdamin_v2					hipblasIdamin	3.0.0					
cublasIdamin_v2_64	12.0				hipblasIdamin_64	6.1.0					
cublasIsamax					hipblasIsamax	1.8.2					
cublasIsamax_64	12.0				hipblasIsamax_64	6.1.0					
cublasIsamax_v2					hipblasIsamax	1.8.2					
cublasIsamax_v2_64	12.0				hipblasIsamax_64	6.1.0					
cublasIsamin					hipblasIsamin	3.0.0					
cublasIsamin_64	12.0				hipblasIsamin_64	6.1.0					
cublasIsamin_v2					hipblasIsamin	3.0.0					
cublasIsamin_v2_64	12.0				hipblasIsamin_64	6.1.0					
cublasIzamax					hipblasIzamax	3.0.0		7.0.0			
cublasIzamax_64	12.0				hipblasIzamax_64	6.1.0		7.0.0			
cublasIzamax_v2					hipblasIzamax	3.0.0		7.0.0			
cublasIzamax_v2_64	12.0				hipblasIzamax_64	6.1.0		7.0.0			
cublasIzamin					hipblasIzamin	3.0.0		7.0.0			
cublasIzamin_64	12.0				hipblasIzamin_64	6.1.0		7.0.0			
cublasIzamin_v2					hipblasIzamin	3.0.0		7.0.0			
cublasIzamin_v2_64	12.0				hipblasIzamin_64	6.1.0		7.0.0			
cublasNrm2Ex	8.0				hipblasNrm2Ex	4.1.0		7.0.0			
cublasNrm2Ex_64	12.0				hipblasNrm2Ex_64	6.2.0		7.0.0			
cublasSasum					hipblasSasum	1.8.2					
cublasSasum_64	12.0				hipblasSasum_64	6.1.0					
cublasSasum_v2					hipblasSasum	1.8.2					
cublasSasum_v2_64	12.0				hipblasSasum_64	6.1.0					
cublasSaxpy					hipblasSaxpy	1.8.2					
cublasSaxpy_64	12.0				hipblasSaxpy_64	6.1.0					
cublasSaxpy_v2					hipblasSaxpy	1.8.2					
cublasSaxpy_v2_64	12.0				hipblasSaxpy_64	6.1.0					
cublasScasum					hipblasScasum	3.0.0		7.0.0			
cublasScasum_64	12.0				hipblasScasum_64	6.1.0		7.0.0			
cublasScasum_v2					hipblasScasum	3.0.0		7.0.0			
cublasScasum_v2_64	12.0				hipblasScasum_64	6.1.0		7.0.0			
cublasScnrm2					hipblasScnrm2	3.0.0		7.0.0			
cublasScnrm2_64	12.0				hipblasScnrm2_64	6.1.0		7.0.0			
cublasScnrm2_v2					hipblasScnrm2	3.0.0		7.0.0			
cublasScnrm2_v2_64	12.0				hipblasScnrm2_64	6.1.0		7.0.0			
cublasScopy					hipblasScopy	1.8.2					
cublasScopy_64	12.0				hipblasScopy_64	6.1.0					
cublasScopy_v2					hipblasScopy	1.8.2					
cublasScopy_v2_64	12.0				hipblasScopy_64	6.1.0					
cublasSdot					hipblasSdot	3.0.0					
cublasSdot_64	12.0				hipblasSdot_64	6.1.0					
cublasSdot_v2					hipblasSdot	3.0.0					
cublasSdot_v2_64	12.0				hipblasSdot_64	6.1.0					
cublasSnrm2					hipblasSnrm2	1.8.2					
cublasSnrm2_64	12.0				hipblasSnrm2_64	6.1.0					
cublasSnrm2_v2					hipblasSnrm2	1.8.2					
cublasSnrm2_v2_64	12.0				hipblasSnrm2_64	6.1.0					
cublasSrot					hipblasSrot	3.0.0					

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Table 17 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasSrot_64	12.0				hipblasSrot_64	6.1.0					
cublasSrot_v2					hipblasSrot	3.0.0					
cublasSrot_v2_64	12.0				hipblasSrot_64	6.1.0					
cublasSrotg					hipblasSrotg	3.0.0					
cublasSrotg_v2					hipblasSrotg	3.0.0					
cublasSrotm					hipblasSrotm	3.0.0					
cublasSrotm_64	12.0				hipblasSrotm_64	6.1.0					
cublasSrotm_v2					hipblasSrotm	3.0.0					
cublasSrotm_v2_64	12.0				hipblasSrotm_64	6.1.0					
cublasSrotmg					hipblasSrotmg	3.0.0					
cublasSrotmg_v2					hipblasSrotmg	3.0.0					
cublasSscal					hipblasSscal	1.8.2					
cublasSscal_64	12.0				hipblasSscal_64	6.1.0					
cublasSscal_v2					hipblasSscal	1.8.2					
cublasSscal_v2_64	12.0				hipblasSscal_64	6.1.0					
cublasSswap					hipblasSswap	3.0.0					
cublasSswap_64	12.0				hipblasSswap_64	6.1.0					
cublasSswap_v2					hipblasSswap	3.0.0					
cublasSswap_v2_64	12.0				hipblasSswap_64	6.1.0					
cublasZaxpy					hipblasZaxpy	3.0.0		7.0.0			
cublasZaxpy_64	12.0				hipblasZaxpy_64	6.1.0		7.0.0			
cublasZaxpy_v2					hipblasZaxpy	3.0.0		7.0.0			
cublasZaxpy_v2_64	12.0				hipblasZaxpy_64	6.1.0		7.0.0			
cublasZcopy					hipblasZcopy	3.0.0		7.0.0			
cublasZcopy_64	12.0				hipblasZcopy_64	6.1.0		7.0.0			
cublasZcopy_v2					hipblasZcopy	3.0.0		7.0.0			
cublasZcopy_v2_64	12.0				hipblasZcopy_64	6.1.0		7.0.0			
cublasZdotc					hipblasZdotc	3.0.0		7.0.0			
cublasZdotc_64	12.0				hipblasZdotc_64	6.1.0		7.0.0			
cublasZdotc_v2					hipblasZdotc	3.0.0		7.0.0			
cublasZdotc_v2_64	12.0				hipblasZdotc_64	6.1.0		7.0.0			
cublasZdotu					hipblasZdotu	3.0.0		7.0.0			
cublasZdotu_64	12.0				hipblasZdotu_64	6.1.0		7.0.0			
cublasZdotu_v2					hipblasZdotu	3.0.0		7.0.0			
cublasZdotu_v2_64	12.0				hipblasZdotu_64	6.1.0		7.0.0			
cublasZdrot					hipblasZdrot	3.0.0		7.0.0			
cublasZdrot_64	12.0				hipblasZdrot_64	6.1.0		7.0.0			
cublasZdrot_v2					hipblasZdrot	3.0.0		7.0.0			
cublasZdrot_v2_64	12.0				hipblasZdrot_64	6.1.0		7.0.0			
cublasZdscal					hipblasZdscal	3.0.0		7.0.0			
cublasZdscal_64	12.0				hipblasZdscal_64	6.1.0		7.0.0			
cublasZdscal_v2					hipblasZdscal	3.0.0		7.0.0			
cublasZdscal_v2_64	12.0				hipblasZdscal_64	6.1.0		7.0.0			
cublasZrot					hipblasZrot	3.0.0		7.0.0			
cublasZrot_64	12.0				hipblasZrot_64	6.1.0		7.0.0			
cublasZrot_v2					hipblasZrot	3.0.0		7.0.0			
cublasZrot_v2_64	12.0				hipblasZrot_64	6.1.0		7.0.0			
cublasZrotg					hipblasZrotg	3.0.0		7.0.0			
cublasZrotg_v2					hipblasZrotg	3.0.0		7.0.0			
cublasZscal					hipblasZscal	1.6.0		7.0.0			

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Table 17 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasZscal_64	12.0				hipblasZscal_64	6.1.0		7.0.0			
cublasZscal_v2					hipblasZscal	1.6.0		7.0.0			
cublasZscal_v2_64	12.0				hipblasZscal_64	6.1.0		7.0.0			
cublasZswap					hipblasZswap	3.0.0		7.0.0			
cublasZswap_64	12.0				hipblasZswap_64	6.1.0		7.0.0			
cublasZswap_v2					hipblasZswap	3.0.0		7.0.0			
cublasZswap_v2_64	12.0				hipblasZswap_64	6.1.0		7.0.0			

9.6.6 6. CUBLAS Level-2 Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasCgbmv					hipblasCgbmv	3.5.0		7.0.0			
cublasCgbmv_64	12.0				hipblasCgbmv_64	6.2.0		7.0.0			
cublasCgbmv_v2					hipblasCgbmv	3.5.0		7.0.0			
cublasCgbmv_v2_64	12.0				hipblasCgbmv_64	6.2.0		7.0.0			
cublasCgemv					hipblasCgemv	3.0.0		7.0.0			
cublasCgemv_64	12.0				hipblasCgemv_64	6.2.0		7.0.0			
cublasCgemv_v2					hipblasCgemv	3.0.0		7.0.0			
cublasCgemv_v2_64	12.0				hipblasCgemv_64	6.2.0		7.0.0			
cublasCgerc					hipblasCgerc	3.5.0		7.0.0			
cublasCgerc_64	12.0				hipblasCgerc_64	6.2.0		7.0.0			
cublasCgerc_v2					hipblasCgerc	3.5.0		7.0.0			
cublasCgerc_v2_64	12.0				hipblasCgerc_64	6.2.0		7.0.0			
cublasCgeru					hipblasCgeru	3.5.0		7.0.0			
cublasCgeru_64	12.0				hipblasCgeru_64	6.2.0		7.0.0			
cublasCgeru_v2					hipblasCgeru	3.5.0		7.0.0			
cublasCgeru_v2_64	12.0				hipblasCgeru_64	6.2.0		7.0.0			
cublasChbmv					hipblasChbmv	3.5.0		7.0.0			
cublasChbmv_64	12.0				hipblasChbmv_64	6.2.0		7.0.0			
cublasChbmv_v2					hipblasChbmv	3.5.0		7.0.0			
cublasChbmv_v2_64	12.0				hipblasChbmv_64	6.2.0		7.0.0			
cublasChemv					hipblasChemv	3.5.0		7.0.0			
cublasChemv_64	12.0				hipblasChemv_64	6.2.0		7.0.0			
cublasChemv_v2					hipblasChemv	3.5.0		7.0.0			
cublasChemv_v2_64	12.0				hipblasChemv_64	6.2.0		7.0.0			
cublasCher					hipblasCher	3.5.0		7.0.0			
cublasCher2					hipblasCher2	3.5.0		7.0.0			
cublasCher2_64	12.0				hipblasCher2_64	6.2.0		7.0.0			
cublasCher2_v2					hipblasCher2	3.5.0		7.0.0			
cublasCher2_v2_64	12.0				hipblasCher2_64	6.2.0		7.0.0			
cublasCher_64	12.0				hipblasCher_64	6.2.0		7.0.0			
cublasCher_v2					hipblasCher	3.5.0		7.0.0			
cublasCher_v2_64	12.0				hipblasCher_64	6.2.0		7.0.0			
cublasChpmv					hipblasChpmv	3.5.0		7.0.0			
cublasChpmv_64	12.0				hipblasChpmv_64	6.2.0		7.0.0			
cublasChpmv_v2					hipblasChpmv	3.5.0		7.0.0			
cublasChpmv_v2_64	12.0				hipblasChpmv_64	6.2.0		7.0.0			
cublasChpr					hipblasChpr	3.5.0		7.0.0			
cublasChpr2					hipblasChpr2	3.5.0		7.0.0			

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Table 18 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasChpr2_64	12.0				hipblasChpr2_64	6.2.0		7.0.0			
cublasChpr2_v2					hipblasChpr2	3.5.0		7.0.0			
cublasChpr2_v2_64	12.0				hipblasChpr2_64	6.2.0		7.0.0			
cublasChpr_64	12.0				hipblasChpr_64	6.2.0		7.0.0			
cublasChpr_v2					hipblasChpr	3.5.0		7.0.0			
cublasChpr_v2_64	12.0				hipblasChpr_64	6.2.0		7.0.0			
cublasCsymv					hipblasCsymv	3.5.0		7.0.0			
cublasCsymv_64	12.0				hipblasCsymv_64	6.2.0		7.0.0			
cublasCsymv_v2					hipblasCsymv	3.5.0		7.0.0			
cublasCsymv_v2_64	12.0				hipblasCsymv_64	6.2.0		7.0.0			
cublasCsyrr					hipblasCsyrr	3.5.0		7.0.0			
cublasCsyrr2					hipblasCsyrr2	3.5.0		7.0.0			
cublasCsyrr2_64	12.0				hipblasCsyrr2_64	6.2.0		7.0.0			
cublasCsyrr2_v2					hipblasCsyrr2	3.5.0		7.0.0			
cublasCsyrr2_v2_64	12.0				hipblasCsyrr2_64	6.2.0		7.0.0			
cublasCsyrr_64	12.0				hipblasCsyrr_64	6.2.0		7.0.0			
cublasCsyrr_v2					hipblasCsyrr	3.5.0		7.0.0			
cublasCsyrr_v2_64	12.0				hipblasCsyrr_64	6.2.0		7.0.0			
cublasCtbnmv					hipblasCtbnmv	3.5.0		7.0.0			
cublasCtbnmv_64	12.0				hipblasCtbnmv_64	6.2.0		7.0.0			
cublasCtbnmv_v2					hipblasCtbnmv	3.5.0		7.0.0			
cublasCtbnmv_v2_64	12.0				hipblasCtbnmv_64	6.2.0		7.0.0			
cublasCtbsv					hipblasCtbsv	3.6.0		7.0.0			
cublasCtbsv_64	12.0				hipblasCtbsv_64	6.2.0		7.0.0			
cublasCtbsv_v2					hipblasCtbsv	3.6.0		7.0.0			
cublasCtbsv_v2_64	12.0				hipblasCtbsv_64	6.2.0		7.0.0			
cublasCtpmv					hipblasCtpmv	3.5.0		7.0.0			
cublasCtpmv_64	12.0				hipblasCtpmv_64	6.2.0		7.0.0			
cublasCtpmv_v2					hipblasCtpmv	3.5.0		7.0.0			
cublasCtpmv_v2_64	12.0				hipblasCtpmv_64	6.2.0		7.0.0			
cublasCtpsv					hipblasCtpsv	3.5.0		7.0.0			
cublasCtpsv_64	12.0				hipblasCtpsv_64	6.2.0		7.0.0			
cublasCtpsv_v2					hipblasCtpsv	3.5.0		7.0.0			
cublasCtpsv_v2_64	12.0				hipblasCtpsv_64	6.2.0		7.0.0			
cublasCtrmv					hipblasCtrmv	3.5.0		7.0.0			
cublasCtrmv_64	12.0				hipblasCtrmv_64	6.2.0		7.0.0			
cublasCtrmv_v2					hipblasCtrmv	3.5.0		7.0.0			
cublasCtrmv_v2_64	12.0				hipblasCtrmv_64	6.2.0		7.0.0			
cublasCtrsv					hipblasCtrsv	3.5.0		7.0.0			
cublasCtrsv_64	12.0				hipblasCtrsv_64	6.2.0		7.0.0			
cublasCtrsv_v2					hipblasCtrsv	3.5.0		7.0.0			
cublasCtrsv_v2_64	12.0				hipblasCtrsv_64	6.2.0		7.0.0			
cublasDgbmv					hipblasDgbmv	3.5.0					
cublasDgbmv_64	12.0				hipblasDgbmv_64	6.2.0					
cublasDgbmv_v2					hipblasDgbmv	3.5.0					
cublasDgbmv_v2_64	12.0				hipblasDgbmv_64	6.2.0					
cublasDgemv					hipblasDgemv	1.8.2					
cublasDgemv_64	12.0				hipblasDgemv_64	6.2.0					
cublasDgemv_v2					hipblasDgemv	1.8.2					
cublasDgemv_v2_64	12.0				hipblasDgemv_64	6.2.0					

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Table 18 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasDger					hipblasDger	1.8.2					
cublasDger_64	12.0				hipblasDger_64	6.2.0					
cublasDger_v2					hipblasDger	1.8.2					
cublasDger_v2_64	12.0				hipblasDger_64	6.2.0					
cublasDsbmv					hipblasDsbmv	3.5.0					
cublasDsbmv_64	12.0				hipblasDsbmv_64	6.2.0					
cublasDsbmv_v2					hipblasDsbmv	3.5.0					
cublasDsbmv_v2_64	12.0				hipblasDsbmv_64	6.2.0					
cublasDspmv					hipblasDspmv	3.5.0					
cublasDspmv_64	12.0				hipblasDspmv_64	6.2.0					
cublasDspmv_v2					hipblasDspmv	3.5.0					
cublasDspmv_v2_64	12.0				hipblasDspmv_64	6.2.0					
cublasDspr					hipblasDspr	3.5.0					
cublasDspr2					hipblasDspr2	3.5.0					
cublasDspr2_64	12.0				hipblasDspr2_64	6.2.0					
cublasDspr2_v2					hipblasDspr2	3.5.0					
cublasDspr2_v2_64	12.0				hipblasDspr2_64	6.2.0					
cublasDspr_64	12.0				hipblasDspr_64	6.2.0					
cublasDspr_v2					hipblasDspr	3.5.0					
cublasDspr_v2_64	12.0				hipblasDspr_64	6.2.0					
cublasDsymv					hipblasDsymv	3.5.0					
cublasDsymv_64	12.0				hipblasDsymv_64	6.2.0					
cublasDsymv_v2					hipblasDsymv	3.5.0					
cublasDsymv_v2_64	12.0				hipblasDsymv_64	6.2.0					
cublasDsyr					hipblasDsyr	3.0.0					
cublasDsyr2					hipblasDsyr2	3.5.0					
cublasDsyr2_64	12.0				hipblasDsyr2_64	6.2.0					
cublasDsyr2_v2					hipblasDsyr2	3.5.0					
cublasDsyr2_v2_64	12.0				hipblasDsyr2_64	6.2.0					
cublasDsyr_64	12.0				hipblasDsyr_64	6.2.0					
cublasDsyr_v2					hipblasDsyr	3.0.0					
cublasDsyr_v2_64	12.0				hipblasDsyr_64	6.2.0					
cublasDtbmv					hipblasDtbmv	3.5.0					
cublasDtbmv_64	12.0				hipblasDtbmv_64	6.2.0					
cublasDtbmv_v2					hipblasDtbmv	3.5.0					
cublasDtbmv_v2_64	12.0				hipblasDtbmv_64	6.2.0					
cublasDtbsv					hipblasDtbsv	3.6.0					
cublasDtbsv_64	12.0				hipblasDtbsv_64	6.2.0					
cublasDtbsv_v2					hipblasDtbsv	3.6.0					
cublasDtbsv_v2_64	12.0				hipblasDtbsv_64	6.2.0					
cublasDtpmv					hipblasDtpmv	3.5.0					
cublasDtpmv_64	12.0				hipblasDtpmv_64	6.2.0					
cublasDtpmv_v2					hipblasDtpmv	3.5.0					
cublasDtpmv_v2_64	12.0				hipblasDtpmv_64	6.2.0					
cublasDtpsv					hipblasDtpsv	3.5.0					
cublasDtpsv_64	12.0				hipblasDtpsv_64	6.2.0					
cublasDtpsv_v2					hipblasDtpsv	3.5.0					
cublasDtpsv_v2_64	12.0				hipblasDtpsv_64	6.2.0					
cublasDtrmv					hipblasDtrmv	3.5.0					
cublasDtrmv_64	12.0				hipblasDtrmv_64	6.2.0					

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Table 18 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasDtrmv_v2					hipblasDtrmv	3.5.0					
cublasDtrmv_v2_64	12.0				hipblasDtrmv_64	6.2.0					
cublasDtrsv					hipblasDtrsv	3.0.0					
cublasDtrsv_64	12.0				hipblasDtrsv_64	6.2.0					
cublasDtrsv_v2					hipblasDtrsv	3.0.0					
cublasDtrsv_v2_64	12.0				hipblasDtrsv_64	6.2.0					
cublasSgbmv					hipblasSgbmv	3.5.0					
cublasSgbmv_64	12.0				hipblasSgbmv_64	6.2.0					
cublasSgbmv_v2					hipblasSgbmv	3.5.0					
cublasSgbmv_v2_64	12.0				hipblasSgbmv_64	6.2.0					
cublasSgemv					hipblasSgemv	1.8.2					
cublasSgemv_64	12.0				hipblasSgemv_64	6.2.0					
cublasSgemv_v2					hipblasSgemv	1.8.2					
cublasSgemv_v2_64	12.0				hipblasSgemv_64	6.2.0					
cublasSger					hipblasSger	1.8.2					
cublasSger_64	12.0				hipblasSger_64	6.2.0					
cublasSger_v2					hipblasSger	1.8.2					
cublasSger_v2_64	12.0				hipblasSger_64	6.2.0					
cublasSsbmv					hipblasSsbmv	3.5.0					
cublasSsbmv_64	12.0				hipblasSsbmv_64	6.2.0					
cublasSsbmv_v2					hipblasSsbmv	3.5.0					
cublasSsbmv_v2_64	12.0				hipblasSsbmv_64	6.2.0					
cublasSspmv					hipblasSspmv	3.5.0					
cublasSspmv_64	12.0				hipblasSspmv_64	6.2.0					
cublasSspmv_v2					hipblasSspmv	3.5.0					
cublasSspmv_v2_64	12.0				hipblasSspmv_64	6.2.0					
cublasSspr					hipblasSspr	3.5.0					
cublasSspr2					hipblasSspr2	3.5.0					
cublasSspr2_64	12.0				hipblasSspr2_64	6.2.0					
cublasSspr2_v2					hipblasSspr2	3.5.0					
cublasSspr2_v2_64	12.0				hipblasSspr2_64	6.2.0					
cublasSspr_64	12.0				hipblasSspr_64	6.2.0					
cublasSspr_v2					hipblasSspr	3.5.0					
cublasSspr_v2_64	12.0				hipblasSspr_64	6.2.0					
cublasSsymv					hipblasSsymv	3.5.0					
cublasSsymv_64	12.0				hipblasSsymv_64	6.2.0					
cublasSsymv_v2					hipblasSsymv	3.5.0					
cublasSsymv_v2_64	12.0				hipblasSsymv_64	6.2.0					
cublasSsyr					hipblasSsyr	3.0.0					
cublasSsyr2					hipblasSsyr2	3.5.0					
cublasSsyr2_64	12.0				hipblasSsyr2_64	6.2.0					
cublasSsyr2_v2					hipblasSsyr2	3.5.0					
cublasSsyr2_v2_64	12.0				hipblasSsyr2_64	6.2.0					
cublasSsyr_64	12.0				hipblasSsyr_64	6.2.0					
cublasSsyr_v2					hipblasSsyr	3.0.0					
cublasSsyr_v2_64	12.0				hipblasSsyr_64	6.2.0					
cublasStbmv					hipblasStbmv	3.5.0					
cublasStbmv_64	12.0				hipblasStbmv_64	6.2.0					
cublasStbmv_v2					hipblasStbmv	3.5.0					
cublasStbmv_v2_64	12.0				hipblasStbmv_64	6.2.0					

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Table 18 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasStbsv					hipblasStbsv	3.6.0					
cublasStbsv_64	12.0				hipblasStbsv_64	6.2.0					
cublasStbsv_v2					hipblasStbsv	3.6.0					
cublasStbsv_v2_64	12.0				hipblasStbsv_64	6.2.0					
cublasStpmv					hipblasStpmv	3.5.0					
cublasStpmv_64	12.0				hipblasStpmv_64	6.2.0					
cublasStpmv_v2					hipblasStpmv	3.5.0					
cublasStpmv_v2_64	12.0				hipblasStpmv_64	6.2.0					
cublasStpsv					hipblasStpsv	3.5.0					
cublasStpsv_64	12.0				hipblasStpsv_64	6.2.0					
cublasStpsv_v2					hipblasStpsv	3.5.0					
cublasStpsv_v2_64	12.0				hipblasStpsv_64	6.2.0					
cublasStrmv					hipblasStrmv	3.5.0					
cublasStrmv_64	12.0				hipblasStrmv_64	6.2.0					
cublasStrmv_v2					hipblasStrmv	3.5.0					
cublasStrmv_v2_64	12.0				hipblasStrmv_64	6.2.0					
cublasStrsv					hipblasStrsv	3.0.0					
cublasStrsv_64	12.0				hipblasStrsv_64	6.2.0					
cublasStrsv_v2					hipblasStrsv	3.0.0					
cublasStrsv_v2_64	12.0				hipblasStrsv_64	6.2.0					
cublasZgbmv					hipblasZgbmv	3.5.0		7.0.0			
cublasZgbmv_64	12.0				hipblasZgbmv_64	6.2.0		7.0.0			
cublasZgbmv_v2					hipblasZgbmv	3.5.0		7.0.0			
cublasZgbmv_v2_64	12.0				hipblasZgbmv_64	6.2.0		7.0.0			
cublasZgemv					hipblasZgemv	3.0.0		7.0.0			
cublasZgemv_64	12.0				hipblasZgemv_64	6.2.0		7.0.0			
cublasZgemv_v2					hipblasZgemv	3.0.0		7.0.0			
cublasZgemv_v2_64	12.0				hipblasZgemv_64	6.2.0		7.0.0			
cublasZgerc					hipblasZgerc	3.5.0		7.0.0			
cublasZgerc_64	12.0				hipblasZgerc_64	6.2.0		7.0.0			
cublasZgerc_v2					hipblasZgerc	3.5.0		7.0.0			
cublasZgerc_v2_64	12.0				hipblasZgerc_64	6.2.0		7.0.0			
cublasZgeru					hipblasZgeru	3.5.0		7.0.0			
cublasZgeru_64	12.0				hipblasZgeru_64	6.2.0		7.0.0			
cublasZgeru_v2					hipblasZgeru	3.5.0		7.0.0			
cublasZgeru_v2_64	12.0				hipblasZgeru_64	6.2.0		7.0.0			
cublasZhbmv					hipblasZhbmv	3.5.0		7.0.0			
cublasZhbmv_64	12.0				hipblasZhbmv_64	6.2.0		7.0.0			
cublasZhbmv_v2					hipblasZhbmv	3.5.0		7.0.0			
cublasZhbmv_v2_64	12.0				hipblasZhbmv_64	6.2.0		7.0.0			
cublasZhemv					hipblasZhemv	3.5.0		7.0.0			
cublasZhemv_64	12.0				hipblasZhemv_64	6.2.0		7.0.0			
cublasZhemv_v2					hipblasZhemv	3.5.0		7.0.0			
cublasZhemv_v2_64	12.0				hipblasZhemv_64	6.2.0		7.0.0			
cublasZher					hipblasZher	3.5.0		7.0.0			
cublasZher2					hipblasZher2	3.5.0		7.0.0			
cublasZher2_64	12.0				hipblasZher2_64	6.2.0		7.0.0			
cublasZher2_v2					hipblasZher2	3.5.0		7.0.0			
cublasZher2_v2_64	12.0				hipblasZher2_64	6.2.0		7.0.0			
cublasZher_64	12.0				hipblasZher_64	6.2.0		7.0.0			

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Table 18 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cublasZher_v2					hipblasZher	3.5.0		7.0.0			
cublasZher_v2_64	12.0				hipblasZher_64	6.2.0		7.0.0			
cublasZhpmv					hipblasZhpmv	3.5.0		7.0.0			
cublasZhpmv_64	12.0				hipblasZhpmv_64	6.2.0		7.0.0			
cublasZhpmv_v2					hipblasZhpmv	3.5.0		7.0.0			
cublasZhpmv_v2_64	12.0				hipblasZhpmv_64	6.2.0		7.0.0			
cublasZhpr					hipblasZhpr	3.5.0		7.0.0			
cublasZhpr2					hipblasZhpr2	3.5.0		7.0.0			
cublasZhpr2_64	12.0				hipblasZhpr2_64	6.2.0		7.0.0			
cublasZhpr2_v2					hipblasZhpr2	3.5.0		7.0.0			
cublasZhpr2_v2_64	12.0				hipblasZhpr2_64	6.2.0		7.0.0			
cublasZhpr_64	12.0				hipblasZhpr_64	6.2.0		7.0.0			
cublasZhpr_v2					hipblasZhpr	3.5.0		7.0.0			
cublasZhpr_v2_64	12.0				hipblasZhpr_64	6.2.0		7.0.0			
cublasZsymv					hipblasZsymv	3.5.0		7.0.0			
cublasZsymv_64	12.0				hipblasZsymv_64	6.2.0		7.0.0			
cublasZsymv_v2					hipblasZsymv	3.5.0		7.0.0			
cublasZsymv_v2_64	12.0				hipblasZsymv_64	6.2.0		7.0.0			
cublasZsyr					hipblasZsyr	3.5.0		7.0.0			
cublasZsyr2					hipblasZsyr2	3.5.0		7.0.0			
cublasZsyr2_64	12.0				hipblasZsyr2_64	6.2.0		7.0.0			
cublasZsyr2_v2					hipblasZsyr2	3.5.0		7.0.0			
cublasZsyr2_v2_64	12.0				hipblasZsyr2_64	6.2.0		7.0.0			
cublasZsyr_64	12.0				hipblasZsyr_64	6.2.0		7.0.0			
cublasZsyr_v2					hipblasZsyr	3.5.0		7.0.0			
cublasZsyr_v2_64	12.0				hipblasZsyr_64	6.2.0		7.0.0			
cublasZtbmv					hipblasZtbmv	3.5.0		7.0.0			
cublasZtbmv_64	12.0				hipblasZtbmv_64	6.2.0		7.0.0			
cublasZtbmv_v2					hipblasZtbmv	3.5.0		7.0.0			
cublasZtbmv_v2_64	12.0				hipblasZtbmv_64	6.2.0		7.0.0			
cublasZtbsv					hipblasZtbsv	3.6.0		7.0.0			
cublasZtbsv_64	12.0				hipblasZtbsv_64	6.2.0		7.0.0			
cublasZtbsv_v2					hipblasZtbsv	3.6.0		7.0.0			
cublasZtbsv_v2_64	12.0				hipblasZtbsv_64	6.2.0		7.0.0			
cublasZtpmv					hipblasZtpmv	3.5.0		7.0.0			
cublasZtpmv_64	12.0				hipblasZtpmv_64	6.2.0		7.0.0			
cublasZtpmv_v2					hipblasZtpmv	3.5.0		7.0.0			
cublasZtpmv_v2_64	12.0				hipblasZtpmv_64	6.2.0		7.0.0			
cublasZtpsv					hipblasZtpsv	3.5.0		7.0.0			
cublasZtpsv_64	12.0				hipblasZtpsv_64	6.2.0		7.0.0			
cublasZtpsv_v2					hipblasZtpsv	3.5.0		7.0.0			
cublasZtpsv_v2_64	12.0				hipblasZtpsv_64	6.2.0		7.0.0			
cublasZtrmv					hipblasZtrmv	3.5.0		7.0.0			
cublasZtrmv_64	12.0				hipblasZtrmv_64	6.2.0		7.0.0			
cublasZtrmv_v2					hipblasZtrmv	3.5.0		7.0.0			
cublasZtrmv_v2_64	12.0				hipblasZtrmv_64	6.2.0		7.0.0			
cublasZtrsv					hipblasZtrsv	3.5.0		7.0.0			
cublasZtrsv_64	12.0				hipblasZtrsv_64	6.2.0		7.0.0			
cublasZtrsv_v2					hipblasZtrsv	3.5.0		7.0.0			
cublasZtrsv_v2_64	12.0				hipblasZtrsv_64	6.2.0		7.0.0			

9.6.7 7. CUBLAS Level-3 Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasCgemm					hipblasCgemm	1.6.0		7.0.0		
cublasCgemm3m	8.0									
cublasCgemm3mBatched	8.0									
cublasCgemm3mBatched_64	12.0									
cublasCgemm3mEx	8.0									
cublasCgemm3mEx_64	12.0									
cublasCgemm3mStridedBatched	8.0									
cublasCgemm3mStridedBatched_64	12.0									
cublasCgemm3m_64	12.0									
cublasCgemmBatched					hipblasCgemmBatched	1.6.0		7.0.0		
cublasCgemmBatched_64	12.0				hipblasCgemmBatched_64	6.3.0		7.0.0		
cublasCgemmStridedBatched	8.0				hipblasCgemmStridedBatched	3.0.0		7.0.0		
cublasCgemmStridedBatched_64	12.0				hipblasCgemmStridedBatched_64	6.3.0		7.0.0		
cublasCgemm_64	12.0				hipblasCgemm_64	6.3.0		7.0.0		
cublasCgemm_v2					hipblasCgemm	1.6.0		7.0.0		
cublasCgemm_v2_64	12.0				hipblasCgemm_64	6.3.0		7.0.0		
cublasCgemvBatched	11.6				hipblasCgemvBatched	3.0.0		7.0.0		
cublasCgemvBatched_64	12.0				hipblasCgemvBatched_64	6.2.0		7.0.0		
cublasCgemvStridedBatched	11.6				hipblasCgemvStridedBatched	3.0.0		7.0.0		
cublasCgemvStridedBatched_64	12.0				hipblasCgemvStridedBatched_64	6.2.0		7.0.0		
cublasChemmm					hipblasChemmm	3.6.0		7.0.0		
cublasChemmm_64	12.0				hipblasChemmm_64	6.3.0		7.0.0		
cublasChemmm_v2					hipblasChemmm	3.6.0		7.0.0		
cublasChemmm_v2_64	12.0				hipblasChemmm_64	6.3.0		7.0.0		
cublasCher2k					hipblasCher2k	3.5.0		7.0.0		
cublasCher2k_64	12.0				hipblasCher2k_64	6.3.0		7.0.0		
cublasCher2k_v2					hipblasCher2k	3.5.0		7.0.0		
cublasCher2k_v2_64	12.0				hipblasCher2k_64	6.3.0		7.0.0		
cublasCherk					hipblasCherk	3.5.0		7.0.0		
cublasCherk_64	12.0				hipblasCherk_64	6.3.0		7.0.0		
cublasCherk_v2					hipblasCherk	3.5.0		7.0.0		
cublasCherk_v2_64	12.0				hipblasCherk_64	6.3.0		7.0.0		
cublasCherkx					hipblasCherkx	3.5.0		7.0.0		
cublasCherkx_64	12.0				hipblasCherkx_64	6.3.0		7.0.0		
cublasCsymm					hipblasCsymm	3.6.0		7.0.0		
cublasCsymm_64	12.0				hipblasCsymm_64	6.3.0		7.0.0		
cublasCsymm_v2					hipblasCsymm	3.6.0		7.0.0		
cublasCsymm_v2_64	12.0				hipblasCsymm_64	6.3.0		7.0.0		
cublasCsyr2k					hipblasCsyr2k	3.5.0		7.0.0		
cublasCsyr2k_64	12.0				hipblasCsyr2k_64	6.3.0		7.0.0		
cublasCsyr2k_v2					hipblasCsyr2k	3.5.0		7.0.0		
cublasCsyr2k_v2_64	12.0				hipblasCsyr2k_64	6.3.0		7.0.0		
cublasCsyrk					hipblasCsyrk	3.5.0		7.0.0		
cublasCsyrk_64	12.0				hipblasCsyrk_64	6.3.0		7.0.0		
cublasCsyrk_v2					hipblasCsyrk	3.5.0		7.0.0		
cublasCsyrk_v2_64	12.0				hipblasCsyrk_64	6.3.0		7.0.0		
cublasCsyrkx					hipblasCsyrkx	3.5.0		7.0.0		
cublasCsyrkx_64	12.0				hipblasCsyrkx_64	6.3.0		7.0.0		
cublasCtrmm					hipblasCtrmm	3.5.0		7.0.0		

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Table 19 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasCtrmm_64	12.0				hipblasCtrmm_64	6.3.0		7.0.0		
cublasCtrmm_v2					hipblasCtrmm	3.5.0		7.0.0		
cublasCtrmm_v2_64	12.0				hipblasCtrmm_64	6.3.0		7.0.0		
cublasCtrsm					hipblasCtrsm	3.5.0		7.0.0		
cublasCtrsm_64	12.0				hipblasCtrsm_64	6.3.0		7.0.0		
cublasCtrsm_v2					hipblasCtrsm	3.5.0		7.0.0		
cublasCtrsm_v2_64	12.0				hipblasCtrsm_64	6.3.0		7.0.0		
cublasDgemm					hipblasDgemm	1.8.2				
cublasDgemmBatched					hipblasDgemmBatched	1.8.2				
cublasDgemmBatched_64	12.0				hipblasDgemmBatched_64	6.3.0				
cublasDgemmGroupedBatched	12.4									
cublasDgemmGroupedBatched_64	12.4									
cublasDgemmStridedBatched	8.0				hipblasDgemmStridedBatched	1.8.2				
cublasDgemmStridedBatched_64	12.0				hipblasDgemmStridedBatched_64	6.3.0				
cublasDgemm_64	12.0				hipblasDgemm_64	6.3.0				
cublasDgemm_v2					hipblasDgemm	1.8.2				
cublasDgemm_v2_64	12.0				hipblasDgemm_64	6.3.0				
cublasDgemvBatched	11.6				hipblasDgemvBatched	3.0.0				
cublasDgemvBatched_64	12.0				hipblasDgemvBatched_64	6.2.0				
cublasDgemvStridedBatched	11.6				hipblasDgemvStridedBatched	3.0.0				
cublasDgemvStridedBatched_64	12.0				hipblasDgemvStridedBatched_64	6.2.0				
cublasDsymm					hipblasDsymm	3.6.0				
cublasDsymm_64	12.0				hipblasDsymm_64	6.3.0				
cublasDsymm_v2					hipblasDsymm	3.6.0				
cublasDsymm_v2_64	12.0				hipblasDsymm_64	6.3.0				
cublasDsyr2k					hipblasDsyr2k	3.5.0				
cublasDsyr2k_64	12.0				hipblasDsyr2k_64	6.3.0				
cublasDsyr2k_v2					hipblasDsyr2k	3.5.0				
cublasDsyr2k_v2_64	12.0				hipblasDsyr2k_64	6.3.0				
cublasDsyrk					hipblasDsyrk	3.5.0				
cublasDsyrk_64	12.0				hipblasDsyrk_64	6.3.0				
cublasDsyrk_v2					hipblasDsyrk	3.5.0				
cublasDsyrk_v2_64	12.0				hipblasDsyrk_64	6.3.0				
cublasDsyrkx					hipblasDsyrkx	3.5.0				
cublasDsyrkx_64	12.0				hipblasDsyrkx_64	6.3.0				
cublasDtrmm					hipblasDtrmm	3.2.0		6.0.0		
cublasDtrmm_64	12.0				hipblasDtrmm_64	6.3.0				
cublasDtrmm_v2					hipblasDtrmm	3.2.0		6.0.0		
cublasDtrmm_v2_64	12.0				hipblasDtrmm_64	6.3.0				
cublasDtrsm					hipblasDtrsm	1.8.2				
cublasDtrsm_64	12.0				hipblasDtrsm_64	6.3.0				
cublasDtrsm_v2					hipblasDtrsm	1.8.2				
cublasDtrsm_v2_64	12.0				hipblasDtrsm_64	6.3.0				
cublasGemmGroupedBatchedEx	12.5									
cublasGemmGroupedBatchedEx_64	12.5									
cublasHSHgemvBatched	11.6									
cublasHSHgemvBatched_64	12.0									
cublasHSHgemvStridedBatched	11.6									
cublasHSHgemvStridedBatched_64	12.0									
cublasHSSgemvBatched	11.6									

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Table 19 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasHSSgemvBatched_64	12.0									
cublasHSSgemvStridedBatched	11.6									
cublasHSSgemvStridedBatched_64	12.0									
cublasHgemm	7.5				hipblasHgemm	1.8.2				
cublasHgemmBatched	9.0				hipblasHgemmBatched	3.0.0				
cublasHgemmBatched_64	12.0				hipblasHgemmBatched_64	6.3.0				
cublasHgemmStridedBatched	8.0				hipblasHgemmStridedBatched	3.0.0				
cublasHgemmStridedBatched_64	12.0				hipblasHgemmStridedBatched_64	6.3.0				
cublasHgemm_64	12.0				hipblasHgemm_64	6.3.0				
cublasSgemm					hipblasSgemm	1.8.2				
cublasSgemmBatched					hipblasSgemmBatched	1.8.2				
cublasSgemmBatched_64	12.0				hipblasSgemmBatched_64	6.3.0				
cublasSgemmGroupedBatched	12.4									
cublasSgemmGroupedBatched_64	12.4									
cublasSgemmStridedBatched	8.0				hipblasSgemmStridedBatched	1.8.2				
cublasSgemmStridedBatched_64	12.0				hipblasSgemmStridedBatched_64	6.3.0				
cublasSgemm_64	12.0				hipblasSgemm_64	6.3.0				
cublasSgemm_v2					hipblasSgemm	1.8.2				
cublasSgemm_v2_64	12.0				hipblasSgemm_64	6.3.0				
cublasSgemvBatched	11.6				hipblasSgemvBatched	1.6.0				
cublasSgemvBatched_64	12.0				hipblasSgemvBatched_64	6.2.0				
cublasSgemvStridedBatched	11.6				hipblasSgemvStridedBatched	3.0.0				
cublasSgemvStridedBatched_64	12.0				hipblasSgemvStridedBatched_64	6.2.0				
cublasSsymm					hipblasSsymm	3.6.0				
cublasSsymm_64	12.0				hipblasSsymm_64	6.3.0				
cublasSsymm_v2					hipblasSsymm	3.6.0				
cublasSsymm_v2_64	12.0				hipblasSsymm_64	6.3.0				
cublasSsyr2k					hipblasSsyr2k	3.5.0				
cublasSsyr2k_64	12.0				hipblasSsyr2k_64	6.3.0				
cublasSsyr2k_v2					hipblasSsyr2k	3.5.0				
cublasSsyr2k_v2_64	12.0				hipblasSsyr2k_64	6.3.0				
cublasSsyrk					hipblasSsyrk	3.5.0				
cublasSsyrk_64	12.0				hipblasSsyrk_64	6.3.0				
cublasSsyrk_v2					hipblasSsyrk	3.5.0				
cublasSsyrk_v2_64	12.0				hipblasSsyrk_64	6.3.0				
cublasSsyrkx					hipblasSsyrkx	3.5.0				
cublasSsyrkx_64	12.0				hipblasSsyrkx_64	6.3.0				
cublasStrmm					hipblasStrmm	3.2.0		6.0.0		
cublasStrmm_64	12.0				hipblasStrmm_64	6.3.0				
cublasStrmm_v2					hipblasStrmm	3.2.0		6.0.0		
cublasStrmm_v2_64	12.0				hipblasStrmm_64	6.3.0				
cublasStrsm					hipblasStrsm	1.8.2				
cublasStrsm_64	12.0				hipblasStrsm_64	6.3.0				
cublasStrsm_v2					hipblasStrsm	1.8.2				
cublasStrsm_v2_64	12.0				hipblasStrsm_64	6.3.0				
cublasTSSgemvBatched	11.6									
cublasTSSgemvBatched_64	12.0									
cublasTSSgemvStridedBatched	11.6									
cublasTSSgemvStridedBatched_64	12.0									
cublasTSTgemvBatched	11.6									

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Table 19 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasTSTgemvBatched_64	12.0									
cublasTSTgemvStridedBatched	11.6									
cublasTSTgemvStridedBatched_64	12.0									
cublasZgemm					hipblasZgemm	1.6.0		7.0.0		
cublasZgemm3m	8.0									
cublasZgemm3m_64	12.0									
cublasZgemmBatched					hipblasZgemmBatched	1.6.0		7.0.0		
cublasZgemmBatched_64	12.0				hipblasZgemmBatched_64	6.3.0		7.0.0		
cublasZgemmStridedBatched	8.0				hipblasZgemmStridedBatched	3.0.0		7.0.0		
cublasZgemmStridedBatched_64	12.0				hipblasZgemmStridedBatched_64	6.3.0		7.0.0		
cublasZgemm_64	12.0				hipblasZgemm_64	6.3.0		7.0.0		
cublasZgemm_v2					hipblasZgemm	1.6.0		7.0.0		
cublasZgemm_v2_64	12.0				hipblasZgemm_64	6.3.0		7.0.0		
cublasZgemvBatched	11.6				hipblasZgemvBatched	3.0.0		7.0.0		
cublasZgemvBatched_64	12.0				hipblasZgemvBatched_64	6.2.0		7.0.0		
cublasZgemvStridedBatched	11.6				hipblasZgemvStridedBatched	3.0.0		7.0.0		
cublasZgemvStridedBatched_64	12.0				hipblasZgemvStridedBatched_64	6.2.0		7.0.0		
cublasZhemm					hipblasZhemm	3.6.0		7.0.0		
cublasZhemm_64	12.0				hipblasZhemm_64	6.3.0		7.0.0		
cublasZhemm_v2					hipblasZhemm	3.6.0		7.0.0		
cublasZhemm_v2_64	12.0				hipblasZhemm_64	6.3.0		7.0.0		
cublasZher2k					hipblasZher2k	3.5.0		7.0.0		
cublasZher2k_64	12.0				hipblasZher2k_64	6.3.0		7.0.0		
cublasZher2k_v2					hipblasZher2k	3.5.0		7.0.0		
cublasZher2k_v2_64	12.0				hipblasZher2k_64	6.3.0		7.0.0		
cublasZherk					hipblasZherk	3.5.0		7.0.0		
cublasZherk_64	12.0				hipblasZherk_64	6.3.0		7.0.0		
cublasZherk_v2					hipblasZherk	3.5.0		7.0.0		
cublasZherk_v2_64	12.0				hipblasZherk_64	6.3.0		7.0.0		
cublasZherkx					hipblasZherkx	3.5.0		7.0.0		
cublasZherkx_64	12.0				hipblasZherkx_64	6.3.0		7.0.0		
cublasZsymm					hipblasZsymm	3.6.0		7.0.0		
cublasZsymm_64	12.0				hipblasZsymm_64	6.3.0		7.0.0		
cublasZsymm_v2					hipblasZsymm	3.6.0		7.0.0		
cublasZsymm_v2_64	12.0				hipblasZsymm_64	6.3.0		7.0.0		
cublasZsyr2k					hipblasZsyr2k	3.5.0		7.0.0		
cublasZsyr2k_64	12.0				hipblasZsyr2k_64	6.3.0		7.0.0		
cublasZsyr2k_v2					hipblasZsyr2k	3.5.0		7.0.0		
cublasZsyr2k_v2_64	12.0				hipblasZsyr2k_64	6.3.0		7.0.0		
cublasZsyrk					hipblasZsyrk	3.5.0		7.0.0		
cublasZsyrk_64	12.0				hipblasZsyrk_64	6.3.0		7.0.0		
cublasZsyrk_v2					hipblasZsyrk	3.5.0		7.0.0		
cublasZsyrk_v2_64	12.0				hipblasZsyrk_64	6.3.0		7.0.0		
cublasZsyrkx					hipblasZsyrkx	3.5.0		7.0.0		
cublasZsyrkx_64	12.0				hipblasZsyrkx_64	6.3.0		7.0.0		
cublasZtrmm					hipblasZtrmm	3.5.0		7.0.0		
cublasZtrmm_64	12.0				hipblasZtrmm_64	6.3.0		7.0.0		
cublasZtrmm_v2					hipblasZtrmm	3.5.0		7.0.0		
cublasZtrmm_v2_64	12.0				hipblasZtrmm_64	6.3.0		7.0.0		
cublasZtrsm					hipblasZtrsm	3.5.0		7.0.0		

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Table 19 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasZtrsm_64	12.0				hipblasZtrsm_64	6.3.0		7.0.0		
cublasZtrsm_v2					hipblasZtrsm	3.5.0		7.0.0		
cublasZtrsm_v2_64	12.0				hipblasZtrsm_64	6.3.0		7.0.0		

9.6.8 8. BLAS-like Extension

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasAsumEx	10.1									
cublasAsumEx_64	12.0									
cublasAxyEx	8.0				hipblasAxyEx	4.1.0		7.0.0		
cublasAxyEx_64	12.0				hipblasAxyEx_64	6.2.0		7.0.0		
cublasCdgm					hipblasCdgm	3.6.0		7.0.0		
cublasCdgm_64	12.0				hipblasCdgm_64	6.3.0		7.0.0		
cublasCgeam					hipblasCgeam	3.6.0		7.0.0		
cublasCgeam_64	12.0				hipblasCgeam_64	6.3.0		7.0.0		
cublasCgelsBatched					hipblasCgelsBatched	5.4.0		7.0.0		
cublasCgemmEx	8.0									
cublasCgemmEx_64	12.0									
cublasCgeqrfBatched					hipblasCgeqrfBatched	3.5.0		7.0.0		
cublasCgetrfBatched					hipblasCgetrfBatched	3.5.0		7.0.0		
cublasCgetriBatched					hipblasCgetriBatched	3.7.0		7.0.0		
cublasCgetrsBatched					hipblasCgetrsBatched	3.5.0		7.0.0		
cublasCherk3mEx	8.0									
cublasCherk3mEx_64	12.0									
cublasCherkEx	8.0									
cublasCherkEx_64	12.0									
cublasCmatinvBatched										
cublasCopyEx	10.1									
cublasCopyEx_64	12.0									
cublasCsyrk3mEx	8.0									
cublasCsyrk3mEx_64	12.0									
cublasCsyrkEx	8.0									
cublasCsyrkEx_64	12.0									
cublasCtptr										
cublasCtrsmBatched					hipblasCtrsmBatched	3.5.0		7.0.0		
cublasCtrsmBatched_64	12.0				hipblasCtrsmBatched_64	6.3.0		7.0.0		
cublasCtrttp										
cublasDdgm					hipblasDdgm	3.6.0				
cublasDdgm_64	12.0				hipblasDdgm_64	6.3.0				
cublasDgeam					hipblasDgeam	1.8.2				
cublasDgeam_64	12.0				hipblasDgeam_64	6.3.0				
cublasDgelsBatched					hipblasDgelsBatched	5.4.0				
cublasDgeqrfBatched					hipblasDgeqrfBatched	3.5.0				
cublasDgetrfBatched					hipblasDgetrfBatched	3.5.0				
cublasDgetriBatched					hipblasDgetriBatched	3.7.0				
cublasDgetrsBatched					hipblasDgetrsBatched	3.5.0				
cublasDmatinvBatched										
cublasDotEx	8.0				hipblasDotEx	4.1.0		7.0.0		
cublasDotEx_64	12.0				hipblasDotEx_64	6.2.0		7.0.0		

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Table 20 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasDotcEx	8.0				hipblasDotcEx	4.1.0		7.0.0		
cublasDotcEx_64	12.0				hipblasDotcEx_64	6.2.0		7.0.0		
cublasDtptr										
cublasDtrsmBatched					hipblasDtrsmBatched	3.2.0				
cublasDtrsmBatched_64	12.0				hipblasDtrsmBatched_64	6.3.0				
cublasDtrttp										
cublasGemmBatchedEx	9.1		11.0		hipblasGemmBatchedEx	3.6.0		7.0.0		
cublasGemmBatchedEx_64	12.0				hipblasGemmBatchedEx_64	6.3.0		7.0.0		
cublasGemmEx	8.0		11.0		hipblasGemmEx	1.8.2		7.0.0		
cublasGemmEx_64	12.0				hipblasGemmEx_64	6.3.0		7.0.0		
cublasGemmStridedBatchedEx	9.1		11.0		hipblasGemmStridedBatchedEx	3.6.0		7.0.0		
cublasGemmStridedBatchedEx_64	12.0				hipblasGemmStridedBatchedEx_64	6.3.0		7.0.0		
cublasIamaxEx	10.1									
cublasIamaxEx_64	12.0									
cublasIaminEx	10.1									
cublasIaminEx_64	12.0									
cublasRotEx	10.1				hipblasRotEx	4.1.0		7.0.0		
cublasRotEx_64	12.0				hipblasRotEx_64	6.2.0		7.0.0		
cublasRotgEx	10.1									
cublasRotmEx	10.1									
cublasRotmEx_64	12.0									
cublasRotmgEx	10.1									
cublasScalEx	8.0				hipblasScalEx	4.1.0		7.0.0		
cublasScalEx_64	12.0				hipblasScalEx_64	6.2.0		7.0.0		
cublasSdgmm					hipblasSdgmm	3.6.0				
cublasSdgmm_64	12.0				hipblasSdgmm_64	6.3.0				
cublasSgeam					hipblasSgeam	1.8.2				
cublasSgeam_64	12.0				hipblasSgeam_64	6.3.0				
cublasSgelsBatched					hipblasSgelsBatched	5.4.0				
cublasSgemmEx	7.5									
cublasSgemmEx_64	12.0									
cublasSgeqrfBatched					hipblasSgeqrfBatched	3.5.0				
cublasSgetrfBatched					hipblasSgetrfBatched	3.5.0				
cublasSgetriBatched					hipblasSgetriBatched	3.7.0				
cublasSgetrsBatched					hipblasSgetrsBatched	3.5.0				
cublasSmatinvBatched										
cublasStpttr										
cublasStrsmBatched					hipblasStrsmBatched	3.2.0				
cublasStrsmBatched_64	12.0				hipblasStrsmBatched_64	6.3.0				
cublasStrttp										
cublasSwapEx	10.1									
cublasSwapEx_64	12.0									
cublasUint8gemmBias	8.0									
cublasZdgmm					hipblasZdgmm	3.6.0		7.0.0		
cublasZdgmm_64	12.0				hipblasZdgmm_64	6.3.0		7.0.0		
cublasZgeam					hipblasZgeam	3.6.0		7.0.0		
cublasZgeam_64	12.0				hipblasZgeam_64	6.3.0		7.0.0		
cublasZgelsBatched					hipblasZgelsBatched	5.4.0		7.0.0		
cublasZgeqrfBatched					hipblasZgeqrfBatched	3.5.0		7.0.0		
cublasZgetrfBatched					hipblasZgetrfBatched	3.5.0		7.0.0		

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Table 20 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasZgetriBatched					hipblasZgetriBatched	3.7.0		7.0.0		
cublasZgetrsBatched					hipblasZgetrsBatched	3.5.0		7.0.0		
cublasZmatinvBatched										
cublasZtptr										
cublasZtrsmBatched					hipblasZtrsmBatched	3.5.0		7.0.0		
cublasZtrsmBatched_64	12.0				hipblasZtrsmBatched_64	6.3.0		7.0.0		
cublasZtrttp										

9.6.9 9. BLASLt Function Reference

CUDA	A	D	C	R	HIP
cublasLtCreate	10.1				hipblasLtCreate
cublasLtDestroy	10.1				hipblasLtDestroy
cublasLtDisableCpuInstructionsSetMask	12.1				
cublasLtGetCudartVersion	10.1				
cublasLtGetProperty	10.1				
cublasLtGetStatusName	11.4				
cublasLtGetStatusString	11.4				
cublasLtGetVersion	10.1				
cublasLtHeuristicsCacheGetCapacity	11.8				
cublasLtHeuristicsCacheSetCapacity	11.8				
cublasLtLoggerForceDisable	11.0				
cublasLtLoggerOpenFile	11.0				
cublasLtLoggerSetCallback	11.0				
cublasLtLoggerSetFile	11.0				
cublasLtLoggerSetLevel	11.0				
cublasLtLoggerSetMask	11.0				
cublasLtMatmul	10.1				hipblasLtMatmul
cublasLtMatmulAlgoCapGetAttribute	10.1				
cublasLtMatmulAlgoCheck	10.1				
cublasLtMatmulAlgoConfigGetAttribute	10.1				
cublasLtMatmulAlgoConfigSetAttribute	10.1				
cublasLtMatmulAlgoGetHeuristic	10.1				hipblasLtMatmulAlgoGetHeuristic
cublasLtMatmulAlgoGetIds	10.1				
cublasLtMatmulAlgoInit	10.1				
cublasLtMatmulDescCreate	10.1	11.0			hipblasLtMatmulDescCreate
cublasLtMatmulDescDestroy	10.1				hipblasLtMatmulDescDestroy
cublasLtMatmulDescGetAttribute	10.1				hipblasLtMatmulDescGetAttribute
cublasLtMatmulDescInit	11.0				
cublasLtMatmulDescSetAttribute	10.1				hipblasLtMatmulDescSetAttribute
cublasLtMatmulPreferenceCreate	10.1				hipblasLtMatmulPreferenceCreate
cublasLtMatmulPreferenceDestroy	10.1				hipblasLtMatmulPreferenceDestroy
cublasLtMatmulPreferenceGetAttribute	10.1				hipblasLtMatmulPreferenceGetAttribute
cublasLtMatmulPreferenceInit	11.0				
cublasLtMatmulPreferenceSetAttribute	10.1				hipblasLtMatmulPreferenceSetAttribute
cublasLtMatrixLayoutCreate	10.1				hipblasLtMatrixLayoutCreate
cublasLtMatrixLayoutDestroy	10.1				hipblasLtMatrixLayoutDestroy
cublasLtMatrixLayoutGetAttribute	10.1				hipblasLtMatrixLayoutGetAttribute
cublasLtMatrixLayoutInit	11.0				

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CUDA	A	D	C	R	HIP
cublasLtMatrixLayoutSetAttribute	10.1				hipblasLtMatrixLayoutSetAttribute
cublasLtMatrixTransform	10.1				hipblasLtMatrixTransform
cublasLtMatrixTransformDescCreate	10.1				hipblasLtMatrixTransformDescCreate
cublasLtMatrixTransformDescDestroy	10.1				hipblasLtMatrixTransformDescDestroy
cublasLtMatrixTransformDescGetAttribute	10.1				hipblasLtMatrixTransformDescGetAttribute
cublasLtMatrixTransformDescInit	11.0				
cublasLtMatrixTransformDescSetAttribute	10.1				hipblasLtMatrixTransformDescSetAttribute

9.7 CUSPARSE API supported by HIP

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

9.7.1 4. CUSPARSE Types References

CUDA	A	D	C	R	HIP
CUSPARSE_ACTION_NUMERIC					HIPSPARSE_ACTION_NUMERIC
CUSPARSE_ACTION_SYMBOLIC					HIPSPARSE_ACTION_SYMBOLIC
CUSPARSE_ALG0	8.0			11.0	
CUSPARSE_ALG1	8.0			11.0	
CUSPARSE_ALG_MERGE_PATH	9.2			12.0	
CUSPARSE_ALG_NAIVE	9.2			11.0	
CUSPARSE_COLOR_ALG0	8.0	12.2			
CUSPARSE_COLOR_ALG1	8.0	12.2			
CUSPARSE_COOMM_ALG1	10.1	11.0		12.0	HIPSPARSE_COOMM_ALG1
CUSPARSE_COOMM_ALG2	10.1	11.0		12.0	HIPSPARSE_COOMM_ALG2
CUSPARSE_COOMM_ALG3	10.1	11.0		12.0	HIPSPARSE_COOMM_ALG3
CUSPARSE_COOMV_ALG	10.2	11.2		12.0	HIPSPARSE_COOMV_ALG
CUSPARSE_CSR2CSC_ALG1	10.1				HIPSPARSE_CSR2CSC_ALG1
CUSPARSE_CSR2CSC_ALG2	10.1			12.0	HIPSPARSE_CSR2CSC_ALG2
CUSPARSE_CSR2CSC_ALG_DEFAULT	12.0				HIPSPARSE_CSR2CSC_ALG_DEFAULT
CUSPARSE_CSRMM_ALG1	10.2	11.0		12.0	HIPSPARSE_CSRMM_ALG1
CUSPARSE_CSRMV_ALG1	10.2	11.2		12.0	HIPSPARSE_CSRMV_ALG1
CUSPARSE_CSRMV_ALG2	10.2	11.2		12.0	HIPSPARSE_CSRMV_ALG2
CUSPARSE_DENSETOSPARSE_ALG_DEFAULT	11.1				HIPSPARSE_DENSETOSPARSE_ALG_DEFAULT
CUSPARSE_DIAG_TYPE_NON_UNIT					HIPSPARSE_DIAG_TYPE_NON_UNIT
CUSPARSE_DIAG_TYPE_UNIT					HIPSPARSE_DIAG_TYPE_UNIT
CUSPARSE_DIRECTION_COLUMN					HIPSPARSE_DIRECTION_COLUMN
CUSPARSE_DIRECTION_ROW					HIPSPARSE_DIRECTION_ROW
CUSPARSE_FILL_MODE_LOWER					HIPSPARSE_FILL_MODE_LOWER
CUSPARSE_FILL_MODE_UPPER					HIPSPARSE_FILL_MODE_UPPER
CUSPARSE_FORMAT_BLOCKED_ELL	11.2				HIPSPARSE_FORMAT_BLOCKED_ELL
CUSPARSE_FORMAT_BSR	12.1				
CUSPARSE_FORMAT_COO	10.1				HIPSPARSE_FORMAT_COO
CUSPARSE_FORMAT_COO_AOS	10.2			12.0	HIPSPARSE_FORMAT_COO_AOS
CUSPARSE_FORMAT_CSC	10.1				HIPSPARSE_FORMAT_CSC
CUSPARSE_FORMAT_CSR	10.1				HIPSPARSE_FORMAT_CSR
CUSPARSE_FORMAT_SLICED_ELLPACK	12.1				

Table 22 – continued from previous page

CUDA	A	D	C	R	HIP
CUSPARSE_HYB_PARTITION_AUTO		10.2		11.0	HIPSPARSE_HYB_PARTITION_AUTO
CUSPARSE_HYB_PARTITION_MAX		10.2		11.0	HIPSPARSE_HYB_PARTITION_MAX
CUSPARSE_HYB_PARTITION_USER		10.2		11.0	HIPSPARSE_HYB_PARTITION_USER
CUSPARSE_INDEX_16U	10.1				HIPSPARSE_INDEX_16U
CUSPARSE_INDEX_32I	10.1				HIPSPARSE_INDEX_32I
CUSPARSE_INDEX_64I	10.1				HIPSPARSE_INDEX_64I
CUSPARSE_INDEX_BASE_ONE					HIPSPARSE_INDEX_BASE_ONE
CUSPARSE_INDEX_BASE_ZERO					HIPSPARSE_INDEX_BASE_ZERO
CUSPARSE_MATRIX_TYPE_GENERAL					HIPSPARSE_MATRIX_TYPE_GENERAL
CUSPARSE_MATRIX_TYPE_HERMITIAN					HIPSPARSE_MATRIX_TYPE_HERMITIAN
CUSPARSE_MATRIX_TYPE_SYMMETRIC					HIPSPARSE_MATRIX_TYPE_SYMMETRIC
CUSPARSE_MATRIX_TYPE_TRIANGULAR					HIPSPARSE_MATRIX_TYPE_TRIANGULAR
CUSPARSE_MM_ALG_DEFAULT	10.2	11.0		12.0	HIPSPARSE_MM_ALG_DEFAULT
CUSPARSE_MV_ALG_DEFAULT	10.2	11.3		12.0	HIPSPARSE_MV_ALG_DEFAULT
CUSPARSE_OPERATION_CONJUGATE_TRANSPOSE					HIPSPARSE_OPERATION_CONJUGATE_TRANSPOSE
CUSPARSE_OPERATION_NON_TRANSPOSE					HIPSPARSE_OPERATION_NON_TRANSPOSE
CUSPARSE_OPERATION_TRANSPOSE					HIPSPARSE_OPERATION_TRANSPOSE
CUSPARSE_ORDER_COL	10.1				HIPSPARSE_ORDER_COL
CUSPARSE_ORDER_ROW	10.1				HIPSPARSE_ORDER_ROW
CUSPARSE_POINTER_MODE_DEVICE					HIPSPARSE_POINTER_MODE_DEVICE
CUSPARSE_POINTER_MODE_HOST					HIPSPARSE_POINTER_MODE_HOST
CUSPARSE_SDDMM_ALG_DEFAULT	11.2				HIPSPARSE_SDDMM_ALG_DEFAULT
CUSPARSE_SIDE_LEFT				11.5	
CUSPARSE_SIDE_RIGHT				11.5	
CUSPARSE_SOLVE_POLICY_NO_LEVEL		12.2			HIPSPARSE_SOLVE_POLICY_NO_LEVEL
CUSPARSE_SOLVE_POLICY_USE_LEVEL		12.2			HIPSPARSE_SOLVE_POLICY_USE_LEVEL
CUSPARSE_SPARSETODENSE_ALG_DEFAULT	11.1				HIPSPARSE_SPARSETODENSE_ALG_DEFAULT
CUSPARSE_SPGEMM_ALG1	12.0				HIPSPARSE_SPGEMM_ALG1
CUSPARSE_SPGEMM_ALG2	12.0				HIPSPARSE_SPGEMM_ALG2
CUSPARSE_SPGEMM_ALG3	12.0				HIPSPARSE_SPGEMM_ALG3
CUSPARSE_SPGEMM_CSR_ALG_DETERMINISTIC	11.3				HIPSPARSE_SPGEMM_CSR_ALG_DETERMINISTIC
CUSPARSE_SPGEMM_CSR_ALG_NONDETERMINISTIC	11.3				HIPSPARSE_SPGEMM_CSR_ALG_NONDETERMINISTIC
CUSPARSE_SPGEMM_DEFAULT	11.0				HIPSPARSE_SPGEMM_DEFAULT
CUSPARSE_SPMAT_DIAG_TYPE	11.3				HIPSPARSE_SPMAT_DIAG_TYPE
CUSPARSE_SPMAT_FILL_MODE	11.3				HIPSPARSE_SPMAT_FILL_MODE
CUSPARSE_SPMMA_ALG1	11.1			11.2	
CUSPARSE_SPMMA_ALG2	11.1			11.2	
CUSPARSE_SPMMA_ALG3	11.1			11.2	
CUSPARSE_SPMMA_ALG4	11.1			11.2	
CUSPARSE_SPMMA_PREPROCESS	11.1			11.2	
CUSPARSE_SPMM_ALG_DEFAULT	11.0				HIPSPARSE_SPMM_ALG_DEFAULT
CUSPARSE_SPMM_BLOCKED_ELL_ALG1	11.2				HIPSPARSE_SPMM_BLOCKED_ELL_ALG1
CUSPARSE_SPMM_BSR_ALG1	12.5				
CUSPARSE_SPMM_COO_ALG1	11.0				HIPSPARSE_SPMM_COO_ALG1
CUSPARSE_SPMM_COO_ALG2	11.0				HIPSPARSE_SPMM_COO_ALG2
CUSPARSE_SPMM_COO_ALG3	11.0				HIPSPARSE_SPMM_COO_ALG3
CUSPARSE_SPMM_COO_ALG4	11.0				HIPSPARSE_SPMM_COO_ALG4
CUSPARSE_SPMM_CSR_ALG1	11.0				HIPSPARSE_SPMM_CSR_ALG1
CUSPARSE_SPMM_CSR_ALG2	11.0				HIPSPARSE_SPMM_CSR_ALG2
CUSPARSE_SPMM_CSR_ALG3	11.2				HIPSPARSE_SPMM_CSR_ALG3

Table 22 – continued from previous page

CUDA	A	D	C	R	HIP
CUSPARSE_SPMV_OP_ALG_DEFAULT	11.5				
CUSPARSE_SPMV_ALG_DEFAULT	11.2				HIPSPARSE_SPMV_ALG_DEFAULT
CUSPARSE_SPMV_BSR_ALG1	13.0				
CUSPARSE_SPMV_COO_ALG1	11.2				HIPSPARSE_SPMV_COO_ALG1
CUSPARSE_SPMV_COO_ALG2	11.2				HIPSPARSE_SPMV_COO_ALG2
CUSPARSE_SPMV_CSR_ALG1	11.2				HIPSPARSE_SPMV_CSR_ALG1
CUSPARSE_SPMV_CSR_ALG2	11.2				HIPSPARSE_SPMV_CSR_ALG2
CUSPARSE_SPMV_SELL_ALG1	12.1				
CUSPARSE_SPSM_ALG_DEFAULT	11.3				HIPSPARSE_SPSM_ALG_DEFAULT
CUSPARSE_SPSM_UPDATE_DIAGONAL	12.4				
CUSPARSE_SPSM_UPDATE_GENERAL	12.4				
CUSPARSE_SPSV_ALG_DEFAULT	11.3				HIPSPARSE_SPSV_ALG_DEFAULT
CUSPARSE_SPSV_UPDATE_DIAGONAL	12.1				
CUSPARSE_SPSV_UPDATE_GENERAL	12.1				
CUSPARSE_STATUS_ALLOC_FAILED					HIPSPARSE_STATUS_ALLOC_FAILED
CUSPARSE_STATUS_ARCH_MISMATCH					HIPSPARSE_STATUS_ARCH_MISMATCH
CUSPARSE_STATUS_EXECUTION_FAILED					HIPSPARSE_STATUS_EXECUTION_FAILED
CUSPARSE_STATUS_INSUFFICIENT_RESOURCES	11.0				HIPSPARSE_STATUS_INSUFFICIENT_RESOURCES
CUSPARSE_STATUS_INTERNAL_ERROR					HIPSPARSE_STATUS_INTERNAL_ERROR
CUSPARSE_STATUS_INVALID_VALUE					HIPSPARSE_STATUS_INVALID_VALUE
CUSPARSE_STATUS_MAPPING_ERROR					HIPSPARSE_STATUS_MAPPING_ERROR
CUSPARSE_STATUS_MATRIX_TYPE_NOT_SUPPORTED					HIPSPARSE_STATUS_MATRIX_TYPE_NOT_SUPPORTED
CUSPARSE_STATUS_NOT_INITIALIZED					HIPSPARSE_STATUS_NOT_INITIALIZED
CUSPARSE_STATUS_NOT_SUPPORTED	10.2				HIPSPARSE_STATUS_NOT_SUPPORTED
CUSPARSE_STATUS_SUCCESS					HIPSPARSE_STATUS_SUCCESS
CUSPARSE_STATUS_ZERO_PIVOT					HIPSPARSE_STATUS_ZERO_PIVOT
bsric02Info					bsric02Info
bsric02Info_t					bsric02Info_t
bsrilu02Info		12.2			bsrilu02Info
bsrilu02Info_t		12.2			bsrilu02Info_t
bsrsm2Info		12.2			bsrsm2Info
bsrsm2Info_t		12.2			bsrsm2Info_t
bsrsv2Info		12.2			bsrsv2Info
bsrsv2Info_t		12.2			bsrsv2Info_t
csrgemm2Info				12.0	csrgemm2Info
csrgemm2Info_t				12.0	csrgemm2Info_t
csric02Info		12.2			csric02Info
csric02Info_t		12.2			csric02Info_t
csrilu02Info		12.2			csrilu02Info
csrilu02Info_t		12.2			csrilu02Info_t
csrsm2Info	9.2			12.0	
csrsm2Info_t	9.2			12.0	csrsm2Info_t
csrsv2Info				12.0	
csrsv2Info_t				12.0	csrsv2Info_t
csru2csrInfo		12.2			csru2csrInfo
csru2csrInfo_t		12.2			csru2csrInfo_t
cusparseAction_t					hipsparseAction_t
cusparseAlgMode_t	8.0			12.0	
cusparseColorAlg_t	8.0	12.2			
cusparseColorInfo		12.2			

Table 22 – continued from previous page

CUDA	A	D	C	R	HIP
cusparseColorInfo_t		12.2			hipsparseColorInfo_t
cusparseConstDnMatDescr_t	12.0				hipsparseConstDnMatDescr_t
cusparseConstDnVecDescr_t	12.0				hipsparseConstDnVecDescr_t
cusparseConstSpMatDescr_t	12.0				hipsparseConstSpMatDescr_t
cusparseConstSpVecDescr_t	12.0				hipsparseConstSpVecDescr_t
cusparseContext					
cusparseCsr2CscAlg_t	10.1				hipsparseCsr2CscAlg_t
cusparseDenseToSparseAlg_t	11.1				hipsparseDenseToSparseAlg_t
cusparseDiagType_t					hipsparseDiagType_t
cusparseDirection_t					hipsparseDirection_t
cusparseDnMatDescr	10.1				
cusparseDnMatDescr_t	10.1				hipsparseDnMatDescr_t
cusparseDnVecDescr	10.2				
cusparseDnVecDescr_t	10.2				hipsparseDnVecDescr_t
cusparseFillMode_t					hipsparseFillMode_t
cusparseFormat_t	10.1				hipsparseFormat_t
cusparseHandle_t					hipsparseHandle_t
cusparseHybMat		10.2		11.0	
cusparseHybMat_t		10.2		11.0	hipsparseHybMat_t
cusparseHybPartition_t		10.2		11.0	hipsparseHybPartition_t
cusparseIndexBase_t					hipsparseIndexBase_t
cusparseIndexType_t	10.1				hipsparseIndexType_t
cusparseLoggerCallback_t	11.5				
cusparseMatDescr					
cusparseMatDescr_t					hipsparseMatDescr_t
cusparseMatrixType_t					hipsparseMatrixType_t
cusparseOperation_t					hipsparseOperation_t
cusparseOrder_t	10.1				hipsparseOrder_t
cusparsePointerMode_t					hipsparsePointerMode_t
cusparseSDDMMAlg_t	11.2				hipsparseSDDMMAlg_t
cusparseSideMode_t				11.5	
cusparseSolveAnalysisInfo		10.2		11.0	
cusparseSolveAnalysisInfo_t		10.2		11.0	
cusparseSolvePolicy_t		12.2			hipsparseSolvePolicy_t
cusparseSpGEMMAlg_t	11.0				hipsparseSpGEMMAlg_t
cusparseSpGEMMDescr	11.0				hipsparseSpGEMMDescr
cusparseSpGEMMDescr_t	11.0				hipsparseSpGEMMDescr_t
cusparseSpMMAAlg_t	10.1				hipsparseSpMMAAlg_t
cusparseSpMMOpAlg_t	11.5				
cusparseSpMMOpPlan	11.5				
cusparseSpMMOpPlan_t	11.5				
cusparseSpMValg_t	10.2				hipsparseSpMValg_t
cusparseSpMatAttribute_t	11.3				hipsparseSpMatAttribute_t
cusparseSpMatDescr	10.1				
cusparseSpMatDescr_t	10.1				hipsparseSpMatDescr_t
cusparseSpSMAAlg_t	11.3				hipsparseSpSMAAlg_t
cusparseSpSMDescr	11.3				hipsparseSpSMDescr
cusparseSpSMDescr_t	11.3				hipsparseSpSMDescr_t
cusparseSpSMUpdate_t	12.4				
cusparseSpSValg_t	11.3				hipsparseSpSValg_t

Table 22 – continued from previous page

CUDA	A	D	C	R	HIP
cusparseSpSVDdescr	11.3				hipsparseSpSVDdescr
cusparseSpSVDdescr_t	11.3				hipsparseSpSVDdescr_t
cusparseSpSVUpdate_t	12.1				
cusparseSpVecDescr	10.2				
cusparseSpVecDescr_t	10.2				hipsparseSpVecDescr_t
cusparseSparseToDenseAlg_t	11.1				hipsparseSparseToDenseAlg_t
cusparseStatus_t					hipsparseStatus_t
pruneInfo	9.0	12.2			pruneInfo
pruneInfo_t	9.0	12.2			pruneInfo_t

9.7.2 5. CUSPARSE Management Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cusparseCreate					hipsparseCreate	1.9.2					
cusparseDestroy					hipsparseDestroy	1.9.2					
cusparseGetErrorName	10.2				hipsparseGetErrorName	6.0.0					
cusparseGetErrorString	10.2				hipsparseGetErrorString	6.0.0					
cusparseGetPointerMode					hipsparseGetPointerMode	1.9.2					
cusparseGetStream	8.0				hipsparseGetStream	1.9.2					
cusparseGetVersion					hipsparseGetVersion	1.9.2					
cusparseSetPointerMode					hipsparseSetPointerMode	1.9.2					
cusparseSetStream					hipsparseSetStream	1.9.2					

9.7.3 6. CUSPARSE Logging

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cusparseLoggerForceDisable	11.5										
cusparseLoggerOpenFile	11.5										
cusparseLoggerSetCallback	11.5										
cusparseLoggerSetFile	11.5										
cusparseLoggerSetLevel	11.5										
cusparseLoggerSetMask	11.5										

9.7.4 7. CUSPARSE Helper Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R
cusparseCopyMatDescr	8.0			12.0	hipsparseCopyMatDescr	1.9.2			
cusparseCreateBsrlic02Info		12.2			hipsparseCreateBsrlic02Info	3.8.0	6.2.0		
cusparseCreateBsrilu02Info		12.2			hipsparseCreateBsrilu02Info	3.9.0	6.2.0		
cusparseCreateBsrrsm2Info		12.2			hipsparseCreateBsrrsm2Info	4.5.0	6.2.0		
cusparseCreateBsrsv2Info		12.2			hipsparseCreateBsrsv2Info	3.6.0	6.2.0		
cusparseCreateColorInfo		12.2			hipsparseCreateColorInfo	4.5.0	6.2.0		
cusparseCreateCsrgermm2Info		11.0		12.0	hipsparseCreateCsrgermm2Info	2.8.0	3.9.0		
cusparseCreateCsric02Info		12.2			hipsparseCreateCsric02Info	3.1.0	6.2.0		
cusparseCreateCsrlu02Info		12.2			hipsparseCreateCsrlu02Info	1.9.2	6.2.0		
cusparseCreateCsrrsm2Info	9.2	11.3		12.0	hipsparseCreateCsrrsm2Info	3.1.0	5.6.0		
cusparseCreateCsrrsv2Info		11.3		12.0	hipsparseCreateCsrrsv2Info	1.9.2	5.6.0		
cusparseCreateHybMat		10.2		11.0	hipsparseCreateHybMat	1.9.2	3.9.0		
cusparseCreateMatDescr					hipsparseCreateMatDescr	1.9.2			
cusparseCreatePruneInfo	9.0	12.2			hipsparseCreatePruneInfo	3.9.0	6.2.0		
cusparseCreateSolveAnalysisInfo		10.2		11.0					
cusparseDestroyBsrlic02Info		12.2			hipsparseDestroyBsrlic02Info	3.8.0	6.2.0		
cusparseDestroyBsrilu02Info		12.2			hipsparseDestroyBsrilu02Info	3.9.0	6.2.0		
cusparseDestroyBsrrsm2Info		12.2			hipsparseDestroyBsrrsm2Info	4.5.0	6.2.0		
cusparseDestroyBsrsv2Info		12.2			hipsparseDestroyBsrsv2Info	3.6.0	6.2.0		
cusparseDestroyColorInfo		12.2			hipsparseDestroyColorInfo	4.5.0	6.2.0		
cusparseDestroyCsrgermm2Info		11.0		12.0	hipsparseDestroyCsrgermm2Info	2.8.0	3.9.0		
cusparseDestroyCsric02Info		12.2			hipsparseDestroyCsric02Info	3.1.0	6.2.0		
cusparseDestroyCsrlu02Info		12.2			hipsparseDestroyCsrlu02Info	1.9.2	6.2.0		
cusparseDestroyCsrrsm2Info	9.2	11.3		12.0	hipsparseDestroyCsrrsm2Info	3.1.0	5.6.0		
cusparseDestroyCsrrsv2Info		11.3		12.0	hipsparseDestroyCsrrsv2Info	1.9.2	5.6.0		
cusparseDestroyHybMat		10.2		11.0	hipsparseDestroyHybMat	1.9.2	3.9.0		
cusparseDestroyMatDescr					hipsparseDestroyMatDescr	1.9.2			
cusparseDestroyPruneInfo	9.0	12.2			hipsparseDestroyPruneInfo	3.9.0	6.2.0		
cusparseDestroySolveAnalysisInfo		10.2		11.0					
cusparseGetLevelInfo				11.0					
cusparseGetMatDiagType					hipsparseGetMatDiagType	1.9.2			
cusparseGetMatFillMode					hipsparseGetMatFillMode	1.9.2			
cusparseGetMatIndexBase					hipsparseGetMatIndexBase	1.9.2			
cusparseGetMatType					hipsparseGetMatType	1.9.2			
cusparseSetMatDiagType					hipsparseSetMatDiagType	1.9.2			
cusparseSetMatFillMode					hipsparseSetMatFillMode	1.9.2			
cusparseSetMatIndexBase					hipsparseSetMatIndexBase	1.9.2			
cusparseSetMatType					hipsparseSetMatType	1.9.2			

9.7.5 8. CUSPARSE Level 1 Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cusparseCaxpyi		11.0		12.0	hipsparseCaxpyi	3.1.0	3.9.0				
cusparseCdotci		10.2		11.0	hipsparseCdotci	3.1.0	3.9.0				
cusparseCdoti		10.2		11.0	hipsparseCdoti	3.1.0	3.9.0				
cusparseCgthr		11.0		12.0	hipsparseCgthr	3.1.0	3.9.0				
cusparseCgthrz		11.0		12.0	hipsparseCgthrz	3.1.0	3.9.0				
cusparseCsctr		11.0		12.0	hipsparseCsctr	3.1.0	3.9.0				
cusparseDaxpyi		11.0		12.0	hipsparseDaxpyi	1.9.2	3.9.0				
cusparseDdoti		10.2		11.0	hipsparseDdoti	1.9.2	3.9.0				
cusparseDgthr		11.0		12.0	hipsparseDgthr	1.9.2	3.9.0				
cusparseDgthrz		11.0		12.0	hipsparseDgthrz	1.9.2	3.9.0				
cusparseDroti		11.0		12.0	hipsparseDroti	1.9.2	3.9.0				
cusparseDsctr		11.0		12.0	hipsparseDsctr	1.9.2	3.9.0				
cusparseSaxpyi		11.0		12.0	hipsparseSaxpyi	1.9.2	3.9.0				
cusparseSdoti		10.2		11.0	hipsparseSdoti	1.9.2	3.9.0				
cusparseSgthr		11.0		12.0	hipsparseSgthr	1.9.2	3.9.0				
cusparseSgthrz		11.0		12.0	hipsparseSgthrz	1.9.2	3.9.0				
cusparseSroti		11.0		12.0	hipsparseSroti	1.9.2	3.9.0				
cusparseSsctr		11.0		12.0	hipsparseSsctr	1.9.2	3.9.0				
cusparseZaxpyi		11.0		12.0	hipsparseZaxpyi	3.1.0	3.9.0				
cusparseZdotci		10.2		11.0	hipsparseZdotci	3.1.0	3.9.0				
cusparseZdoti		10.2		11.0	hipsparseZdoti	3.1.0	3.9.0				
cusparseZgthr		11.0		12.0	hipsparseZgthr	3.1.0	3.9.0				
cusparseZgthrz		11.0		12.0	hipsparseZgthrz	3.1.0	3.9.0				
cusparseZsctr		11.0		12.0	hipsparseZsctr	3.1.0	3.9.0				

9.7.6 9. CUSPARSE Level 2 Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R
cusparseCbsrmv					hipsparsCbsrmv	3.5.0			
cusparseCbsrsv2_analysis		12.2			hipsparsCbsrsv2_analysis	3.6.0	6.2.0		
cusparseCbsrsv2_bufferSize		12.2			hipsparsCbsrsv2_bufferSize	3.6.0	6.2.0		
cusparseCbsrsv2_bufferSizeExt		12.2			hipsparsCbsrsv2_bufferSizeExt	3.6.0			
cusparseCbsrsv2_solve		12.2			hipsparsCbsrsv2_solve	3.6.0	6.2.0		
cusparseCbsrxmv		12.2			hipsparsCbsrxmv	4.5.0	6.2.0		
cusparseCcsrmmv		10.2		11.0	hipsparsCcsrmmv	3.1.0	3.9.0		
cusparseCcsrmmv_mp	8.0	10.2		11.0					
cusparseCcsrsv2_analysis		11.3		12.0	hipsparsCcsrsv2_analysis	3.1.0	5.6.0		
cusparseCcsrsv2_bufferSize		11.3		12.0	hipsparsCcsrsv2_bufferSize	3.1.0	5.6.0		
cusparseCcsrsv2_bufferSizeExt		11.3		12.0	hipsparsCcsrsv2_bufferSizeExt	3.1.0			
cusparseCcsrsv2_solve		11.3		12.0	hipsparsCcsrsv2_solve	3.1.0	5.6.0		
cusparseCcsrsv_analysis		10.2		11.0					
cusparseCcsrsv_solve		10.2		11.0					
cusparseCgemvi	7.5	12.8			hipsparsCgemvi	4.3.0			
cusparseCgemvi_bufferSize	7.5	12.8			hipsparsCgemvi_bufferSize	4.3.0			
cusparseChybmvm		10.2		11.0	hipsparsChybmvm	3.1.0	3.9.0		
cusparseChybsv_analysis		10.2		11.0					
cusparseChybsv_solve		10.2		11.0					
cusparseCsrmmvEx	8.0	11.2		12.0					
cusparseCsrmmvEx_bufferSize	8.0	11.2		12.0					
cusparseCsrsv_analysisEx	8.0	10.2		11.0					
cusparseCsrsv_solveEx	8.0	10.2		11.0					
cusparseDbsrmv					hipsparsDbsrmv	3.5.0			
cusparseDbsrsv2_analysis		12.2			hipsparsDbsrsv2_analysis	3.6.0	6.2.0		
cusparseDbsrsv2_bufferSize		12.2			hipsparsDbsrsv2_bufferSize	3.6.0	6.2.0		
cusparseDbsrsv2_bufferSizeExt		12.2			hipsparsDbsrsv2_bufferSizeExt	3.6.0			
cusparseDbsrsv2_solve		12.2			hipsparsDbsrsv2_solve	3.6.0	6.2.0		
cusparseDbsrxmv		12.2			hipsparsDbsrxmv	4.5.0	6.2.0		
cusparseDcsrmmv		10.2		11.0	hipsparsDcsrmmv	1.9.2	3.9.0		
cusparseDcsrmmv_mp	8.0	10.2		11.0					
cusparseDcsrsv2_analysis		11.3		12.0	hipsparsDcsrsv2_analysis	1.9.2	5.6.0		
cusparseDcsrsv2_bufferSize		11.3		12.0	hipsparsDcsrsv2_bufferSize	1.9.2	5.6.0		
cusparseDcsrsv2_bufferSizeExt		11.3		12.0	hipsparsDcsrsv2_bufferSizeExt	1.9.2			
cusparseDcsrsv2_solve		11.3		12.0	hipsparsDcsrsv2_solve	1.9.2	5.6.0		
cusparseDcsrsv_analysis		10.2		11.0					
cusparseDcsrsv_solve		10.2		11.0					
cusparseDgemvi	7.5	12.8			hipsparsDgemvi	4.3.0			
cusparseDgemvi_bufferSize	7.5	12.8			hipsparsDgemvi_bufferSize	4.3.0			
cusparseDhybmvm		10.2		11.0	hipsparsDhybmvm	1.9.2	3.9.0		
cusparseDhybsv_analysis		10.2		11.0					
cusparseDhybsv_solve		10.2		11.0					
cusparseSbsrmv					hipsparsSbsrmv	3.5.0			
cusparseSbsrsv2_analysis		12.2			hipsparsSbsrsv2_analysis	3.6.0	6.2.0		
cusparseSbsrsv2_bufferSize		12.2			hipsparsSbsrsv2_bufferSize	3.6.0	6.2.0		
cusparseSbsrsv2_bufferSizeExt		12.2			hipsparsSbsrsv2_bufferSizeExt	3.6.0			
cusparseSbsrsv2_solve		12.2			hipsparsSbsrsv2_solve	3.6.0	6.2.0		
cusparseSbsrxmv		12.2			hipsparsSbsrxmv	4.5.0	6.2.0		
cusparseScsrmmv		10.2		11.0	hipsparsScsrmmv	1.9.2	3.9.0		

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Table 24 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
cusparseScsrmv_mp	8.0	10.2		11.0					
cusparseScsrsv2_analysis		11.3		12.0	hipsparseScsrsv2_analysis	1.9.2	5.6.0		
cusparseScsrsv2_bufferSize		11.3		12.0	hipsparseScsrsv2_bufferSize	1.9.2	5.6.0		
cusparseScsrsv2_bufferSizeExt		11.3		12.0	hipsparseScsrsv2_bufferSizeExt	1.9.2			
cusparseScsrsv2_solve		11.3		12.0	hipsparseScsrsv2_solve	1.9.2	5.6.0		
cusparseScsrsv_analysis		10.2		11.0					
cusparseScsrsv_solve		10.2		11.0					
cusparseSgemvi	7.5	12.8			hipsparseSgemvi	4.3.0			
cusparseSgemvi_bufferSize	7.5	12.8			hipsparseSgemvi_bufferSize	4.3.0			
cusparseShybm		10.2		11.0	hipsparseShybm	1.9.2	3.9.0		
cusparseShybsv_analysis		10.2		11.0					
cusparseShybsv_solve		10.2		11.0					
cusparseXbsrsv2_zeroPivot		12.2			hipsparseXbsrsv2_zeroPivot	3.6.0	6.2.0		
cusparseXcsrsv2_zeroPivot		11.3		12.0	hipsparseXcsrsv2_zeroPivot	1.9.2	5.6.0		
cusparseZbsrmv					hipsparseZbsrmv	3.5.0			
cusparseZbsrsv2_analysis		12.2			hipsparseZbsrsv2_analysis	3.6.0	6.2.0		
cusparseZbsrsv2_bufferSize		12.2			hipsparseZbsrsv2_bufferSize	3.6.0	6.2.0		
cusparseZbsrsv2_bufferSizeExt		12.2			hipsparseZbsrsv2_bufferSizeExt	3.6.0			
cusparseZbsrsv2_solve		12.2			hipsparseZbsrsv2_solve	3.6.0	6.2.0		
cusparseZbsrxmv		12.2			hipsparseZbsrxmv	4.5.0	6.2.0		
cusparseZcsrmv		10.2		11.0	hipsparseZcsrmv	3.1.0	3.9.0		
cusparseZcsrmv_mp	8.0	10.2		11.0					
cusparseZcsrsv2_analysis		11.3		12.0	hipsparseZcsrsv2_analysis	3.1.0	5.6.0		
cusparseZcsrsv2_bufferSize		11.3		12.0	hipsparseZcsrsv2_bufferSize	3.1.0	5.6.0		
cusparseZcsrsv2_bufferSizeExt		11.3		12.0	hipsparseZcsrsv2_bufferSizeExt	3.1.0			
cusparseZcsrsv2_solve		11.3		12.0	hipsparseZcsrsv2_solve	3.1.0	5.6.0		
cusparseZcsrsv_analysis		10.2		11.0					
cusparseZcsrsv_solve		10.2		11.0					
cusparseZgemvi	7.5	12.8			hipsparseZgemvi	4.3.0			
cusparseZgemvi_bufferSize	7.5	12.8			hipsparseZgemvi_bufferSize	4.3.0			
cusparseZhybm		10.2		11.0	hipsparseZhybm	3.1.0	3.9.0		
cusparseZhybsv_analysis		10.2		11.0					
cusparseZhybsv_solve		10.2		11.0					

9.7.7 10. CUSPARSE Level 3 Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R
cusparseCbsrmm		12.8			hipsparseCbsrmm	3.7.0			
cusparseCbsrsm2_analysis		12.2			hipsparseCbsrsm2_analysis	4.5.0	6.2.0		
cusparseCbsrsm2_bufferSize		12.2			hipsparseCbsrsm2_bufferSize	4.5.0	6.2.0		
cusparseCbsrsm2_bufferSizeExt		12.2							
cusparseCbsrsm2_solve		12.2			hipsparseCbsrsm2_solve	4.5.0	6.2.0		
cusparseCcsrmm		10.2		11.0	hipsparseCcsrmm	3.1.0	3.9.0		
cusparseCcsrmm2		10.2		11.0	hipsparseCcsrmm2	3.1.0	3.9.0		
cusparseCcsrsm2_analysis	9.2	11.3		12.0	hipsparseCcsrsm2_analysis	3.1.0	5.6.0		
cusparseCcsrsm2_bufferSizeExt	9.2	11.3		12.0	hipsparseCcsrsm2_bufferSizeExt	3.1.0	5.6.0		
cusparseCcsrsm2_solve	9.2	11.3		12.0	hipsparseCcsrsm2_solve	3.1.0	5.6.0		
cusparseCcsrsm_analysis		10.2		11.0					
cusparseCcsrsm_solve		10.2		11.0					

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Table 25 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
cusparseCgemmi	8.0	11.0		12.0	hipsparsCgemmi	3.7.0	3.9.0		
cusparseDbsrmm		12.8			hipsparsDbsrmm	3.7.0			
cusparseDbsrsm2_analysis		12.2			hipsparsDbsrsm2_analysis	4.5.0	6.2.0		
cusparseDbsrsm2_bufferSize		12.2			hipsparsDbsrsm2_bufferSize	4.5.0	6.2.0		
cusparseDbsrsm2_bufferSizeExt		12.2							
cusparseDbsrsm2_solve		12.2			hipsparsDbsrsm2_solve	4.5.0	6.2.0		
cusparseDcsrmm		10.2		11.0	hipsparsDcsrmm	1.9.2	3.9.0		
cusparseDcsrmm2		10.2		11.0	hipsparsDcsrmm2	1.9.2	3.9.0		
cusparseDcsrsm2_analysis	9.2	11.3		12.0	hipsparsDcsrsm2_analysis	3.1.0	5.6.0		
cusparseDcsrsm2_bufferSizeExt	9.2	11.3		12.0	hipsparsDcsrsm2_bufferSizeExt	3.1.0	5.6.0		
cusparseDcsrsm2_solve	9.2	11.3		12.0	hipsparsDcsrsm2_solve	3.1.0	5.6.0		
cusparseDcsrsm_analysis		10.2		11.0					
cusparseDcsrsm_solve		10.2		11.0					
cusparseDgemmi	8.0	11.0		12.0	hipsparsDgemmi	3.7.0	3.9.0		
cusparseSbsrmm		12.8			hipsparsSbsrmm	3.7.0			
cusparseSbsrsm2_analysis		12.2			hipsparsSbsrsm2_analysis	4.5.0	6.2.0		
cusparseSbsrsm2_bufferSize		12.2			hipsparsSbsrsm2_bufferSize	4.5.0	6.2.0		
cusparseSbsrsm2_bufferSizeExt		12.2							
cusparseSbsrsm2_solve		12.2			hipsparsSbsrsm2_solve	4.5.0	6.2.0		
cusparseScsrmm		10.2		11.0	hipsparsScsrmm	1.9.2	3.9.0		
cusparseScsrmm2		10.2		11.0	hipsparsScsrmm2	1.9.2	3.9.0		
cusparseScsrsm2_analysis	9.2	11.3		12.0	hipsparsScsrsm2_analysis	3.1.0	5.6.0		
cusparseScsrsm2_bufferSizeExt	9.2	11.3		12.0	hipsparsScsrsm2_bufferSizeExt	3.1.0	5.6.0		
cusparseScsrsm2_solve	9.2	11.3		12.0	hipsparsScsrsm2_solve	3.1.0	5.6.0		
cusparseScsrsm_analysis		10.2		11.0					
cusparseScsrsm_solve		10.2		11.0					
cusparseSgemmi	8.0	11.0		12.0	hipsparsSgemmi	3.7.0	3.9.0		
cusparseXbsrsm2_zeroPivot		12.2			hipsparsXbsrsm2_zeroPivot	4.5.0	6.2.0		
cusparseXcsrsm2_zeroPivot	9.2	11.3		12.0	hipsparsXcsrsm2_zeroPivot	3.1.0	5.6.0		
cusparseZbsrmm		12.8			hipsparsZbsrmm	3.7.0			
cusparseZbsrsm2_analysis		12.2			hipsparsZbsrsm2_analysis	4.5.0	6.2.0		
cusparseZbsrsm2_bufferSize		12.2			hipsparsZbsrsm2_bufferSize	4.5.0	6.2.0		
cusparseZbsrsm2_bufferSizeExt		12.2							
cusparseZbsrsm2_solve		12.2			hipsparsZbsrsm2_solve	4.5.0	6.2.0		
cusparseZcsrmm		10.2		11.0	hipsparsZcsrmm	3.1.0	3.9.0		
cusparseZcsrmm2		10.2		11.0	hipsparsZcsrmm2	3.1.0	3.9.0		
cusparseZcsrsm2_analysis	9.2	11.3		12.0	hipsparsZcsrsm2_analysis	3.1.0	5.6.0		
cusparseZcsrsm2_bufferSizeExt	9.2	11.3		12.0	hipsparsZcsrsm2_bufferSizeExt	3.1.0	5.6.0		
cusparseZcsrsm2_solve	9.2	11.3		12.0	hipsparsZcsrsm2_solve	3.1.0	5.6.0		
cusparseZcsrsm_analysis		10.2		11.0					
cusparseZcsrsm_solve		10.2		11.0					
cusparseZgemmi	8.0	11.0		12.0	hipsparsZgemmi	3.7.0	3.9.0		

9.7.8 11. CUSPARSE Extra Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cusparseCcsrgeam		10.2		11.0	hipsparseCcsrgeam	3.5.0	3.9.0				
cusparseCcsrgeam2	10.0				hipsparseCcsrgeam2	3.5.0					
cusparseCcsrgeam2_buf:	10.0				hipsparseCcsrgeam2_buf	3.5.0					
cusparseCcsrgemm		10.2		11.0	hipsparseCcsrgemm	3.1.0	3.9.0				
cusparseCcsrgemm2		11.0		12.0	hipsparseCcsrgemm2	3.1.0	3.9.0				
cusparseCcsrgemm2_buf:		11.0		12.0	hipsparseCcsrgemm2_buf	3.1.0	3.9.0				
cusparseDcsrgeam		10.2		11.0	hipsparseDcsrgeam	3.5.0	3.9.0				
cusparseDcsrgeam2	10.0				hipsparseDcsrgeam2	3.5.0					
cusparseDcsrgeam2_buf:	10.0				hipsparseDcsrgeam2_buf	3.5.0					
cusparseDcsrgemm		10.2		11.0	hipsparseDcsrgemm	2.8.0	3.9.0				
cusparseDcsrgemm2		11.0		12.0	hipsparseDcsrgemm2	2.8.0	3.9.0				
cusparseDcsrgemm2_buf:		11.0		12.0	hipsparseDcsrgemm2_buf	2.8.0	3.9.0				
cusparseScsrgeam		10.2		11.0	hipsparseScsrgeam	3.5.0	3.9.0				
cusparseScsrgeam2	10.0				hipsparseScsrgeam2	3.5.0					
cusparseScsrgeam2_buf:	10.0				hipsparseScsrgeam2_buf	3.5.0					
cusparseScsrgemm		10.2		11.0	hipsparseScsrgemm	2.8.0	3.9.0				
cusparseScsrgemm2		11.0		12.0	hipsparseScsrgemm2	2.8.0	3.9.0				
cusparseScsrgemm2_buf:		11.0		12.0	hipsparseScsrgemm2_buf	2.8.0	3.9.0				
cusparseXcsrgeam2Nnz	10.0				hipsparseXcsrgeam2Nnz	3.5.0					
cusparseXcsrgeamNnz		10.2		11.0	hipsparseXcsrgeamNnz	3.5.0	3.9.0				
cusparseXcsrgemm2Nnz		11.0		12.0	hipsparseXcsrgemm2Nnz	2.8.0	3.9.0				
cusparseXcsrgemmNnz		10.2		11.0	hipsparseXcsrgemmNnz	2.8.0	3.9.0				
cusparseZcsrgeam		10.2		11.0	hipsparseZcsrgeam	3.5.0	3.9.0				
cusparseZcsrgeam2	10.0				hipsparseZcsrgeam2	3.5.0					
cusparseZcsrgeam2_buf:	10.0				hipsparseZcsrgeam2_buf	3.5.0					
cusparseZcsrgemm		10.2		11.0	hipsparseZcsrgemm	3.1.0	3.9.0				
cusparseZcsrgemm2		11.0		12.0	hipsparseZcsrgemm2	3.1.0	3.9.0				
cusparseZcsrgemm2_buf:		11.0		12.0	hipsparseZcsrgemm2_buf	3.1.0	3.9.0				

9.7.9 12. CUSPARSE Preconditioners Reference

CUDA	A	D	C	R	HIP
cusparseCbsric02		12.2			hipsparseCbsric02
cusparseCbsric02_analysis		12.2			hipsparseCbsric02_analysis
cusparseCbsric02_bufferSize		12.2			hipsparseCbsric02_bufferSize
cusparseCbsric02_bufferSizeExt		12.2			
cusparseCbsrilu02		12.2			hipsparseCbsrilu02
cusparseCbsrilu02_analysis		12.2			hipsparseCbsrilu02_analysis
cusparseCbsrilu02_bufferSize		12.2			hipsparseCbsrilu02_bufferSize
cusparseCbsrilu02_bufferSizeExt		12.2			
cusparseCbsrilu02_numericBoost		12.2			hipsparseCbsrilu02_numericBoost
cusparseCcsric0		10.2		11.0	
cusparseCcsric02		12.2			hipsparseCcsric02
cusparseCcsric02_analysis		12.2			hipsparseCcsric02_analysis
cusparseCcsric02_bufferSize		12.2			hipsparseCcsric02_bufferSize
cusparseCcsric02_bufferSizeExt		12.2			hipsparseCcsric02_bufferSizeExt
cusparseCcsrilu0		10.2		11.0	
cusparseCcsrilu02		12.2			hipsparseCcsrilu02
cusparseCcsrilu02_analysis		12.2			hipsparseCcsrilu02_analysis
cusparseCcsrilu02_bufferSize		12.2			hipsparseCcsrilu02_bufferSize
cusparseCcsrilu02_bufferSizeExt		12.2			hipsparseCcsrilu02_bufferSizeExt
cusparseCcsrilu02_numericBoost		12.2			hipsparseCcsrilu02_numericBoost
cusparseCgpsvInterleavedBatch	9.2				hipsparseCgpsvInterleavedBatch
cusparseCgpsvInterleavedBatch_bufferSizeExt	9.2				hipsparseCgpsvInterleavedBatch_bufferSizeExt
cusparseCgtsv		10.2		11.0	
cusparseCgtsv2	9.0				hipsparseCgtsv2
cusparseCgtsv2StridedBatch	9.0				hipsparseCgtsv2StridedBatch
cusparseCgtsv2StridedBatch_bufferSizeExt	9.0				hipsparseCgtsv2StridedBatch_bufferSizeExt
cusparseCgtsv2_bufferSizeExt	9.0				hipsparseCgtsv2_bufferSizeExt
cusparseCgtsv2_nopivot	9.0				hipsparseCgtsv2_nopivot
cusparseCgtsv2_nopivot_bufferSizeExt	9.0				hipsparseCgtsv2_nopivot_bufferSizeExt
cusparseCgtsvInterleavedBatch	9.2				hipsparseCgtsvInterleavedBatch
cusparseCgtsvInterleavedBatch_bufferSizeExt	9.2				hipsparseCgtsvInterleavedBatch_bufferSizeExt
cusparseCgtsvStridedBatch		10.2		11.0	
cusparseCgtsv_nopivot		10.2		11.0	
cusparseCsrilu0Ex	8.0	10.2		11.0	
cusparseDbsric02		12.2			hipsparseDbsric02
cusparseDbsric02_analysis		12.2			hipsparseDbsric02_analysis
cusparseDbsric02_bufferSize		12.2			hipsparseDbsric02_bufferSize
cusparseDbsric02_bufferSizeExt		12.2			
cusparseDbsrilu02		12.2			hipsparseDbsrilu02
cusparseDbsrilu02_analysis		12.2			hipsparseDbsrilu02_analysis
cusparseDbsrilu02_bufferSize		12.2			hipsparseDbsrilu02_bufferSize
cusparseDbsrilu02_bufferSizeExt		12.2			
cusparseDbsrilu02_numericBoost		12.2			hipsparseDbsrilu02_numericBoost
cusparseDcsric0		10.2		11.0	
cusparseDcsric02		12.2			hipsparseDcsric02
cusparseDcsric02_analysis		12.2			hipsparseDcsric02_analysis
cusparseDcsric02_bufferSize		12.2			hipsparseDcsric02_bufferSize
cusparseDcsric02_bufferSizeExt		12.2			hipsparseDcsric02_bufferSizeExt
cusparseDcsrilu0		10.2		11.0	

Table 26 – continued from previous page

CUDA	A	D	C	R	HIP
cusparseDcsrilu02		12.2			hipsparsedcsrilu02
cusparseDcsrilu02_analysis		12.2			hipsparsedcsrilu02_analysis
cusparseDcsrilu02_bufferSize		12.2			hipsparsedcsrilu02_bufferSize
cusparseDcsrilu02_bufferSizeExt		12.2			hipsparsedcsrilu02_bufferSizeExt
cusparseDcsrilu02_numericBoost		12.2			hipsparsedcsrilu02_numericBoost
cusparseDgpsvInterleavedBatch	9.2				hipsparsedgpsvInterleavedBatch
cusparseDgpsvInterleavedBatch_bufferSizeExt	9.2				hipsparsedgpsvInterleavedBatch_bufferSizeExt
cusparseDgtsv		10.2		11.0	
cusparseDgtsv2	9.0				hipsparsedgtsv2
cusparseDgtsv2StridedBatch	9.0				hipsparsedgtsv2StridedBatch
cusparseDgtsv2StridedBatch_bufferSizeExt	9.0				hipsparsedgtsv2StridedBatch_bufferSizeExt
cusparseDgtsv2_bufferSizeExt	9.0				hipsparsedgtsv2_bufferSizeExt
cusparseDgtsv2_nopivot	9.0				hipsparsedgtsv2_nopivot
cusparseDgtsv2_nopivot_bufferSizeExt	9.0				hipsparsedgtsv2_nopivot_bufferSizeExt
cusparseDgtsvInterleavedBatch	9.2				hipsparsedgtsvInterleavedBatch
cusparseDgtsvInterleavedBatch_bufferSizeExt	9.2				hipsparsedgtsvInterleavedBatch_bufferSizeExt
cusparseDgtsvStridedBatch		10.2		11.0	
cusparseDgtsv_nopivot		10.2		11.0	
cusparseSbsric02		12.2			hipsparsedbsric02
cusparseSbsric02_analysis		12.2			hipsparsedbsric02_analysis
cusparseSbsric02_bufferSize		12.2			hipsparsedbsric02_bufferSize
cusparseSbsric02_bufferSizeExt		12.2			
cusparseSbsrilu02		12.2			hipsparsedbsrilu02
cusparseSbsrilu02_analysis		12.2			hipsparsedbsrilu02_analysis
cusparseSbsrilu02_bufferSize		12.2			hipsparsedbsrilu02_bufferSize
cusparseSbsrilu02_bufferSizeExt		12.2			
cusparseSbsrilu02_numericBoost		12.2			hipsparsedbsrilu02_numericBoost
cusparseScsric0		10.2		11.0	
cusparseScsric02		12.2			hipsparsedcsric02
cusparseScsric02_analysis		12.2			hipsparsedcsric02_analysis
cusparseScsric02_bufferSize		12.2			hipsparsedcsric02_bufferSize
cusparseScsric02_bufferSizeExt		12.2			hipsparsedcsric02_bufferSizeExt
cusparseScsrilu0		10.2		11.0	
cusparseScsrilu02		12.2			hipsparsedcsrilu02
cusparseScsrilu02_analysis		12.2			hipsparsedcsrilu02_analysis
cusparseScsrilu02_bufferSize		12.2			hipsparsedcsrilu02_bufferSize
cusparseScsrilu02_bufferSizeExt		12.2			hipsparsedcsrilu02_bufferSizeExt
cusparseScsrilu02_numericBoost		12.2			hipsparsedcsrilu02_numericBoost
cusparseSgpsvInterleavedBatch	9.2				hipsparsedgpsvInterleavedBatch
cusparseSgpsvInterleavedBatch_bufferSizeExt	9.2				hipsparsedgpsvInterleavedBatch_bufferSizeExt
cusparseSgtsv		10.2		11.0	
cusparseSgtsv2	9.0				hipsparsedgtsv2
cusparseSgtsv2StridedBatch	9.0				hipsparsedgtsv2StridedBatch
cusparseSgtsv2StridedBatch_bufferSizeExt	9.0				hipsparsedgtsv2StridedBatch_bufferSizeExt
cusparseSgtsv2_bufferSizeExt	9.0				hipsparsedgtsv2_bufferSizeExt
cusparseSgtsv2_nopivot	9.0				hipsparsedgtsv2_nopivot
cusparseSgtsv2_nopivot_bufferSizeExt	9.0				hipsparsedgtsv2_nopivot_bufferSizeExt
cusparseSgtsvInterleavedBatch	9.2				hipsparsedgtsvInterleavedBatch
cusparseSgtsvInterleavedBatch_bufferSizeExt	9.2				hipsparsedgtsvInterleavedBatch_bufferSizeExt
cusparseSgtsvStridedBatch		10.2		11.0	

Table 26 – continued from previous page

CUDA	A	D	C	R	HIP
cusparseSgtsv_nopivot		10.2		11.0	
cusparseXbsric02_zeroPivot		12.2			hipsparsXbsric02_zeroPivot
cusparseXbsrilu02_zeroPivot		12.2			hipsparsXbsrilu02_zeroPivot
cusparseXcsric02_zeroPivot		12.2			hipsparsXcsric02_zeroPivot
cusparseXcsrilu02_zeroPivot		12.2			hipsparsXcsrilu02_zeroPivot
cusparseZbsric02		12.2			hipsparsZbsric02
cusparseZbsric02_analysis		12.2			hipsparsZbsric02_analysis
cusparseZbsric02_bufferSize		12.2			hipsparsZbsric02_bufferSize
cusparseZbsric02_bufferSizeExt		12.2			
cusparseZbsrilu02		12.2			hipsparsZbsrilu02
cusparseZbsrilu02_analysis		12.2			hipsparsZbsrilu02_analysis
cusparseZbsrilu02_bufferSize		12.2			hipsparsZbsrilu02_bufferSize
cusparseZbsrilu02_bufferSizeExt		12.2			
cusparseZbsrilu02_numericBoost		12.2			hipsparsZbsrilu02_numericBoost
cusparseZcsric0		10.2		11.0	
cusparseZcsric02		12.2			hipsparsZcsric02
cusparseZcsric02_analysis		12.2			hipsparsZcsric02_analysis
cusparseZcsric02_bufferSize		12.2			hipsparsZcsric02_bufferSize
cusparseZcsric02_bufferSizeExt		12.2			hipsparsZcsric02_bufferSizeExt
cusparseZcsrilu0		10.2		11.0	
cusparseZcsrilu02		12.2			hipsparsZcsrilu02
cusparseZcsrilu02_analysis		12.2			hipsparsZcsrilu02_analysis
cusparseZcsrilu02_bufferSize		12.2			hipsparsZcsrilu02_bufferSize
cusparseZcsrilu02_bufferSizeExt		12.2			hipsparsZcsrilu02_bufferSizeExt
cusparseZcsrilu02_numericBoost		12.2			hipsparsZcsrilu02_numericBoost
cusparseZgpsvInterleavedBatch	9.2				hipsparsZgpsvInterleavedBatch
cusparseZgpsvInterleavedBatch_bufferSizeExt	9.2				hipsparsZgpsvInterleavedBatch_bufferSizeExt
cusparseZgtsv		10.2		11.0	
cusparseZgtsv2	9.0				hipsparsZgtsv2
cusparseZgtsv2StridedBatch	9.0				hipsparsZgtsv2StridedBatch
cusparseZgtsv2StridedBatch_bufferSizeExt	9.0				hipsparsZgtsv2StridedBatch_bufferSizeExt
cusparseZgtsv2_bufferSizeExt	9.0				hipsparsZgtsv2_bufferSizeExt
cusparseZgtsv2_nopivot	9.0				hipsparsZgtsv2_nopivot
cusparseZgtsv2_nopivot_bufferSizeExt	9.0				hipsparsZgtsv2_nopivot_bufferSizeExt
cusparseZgtsvInterleavedBatch	9.2				hipsparsZgtsvInterleavedBatch
cusparseZgtsvInterleavedBatch_bufferSizeExt	9.2				hipsparsZgtsvInterleavedBatch_bufferSizeExt
cusparseZgtsvStridedBatch		10.2		11.0	
cusparseZgtsv_nopivot		10.2		11.0	

9.7.10 13. CUSPARSE Reorderings Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cusparseCcsrcolor		12.2			hipsparseCcsrcolor	4.5.0	6.2.0				
cusparseDcsrcolor		12.2			hipsparseDcsrcolor	4.5.0	6.2.0				
cusparseScsrcolor		12.2			hipsparseScsrcolor	4.5.0	6.2.0				
cusparseZcsrcolor		12.2			hipsparseZcsrcolor	4.5.0	6.2.0				

9.7.11 14. CUSPARSE Format Conversion Reference

CUDA	A	D	C	R	HIP
cusparseCbsr2csr		12.8			hipsparseCbsr2csr
cusparseCcsc2dense		11.1		12.0	hipsparseCcsc2dense
cusparseCcsc2hyb		10.2		11.0	
cusparseCcsr2bsr		12.4			hipsparseCcsr2bsr
cusparseCcsr2csc		10.2		11.0	hipsparseCcsr2csc
cusparseCcsr2csr_compress	8.0	12.2			hipsparseCcsr2csr_compress
cusparseCcsr2csru		12.2			hipsparseCcsr2csru
cusparseCcsr2dense		11.1		12.0	hipsparseCcsr2dense
cusparseCcsr2gebsr					hipsparseCcsr2gebsr
cusparseCcsr2gebsr_bufferSize					hipsparseCcsr2gebsr_bufferSize
cusparseCcsr2gebsr_bufferSizeExt					
cusparseCcsr2hyb		10.2		11.0	hipsparseCcsr2hyb
cusparseCcsru2csr		12.2			hipsparseCcsru2csr
cusparseCcsru2csr_bufferSizeExt		12.2			hipsparseCcsru2csr_bufferSizeExt
cusparseCdense2csc		11.1		12.0	hipsparseCdense2csc
cusparseCdense2csr		11.1		12.0	hipsparseCdense2csr
cusparseCdense2hyb		10.2		11.0	
cusparseCgebsr2csr		12.4			hipsparseCgebsr2csr
cusparseCgebsr2gebsc					hipsparseCgebsr2gebsc
cusparseCgebsr2gebsc_bufferSize					hipsparseCgebsr2gebsc_bufferSize
cusparseCgebsr2gebsc_bufferSizeExt					
cusparseCgebsr2gebsr		12.8			hipsparseCgebsr2gebsr
cusparseCgebsr2gebsr_bufferSize		12.8			hipsparseCgebsr2gebsr_bufferSize
cusparseCgebsr2gebsr_bufferSizeExt		12.8			
cusparseChyb2csc		10.2		11.0	
cusparseChyb2csr		10.2		11.0	hipsparseChyb2csr
cusparseChyb2dense		10.2		11.0	
cusparseCnnz					hipsparseCnnz
cusparseCnnz_compress	8.0	12.2			hipsparseCnnz_compress
cusparseCreateCsr2csrInfo		12.2			hipsparseCreateCsr2csrInfo
cusparseCreateIdentityPermutation		12.2			hipsparseCreateIdentityPermutation
cusparseCsr2cscEx	8.0	10.2		11.0	
cusparseCsr2cscEx2		10.1			hipsparseCsr2cscEx2
cusparseCsr2cscEx2_bufferSize		10.1			hipsparseCsr2cscEx2_bufferSize
cusparseDbsr2csr		12.8			hipsparseDbsr2csr

Table 27 – continued from previous page

CUDA	A	D	C	R	HIP
cusparseDcsc2dense		11.1		12.0	hipsparsedcsc2dense
cusparseDcsc2hyb		10.2		11.0	
cusparseDcsr2bsr		12.4			hipsparsedcsr2bsr
cusparseDcsr2csc		10.2		11.0	hipsparsedcsr2csc
cusparseDcsr2csr_compress	8.0	12.2			hipsparsedcsr2csr_compress
cusparseDcsr2csru		12.2			hipsparsedcsr2csru
cusparseDcsr2dense		11.1		12.0	hipsparsedcsr2dense
cusparseDcsr2gebsr					hipsparsedcsr2gebsr
cusparseDcsr2gebsr_bufferSize					hipsparsedcsr2gebsr_bufferSize
cusparseDcsr2gebsr_bufferSizeExt					
cusparseDcsr2hyb		10.2		11.0	hipsparsedcsr2hyb
cusparseDcsru2csr		12.2			hipsparsedcsru2csr
cusparseDcsru2csr_bufferSizeExt		12.2			hipsparsedcsru2csr_bufferSizeExt
cusparseDdense2csc		11.1		12.0	hipsparseddense2csc
cusparseDdense2csr		11.1		12.0	hipsparseddense2csr
cusparseDdense2hyb		10.2		11.0	
cusparseDestroyCsr2csrInfo		12.2			hipsparsedestroycsr2csrInfo
cusparseDgebsr2csr		12.4			hipsparsedgebsr2csr
cusparseDgebsr2gebsc					hipsparsedgebsr2gebsc
cusparseDgebsr2gebsc_bufferSize					hipsparsedgebsr2gebsc_bufferSize
cusparseDgebsr2gebsc_bufferSizeExt					
cusparseDgebsr2gebsr		12.8			hipsparsedgebsr2gebsr
cusparseDgebsr2gebsr_bufferSize		12.8			hipsparsedgebsr2gebsr_bufferSize
cusparseDgebsr2gebsr_bufferSizeExt		12.8			
cusparseDhyb2csc		10.2		11.0	
cusparseDhyb2csr		10.2		11.0	hipsparsedhyb2csr
cusparseDhyb2dense		10.2		11.0	
cusparseDnnz					hipsparsednnz
cusparseDnnz_compress	8.0	12.2			hipsparsednnz_compress
cusparseDpruneCsr2csr	9.0	12.2			hipsparsedprunecsr2csr
cusparseDpruneCsr2csrByPercentage	9.0	12.2			hipsparsedprunecsr2csrByPercentage
cusparseDpruneCsr2csrByPercentage_bufferSizeExt	9.0	12.2			hipsparsedprunecsr2csrByPercentage_bufferSizeExt
cusparseDpruneCsr2csrNnz	9.0	12.2			hipsparsedprunecsr2csrNnz
cusparseDpruneCsr2csrNnzByPercentage	9.0	12.2			hipsparsedprunecsr2csrNnzByPercentage
cusparseDpruneCsr2csr_bufferSizeExt	9.0	12.2			hipsparsedprunecsr2csr_bufferSizeExt
cusparseDpruneDense2csr	9.0	12.2			hipsparsedprunedense2csr
cusparseDpruneDense2csrByPercentage	9.0	12.2			hipsparsedprunedense2csrByPercentage
cusparseDpruneDense2csrByPercentage_bufferSizeExt	9.0	12.2			hipsparsedprunedense2csrByPercentage_bufferSizeExt
cusparseDpruneDense2csrNnz	9.0	12.2			hipsparsedprunedense2csrNnz
cusparseDpruneDense2csrNnzByPercentage	9.0	12.2			hipsparsedprunedense2csrNnzByPercentage
cusparseDpruneDense2csr_bufferSizeExt	9.0	12.2			hipsparsedprunedense2csr_bufferSizeExt
cusparseHpruneCsr2csr	9.0	12.2			
cusparseHpruneCsr2csrByPercentage	9.0	12.2			
cusparseHpruneCsr2csrByPercentage_bufferSizeExt	9.0	12.2			
cusparseHpruneCsr2csrNnz	9.0	12.2			
cusparseHpruneCsr2csrNnzByPercentage	9.0	12.2			
cusparseHpruneCsr2csr_bufferSizeExt	9.0	12.2			
cusparseHpruneDense2csr	9.0	12.2			
cusparseHpruneDense2csrByPercentage	9.0	12.2			
cusparseHpruneDense2csrByPercentage_bufferSizeExt	9.0	12.2			

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CUDA	A	D	C	R	HIP
cusparseHpruneDense2csrNnz	9.0	12.2			
cusparseHpruneDense2csrNnzByPercentage	9.0	12.2			
cusparseHpruneDense2csr_bufferSizeExt	9.0	12.2			
cusparseSbsr2csr		12.8			hipsparseSbsr2csr
cusparseScsc2dense		11.1		12.0	hipsparseScsc2dense
cusparseScsc2hyb		10.2		11.0	
cusparseScsr2bsr		12.4			hipsparseScsr2bsr
cusparseScsr2csc		10.2		11.0	hipsparseScsr2csc
cusparseScsr2csr_compress	8.0	12.2			hipsparseScsr2csr_compress
cusparseScsr2csru		12.2			hipsparseScsr2csru
cusparseScsr2dense		11.1		12.0	hipsparseScsr2dense
cusparseScsr2gebsr					hipsparseScsr2gebsr
cusparseScsr2gebsr_bufferSize					hipsparseScsr2gebsr_bufferSize
cusparseScsr2gebsr_bufferSizeExt					
cusparseScsr2hyb		10.2		11.0	hipsparseScsr2hyb
cusparseScsru2csr		12.2			hipsparseScsru2csr
cusparseScsru2csr_bufferSizeExt		12.2			hipsparseScsru2csr_bufferSizeExt
cusparseSdense2csc		11.1		12.0	hipsparseSdense2csc
cusparseSdense2csr		11.1		12.0	hipsparseSdense2csr
cusparseSdense2hyb		10.2		11.0	
cusparseSgebsr2csr		12.4			hipsparseSgebsr2csr
cusparseSgebsr2gebsc					hipsparseSgebsr2gebsc
cusparseSgebsr2gebsc_bufferSize					hipsparseSgebsr2gebsc_bufferSize
cusparseSgebsr2gebsc_bufferSizeExt					
cusparseSgebsr2gebsr		12.8			hipsparseSgebsr2gebsr
cusparseSgebsr2gebsr_bufferSize		12.8			hipsparseSgebsr2gebsr_bufferSize
cusparseSgebsr2gebsr_bufferSizeExt		12.8			
cusparseShyb2csc		10.2		11.0	
cusparseShyb2csr		10.2		11.0	hipsparseShyb2csr
cusparseShyb2dense		10.2		11.0	
cusparseSnnz					hipsparseSnnz
cusparseSnnz_compress	8.0	12.2			hipsparseSnnz_compress
cusparseSpruneCsr2csr	9.0	12.2			hipsparseSpruneCsr2csr
cusparseSpruneCsr2csrByPercentage	9.0	12.2			hipsparseSpruneCsr2csrByPercentage
cusparseSpruneCsr2csrByPercentage_bufferSizeExt	9.0	12.2			hipsparseSpruneCsr2csrByPercentage_bufferSizeExt
cusparseSpruneCsr2csrNnz	9.0	12.2			hipsparseSpruneCsr2csrNnz
cusparseSpruneCsr2csrNnzByPercentage	9.0	12.2			hipsparseSpruneCsr2csrNnzByPercentage
cusparseSpruneCsr2csr_bufferSizeExt	9.0	12.2			hipsparseSpruneCsr2csr_bufferSizeExt
cusparseSpruneDense2csr	9.0	12.2			hipsparseSpruneDense2csr
cusparseSpruneDense2csrByPercentage	9.0	12.2			hipsparseSpruneDense2csrByPercentage
cusparseSpruneDense2csrByPercentage_bufferSizeExt	9.0	12.2			hipsparseSpruneDense2csrByPercentage_bufferSizeExt
cusparseSpruneDense2csrNnz	9.0	12.2			hipsparseSpruneDense2csrNnz
cusparseSpruneDense2csrNnzByPercentage	9.0	12.2			hipsparseSpruneDense2csrNnzByPercentage
cusparseSpruneDense2csr_bufferSizeExt	9.0	12.2			hipsparseSpruneDense2csr_bufferSizeExt
cusparseXcoo2csr					hipsparseXcoo2csr
cusparseXcoosortByColumn					hipsparseXcoosortByColumn
cusparseXcoosortByRow					hipsparseXcoosortByRow
cusparseXcoosort_bufferSizeExt					hipsparseXcoosort_bufferSizeExt
cusparseXcscsort					hipsparseXcscsort
cusparseXcscsort_bufferSizeExt					hipsparseXcscsort_bufferSizeExt

Table 27 – continued from previous page

CUDA	A	D	C	R	HIP
cusparseXcsr2bsrNnz		12.4			hipsparsXcsr2bsrNnz
cusparseXcsr2coo					hipsparsXcsr2coo
cusparseXcsr2gebsrNnz					hipsparsXcsr2gebsrNnz
cusparseXcsrsort					hipsparsXcsrsort
cusparseXcsrsort_bufferSizeExt					hipsparsXcsrsort_bufferSizeExt
cusparseXgebsr2csr		12.4			
cusparseXgebsr2gebsrNnz		12.8			hipsparsXgebsr2gebsrNnz
cusparseZbsr2csr		12.8			hipsparsZbsr2csr
cusparseZcsc2dense		11.1		12.0	hipsparsZcsc2dense
cusparseZcsc2hyb		10.2		11.0	
cusparseZcsr2bsr		12.4			hipsparsZcsr2bsr
cusparseZcsr2csc		10.2		11.0	hipsparsZcsr2csc
cusparseZcsr2csr_compress	8.0	12.2			hipsparsZcsr2csr_compress
cusparseZcsr2csru		12.2			hipsparsZcsr2csru
cusparseZcsr2dense		11.1		12.0	hipsparsZcsr2dense
cusparseZcsr2gebsr					hipsparsZcsr2gebsr
cusparseZcsr2gebsr_bufferSize					hipsparsZcsr2gebsr_bufferSize
cusparseZcsr2gebsr_bufferSizeExt					
cusparseZcsr2hyb		10.2		11.0	hipsparsZcsr2hyb
cusparseZcsru2csr		12.2			hipsparsZcsru2csr
cusparseZcsru2csr_bufferSizeExt		12.2			hipsparsZcsru2csr_bufferSizeExt
cusparseZdense2csc		11.1		12.0	hipsparsZdense2csc
cusparseZdense2csr		11.1		12.0	hipsparsZdense2csr
cusparseZdense2hyb		10.2		11.0	
cusparseZgebsr2csr		12.4			hipsparsZgebsr2csr
cusparseZgebsr2gebsc					hipsparsZgebsr2gebsc
cusparseZgebsr2gebsc_bufferSize					hipsparsZgebsr2gebsc_bufferSi
cusparseZgebsr2gebsc_bufferSizeExt					
cusparseZgebsr2gebsr		12.8			hipsparsZgebsr2gebsr
cusparseZgebsr2gebsr_bufferSize		12.8			hipsparsZgebsr2gebsr_bufferSi
cusparseZgebsr2gebsr_bufferSizeExt		12.8			
cusparseZhyb2csc		10.2		11.0	
cusparseZhyb2csr		10.2		11.0	hipsparsZhyb2csr
cusparseZhyb2dense		10.2		11.0	
cusparseZnnz					hipsparsZnnz
cusparseZnnz_compress	8.0	12.2			hipsparsZnnz_compress

9.7.12 15. CUSPARSE Generic API Reference

CUDA	A	D	C	R	HIP	A
cusparseAxpby	11.0	12.8	12.0		hipsparsAxpby	4.1.0
cusparseBlockedEllGet	11.2				hipsparsBlockedEllGet	4.5.0
cusparseBsrSetStridedBatch	12.1					
cusparseConstBlockedEllGet	12.0				hipsparsConstBlockedEllGet	6.0.0
cusparseConstCooGet	12.0				hipsparsConstCooGet	6.0.0
cusparseConstCscGet	12.0				hipsparsConstCscGet	6.2.0
cusparseConstCsrGet	12.0				hipsparsConstCsrGet	6.0.0
cusparseConstDnMatGet	12.0				hipsparsConstDnMatGet	6.0.0
cusparseConstDnMatGetValues	12.0				hipsparsConstDnMatGetValues	6.0.0

Table 28 – continued from previous page

CUDA	A	D	C	R	HIP	A
cusparseConstDnVecGet	12.0				hipsparseConstDnVecGet	6.0.0
cusparseConstDnVecGetValues	12.0				hipsparseConstDnVecGetValues	6.0.0
cusparseConstSpMatGetValues	12.0				hipsparseConstSpMatGetValues	6.0.0
cusparseConstSpVecGet	12.0				hipsparseConstSpVecGet	6.0.0
cusparseConstSpVecGetValues	12.0				hipsparseConstSpVecGetValues	6.0.0
cusparseConstrainedGeMM	10.2	11.2		12.0		
cusparseConstrainedGeMM_bufferSize	10.2	11.2		12.0		
cusparseCooAoSGet	10.2	11.2		12.0	hipsparseCooAoSGet	4.1.0
cusparseCooGet	10.1				hipsparseCooGet	4.1.0
cusparseCooSetPointers	11.1				hipsparseCooSetPointers	4.2.0
cusparseCooSetStridedBatch	11.0				hipsparseCooSetStridedBatch	5.2.0
cusparseCreateBlockedEll	11.2				hipsparseCreateBlockedEll	4.5.0
cusparseCreateBsr	12.1					
cusparseCreateConstBlockedEll	12.0				hipsparseCreateConstBlockedEll	6.0.0
cusparseCreateConstBsr	12.1					
cusparseCreateConstCoo	12.0				hipsparseCreateConstCoo	6.0.0
cusparseCreateConstCsc	12.0				hipsparseCreateConstCsc	6.0.0
cusparseCreateConstCsr	12.0				hipsparseCreateConstCsr	6.0.0
cusparseCreateConstDnMat	12.0				hipsparseCreateConstDnMat	6.0.0
cusparseCreateConstDnVec	12.0				hipsparseCreateConstDnVec	6.0.0
cusparseCreateConstSlicedEll	12.1					
cusparseCreateConstSpVec	12.0				hipsparseCreateConstSpVec	6.0.0
cusparseCreateCoo	10.1				hipsparseCreateCoo	4.1.0
cusparseCreateCooAoS	10.2	11.2		12.0	hipsparseCreateCooAoS	4.1.0
cusparseCreateCsc	11.1				hipsparseCreateCsc	4.2.0
cusparseCreateCsr	10.2				hipsparseCreateCsr	4.1.0
cusparseCreateDnMat	10.1				hipsparseCreateDnMat	4.2.0
cusparseCreateDnVec	10.2				hipsparseCreateDnVec	4.1.0
cusparseCreateSlicedEll	12.1					
cusparseCreateSpVec	10.2				hipsparseCreateSpVec	4.1.0
cusparseCscGet	11.7				hipsparseCscGet	6.2.0
cusparseCscSetPointers	11.1				hipsparseCscSetPointers	4.2.0
cusparseCsrGet	10.2				hipsparseCsrGet	4.1.0
cusparseCsrSetPointers	11.0				hipsparseCsrSetPointers	4.1.0
cusparseCsrSetStridedBatch	11.0				hipsparseCsrSetStridedBatch	5.2.0
cusparseDenseToSparse_analysis	11.1		12.0		hipsparseDenseToSparse_analysis	4.2.0
cusparseDenseToSparse_bufferSize	11.1		12.0		hipsparseDenseToSparse_bufferSize	4.2.0
cusparseDenseToSparse_convert	11.1		12.0		hipsparseDenseToSparse_convert	4.2.0
cusparseDestroyDnMat	10.1		12.0		hipsparseDestroyDnMat	4.2.0
cusparseDestroyDnVec	10.2		12.0		hipsparseDestroyDnVec	4.1.0
cusparseDestroySpMat	10.1		12.0		hipsparseDestroySpMat	4.1.0
cusparseDestroySpVec	10.2		12.0		hipsparseDestroySpVec	4.1.0
cusparseDnMatGet	10.1				hipsparseDnMatGet	4.2.0
cusparseDnMatGetStridedBatch	10.1		12.0		hipsparseDnMatGetStridedBatch	5.2.0
cusparseDnMatGetValues	10.2				hipsparseDnMatGetValues	4.2.0
cusparseDnMatSetStridedBatch	10.1				hipsparseDnMatSetStridedBatch	5.2.0
cusparseDnMatSetValues	10.2				hipsparseDnMatSetValues	4.2.0
cusparseDnVecGet	10.2				hipsparseDnVecGet	4.1.0
cusparseDnVecGetValues	10.2				hipsparseDnVecGetValues	4.1.0
cusparseDnVecSetValues	10.2				hipsparseDnVecSetValues	4.1.0

Table 28 – continued from previous page

CUDA	A	D	C	R	HIP	A
cusparseGather	11.0		12.0		hipsparseGather	4.1.0
cusparseRot	11.0	12.2			hipsparseRot	4.1.0
cusparseSDDMM	11.2		12.0		hipsparseSDDMM	4.3.0
cusparseSDDMM_bufferSize	11.2		12.0		hipsparseSDDMM_bufferSize	4.3.0
cusparseSDDMM_preprocess	11.2		12.0		hipsparseSDDMM_preprocess	4.3.0
cusparseScatter	11.0		12.0		hipsparseScatter	4.1.0
cusparseSpGEMM_compute	11.0		12.0		hipsparseSpGEMM_compute	4.1.0
cusparseSpGEMM_copy	11.0		12.0		hipsparseSpGEMM_copy	4.1.0
cusparseSpGEMM_createDescr	11.0				hipsparseSpGEMM_createDescr	4.1.0
cusparseSpGEMM_destroyDescr	11.0				hipsparseSpGEMM_destroyDescr	4.1.0
cusparseSpGEMM_estimateMemory	12.0					
cusparseSpGEMM_getNumProducts	12.0					
cusparseSpGEMM_workEstimation	11.0		12.0		hipsparseSpGEMM_workEstimation	4.1.0
cusparseSpGEMMreuse_compute	11.3		12.0		hipsparseSpGEMMreuse_compute	5.1.0
cusparseSpGEMMreuse_copy	11.3		12.0		hipsparseSpGEMMreuse_copy	5.1.0
cusparseSpGEMMreuse_nnz	11.3		12.0		hipsparseSpGEMMreuse_nnz	5.1.0
cusparseSpGEMMreuse_workEstimation	11.3		12.0		hipsparseSpGEMMreuse_workEstimation	5.1.0
cusparseSpMM	10.1		12.0		hipsparseSpMM	4.2.0
cusparseSpMMOp	11.5					
cusparseSpMMOp_createPlan	11.5					
cusparseSpMMOp_destroyPlan	11.5					
cusparseSpMM_bufferSize	10.1		12.0		hipsparseSpMM_bufferSize	4.2.0
cusparseSpMM_preprocess	11.2		12.0		hipsparseSpMM_preprocess	4.5.0
cusparseSpMV	10.1		12.0		hipsparseSpMV	4.1.0
cusparseSpMV_bufferSize	10.1		12.0		hipsparseSpMV_bufferSize	4.1.0
cusparseSpMV_preprocess	12.4				hipsparseSpMV_preprocess	5.2.0
cusparseSpMatGetAttribute	11.3		12.0		hipsparseSpMatGetAttribute	4.5.0
cusparseSpMatGetFormat	10.1		12.0		hipsparseSpMatGetFormat	4.1.0
cusparseSpMatGetIndexBase	10.1		12.0		hipsparseSpMatGetIndexBase	4.1.0
cusparseSpMatGetNumBatches	10.1			10.2		
cusparseSpMatGetSize	11.0		12.0		hipsparseSpMatGetSize	4.1.0
cusparseSpMatGetStridedBatch	10.2		12.0		hipsparseSpMatGetStridedBatch	5.2.0
cusparseSpMatGetValues	10.2				hipsparseSpMatGetValues	4.1.0
cusparseSpMatSetAttribute	11.3				hipsparseSpMatSetAttribute	4.5.0
cusparseSpMatSetNumBatches	10.1			10.2		
cusparseSpMatSetStridedBatch	10.2			12.0	hipsparseSpMatSetStridedBatch	5.2.0
cusparseSpMatSetValues	10.2				hipsparseSpMatSetValues	4.1.0
cusparseSpSM_analysis	11.3		12.0		hipsparseSpSM_analysis	4.5.0
cusparseSpSM_bufferSize	11.3		12.0		hipsparseSpSM_bufferSize	4.5.0
cusparseSpSM_createDescr	11.3				hipsparseSpSM_createDescr	4.5.0
cusparseSpSM_destroyDescr	11.3				hipsparseSpSM_destroyDescr	4.5.0
cusparseSpSM_solve	11.3		12.0		hipsparseSpSM_solve	4.5.0
cusparseSpSM_updateMatrix	12.4					
cusparseSpSV_analysis	11.3		12.0		hipsparseSpSV_analysis	4.5.0
cusparseSpSV_bufferSize	11.3		12.0		hipsparseSpSV_bufferSize	4.5.0
cusparseSpSV_createDescr	11.3				hipsparseSpSV_createDescr	4.5.0
cusparseSpSV_destroyDescr	11.3				hipsparseSpSV_destroyDescr	4.5.0
cusparseSpSV_solve	11.3		12.0		hipsparseSpSV_solve	4.5.0
cusparseSpSV_updateMatrix	12.1					
cusparseSpVV	10.1	12.8	12.0		hipsparseSpVV	4.1.0

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CUDA	A	D	C	R	HIP	A
cusparseSpVV_bufferSize	10.1	12.8	12.0		hipsparseSpVV_bufferSize	4.1.0
cusparseSpVecGet	10.2				hipsparseSpVecGet	4.1.0
cusparseSpVecGetIndexBase	10.2		12.0		hipsparseSpVecGetIndexBase	4.1.0
cusparseSpVecGetValues	10.2				hipsparseSpVecGetValues	4.1.0
cusparseSpVecSetValues	10.2				hipsparseSpVecSetValues	4.1.0
cusparseSparseToDense	11.1		12.0		hipsparseSparseToDense	4.2.0
cusparseSparseToDense_bufferSize	11.1		12.0		hipsparseSparseToDense_bufferSize	4.2.0

9.8 CUSOLVER API supported by HIP

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

9.8.1 1. CUSOLVER Data types

CUDA	A	D	C	R	HIP
CUBLAS_DIRECT_BACKWARD	11.0				
CUBLAS_DIRECT_FORWARD	11.0				
CUBLAS_STOREV_COLUMNWISE	11.0				
CUBLAS_STOREV_ROWWISE	11.0				
CUDALIBMG_GRID_MAPPING_COL_MAJOR	10.1				
CUDALIBMG_GRID_MAPPING_ROW_MAJOR	10.1				
CUSOLVERDN_GETRF	11.0				HIPSOLVERDN_GETRF
CUSOLVERDN_POTRF	11.5				
CUSOLVERDN_SYEV_BATCHED	13.0				
CUSOLVERRF_FACTORIZATION_ALG0					HIPSOLVERRF_FACTORIZATION_ALG0
CUSOLVERRF_FACTORIZATION_ALG1					HIPSOLVERRF_FACTORIZATION_ALG1
CUSOLVERRF_FACTORIZATION_ALG2					HIPSOLVERRF_FACTORIZATION_ALG2
CUSOLVERRF_MATRIX_FORMAT_CSC					HIPSOLVERRF_MATRIX_FORMAT_CSC
CUSOLVERRF_MATRIX_FORMAT_CSR					HIPSOLVERRF_MATRIX_FORMAT_CSR
CUSOLVERRF_NUMERIC_BOOST_NOT_USED					HIPSOLVERRF_NUMERIC_BOOST_NOT_USED
CUSOLVERRF_NUMERIC_BOOST_USED					HIPSOLVERRF_NUMERIC_BOOST_USED
CUSOLVERRF_RESET_VALUES_FAST_MODE_OFF					HIPSOLVERRF_RESET_VALUES_FAST_MODE_OFF
CUSOLVERRF_RESET_VALUES_FAST_MODE_ON					HIPSOLVERRF_RESET_VALUES_FAST_MODE_ON
CUSOLVERRF_TRIANGULAR_SOLVE_ALG1					HIPSOLVERRF_TRIANGULAR_SOLVE_ALG1
CUSOLVERRF_TRIANGULAR_SOLVE_ALG2					HIPSOLVERRF_TRIANGULAR_SOLVE_ALG2
CUSOLVERRF_TRIANGULAR_SOLVE_ALG3					HIPSOLVERRF_TRIANGULAR_SOLVE_ALG3
CUSOLVERRF_UNIT_DIAGONAL_ASSUMED_L					HIPSOLVERRF_UNIT_DIAGONAL_ASSUMED_L
CUSOLVERRF_UNIT_DIAGONAL_ASSUMED_U					HIPSOLVERRF_UNIT_DIAGONAL_ASSUMED_U
CUSOLVERRF_UNIT_DIAGONAL_STORED_L					HIPSOLVERRF_UNIT_DIAGONAL_STORED_L
CUSOLVERRF_UNIT_DIAGONAL_STORED_U					HIPSOLVERRF_UNIT_DIAGONAL_STORED_U
CUSOLVER_ALG_0	11.0				HIPSOLVER_ALG_0
CUSOLVER_ALG_1	11.0				HIPSOLVER_ALG_1
CUSOLVER_ALG_2	11.5				
CUSOLVER_ALLOW_NON_DETERMINISTIC_RESULTS	12.2				HIPSOLVER_ALLOW_NON_DETERMINISTIC_RESULTS
CUSOLVER_C_16BF	11.0				
CUSOLVER_C_16F	11.0				
CUSOLVER_C_32F	11.0				

Table 29 – continued from previous page

CUDA	A	D	C	R	HIP
CUSOLVER_C_64F	11.0				
CUSOLVER_C_8I	11.0				
CUSOLVER_C_8U	11.0				
CUSOLVER_C_AP	11.0				
CUSOLVER_C_TF32	11.0				
CUSOLVER_DEFAULT_MATH	13.0				
CUSOLVER_DETERMINISTIC_RESULTS	12.2				HIPSOLVER_DETERMINISTIC_RESULTS
CUSOLVER_EIG_MODE_NOVECTOR	8.0				HIPSOLVER_EIG_MODE_NOVECTOR
CUSOLVER_EIG_MODE_VECTOR	8.0				HIPSOLVER_EIG_MODE_VECTOR
CUSOLVER_EIG_RANGE_ALL	10.1				HIPSOLVER_EIG_RANGE_ALL
CUSOLVER_EIG_RANGE_I	10.1				HIPSOLVER_EIG_RANGE_I
CUSOLVER_EIG_RANGE_V	10.1				HIPSOLVER_EIG_RANGE_V
CUSOLVER_EIG_TYPE_1	8.0				HIPSOLVER_EIG_TYPE_1
CUSOLVER_EIG_TYPE_2	8.0				HIPSOLVER_EIG_TYPE_2
CUSOLVER_EIG_TYPE_3	8.0				HIPSOLVER_EIG_TYPE_3
CUSOLVER_FP32_EMULATED_BF16X9_MATH	13.0				
CUSOLVER_FRO_NORM	10.2				
CUSOLVER_INF_NORM	10.2				
CUSOLVER_IRS_REFINE_CLASSICAL	10.2				
CUSOLVER_IRS_REFINE_CLASSICAL_GMRES	10.2				
CUSOLVER_IRS_REFINE_GMRES	10.2				
CUSOLVER_IRS_REFINE_GMRES_GMRES	10.2				
CUSOLVER_IRS_REFINE_GMRES_NOPCOND	11.0				
CUSOLVER_IRS_REFINE_NONE	10.2				
CUSOLVER_IRS_REFINE_NOT_SET	10.2				
CUSOLVER_MAX_NORM	10.2				
CUSOLVER_ONE_NORM	10.2				
CUSOLVER_PREC_DD	10.2				
CUSOLVER_PREC_SHT	10.2				
CUSOLVER_PREC_SS	10.2				
CUSOLVER_R_16BF	11.0				
CUSOLVER_R_16F	11.0				
CUSOLVER_R_32F	11.0				
CUSOLVER_R_64F	11.0				
CUSOLVER_R_8I	11.0				
CUSOLVER_R_8U	11.0				
CUSOLVER_R_AP	11.0				
CUSOLVER_R_TF32	11.0				
CUSOLVER_STATUS_ALLOC_FAILED					HIPSOLVER_STATUS_ALLOC_FAILED
CUSOLVER_STATUS_ARCH_MISMATCH					HIPSOLVER_STATUS_ARCH_MISMATCH
CUSOLVER_STATUS_EXECUTION_FAILED					HIPSOLVER_STATUS_EXECUTION_FAILED
CUSOLVER_STATUS_INTERNAL_ERROR					HIPSOLVER_STATUS_INTERNAL_ERROR
CUSOLVER_STATUS_INVALID_LICENSE					
CUSOLVER_STATUS_INVALID_VALUE					HIPSOLVER_STATUS_INVALID_VALUE
CUSOLVER_STATUS_INVALID_WORKSPACE	11.0				
CUSOLVER_STATUS_IRS_INFOS_NOT_DESTROYED	11.0				
CUSOLVER_STATUS_IRS_INFOS_NOT_INITIALIZED	10.2				
CUSOLVER_STATUS_IRS_INTERNAL_ERROR	10.2				HIPSOLVER_STATUS_INTERNAL_ERROR
CUSOLVER_STATUS_IRS_MATRIX_SINGULAR	11.0				
CUSOLVER_STATUS_IRS_NOT_SUPPORTED	10.2				HIPSOLVER_STATUS_NOT_SUPPORTED

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CUDA	A	D	C	R	HIP
CUSOLVER_STATUS_IRS_NRHS_NOT_SUPPORTED_FOR_REFINE_GMRES	10.2				
CUSOLVER_STATUS_IRS_OUT_OF_RANGE	10.2				
CUSOLVER_STATUS_IRS_PARAMS_INVALID	10.2				HIPSOLVER_STATUS_INVALID_VAL
CUSOLVER_STATUS_IRS_PARAMS_INVALID_MAXITER	11.0				
CUSOLVER_STATUS_IRS_PARAMS_INVALID_PREC	11.0				
CUSOLVER_STATUS_IRS_PARAMS_INVALID_REFINE	11.0				
CUSOLVER_STATUS_IRS_PARAMS_NOT_INITIALIZED	10.2				
CUSOLVER_STATUS_MAPPING_ERROR					HIPSOLVER_STATUS_MAPPING_ERR
CUSOLVER_STATUS_MATRIX_TYPE_NOT_SUPPORTED					HIPSOLVER_STATUS_MATRIX_TYPE
CUSOLVER_STATUS_NOT_INITIALIZED					HIPSOLVER_STATUS_NOT_INITIAL
CUSOLVER_STATUS_NOT_SUPPORTED					HIPSOLVER_STATUS_NOT_SUPPORT
CUSOLVER_STATUS_SUCCESS					HIPSOLVER_STATUS_SUCCESS
CUSOLVER_STATUS_ZERO_PIVOT					HIPSOLVER_STATUS_ZERO_PIVOT
csrcholInfo	7.5				
csrcholInfoHost	7.5				
csrcholInfoHost_t	7.5				
csrcholInfo_t	7.5				
csrluInfoHost	7.5				
csrluInfoHost_t	7.5				
csrqrInfo					
csrqrInfoHost	7.5				
csrqrInfoHost_t	7.5				
csrqrInfo_t					
cudaLibMgGrid_t	10.1				
cudaLibMgMatrixDesc_t	10.1				
cusolverAlgMode_t	11.0				hipsolverAlgMode_t
cusolverDeterministicMode_t	12.2				hipsolverDeterministicMode_t
cusolverDirectMode_t	11.0				
cusolverDnContext					
cusolverDnFunction_t	11.0				hipsolverDnFunction_t
cusolverDnHandle_t					hipsolverHandle_t
cusolverDnIRSInfos	10.2				
cusolverDnIRSInfos_t	10.2				
cusolverDnIRSParams	10.2				
cusolverDnIRSParams_t	10.2				
cusolverDnLoggerCallback_t	11.7				
cusolverDnParams	11.0				
cusolverDnParams_t	11.0				hipsolverDnParams_t
cusolverEigMode_t	8.0				hipsolverEigMode_t
cusolverEigRange_t	10.1				hipsolverEigRange_t
cusolverEigType_t	8.0				hipsolverEigType_t
cusolverIRSRefinement_t	10.2				
cusolverMathMode_t	13.0				
cusolverMgContext	10.1				
cusolverMgGridMapping_t	10.1				
cusolverMgHandle_t	10.1				
cusolverNorm_t	10.2				
cusolverPrecType_t	11.0				
cusolverRfCommon					
cusolverRfFactorization_t					hipsolverRfFactorization_t

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CUDA	A	D	C	R	HIP
cusolverRfHandle_t					hipsolverRfHandle_t
cusolverRfMatrixFormat_t					hipsolverRfMatrixFormat_t
cusolverRfNumericBoostReport_t					hipsolverRfNumericBoostReport_t
cusolverRfResetValuesFastMode_t					hipsolverRfResetValuesFastMode_t
cusolverRfTriangularSolve_t					hipsolverRfTriangularSolve_t
cusolverRfUnitDiagonal_t					hipsolverRfUnitDiagonal_t
cusolverSpContext					
cusolverSpHandle_t					hipsolverSpHandle_t
cusolverStatus_t					hipsolverStatus_t
cusolverStorevMode_t		11.0			
cusolver_int_t		10.1			int
gesvdjInfo		9.0			
gesvdjInfo_t		9.0			hipsolverGesvdjInfo_t
syevjInfo		9.0			
syevjInfo_t		9.0			hipsolverSyevjInfo_t

9.8.2 2. CUSOLVER Function Reference

CUDA	A	D	C	R	HIP
cusolverDnCCgels	11.0				hipsolverDnCCgels
cusolverDnCCgels_bufferSize	11.0				hipsolverDnCCgels_bufferSize
cusolverDnCCgesv	10.2				hipsolverDnCCgesv
cusolverDnCCgesv_bufferSize	10.2				hipsolverDnCCgesv_bufferSize
cusolverDnCEgels	11.0				
cusolverDnCEgels_bufferSize	11.0				
cusolverDnCEgesv	11.0				
cusolverDnCEgesv_bufferSize	11.0				
cusolverDnCKgels	11.0				
cusolverDnCKgels_bufferSize	11.0				
cusolverDnCKgesv	10.2				
cusolverDnCKgesv_bufferSize	10.2				
cusolverDnCYgels	11.0				
cusolverDnCYgels_bufferSize	11.0				
cusolverDnCYgesv	11.0				
cusolverDnCYgesv_bufferSize	11.0				
cusolverDnCgebrd					hipsolverDnCgebrd
cusolverDnCgebrd_bufferSize					hipsolverDnCgebrd_bufferSize
cusolverDnCgeqrf					hipsolverDnCgeqrf
cusolverDnCgeqrf_bufferSize					hipsolverDnCgeqrf_bufferSize
cusolverDnCgesvd					hipsolverDnCgesvd
cusolverDnCgesvd_bufferSize					hipsolverDnCgesvd_bufferSize
cusolverDnCgesvdaStridedBatched	10.1				hipsolverDnCgesvdaStridedBatched
cusolverDnCgesvdaStridedBatched_bufferSize	10.1				hipsolverDnCgesvdaStridedBatched_bufferSize
cusolverDnCgesvdj	9.0				hipsolverDnCgesvdj
cusolverDnCgesvdjBatched	9.0				hipsolverDnCgesvdjBatched
cusolverDnCgesvdjBatched_bufferSize	9.0				hipsolverDnCgesvdjBatched_bufferSize
cusolverDnCgesvdj_bufferSize	9.0				hipsolverDnCgesvdj_bufferSize
cusolverDnCgetrf					hipsolverDnCgetrf
cusolverDnCgetrf_bufferSize					hipsolverDnCgetrf_bufferSize

Table 30 – continued from previous page

CUDA	A	D	C	R	HIP
cusolverDnCgetrs					hipsolverDnCgetrs
cusolverDnCheevd	8.0				hipsolverDnCheevd
cusolverDnCheevd_bufferSize	8.0				hipsolverDnCheevd_bufferSize
cusolverDnCheevdx	10.1				hipsolverDnCheevdx
cusolverDnCheevdx_bufferSize	10.1				hipsolverDnCheevdx_bufferSize
cusolverDnCheevj	9.0				hipsolverDnCheevj
cusolverDnCheevjBatched	9.0				hipsolverDnCheevjBatched
cusolverDnCheevjBatched_bufferSize	9.0				hipsolverDnCheevjBatched_bufferSize
cusolverDnCheevj_bufferSize	9.0				hipsolverDnCheevj_bufferSize
cusolverDnChegvd	8.0				hipsolverDnChegvd
cusolverDnChegvd_bufferSize	8.0				hipsolverDnChegvd_bufferSize
cusolverDnChegvdx	10.1				hipsolverDnChegvdx
cusolverDnChegvdx_bufferSize	10.1				hipsolverDnChegvdx_bufferSize
cusolverDnChegvj	9.0				hipsolverDnChegvj
cusolverDnChegvj_bufferSize	9.0				hipsolverDnChegvj_bufferSize
cusolverDnChetrd	8.0				hipsolverDnChetrd
cusolverDnChetrd_bufferSize	8.0				hipsolverDnChetrd_bufferSize
cusolverDnClaswp					
cusolverDnClaum	10.1				
cusolverDnClaum_bufferSize	10.1				
cusolverDnCpotrf					hipsolverDnCpotrf
cusolverDnCpotrfBatched	9.1				hipsolverDnCpotrfBatched
cusolverDnCpotrf_bufferSize					hipsolverDnCpotrf_bufferSize
cusolverDnCpotri	10.1				hipsolverDnCpotri
cusolverDnCpotri_bufferSize	10.1				hipsolverDnCpotri_bufferSize
cusolverDnCpotrs					hipsolverDnCpotrs
cusolverDnCpotrsBatched	9.1				hipsolverDnCpotrsBatched
cusolverDnCreate					hipsolverDnCreate
cusolverDnCreateGesvdjInfo	9.0				hipsolverDnCreateGesvdjInfo
cusolverDnCreateParams	11.0				hipsolverDnCreateParams
cusolverDnCreateSyevejInfo	9.0				hipsolverDnCreateSyevejInfo
cusolverDnCsytrf					hipsolverDnCsytrf
cusolverDnCsytrf_bufferSize					hipsolverDnCsytrf_bufferSize
cusolverDnCsytri	10.1				
cusolverDnCsytri_bufferSize	10.1				
cusolverDnCungbr	8.0				hipsolverDnCungbr
cusolverDnCungbr_bufferSize	8.0				hipsolverDnCungbr_bufferSize
cusolverDnCungqr	8.0				hipsolverDnCungqr
cusolverDnCungqr_bufferSize	8.0				hipsolverDnCungqr_bufferSize
cusolverDnCungtr	8.0				hipsolverDnCungtr
cusolverDnCungtr_bufferSize	8.0				hipsolverDnCungtr_bufferSize
cusolverDnCunmqr					hipsolverDnCunmqr
cusolverDnCunmqr_bufferSize	8.0				hipsolverDnCunmqr_bufferSize
cusolverDnCunmtr	8.0				hipsolverDnCunmtr
cusolverDnCunmtr_bufferSize	8.0				hipsolverDnCunmtr_bufferSize
cusolverDnDBGels	11.0				
cusolverDnDBGels_bufferSize	11.0				
cusolverDnDBgesv	11.0				
cusolverDnDBgesv_bufferSize	11.0				
cusolverDnDDgels	11.0				hipsolverDnDDgels

Table 30 – continued from previous page

CUDA	A	D	C	R	HIP
cusolverDnDDgels_bufferSize	11.0				hipsolverDnDDgels_bufferSize
cusolverDnDDgesv	10.2				hipsolverDnDDgesv
cusolverDnDDgesv_bufferSize	10.2				hipsolverDnDDgesv_bufferSize
cusolverDnDHgels	11.0				
cusolverDnDHgels_bufferSize	11.0				
cusolverDnDHgesv	10.2				
cusolverDnDHgesv_bufferSize	10.2				
cusolverDnDSgels	11.0				
cusolverDnDSgels_bufferSize	11.0				
cusolverDnDSgesv	10.2				
cusolverDnDSgesv_bufferSize	10.2				
cusolverDnDXgels	11.0				
cusolverDnDXgels_bufferSize	11.0				
cusolverDnDXgesv	11.0				
cusolverDnDXgesv_bufferSize	11.0				
cusolverDnDestroy					hipsolverDnDestroy
cusolverDnDestroyGesvdjInfo	9.0				hipsolverDnDestroyGesvdjInfo
cusolverDnDestroyParams	11.0				hipsolverDnDestroyParams
cusolverDnDestroySyevjInfo	9.0				hipsolverDnDestroySyevjInfo
cusolverDnDgebrd					hipsolverDnDgebrd
cusolverDnDgebrd_bufferSize					hipsolverDnDgebrd_bufferSize
cusolverDnDgeqrf					hipsolverDnDgeqrf
cusolverDnDgeqrf_bufferSize					hipsolverDnDgeqrf_bufferSize
cusolverDnDgesvd					hipsolverDnDgesvd
cusolverDnDgesvd_bufferSize					hipsolverDnDgesvd_bufferSize
cusolverDnDgesvdaStridedBatched	10.1				hipsolverDnDgesvdaStridedBatched
cusolverDnDgesvdaStridedBatched_bufferSize	10.1				hipsolverDnDgesvdaStridedBatched_bufferSize
cusolverDnDgesvdj	9.0				hipsolverDnDgesvdj
cusolverDnDgesvdjBatched	9.0				hipsolverDnDgesvdjBatched
cusolverDnDgesvdjBatched_bufferSize	9.0				hipsolverDnDgesvdjBatched_bufferSize
cusolverDnDgesvdj_bufferSize	9.0				hipsolverDnDgesvdj_bufferSize
cusolverDnDgetrf					hipsolverDnDgetrf
cusolverDnDgetrf_bufferSize					hipsolverDnDgetrf_bufferSize
cusolverDnDgetrs					hipsolverDnDgetrs
cusolverDnDlaswp					
cusolverDnDlauum	10.1				
cusolverDnDlauum_bufferSize	10.1				
cusolverDnDorgbr	8.0				hipsolverDnDorgbr
cusolverDnDorgbr_bufferSize	8.0				hipsolverDnDorgbr_bufferSize
cusolverDnDorgqr	8.0				hipsolverDnDorgqr
cusolverDnDorgqr_bufferSize	8.0				hipsolverDnDorgqr_bufferSize
cusolverDnDorgtr	8.0				hipsolverDnDorgtr
cusolverDnDorgtr_bufferSize	8.0				hipsolverDnDorgtr_bufferSize
cusolverDnDormqr					hipsolverDnDormqr
cusolverDnDormqr_bufferSize	8.0				hipsolverDnDormqr_bufferSize
cusolverDnDormtr	8.0				hipsolverDnDormtr
cusolverDnDormtr_bufferSize	8.0				hipsolverDnDormtr_bufferSize
cusolverDnDpotrf					hipsolverDnDpotrf
cusolverDnDpotrfBatched	9.1				hipsolverDnDpotrfBatched
cusolverDnDpotrf_bufferSize					hipsolverDnDpotrf_bufferSize

Table 30 – continued from previous page

CUDA	A	D	C	R	HIP
cusolverDnDpotri	10.1				hipsolverDnDpotri
cusolverDnDpotri_bufferSize	10.1				hipsolverDnDpotri_bufferSize
cusolverDnDpotrs					hipsolverDnDpotrs
cusolverDnDpotrsBatched	9.1				hipsolverDnDpotrsBatched
cusolverDnDsyevd	8.0				hipsolverDnDsyevd
cusolverDnDsyevd_bufferSize	8.0				hipsolverDnDsyevd_bufferSize
cusolverDnDsyevdx	10.1				hipsolverDnDsyevdx
cusolverDnDsyevdx_bufferSize	10.1				hipsolverDnDsyevdx_bufferSize
cusolverDnDsyevj	9.0				hipsolverDnDsyevj
cusolverDnDsyevjBatched	9.0				hipsolverDnDsyevjBatched
cusolverDnDsyevjBatched_bufferSize	9.0				hipsolverDnDsyevjBatched_bufferSize
cusolverDnDsyevj_bufferSize	9.0				hipsolverDnDsyevj_bufferSize
cusolverDnDsygvd	8.0				hipsolverDnDsygvd
cusolverDnDsygvd_bufferSize	8.0				hipsolverDnDsygvd_bufferSize
cusolverDnDsygvdx	10.1				hipsolverDnDsygvdx
cusolverDnDsygvdx_bufferSize	10.1				hipsolverDnDsygvdx_bufferSize
cusolverDnDsygvj	9.0				hipsolverDnDsygvj
cusolverDnDsygvj_bufferSize	9.0				hipsolverDnDsygvj_bufferSize
cusolverDnDsytrd					hipsolverDnDsytrd
cusolverDnDsytrd_bufferSize	8.0				hipsolverDnDsytrd_bufferSize
cusolverDnDsytrf					hipsolverDnDsytrf
cusolverDnDsytrf_bufferSize					hipsolverDnDsytrf_bufferSize
cusolverDnDsytri	10.1				
cusolverDnDsytri_bufferSize	10.1				
cusolverDnGeqrf	11.0	11.1		13.0	
cusolverDnGeqrf_bufferSize	11.0	11.1		13.0	
cusolverDnGesvd	11.0	11.1		13.0	
cusolverDnGesvd_bufferSize	11.0	11.1		13.0	
cusolverDnGetDeterministicMode	12.2				hipsolverDnGetDeterministicMode
cusolverDnGetEmulationStrategy	13.0				
cusolverDnGetMathMode	13.0				
cusolverDnGetStream					hipsolverGetStream
cusolverDnGetrf	11.0	11.1		13.0	
cusolverDnGetrf_bufferSize	11.0	11.1		13.0	
cusolverDnGets	11.0	11.1		13.0	
cusolverDnIRSInfosCreate	10.2				
cusolverDnIRSInfosDestroy	10.2				
cusolverDnIRSInfosGetMaxIters	10.2				
cusolverDnIRSInfosGetNiters	10.2				
cusolverDnIRSInfosGetOuterNiters	10.2				
cusolverDnIRSInfosGetResidualHistory	10.2				
cusolverDnIRSInfosRequestResidual	10.2				
cusolverDnIRSParamsCreate	10.2				
cusolverDnIRSParamsDestroy	10.2				
cusolverDnIRSParamsDisableFallback	11.0				
cusolverDnIRSParamsEnableFallback	11.0				
cusolverDnIRSParamsGetMaxIters	10.2				
cusolverDnIRSParamsSetMaxIters	10.2				
cusolverDnIRSParamsSetMaxItersInner	10.2				
cusolverDnIRSParamsSetRefinementSolver	10.2				

Table 30 – continued from previous page

CUDA	A	D	C	R	HIP
cusolverDnIRSParamsSetSolverLowestPrecision	10.2				
cusolverDnIRSParamsSetSolverMainPrecision	10.2				
cusolverDnIRSParamsSetSolverPrecisions	10.2				
cusolverDnIRSParamsSetTol	10.2				
cusolverDnIRSParamsSetTolInner	10.2				
cusolverDnIRSXgels	11.0				
cusolverDnIRSXgels_bufferSize	11.0				
cusolverDnIRSXgesv	10.2				
cusolverDnIRSXgesv_bufferSize	10.2				
cusolverDnLoggerForceDisable	11.7				
cusolverDnLoggerOpenFile	11.7				
cusolverDnLoggerSetCallback	11.7				
cusolverDnLoggerSetFile	11.7				
cusolverDnLoggerSetLevel	11.7				
cusolverDnLoggerSetMask	11.7				
cusolverDnPotrf	11.0	11.1		13.0	
cusolverDnPotrf_bufferSize	11.0	11.1		13.0	
cusolverDnPotrs	11.0	11.1		13.0	
cusolverDnSBgels	11.0				
cusolverDnSBgels_bufferSize	11.0				
cusolverDnSBgesv	11.0				
cusolverDnSBgesv_bufferSize	11.0				
cusolverDnSHgels	11.0				
cusolverDnSHgels_bufferSize	11.0				
cusolverDnSHgesv	10.2				
cusolverDnSHgesv_bufferSize	10.2				
cusolverDnSSgels	11.0				hipsolverDnSSgels
cusolverDnSSgels_bufferSize	11.0				hipsolverDnSSgels_bufferSize
cusolverDnSSgesv	10.2				hipsolverDnSSgesv
cusolverDnSSgesv_bufferSize	10.2				hipsolverDnSSgesv_bufferSize
cusolverDnSXgels	11.0				
cusolverDnSXgels_bufferSize	11.0				
cusolverDnSXgesv	11.0				
cusolverDnSXgesv_bufferSize	11.0				
cusolverDnSetAdvOptions	11.0				hipsolverDnSetAdvOptions
cusolverDnSetDeterministicMode	12.2				hipsolverDnSetDeterministicMode
cusolverDnSetEmulationStrategy	13.0				
cusolverDnSetMathMode	13.0				
cusolverDnSetStream					hipsolverSetStream
cusolverDnSgebrd					hipsolverDnSgebrd
cusolverDnSgebrd_bufferSize					hipsolverDnSgebrd_bufferSize
cusolverDnSgeqrf					hipsolverDnSgeqrf
cusolverDnSgeqrf_bufferSize					hipsolverDnSgeqrf_bufferSize
cusolverDnSgesvd					hipsolverDnSgesvd
cusolverDnSgesvd_bufferSize					hipsolverDnSgesvd_bufferSize
cusolverDnSgesvdaStridedBatched	10.1				hipsolverDnSgesvdaStridedBatched
cusolverDnSgesvdaStridedBatched_bufferSize	10.1				hipsolverDnSgesvdaStridedBatched_buf
cusolverDnSgesvdj	9.0				hipsolverDnSgesvdj
cusolverDnSgesvdjBatched	9.0				hipsolverDnSgesvdjBatched
cusolverDnSgesvdjBatched_bufferSize	9.0				hipsolverDnSgesvdjBatched_bufferSize

Table 30 – continued from previous page

CUDA	A	D	C	R	HIP
cusolverDnSgesvdj_bufferSize	9.0				hipsolverDnSgesvdj_bufferSize
cusolverDnSgetrf					hipsolverDnSgetrf
cusolverDnSgetrf_bufferSize					hipsolverDnSgetrf_bufferSize
cusolverDnSgetrs					hipsolverDnSgetrs
cusolverDnSlaswp					
cusolverDnSlauum	10.1				
cusolverDnSlauum_bufferSize	10.1				
cusolverDnSorgbr	8.0				hipsolverDnSorgbr
cusolverDnSorgbr_bufferSize	8.0				hipsolverDnSorgbr_bufferSize
cusolverDnSorgqr	8.0				hipsolverDnSorgqr
cusolverDnSorgqr_bufferSize	8.0				hipsolverDnSorgqr_bufferSize
cusolverDnSorgtr	8.0				hipsolverDnSorgtr
cusolverDnSorgtr_bufferSize	8.0				hipsolverDnSorgtr_bufferSize
cusolverDnSormqr					hipsolverDnSormqr
cusolverDnSormqr_bufferSize	8.0				hipsolverDnSormqr_bufferSize
cusolverDnSormtr	8.0				hipsolverDnSormtr
cusolverDnSormtr_bufferSize	8.0				hipsolverDnSormtr_bufferSize
cusolverDnSpotrf					hipsolverDnSpotrf
cusolverDnSpotrfBatched	9.1				hipsolverDnSpotrfBatched
cusolverDnSpotrf_bufferSize					hipsolverDnSpotrf_bufferSize
cusolverDnSpotri	10.1				hipsolverDnSpotri
cusolverDnSpotri_bufferSize	10.1				hipsolverDnSpotri_bufferSize
cusolverDnSpotrs					hipsolverDnSpotrs
cusolverDnSpotrsBatched	9.1				hipsolverDnSpotrsBatched
cusolverDnSsyevd	8.0				hipsolverDnSsyevd
cusolverDnSsyevd_bufferSize	8.0				hipsolverDnSsyevd_bufferSize
cusolverDnSsyevdx	10.1				hipsolverDnSsyevdx
cusolverDnSsyevdx_bufferSize	10.1				hipsolverDnSsyevdx_bufferSize
cusolverDnSsyevj	9.0				hipsolverDnSsyevj
cusolverDnSsyevjBatched	9.0				hipsolverDnSsyevjBatched
cusolverDnSsyevjBatched_bufferSize	9.0				hipsolverDnSsyevjBatched_bufferSize
cusolverDnSsyevj_bufferSize	9.0				hipsolverDnSsyevj_bufferSize
cusolverDnSsygvd	8.0				hipsolverDnSsygvd
cusolverDnSsygvd_bufferSize	8.0				hipsolverDnSsygvd_bufferSize
cusolverDnSsygvdx	10.1				hipsolverDnSsygvdx
cusolverDnSsygvdx_bufferSize	10.1				hipsolverDnSsygvdx_bufferSize
cusolverDnSsygvj	9.0				hipsolverDnSsygvj
cusolverDnSsygvj_bufferSize	9.0				hipsolverDnSsygvj_bufferSize
cusolverDnSsytrd					hipsolverDnSsytrd
cusolverDnSsytrd_bufferSize	8.0				hipsolverDnSsytrd_bufferSize
cusolverDnSsytrf					hipsolverDnSsytrf
cusolverDnSsytrf_bufferSize					hipsolverDnSsytrf_bufferSize
cusolverDnSsytri	10.1				
cusolverDnSsytri_bufferSize	10.1				
cusolverDnSsyevd	11.0	11.1		13.0	
cusolverDnSsyevd_bufferSize	11.0	11.1		13.0	
cusolverDnSsyevdx	11.0	11.1		13.0	
cusolverDnSsyevdx_bufferSize	11.0	11.1		13.0	
cusolverDnXgeev	12.6				
cusolverDnXgeev_bufferSize	12.6				

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CUDA	A	D	C	R	HIP
cusolverDnXgeqrf	11.1				hipsolverDnXgeqrf
cusolverDnXgeqrf_bufferSize	11.1				hipsolverDnXgeqrf_bufferSize
cusolverDnXgesvd	11.1				
cusolverDnXgesvd_bufferSize	11.1				
cusolverDnXgesvdjGetResidual	9.0				hipsolverDnXgesvdjGetResidual
cusolverDnXgesvdjGetSweeps	9.0				hipsolverDnXgesvdjGetSweeps
cusolverDnXgesvdjSetMaxSweeps	9.0				hipsolverDnXgesvdjSetMaxSweeps
cusolverDnXgesvdjSetSortEig	9.0				hipsolverDnXgesvdjSetSortEig
cusolverDnXgesvdjSetTolerance	9.0				hipsolverDnXgesvdjSetTolerance
cusolverDnXgesvdp	11.1				
cusolverDnXgesvdp_bufferSize	11.1				
cusolverDnXgesvdr	11.2				
cusolverDnXgesvdr_bufferSize	11.2				
cusolverDnXgetrf	11.1				hipsolverDnXgetrf
cusolverDnXgetrf_bufferSize	11.1				hipsolverDnXgetrf_bufferSize
cusolverDnXgetrs	11.1				hipsolverDnXgetrs
cusolverDnXlarft	12.4				
cusolverDnXlarft_bufferSize	12.4				
cusolverDnXpotrf	11.1				hipsolverDnXpotrf
cusolverDnXpotrf_bufferSize	11.1				hipsolverDnXpotrf_bufferSize
cusolverDnXpotrs	11.1				hipsolverDnXpotrs
cusolverDnXsyevBatched	12.6				
cusolverDnXsyevBatched_bufferSize	12.6				
cusolverDnXsyevd	11.1				
cusolverDnXsyevd_bufferSize	11.1				
cusolverDnXsyevdx	11.1				
cusolverDnXsyevdx_bufferSize	11.1				
cusolverDnXsyevjGetResidual	9.0				hipsolverDnXsyevjGetResidual
cusolverDnXsyevjGetSweeps	9.0				hipsolverDnXsyevjGetSweeps
cusolverDnXsyevjSetMaxSweeps	9.0				hipsolverDnXsyevjSetMaxSweeps
cusolverDnXsyevjSetSortEig	9.0				hipsolverDnXsyevjSetSortEig
cusolverDnXsyevjSetTolerance	9.0				hipsolverDnXsyevjSetTolerance
cusolverDnXsytrs	11.3				
cusolverDnXsytrs_bufferSize	11.3				
cusolverDnXtrtri	11.4				
cusolverDnXtrtri_bufferSize	11.4				
cusolverDnZcgels	11.0				
cusolverDnZcgels_bufferSize	11.0				
cusolverDnZcgesv	10.2				
cusolverDnZcgesv_bufferSize	10.2				
cusolverDnZEgels	11.0				
cusolverDnZEgels_bufferSize	11.0				
cusolverDnZEgesv	11.0				
cusolverDnZEgesv_bufferSize	11.0				
cusolverDnZKgels	11.0				
cusolverDnZKgels_bufferSize	11.0				
cusolverDnZKgesv	10.2				
cusolverDnZKgesv_bufferSize	10.2				
cusolverDnZYgels	11.0				
cusolverDnZYgels_bufferSize	11.0				

Table 30 – continued from previous page

CUDA	A	D	C	R	HIP
cusolverDnZygesv	11.0				
cusolverDnZygesv_bufferSize	11.0				
cusolverDnZZgels	11.0				hipsolverDnZZgels
cusolverDnZZgels_bufferSize	11.0				hipsolverDnZZgels_bufferSize
cusolverDnZZgesv	10.2				hipsolverDnZZgesv
cusolverDnZZgesv_bufferSize	10.2				hipsolverDnZZgesv_bufferSize
cusolverDnZgebrd					hipsolverDnZgebrd
cusolverDnZgebrd_bufferSize					hipsolverDnZgebrd_bufferSize
cusolverDnZgeqrf					hipsolverDnZgeqrf
cusolverDnZgeqrf_bufferSize					hipsolverDnZgeqrf_bufferSize
cusolverDnZgesvd					hipsolverDnZgesvd
cusolverDnZgesvd_bufferSize					hipsolverDnZgesvd_bufferSize
cusolverDnZgesvdaStridedBatched	10.1				hipsolverDnZgesvdaStridedBatched
cusolverDnZgesvdaStridedBatched_bufferSize	10.1				hipsolverDnZgesvdaStridedBatched_bufferSize
cusolverDnZgesvdj	9.0				hipsolverDnZgesvdj
cusolverDnZgesvdjBatched	9.0				hipsolverDnZgesvdjBatched
cusolverDnZgesvdjBatched_bufferSize	9.0				hipsolverDnZgesvdjBatched_bufferSize
cusolverDnZgesvdj_bufferSize	9.0				hipsolverDnZgesvdj_bufferSize
cusolverDnZgetrf					hipsolverDnZgetrf
cusolverDnZgetrf_bufferSize					hipsolverDnZgetrf_bufferSize
cusolverDnZgetrs					hipsolverDnZgetrs
cusolverDnZheevd	8.0				hipsolverDnZheevd
cusolverDnZheevd_bufferSize	8.0				hipsolverDnZheevd_bufferSize
cusolverDnZheevdx	10.1				hipsolverDnZheevdx
cusolverDnZheevdx_bufferSize	10.1				hipsolverDnZheevdx_bufferSize
cusolverDnZheevj	9.0				hipsolverDnZheevj
cusolverDnZheevjBatched	9.0				hipsolverDnZheevjBatched
cusolverDnZheevjBatched_bufferSize	9.0				hipsolverDnZheevjBatched_bufferSize
cusolverDnZheevj_bufferSize	9.0				hipsolverDnZheevj_bufferSize
cusolverDnZhegvd	8.0				hipsolverDnZhegvd
cusolverDnZhegvd_bufferSize	8.0				hipsolverDnZhegvd_bufferSize
cusolverDnZhegvdx	10.1				hipsolverDnZhegvdx
cusolverDnZhegvdx_bufferSize	10.1				hipsolverDnZhegvdx_bufferSize
cusolverDnZhegvj	9.0				hipsolverDnZhegvj
cusolverDnZhegvj_bufferSize	9.0				hipsolverDnZhegvj_bufferSize
cusolverDnZhetrd	8.0				hipsolverDnZhetrd
cusolverDnZhetrd_bufferSize	8.0				hipsolverDnZhetrd_bufferSize
cusolverDnZlaswp					
cusolverDnZlauum	10.1				
cusolverDnZlauum_bufferSize	10.1				
cusolverDnZpotrf					hipsolverDnZpotrf
cusolverDnZpotrfBatched	9.1				hipsolverDnZpotrfBatched
cusolverDnZpotrf_bufferSize					hipsolverDnZpotrf_bufferSize
cusolverDnZpotri	10.1				hipsolverDnZpotri
cusolverDnZpotri_bufferSize	10.1				hipsolverDnZpotri_bufferSize
cusolverDnZpotrs					hipsolverDnZpotrs
cusolverDnZpotrsBatched	9.1				hipsolverDnZpotrsBatched
cusolverDnZsytrf					hipsolverDnZsytrf
cusolverDnZsytrf_bufferSize					hipsolverDnZsytrf_bufferSize
cusolverDnZsytri	10.1				

Table 30 – continued from previous page

CUDA	A	D	C	R	HIP
cusolverDnZsytri_bufferSize	10.1				
cusolverDnZungbr	8.0				hipsolverDnZungbr
cusolverDnZungbr_bufferSize	8.0				hipsolverDnZungbr_bufferSize
cusolverDnZungqr	8.0				hipsolverDnZungqr
cusolverDnZungqr_bufferSize	8.0				hipsolverDnZungqr_bufferSize
cusolverDnZungtr	8.0				hipsolverDnZungtr
cusolverDnZungtr_bufferSize	8.0				hipsolverDnZungtr_bufferSize
cusolverDnZunmqr					hipsolverDnZunmqr
cusolverDnZunmqr_bufferSize	8.0				hipsolverDnZunmqr_bufferSize
cusolverDnZunmtr	8.0				hipsolverDnZunmtr
cusolverDnZunmtr_bufferSize	8.0				hipsolverDnZunmtr_bufferSize
cusolverMgCreate	10.1	13.0			
cusolverMgCreateDeviceGrid	10.1	13.0			
cusolverMgCreateMatrixDesc	10.1	13.0			
cusolverMgDestroy	10.1	13.0			
cusolverMgDestroyGrid	10.1	13.0			
cusolverMgDestroyMatrixDesc	10.1	13.0			
cusolverMgDeviceSelect	10.1	13.0			
cusolverMgGetrf	10.2	13.0			
cusolverMgGetrf_bufferSize	10.2	13.0			
cusolverMgGetrs	10.2	13.0			
cusolverMgGetrs_bufferSize	10.2	13.0			
cusolverMgPotrf	11.0	13.0			
cusolverMgPotrf_bufferSize	11.0	13.0			
cusolverMgPotri	11.0	13.0			
cusolverMgPotri_bufferSize	11.0	13.0			
cusolverMgPotrs	11.0	13.0			
cusolverMgPotrs_bufferSize	11.0	13.0			
cusolverMgSyevd	10.1	13.0			
cusolverMgSyevd_bufferSize	10.1	13.0			
cusolverRfAccessBundledFactorsDevice		12.8			hipsolverRfAccessBundledFactorsDevice
cusolverRfAnalyze		12.8			hipsolverRfAnalyze
cusolverRfBatchAnalyze		13.0			hipsolverRfBatchAnalyze
cusolverRfBatchRefactor		13.0			hipsolverRfBatchRefactor
cusolverRfBatchResetValues		13.0			hipsolverRfBatchResetValues
cusolverRfBatchSetupHost		13.0			hipsolverRfBatchSetupHost
cusolverRfBatchSolve		13.0			hipsolverRfBatchSolve
cusolverRfBatchZeroPivot		13.0			hipsolverRfBatchZeroPivot
cusolverRfCreate		13.0			hipsolverRfCreate
cusolverRfDestroy		13.0			hipsolverRfDestroy
cusolverRfExtractBundledFactorsHost		12.8			hipsolverRfExtractBundledFactorsHost
cusolverRfExtractSplitFactorsHost		12.8			hipsolverRfExtractSplitFactorsHost
cusolverRfGetAlgs		13.0			
cusolverRfGetMatrixFormat		13.0			hipsolverRfGetMatrixFormat
cusolverRfGetNumericBoostReport		13.0			hipsolverRfGetNumericBoostReport
cusolverRfGetNumericProperties		13.0			hipsolverRfGetNumericProperties
cusolverRfGetResetValuesFastMode		13.0			hipsolverRfGetResetValuesFastMode
cusolverRfRefactor		12.8			hipsolverRfRefactor
cusolverRfResetValues		12.8			hipsolverRfResetValues
cusolverRfSetAlgs		13.0			hipsolverRfSetAlgs

Table 30 – continued from previous page

CUDA	A	D	C	R	HIP
cusolverRfSetMatrixFormat		13.0			hipsolverRfSetMatrixFormat
cusolverRfSetNumericProperties		13.0			hipsolverRfSetNumericProperties
cusolverRfSetResetValuesFastMode		13.0			hipsolverRfSetResetValuesFastMode
cusolverRfSetupDevice		12.8			hipsolverRfSetupDevice
cusolverRfSetupHost		12.8			hipsolverRfSetupHost
cusolverRfSolve		12.8			hipsolverRfSolve
cusolverSpCcsrcholBufferInfo	7.5	12.8			
cusolverSpCcsrcholBufferInfoHost	7.5	12.8			
cusolverSpCcsrcholDiag	10.1	12.8			
cusolverSpCcsrcholFactor	7.5	12.8			
cusolverSpCcsrcholFactorHost	7.5	12.8			
cusolverSpCcsrcholSolve	7.5	12.8			
cusolverSpCcsrcholSolveHost	7.5	12.8			
cusolverSpCcsrcholZeroPivot	7.5	12.8			
cusolverSpCcsrcholZeroPivotHost	7.5	12.8			
cusolverSpCcsreigsHost		13.0			
cusolverSpCcsreigvsi		13.0			
cusolverSpCcsreigvsiHost		13.0			
cusolverSpCcsrslsqvqrHost		13.0			
cusolverSpCcsrslsvchol		12.8			
cusolverSpCcsrslsvcholHost		12.8			
cusolverSpCcsrslsvluHost		12.8			
cusolverSpCcsrslsvqr		13.0			hipsolverSpCcsrslsvqr
cusolverSpCcsrslsvqrHost		13.0			
cusolverSpCcsrsluBufferInfoHost	7.5	12.8			
cusolverSpCcsrsluExtractHost	7.5	12.8			
cusolverSpCcsrsluFactorHost	7.5	12.8			
cusolverSpCcsrsluSolveHost	7.5	12.8			
cusolverSpCcsrsluZeroPivotHost	7.5	12.8			
cusolverSpCcsrqrBufferInfo	7.5				
cusolverSpCcsrqrBufferInfoBatched		13.0			
cusolverSpCcsrqrBufferInfoHost	7.5				
cusolverSpCcsrqrFactor	7.5				
cusolverSpCcsrqrFactorHost	7.5				
cusolverSpCcsrqrSetup	7.5				
cusolverSpCcsrqrSetupHost	7.5				
cusolverSpCcsrqrSolve	7.5				
cusolverSpCcsrqrSolveHost	7.5				
cusolverSpCcsrqrZeroPivot	7.5				
cusolverSpCcsrqrZeroPivotHost	7.5				
cusolverSpCcsrqrsvBatched		13.0			
cusolverSpCcsrzfdHost	9.2	13.0			
cusolverSpCreate		13.0			hipsolverSpCreate
cusolverSpCreateCsrcholInfo	7.5	12.8			
cusolverSpCreateCsrcholInfoHost	7.5				
cusolverSpCreateCsrluInfoHost	7.5				
cusolverSpCreateCsrqrInfo		13.0			
cusolverSpCreateCsrqrInfoHost	7.5				
cusolverSpDcsrcholBufferInfo	7.5	12.8			
cusolverSpDcsrcholBufferInfoHost	7.5	12.8			

Table 30 – continued from previous page

CUDA	A	D	C	R	HIP
cusolverSpDcsrcholDiag	10.1	12.8			
cusolverSpDcsrcholFactor	7.5	12.8			
cusolverSpDcsrcholFactorHost	7.5	12.8			
cusolverSpDcsrcholSolve	7.5	12.8			
cusolverSpDcsrcholSolveHost	7.5	12.8			
cusolverSpDcsrcholZeroPivot	7.5	12.8			
cusolverSpDcsrcholZeroPivotHost	7.5	12.8			
cusolverSpDcsreigsHost		13.0			
cusolverSpDcsreigvsi		13.0			
cusolverSpDcsreigvsiHost		13.0			
cusolverSpDcsrlsqvqrHost		13.0			
cusolverSpDcsrlsvchol		12.8			hipsolverSpDcsrlsvchol
cusolverSpDcsrlsvcholHost		12.8			hipsolverSpDcsrlsvcholHost
cusolverSpDcsrlsvluHost		12.8			
cusolverSpDcsrlsvqr		13.0			hipsolverSpDcsrlsvqr
cusolverSpDcsrlsvqrHost		13.0			
cusolverSpDcsrluBufferInfoHost	7.5	12.8			
cusolverSpDcsrluExtractHost	7.5	12.8			
cusolverSpDcsrluFactorHost	7.5	12.8			
cusolverSpDcsrluSolveHost	7.5	12.8			
cusolverSpDcsrluZeroPivotHost	7.5	12.8			
cusolverSpDcsrqrBufferInfo	7.5				
cusolverSpDcsrqrBufferInfoBatched		13.0			
cusolverSpDcsrqrBufferInfoHost	7.5				
cusolverSpDcsrqrFactor	7.5				
cusolverSpDcsrqrFactorHost	7.5				
cusolverSpDcsrqrSetup	7.5				
cusolverSpDcsrqrSetupHost	7.5				
cusolverSpDcsrqrSolve	7.5				
cusolverSpDcsrqrSolveHost	7.5				
cusolverSpDcsrqrZeroPivot	7.5				
cusolverSpDcsrqrZeroPivotHost	7.5				
cusolverSpDcsrqrsvBatched		13.0			
cusolverSpDcsrzfdHost	9.2	13.0			
cusolverSpDestroy		13.0			hipsolverSpDestroy
cusolverSpDestroyCsrcholInfo	7.5	12.8			
cusolverSpDestroyCsrcholInfoHost	7.5				
cusolverSpDestroyCsrluInfoHost	7.5				
cusolverSpDestroyCsrqrInfo		13.0			
cusolverSpDestroyCsrqrInfoHost	7.5				
cusolverSpGetStream		13.0			
cusolverSpScsrcholBufferInfo	7.5	12.8			
cusolverSpScsrcholBufferInfoHost	7.5	12.8			
cusolverSpScsrcholDiag	10.1	12.8			
cusolverSpScsrcholFactor	7.5	12.8			
cusolverSpScsrcholFactorHost	7.5	12.8			
cusolverSpScsrcholSolve	7.5	12.8			
cusolverSpScsrcholSolveHost	7.5	12.8			
cusolverSpScsrcholZeroPivot	7.5	12.8			
cusolverSpScsrcholZeroPivotHost	7.5	12.8			

Table 30 – continued from previous page

CUDA	A	D	C	R	HIP
cusolverSpScsreigsHost		13.0			
cusolverSpScsreigvsi		13.0			
cusolverSpScsreigvsiHost		13.0			
cusolverSpScsrlsqvqrHost		13.0			
cusolverSpScsrlsvchol		12.8			hipsolverSpScsrlsvchol
cusolverSpScsrlsvcholHost		12.8			hipsolverSpScsrlsvcholHost
cusolverSpScsrlsvluHost		12.8			
cusolverSpScsrlsvqr		13.0			hipsolverSpScsrlsvqr
cusolverSpScsrlsvqrHost		13.0			
cusolverSpScsrluBufferInfoHost	7.5	12.8			
cusolverSpScsrluExtractHost	7.5	12.8			
cusolverSpScsrluFactorHost	7.5	12.8			
cusolverSpScsrluSolveHost	7.5	12.8			
cusolverSpScsrluZeroPivotHost	7.5	12.8			
cusolverSpScsrqrBufferInfo	7.5				
cusolverSpScsrqrBufferInfoBatched		13.0			
cusolverSpScsrqrBufferInfoHost	7.5				
cusolverSpScsrqrFactor	7.5				
cusolverSpScsrqrFactorHost	7.5				
cusolverSpScsrqrSetup	7.5				
cusolverSpScsrqrSetupHost	7.5				
cusolverSpScsrqrSolve	7.5				
cusolverSpScsrqrSolveHost	7.5				
cusolverSpScsrqrZeroPivot	7.5				
cusolverSpScsrqrZeroPivotHost	7.5				
cusolverSpScsrqrsvBatched		13.0			
cusolverSpScsrzfdHost	9.2	13.0			
cusolverSpSetStream		13.0			hipsolverSpSetStream
cusolverSpXcsrcholAnalysis	7.5	12.8			
cusolverSpXcsrcholAnalysisHost	7.5	12.8			
cusolverSpXcsrriismHost		13.0			
cusolverSpXcsrsluAnalysisHost	7.5	12.8			
cusolverSpXcsrsluNnzHost	7.5	12.8			
cusolverSpXcsrmetisndHost	9.2	13.0			
cusolverSpXcsrpermHost		13.0			
cusolverSpXcsrperm_bufferSizeHost		13.0			
cusolverSpXcsrqrAnalysis	7.5				
cusolverSpXcsrqrAnalysisBatched		13.0			
cusolverSpXcsrqrAnalysisHost	7.5				
cusolverSpXcsrsymamdHost	7.5	13.0			
cusolverSpXcsrsymmdqHost	7.5	13.0			
cusolverSpXcsrsymrcmHost		13.0			
cusolverSpZcsrcholBufferInfo	7.5	12.8			
cusolverSpZcsrcholBufferInfoHost	7.5	12.8			
cusolverSpZcsrcholDiag	10.1	12.8			
cusolverSpZcsrcholFactor	7.5	12.8			
cusolverSpZcsrcholFactorHost	7.5	12.8			
cusolverSpZcsrcholSolve	7.5	12.8			
cusolverSpZcsrcholSolveHost	7.5	12.8			
cusolverSpZcsrcholZeroPivot	7.5	12.8			

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CUDA	A	D	C	R	HIP
cusolverSpZcsrcholZeroPivotHost	7.5	12.8			
cusolverSpZcsreigsHost		13.0			
cusolverSpZcsreigvsi		13.0			
cusolverSpZcsreigvsiHost		13.0			
cusolverSpZcsrslsqvqrHost		13.0			
cusolverSpZcsrslsvchol		12.8			
cusolverSpZcsrslsvcholHost		12.8			
cusolverSpZcsrslsvluHost		12.8			
cusolverSpZcsrslsvqr		13.0			hipsolverSpZcsrslsvqr
cusolverSpZcsrslsvqrHost		13.0			
cusolverSpZcsrsluBufferInfoHost	7.5	12.8			
cusolverSpZcsrsluExtractHost	7.5	12.8			
cusolverSpZcsrsluFactorHost	7.5	12.8			
cusolverSpZcsrsluSolveHost	7.5	12.8			
cusolverSpZcsrsluZeroPivotHost	7.5	12.8			
cusolverSpZcsrqrBufferInfo	7.5				
cusolverSpZcsrqrBufferInfoBatched		13.0			
cusolverSpZcsrqrBufferInfoHost	7.5				
cusolverSpZcsrqrFactor	7.5				
cusolverSpZcsrqrFactorHost	7.5				
cusolverSpZcsrqrSetup	7.5				
cusolverSpZcsrqrSetupHost	7.5				
cusolverSpZcsrqrSolve	7.5				
cusolverSpZcsrqrSolveHost	7.5				
cusolverSpZcsrqrZeroPivot	7.5				
cusolverSpZcsrqrZeroPivotHost	7.5				
cusolverSpZcsrqrsvBatched		13.0			
cusolverSpZcsrzdHost	9.2	13.0			

9.9 CURAND API supported by HIP

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

9.9.1 1. CURAND Data types

CUDA	A	D	C	R	HIP
CURAND_3RD					
CURAND_BINARY_SEARCH					
CURAND_CHOOSE_BEST					
CURAND_DEFINITION					
CURAND_DEVICE_API					
CURAND_DIRECTION_VECTORS_32_JOEKO6					HIPRAND_DIRECTION_VECTORS_32_JOEKO6
CURAND_DIRECTION_VECTORS_64_JOEKO6					HIPRAND_DIRECTION_VECTORS_64_JOEKO6
CURAND_DISCRETE_GAUSS					
CURAND_FAST_REJECTION					
CURAND_HITR					
CURAND_ITR					

Table 31 – continued from previous page

CUDA	A	D	C	R	HIP
CURAND_KNUTH					
CURAND_M1					
CURAND_M2					
CURAND_ORDERING_PSEUDO_BEST					HIPRAND_ORDERING_PSEUDO_BEST
CURAND_ORDERING_PSEUDO_DEFAULT					HIPRAND_ORDERING_PSEUDO_DEFAULT
CURAND_ORDERING_PSEUDO_DYNAMIC	11.5				HIPRAND_ORDERING_PSEUDO_DYNAMIC
CURAND_ORDERING_PSEUDO_LEGACY	11.0				HIPRAND_ORDERING_PSEUDO_LEGACY
CURAND_ORDERING_PSEUDO_SEEDED					HIPRAND_ORDERING_PSEUDO_SEEDED
CURAND_ORDERING_QUASI_DEFAULT					HIPRAND_ORDERING_QUASI_DEFAULT
CURAND_POISSON					
CURAND_REJECTION					
CURAND_RNG_PSEUDO_DEFAULT					HIPRAND_RNG_PSEUDO_DEFAULT
CURAND_RNG_PSEUDO_MRG32K3A					HIPRAND_RNG_PSEUDO_MRG32K3A
CURAND_RNG_PSEUDO_MT19937					HIPRAND_RNG_PSEUDO_MT19937
CURAND_RNG_PSEUDO_MTGP32					HIPRAND_RNG_PSEUDO_MTGP32
CURAND_RNG_PSEUDO_PHILOX4_32_10					HIPRAND_RNG_PSEUDO_PHILOX4_32_10
CURAND_RNG_PSEUDO_XORWOW					HIPRAND_RNG_PSEUDO_XORWOW
CURAND_RNG_QUASI_DEFAULT					HIPRAND_RNG_QUASI_DEFAULT
CURAND_RNG_QUASI_SCRAMBLED_SOBOL32					HIPRAND_RNG_QUASI_SCRAMBLED_SOBOL32
CURAND_RNG_QUASI_SCRAMBLED_SOBOL64					HIPRAND_RNG_QUASI_SCRAMBLED_SOBOL64
CURAND_RNG_QUASI_SOBOL32					HIPRAND_RNG_QUASI_SOBOL32
CURAND_RNG_QUASI_SOBOL64					HIPRAND_RNG_QUASI_SOBOL64
CURAND_RNG_TEST					HIPRAND_RNG_TEST
CURAND_SCRAMBLED_DIRECTION_VECTORS_32_JOEKU06					HIPRAND_SCRAMBLED_DIRECTION_VECTORS_32
CURAND_SCRAMBLED_DIRECTION_VECTORS_64_JOEKU06					HIPRAND_SCRAMBLED_DIRECTION_VECTORS_64
CURAND_STATUS_ALLOCATION_FAILED					HIPRAND_STATUS_ALLOCATION_FAILED
CURAND_STATUS_ARCH_MISMATCH					HIPRAND_STATUS_ARCH_MISMATCH
CURAND_STATUS_DOUBLE_PRECISION_REQUIRED					HIPRAND_STATUS_DOUBLE_PRECISION_REQUIRED
CURAND_STATUS_INITIALIZATION_FAILED					HIPRAND_STATUS_INITIALIZATION_FAILED
CURAND_STATUS_INTERNAL_ERROR					HIPRAND_STATUS_INTERNAL_ERROR
CURAND_STATUS_LAUNCH_FAILURE					HIPRAND_STATUS_LAUNCH_FAILURE
CURAND_STATUS_LENGTH_NOT_MULTIPLE					HIPRAND_STATUS_LENGTH_NOT_MULTIPLE
CURAND_STATUS_NOT_INITIALIZED					HIPRAND_STATUS_NOT_INITIALIZED
CURAND_STATUS_OUT_OF_RANGE					HIPRAND_STATUS_OUT_OF_RANGE
CURAND_STATUS_PREEXISTING_FAILURE					HIPRAND_STATUS_PREEXISTING_FAILURE
CURAND_STATUS_SUCCESS					HIPRAND_STATUS_SUCCESS
CURAND_STATUS_TYPE_ERROR					HIPRAND_STATUS_TYPE_ERROR
CURAND_STATUS_VERSION_MISMATCH					HIPRAND_STATUS_VERSION_MISMATCH
curandDirectionVectorSet					hiprandDirectionVectorSet_t
curandDirectionVectorSet_t					hiprandDirectionVectorSet_t
curandDirectionVectors32_t					hiprandDirectionVectors32_t
curandDirectionVectors64_t					hiprandDirectionVectors64_t
curandDiscreteDistribution_st					hiprandDiscreteDistribution_st
curandDiscreteDistribution_t					hiprandDiscreteDistribution_t
curandDistributionM2Shift_st					
curandDistributionM2Shift_t					
curandDistributionShift_st					
curandDistributionShift_t					
curandDistribution_st					
curandDistribution_t					

Table 31 – continued from previous page

CUDA	A	D	C	R	HIP
curandGenerator_st					hiprandGenerator_st
curandGenerator_t					hiprandGenerator_t
curandHistogramM2K_st					
curandHistogramM2K_t					
curandHistogramM2V_st					
curandHistogramM2V_t					
curandHistogramM2_st					
curandHistogramM2_t					
curandMethod					
curandMethod_t					
curandOrdering					hiprandOrdering
curandOrdering_t					hiprandOrdering_t
curandRngType					hiprandRngType_t
curandRngType_t					hiprandRngType_t
curandState					hiprandState
curandStateMRG32k3a					hiprandStateMRG32k3a
curandStateMRG32k3a_t					hiprandStateMRG32k3a_t
curandStateMtg32					hiprandStateMtg32
curandStateMtg32_t					hiprandStateMtg32_t
curandStatePhilox4_32_10					hiprandStatePhilox4_32_10
curandStatePhilox4_32_10_t					hiprandStatePhilox4_32_10_t
curandStateScrambledSobol32					hiprandStateScrambledSobol32
curandStateScrambledSobol32_t					hiprandStateScrambledSobol32_t
curandStateScrambledSobol64					hiprandStateScrambledSobol64
curandStateScrambledSobol64_t					hiprandStateScrambledSobol64_t
curandStateSobol32					hiprandStateSobol32
curandStateSobol32_t					hiprandStateSobol32_t
curandStateSobol64					hiprandStateSobol64
curandStateSobol64_t					hiprandStateSobol64_t
curandStateXORWOW					hiprandStateXORWOW
curandStateXORWOW_t					hiprandStateXORWOW_t
curandState_t					hiprandState_t
curandStatus					hiprandStatus
curandStatus_t					hiprandStatus_t

9.9.2 2. Host API Functions

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
curandCreateGenerator					hiprandCreateGenerator	1.5.0					
curandCreateGeneratorHos					hiprandCreateGeneratorHos	1.5.0					
curandCreatePoissonDistr					hiprandCreatePoissonDistr	1.5.0					
curandDestroyDistributio					hiprandDestroyDistributio	1.5.0					
curandDestroyGenerator					hiprandDestroyGenerator	1.5.0					
curandGenerate					hiprandGenerate	1.5.0					
curandGenerateLogNormal					hiprandGenerateLogNormal	1.5.0					
curandGenerateLogNormalD					hiprandGenerateLogNormalD	1.5.0					
curandGenerateLongLong					hiprandGenerateLongLong	5.5.0					
curandGenerateNormal					hiprandGenerateNormal	1.5.0					
curandGenerateNormalDoub					hiprandGenerateNormalDoub	1.5.0					
curandGeneratePoisson					hiprandGeneratePoisson	1.5.0					
curandGenerateSeeds					hiprandGenerateSeeds	1.5.0					
curandGenerateUniform					hiprandGenerateUniform	1.5.0					
curandGenerateUniformDou					hiprandGenerateUniformDou	1.5.0					
curandGetDirectionVector					hiprandGetDirectionVecto	6.0.0					
curandGetDirectionVector					hiprandGetDirectionVecto	6.0.0					
curandGetProperty	8.0										
curandGetScrambleConstan					hiprandGetScrambleConsta	6.0.0					
curandGetScrambleConstan					hiprandGetScrambleConsta	6.0.0					
curandGetVersion					hiprandGetVersion	1.5.0					
curandMakeMTGP32Constant					hiprandMakeMTGP32Constan	1.5.0					
curandMakeMTGP32KernelSt					hiprandMakeMTGP32KernelSt	1.5.0					
curandSetGeneratorOffset					hiprandSetGeneratorOffse	1.5.0					
curandSetGeneratorOrderi					hiprandSetGeneratorOrder:	6.2.0					
curandSetPseudoRandomGen					hiprandSetPseudoRandomGen	1.5.0					
242 curandSetQuasiRandomGene					hiprandSetQuasiRandomGen	1.5.0					
curandSetStream					hiprandSetStream	1.5.0					

9.9.3 3. Device API Functions

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
__curand_umul	11.5										
curand					hiprand	1.5.0					
curand_Philox4x32_10											
curand_discrete					hiprand_discrete	1.5.0					
curand_discrete4					hiprand_discrete4	1.5.0					
curand_init					hiprand_init	1.5.0					
curand_log_normal					hiprand_log_normal	1.5.0					
curand_log_normal2					hiprand_log_normal2	1.5.0					
curand_log_normal2_double					hiprand_log_normal2_double	1.5.0					
curand_log_normal4					hiprand_log_normal4	1.5.0					
curand_log_normal4_double	13.0				hiprand_log_normal4_double	1.5.0					
curand_log_normal_double					hiprand_log_normal_double	1.5.0					
curand_mrg32_single											
curand_mrg32_single_specific											
curand_mrg32_specific											
curand_normal					hiprand_normal	1.5.0					
curand_normal2					hiprand_normal2	1.5.0					
curand_normal2_double					hiprand_normal2_double	1.5.0					
curand_normal4					hiprand_normal4	1.5.0					
curand_normal4_double					hiprand_normal4_double	1.5.0					
curand_normal_double					hiprand_normal_double	1.5.0					
curand_poisson					hiprand_poisson	1.5.0					
curand_poisson4					hiprand_poisson4	1.5.0					
curand_uniform					hiprand_uniform	1.5.0					
curand_uniform2_double					hiprand_uniform2_double	1.5.0					
curand_uniform4					hiprand_uniform4	1.5.0					
curand_uniform4_double	13.0				hiprand_uniform4_double	1.5.0					
curand_uniform_double					hiprand_uniform_double	1.5.0					

9.10 CUFFT API supported by HIP

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

9.10.1 1. CUFFT Data types

CUDA	A	D	C	R	HIP
CUFFT_ALLOC_FAILED					HIPFFT_ALLOC_FAILED
CUFFT_C2C					HIPFFT_C2C
CUFFT_C2R					HIPFFT_C2R
CUFFT_CB_LD_COMPLEX					HIPFFT_CB_LD_COMPLEX
CUFFT_CB_LD_COMPLEX_DOUBLE					HIPFFT_CB_LD_COMPLEX_DOUBLE
CUFFT_CB_LD_REAL					HIPFFT_CB_LD_REAL
CUFFT_CB_LD_REAL_DOUBLE					HIPFFT_CB_LD_REAL_DOUBLE
CUFFT_CB_ST_COMPLEX					HIPFFT_CB_ST_COMPLEX
CUFFT_CB_ST_COMPLEX_DOUBLE					HIPFFT_CB_ST_COMPLEX_DOUBLE
CUFFT_CB_ST_REAL					HIPFFT_CB_ST_REAL
CUFFT_CB_ST_REAL_DOUBLE					HIPFFT_CB_ST_REAL_DOUBLE
CUFFT_CB_UNDEFINED					HIPFFT_CB_UNDEFINED
CUFFT_COMPATIBILITY_DEFAULT					
CUFFT_COMPATIBILITY_FFTW_PADDING					
CUFFT_COPY_DEVICE_TO_DEVICE					HIPFFT_COPY_DEVICE_TO_DEVICE
CUFFT_COPY_DEVICE_TO_HOST					HIPFFT_COPY_DEVICE_TO_HOST
CUFFT_COPY_HOST_TO_DEVICE					HIPFFT_COPY_HOST_TO_DEVICE
CUFFT_COPY_UNDEFINED					HIPFFT_COPY_UNDEFINED
CUFFT_D2Z					HIPFFT_D2Z
CUFFT_EXEC_FAILED					HIPFFT_EXEC_FAILED
CUFFT_FORMAT_UNDEFINED					HIPFFT_FORMAT_UNDEFINED
CUFFT_FORWARD					HIPFFT_FORWARD
CUFFT_INCOMPLETE_PARAMETER_LIST				13.0	HIPFFT_INCOMPLETE_PARAMETER_LIST
CUFFT_INTERNAL_ERROR					HIPFFT_INTERNAL_ERROR
CUFFT_INVALID_DEVICE					HIPFFT_INVALID_DEVICE
CUFFT_INVALID_PLAN					HIPFFT_INVALID_PLAN
CUFFT_INVALID_SIZE					HIPFFT_INVALID_SIZE
CUFFT_INVALID_TYPE					HIPFFT_INVALID_TYPE
CUFFT_INVALID_VALUE					HIPFFT_INVALID_VALUE
CUFFT_INVERSE					HIPFFT_BACKWARD
CUFFT_LICENSE_ERROR				13.0	
CUFFT_MISSING_DEPENDENCY		13.0			
CUFFT_NOT_IMPLEMENTED					HIPFFT_NOT_IMPLEMENTED
CUFFT_NOT_SUPPORTED		8.0			HIPFFT_NOT_SUPPORTED
CUFFT_NO_WORKSPACE					HIPFFT_NO_WORKSPACE
CUFFT_NVJITLINK_FAILURE		13.0			
CUFFT_NVRTC_FAILURE		13.0			
CUFFT_NVSHMEM_FAILURE		13.0			
CUFFT_PARSE_ERROR				13.0	HIPFFT_PARSE_ERROR
CUFFT_QUERY_1D_FACTORS					
CUFFT_QUERY_UNDEFINED					
CUFFT_R2C					HIPFFT_R2C
CUFFT_SETUP_FAILED					HIPFFT_SETUP_FAILED
CUFFT_SUCCESS					HIPFFT_SUCCESS

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CUDA	A	D	C	R	HIP
CUFFT_UNALIGNED_DATA					HIPFFT_UNALIGNED_DATA
CUFFT_WORKAREA_MINIMAL	9.2				
CUFFT_WORKAREA_PERFORMANCE					
CUFFT_WORKAREA_USER	9.2				
CUFFT_XT_FORMAT_1D_INPUT_SHUFFLED					HIPFFT_XT_FORMAT_1D_INPUT_SHUFFLED
CUFFT_XT_FORMAT_DISTRIBUTED_INPUT	11.8				
CUFFT_XT_FORMAT_DISTRIBUTED_OUTPUT	11.8				
CUFFT_XT_FORMAT_INPLACE					HIPFFT_XT_FORMAT_INPLACE
CUFFT_XT_FORMAT_INPLACE_SHUFFLED					HIPFFT_XT_FORMAT_INPLACE_SHUFFLED
CUFFT_XT_FORMAT_INPUT					HIPFFT_XT_FORMAT_INPUT
CUFFT_XT_FORMAT_OUTPUT					HIPFFT_XT_FORMAT_OUTPUT
CUFFT_Z2D					HIPFFT_Z2D
CUFFT_Z2Z					HIPFFT_Z2Z
FFTW_BACKWARD					FFTW_BACKWARD
FFTW_DESTROY_INPUT					FFTW_DESTROY_INPUT
FFTW_ESTIMATE					FFTW_ESTIMATE
FFTW_EXHAUSTIVE					FFTW_EXHAUSTIVE
FFTW_FORWARD					FFTW_FORWARD
FFTW_INVERSE					
FFTW_MEASURE					FFTW_MEASURE
FFTW_PATIENT					FFTW_PATIENT
FFTW_PRESERVE_INPUT					FFTW_PRESERVE_INPUT
FFTW_UNALIGNED					FFTW_UNALIGNED
FFTW_WISDOM_ONLY					FFTW_WISDOM_ONLY
MAX_CUFFT_ERROR					
NVFFT_PLAN_PROPERTY_INT64_MAX_NUM_HOST_THREADS	12.5				
NVFFT_PLAN_PROPERTY_INT64_PATIENT_JIT	12.4				
cudaLibXtDesc					hipLibXtDesc
cudaLibXtDesc_t					hipLibXtDesc_t
cufftBox3d	11.8				
cufftBox3d_t	11.8				
cufftCompatibility					
cufftCompatibility_t					
cufftComplex					hipfftComplex
cufftDoubleComplex					hipfftDoubleComplex
cufftDoubleReal					hipfftDoubleReal
cufftHandle					hipfftHandle
cufftProperty	12.4				
cufftProperty_t	12.4				
cufftReal					hipfftReal
cufftResult					hipfftResult
cufftResult_t					hipfftResult_t
cufftType					hipfftType
cufftType_t					hipfftType_t
cufftXt1dFactors					
cufftXt1dFactors_t					
cufftXtCallbackType					hipfftXtCallbackType
cufftXtCallbackType_t					hipfftXtCallbackType_t
cufftXtCopyType					hipfftXtCopyType
cufftXtCopyType_t					hipfftXtCopyType_t

Table 32 – continued from previous page

CUDA	A	D	C	R	HIP
cufftXtQueryType					
cufftXtQueryType_t					
cufftXtSubFormat					hipfftXtSubFormat
cufftXtSubFormat_t					hipfftXtSubFormat_t
cufftXtWorkAreaPolicy	9.2				
cufftXtWorkAreaPolicy_t	9.2				
fftw_complex					fftw_complex
fftw_iodim					
fftw_iodim64					
fftw_plan					fftw_plan
fftwf_complex					fftwf_complex
fftwf_iodim					
fftwf_iodim64					
fftwf_plan					fftwf_plan

9.10.2 2. CUFFT API functions

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cufftCallbackLoadC					hipfftCallbackLoadC	4.3.0					
cufftCallbackLoadD					hipfftCallbackLoadD	4.3.0					
cufftCallbackLoadR					hipfftCallbackLoadR	4.3.0					
cufftCallbackLoadZ					hipfftCallbackLoadZ	4.3.0					
cufftCallbackStoreC					hipfftCallbackStoreC	4.3.0					
cufftCallbackStoreD					hipfftCallbackStoreD	4.3.0					
cufftCallbackStoreR					hipfftCallbackStoreR	4.3.0					
cufftCallbackStoreZ					hipfftCallbackStoreZ	4.3.0					
cufftCreate					hipfftCreate	1.7.0					
cufftDestroy					hipfftDestroy	1.7.0					
cufftEstimate1d					hipfftEstimate1d	1.7.0					
cufftEstimate2d					hipfftEstimate2d	1.7.0					
cufftEstimate3d					hipfftEstimate3d	1.7.0					
cufftEstimateMany					hipfftEstimateMany	1.7.0					
cufftExecC2C					hipfftExecC2C	1.7.0					
cufftExecC2R					hipfftExecC2R	1.7.0					
cufftExecD2Z					hipfftExecD2Z	1.7.0					
cufftExecR2C					hipfftExecR2C	1.7.0					
cufftExecZ2D					hipfftExecZ2D	1.7.0					
cufftExecZ2Z					hipfftExecZ2Z	1.7.0					
cufftGetPlanPropertyInt64	12.4										
cufftGetProperty	8.0				hipfftGetProperty	2.6.0					
cufftGetSize					hipfftGetSize	1.7.0					
cufftGetSize1d					hipfftGetSize1d	1.7.0					
cufftGetSize2d					hipfftGetSize2d	1.7.0					
cufftGetSize3d					hipfftGetSize3d	1.7.0					
cufftGetSizeMany					hipfftGetSizeMany	1.7.0					
cufftGetSizeMany64	7.5				hipfftGetSizeMany64	1.7.0					
cufftGetVersion					hipfftGetVersion	1.7.0					
cufftMakePlan1d					hipfftMakePlan1d	1.7.0					
cufftMakePlan2d					hipfftMakePlan2d	1.7.0					

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Table 33 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
cufftMakePlan3d					hipfftMakePlan3d	1.7.0					
cufftMakePlanMany					hipfftMakePlanMany	1.7.0					
cufftMakePlanMany64	7.5				hipfftMakePlanMany64	1.7.0					
cufftPlan1d					hipfftPlan1d	1.7.0					
cufftPlan2d					hipfftPlan2d	1.7.0					
cufftPlan3d					hipfftPlan3d	1.7.0					
cufftPlanMany					hipfftPlanMany	1.7.0					
cufftResetPlanProperty	12.4										
cufftSetAutoAllocation					hipfftSetAutoAllocation	1.7.0					
cufftSetPlanPropertyInt64	12.4										
cufftSetStream					hipfftSetStream	1.7.0					
cufftSetWorkArea					hipfftSetWorkArea	1.7.0					
cufftXtClearCallback					hipfftXtClearCallback	4.3.0					
cufftXtExec	8.0				hipfftXtExec	5.6.0					
cufftXtExecDescriptor	8.0				hipfftXtExecDescriptor	6.0.0					
cufftXtExecDescriptorC2C					hipfftXtExecDescriptorC2C	6.0.0					
cufftXtExecDescriptorC2R					hipfftXtExecDescriptorC2R	6.0.0					
cufftXtExecDescriptorD2Z					hipfftXtExecDescriptorD2Z	6.0.0					
cufftXtExecDescriptorR2C					hipfftXtExecDescriptorR2C	6.0.0					
cufftXtExecDescriptorZ2D					hipfftXtExecDescriptorZ2D	6.0.0					
cufftXtExecDescriptorZ2Z					hipfftXtExecDescriptorZ2Z	6.0.0					
cufftXtFree					hipfftXtFree	6.0.0					
cufftXtGetSizeMany	8.0				hipfftXtGetSizeMany	5.6.0					
cufftXtMakePlanMany	8.0				hipfftXtMakePlanMany	5.6.0					
cufftXtMalloc					hipfftXtMalloc	6.0.0					
cufftXtMemcpy					hipfftXtMemcpy	6.0.0					
cufftXtQueryPlan											
cufftXtSetCallback					hipfftXtSetCallback	4.3.0					
cufftXtSetCallbackSharedSize					hipfftXtSetCallbackSharedSize	4.3.0					
cufftXtSetDistribution	11.8										
cufftXtSetGPUs					hipfftXtSetGPUs	6.0.0					
cufftXtSetWorkArea											
cufftXtSetWorkAreaPolicy	9.2										
fftw_cleanup					fftw_cleanup	7.1.0					
fftw_cost					fftw_cost	7.1.0					
fftw_destroy_plan					fftw_destroy_plan	7.1.0					
fftw_execute					fftw_execute	7.1.0					
fftw_execute_dft											
fftw_execute_dft_c2r											
fftw_execute_dft_r2c											
fftw_export_wisdom_to_file											
fftw_flops					fftw_flops	7.1.0					
fftw_import_wisdom_from_file											
fftw_plan_dft					fftw_plan_dft	7.1.0					
fftw_plan_dft_1d					fftw_plan_dft_1d	7.1.0					
fftw_plan_dft_2d					fftw_plan_dft_2d	7.1.0					
fftw_plan_dft_3d					fftw_plan_dft_3d	7.1.0					
fftw_plan_dft_c2r					fftw_plan_dft_c2r	7.1.0					
fftw_plan_dft_c2r_1d					fftw_plan_dft_c2r_1d						
fftw_plan_dft_c2r_2d					fftw_plan_dft_c2r_2d	7.1.0					

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Table 33 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
fftw_plan_dft_c2r_3d					fftw_plan_dft_c2r_3d	7.1.0					
fftw_plan_dft_r2c					fftw_plan_dft_r2c	7.1.0					
fftw_plan_dft_r2c_1d					fftw_plan_dft_r2c_1d	7.1.0					
fftw_plan_dft_r2c_2d					fftw_plan_dft_r2c_2d	7.1.0					
fftw_plan_dft_r2c_3d					fftw_plan_dft_r2c_3d	7.1.0					
fftw_plan_guru64_dft	10.0										
fftw_plan_guru64_dft_c2r	10.0										
fftw_plan_guru64_dft_r2c	10.0										
fftw_plan_guru_dft											
fftw_plan_guru_dft_c2r											
fftw_plan_guru_dft_r2c											
fftw_plan_many_dft											
fftw_plan_many_dft_c2r											
fftw_plan_many_dft_r2c											
fftw_print_plan					fftw_print_plan	7.1.0					
fftw_set_timelimit					fftw_set_timelimit	7.1.0					
fftwf_cleanup					fftwf_cleanup	7.1.0					
fftwf_cost					fftwf_cost	7.1.0					
fftwf_destroy_plan					fftwf_destroy_plan	7.1.0					
fftwf_execute					fftwf_execute	7.1.0					
fftwf_execute_dft											
fftwf_execute_dft_c2r											
fftwf_execute_dft_r2c											
fftwf_export_wisdom_to_file											
fftwf_flops					fftwf_flops	7.1.0					
fftwf_import_wisdom_from_file											
fftwf_plan_dft					fftwf_plan_dft	7.1.0					
fftwf_plan_dft_1d					fftwf_plan_dft_1d	7.1.0					
fftwf_plan_dft_2d					fftwf_plan_dft_2d	7.1.0					
fftwf_plan_dft_3d					fftwf_plan_dft_3d	7.1.0					
fftwf_plan_dft_c2r					fftwf_plan_dft_c2r	7.1.0					
fftwf_plan_dft_c2r_1d					fftwf_plan_dft_c2r_1d	7.1.0					
fftwf_plan_dft_c2r_2d					fftwf_plan_dft_c2r_2d	7.1.0					
fftwf_plan_dft_c2r_3d					fftwf_plan_dft_c2r_3d	7.1.0					
fftwf_plan_dft_r2c					fftwf_plan_dft_r2c	7.1.0					
fftwf_plan_dft_r2c_1d					fftwf_plan_dft_r2c_1d	7.1.0					
fftwf_plan_dft_r2c_2d					fftwf_plan_dft_r2c_2d	7.1.0					
fftwf_plan_dft_r2c_3d					fftwf_plan_dft_r2c_3d	7.1.0					
fftwf_plan_guru64_dft	10.0										
fftwf_plan_guru64_dft_c2r	10.0										
fftwf_plan_guru64_dft_r2c	10.0										
fftwf_plan_guru_dft											
fftwf_plan_guru_dft_c2r											
fftwf_plan_guru_dft_r2c											
fftwf_plan_many_dft											
fftwf_plan_many_dft_c2r											
fftwf_plan_many_dft_r2c											
fftwf_print_plan					fftwf_print_plan	7.1.0					
fftwf_set_timelimit					fftwf_set_timelimit	7.1.0					

9.11 CUTENSOR API supported by HIP

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

9.11.1 1. CUTENSOR Data types

CUDA	A	D	C	R	HIP
CUTENSORMG_ALGO_DEFAULT	1.4.0.0				
CUTENSORMG_CONTRACTION_FIND_ATTRIBUTE_MAX	1.5.0.0				
CUTENSOR_ALGO_DEFAULT	1.0.1.0				HIPTENSOR_ALGO_DEFAULT
CUTENSOR_ALGO_DEFAULT_PATIENT	1.4.0.0				HIPTENSOR_ALGO_DEFAULT_PATIENT
CUTENSOR_ALGO_GETT	1.0.1.0				
CUTENSOR_ALGO_TGETT	1.0.1.0				
CUTENSOR_ALGO_TTGT	1.0.1.0				
CUTENSOR_AUTOTUNE_INCREMENTAL	1.2.0.0			2.0.0.0	HIPTENSOR_AUTOTUNE_MODE_INCREMENTAL
CUTENSOR_AUTOTUNE_MODE_INCREMENTAL	2.0.0.0				HIPTENSOR_AUTOTUNE_MODE_INCREMENTAL
CUTENSOR_AUTOTUNE_MODE_NONE	2.0.0.0				HIPTENSOR_AUTOTUNE_MODE_NONE
CUTENSOR_AUTOTUNE_NONE	1.2.0.0			2.0.0.0	HIPTENSOR_AUTOTUNE_MODE_NONE
CUTENSOR_CACHE_MODE_NONE	1.2.0.0				HIPTENSOR_CACHE_MODE_NONE
CUTENSOR_CACHE_MODE_PEDANTIC	1.2.0.0				HIPTENSOR_CACHE_MODE_PEDANTIC
CUTENSOR_COMPUTE_16BF	1.0.1.0			2.0.0.0	HIPTENSOR_COMPUTE_DESC_16BF
CUTENSOR_COMPUTE_16F	1.0.1.0			2.0.0.0	HIPTENSOR_COMPUTE_DESC_16F
CUTENSOR_COMPUTE_32F	1.0.1.0			2.0.0.0	HIPTENSOR_COMPUTE_DESC_32F
CUTENSOR_COMPUTE_32I	1.0.1.0			2.0.0.0	HIPTENSOR_COMPUTE_DESC_32I
CUTENSOR_COMPUTE_32U	1.0.1.0			2.0.0.0	HIPTENSOR_COMPUTE_DESC_32U
CUTENSOR_COMPUTE_3XTF32	2.0.0.0				
CUTENSOR_COMPUTE_64F	1.0.1.0			2.0.0.0	HIPTENSOR_COMPUTE_DESC_64F
CUTENSOR_COMPUTE_8I	1.0.1.0			2.0.0.0	HIPTENSOR_COMPUTE_DESC_8I
CUTENSOR_COMPUTE_8U	1.0.1.0			2.0.0.0	HIPTENSOR_COMPUTE_DESC_8U
CUTENSOR_COMPUTE_DESC_16BF	2.0.0.0				HIPTENSOR_COMPUTE_DESC_16BF
CUTENSOR_COMPUTE_DESC_16F	2.0.0.0				HIPTENSOR_COMPUTE_DESC_16F
CUTENSOR_COMPUTE_DESC_32F	2.0.0.0				HIPTENSOR_COMPUTE_DESC_32F
CUTENSOR_COMPUTE_DESC_3XTF32	2.0.0.0				
CUTENSOR_COMPUTE_DESC_64F	2.0.0.0				HIPTENSOR_COMPUTE_DESC_64F
CUTENSOR_COMPUTE_DESC_9X16BF	2.3.0.0				
CUTENSOR_COMPUTE_DESC_TF32	2.0.0.0				
CUTENSOR_COMPUTE_TF32	1.0.1.0			2.0.0.0	
CUTENSOR_C_16BF	2.0.0.0				HIPTENSOR_C_16BF
CUTENSOR_C_16F	2.0.0.0				HIPTENSOR_C_16F
CUTENSOR_C_16I	2.0.0.0				HIPTENSOR_C_16I
CUTENSOR_C_16U	2.0.0.0				HIPTENSOR_C_16U
CUTENSOR_C_32F	2.0.0.0				HIPTENSOR_C_32F
CUTENSOR_C_32I	2.0.0.0				HIPTENSOR_C_32I
CUTENSOR_C_32U	2.0.0.0				HIPTENSOR_C_32U
CUTENSOR_C_4I	2.0.0.0				HIPTENSOR_C_4I
CUTENSOR_C_4U	2.0.0.0				HIPTENSOR_C_4U
CUTENSOR_C_64F	2.0.0.0				HIPTENSOR_C_64F
CUTENSOR_C_64I	2.0.0.0				HIPTENSOR_C_64I
CUTENSOR_C_64U	2.0.0.0				HIPTENSOR_C_64U
CUTENSOR_C_8I	2.0.0.0				HIPTENSOR_C_8I
CUTENSOR_C_8U	2.0.0.0				HIPTENSOR_C_8U

Table 34 – continued from previous page

CUDA	A	D	C	R	HIP
CUTENSOR_C_MIN_16F	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_C_MIN_32F	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_C_MIN_64F	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_C_MIN_TF32	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_JIT_MODE_DEFAULT	2.0.0.0				HIPTENSOR_JIT_MODE_DEFAULT
CUTENSOR_JIT_MODE_NONE	2.0.0.0				HIPTENSOR_JIT_MODE_NONE
CUTENSOR_MG_DEVICE_HOST	1.4.0.0				
CUTENSOR_MG_DEVICE_HOST_PINNED	1.4.0.0				
CUTENSOR_OPERATION_DESCRIPTOR_FLOPS	2.0.0.0				HIPTENSOR_OPERATION_DESCRIPTOR_FLOPS
CUTENSOR_OPERATION_DESCRIPTOR_MOVED_BYTES	2.0.0.0				HIPTENSOR_OPERATION_DESCRIPTOR_MOVED_BYTES
CUTENSOR_OPERATION_DESCRIPTOR_PADDING_LEFT	2.0.0.0				HIPTENSOR_OPERATION_DESCRIPTOR_PADDING_LEFT
CUTENSOR_OPERATION_DESCRIPTOR_PADDING_RIGHT	2.0.0.0				HIPTENSOR_OPERATION_DESCRIPTOR_PADDING_RIGHT
CUTENSOR_OPERATION_DESCRIPTOR_PADDING_VALUE	2.0.0.0				HIPTENSOR_OPERATION_DESCRIPTOR_PADDING_VALUE
CUTENSOR_OPERATION_DESCRIPTOR_SCALAR_TYPE	2.0.0.0				HIPTENSOR_OPERATION_DESCRIPTOR_SCALAR_TYPE
CUTENSOR_OPERATION_DESCRIPTOR_TAG	2.0.0.0				HIPTENSOR_OPERATION_DESCRIPTOR_TAG
CUTENSOR_OP_ABS	1.0.1.0				HIPTENSOR_OP_ABS
CUTENSOR_OP_ACOS	1.0.1.0				HIPTENSOR_OP_ACOS
CUTENSOR_OP_ACOSH	1.0.1.0				HIPTENSOR_OP_ACOSH
CUTENSOR_OP_ADD	1.0.1.0				HIPTENSOR_OP_ADD
CUTENSOR_OP_ASIN	1.0.1.0				HIPTENSOR_OP_ASIN
CUTENSOR_OP_ASINH	1.0.1.0				HIPTENSOR_OP_ASINH
CUTENSOR_OP_ATAN	1.0.1.0				HIPTENSOR_OP_ATAN
CUTENSOR_OP_ATANH	1.0.1.0				HIPTENSOR_OP_ATANH
CUTENSOR_OP_CEIL	1.0.1.0				HIPTENSOR_OP_CEIL
CUTENSOR_OP_CONJ	1.0.1.0				HIPTENSOR_OP_CONJ
CUTENSOR_OP_COS	1.0.1.0				HIPTENSOR_OP_COS
CUTENSOR_OP_COSH	1.0.1.0				HIPTENSOR_OP_COSH
CUTENSOR_OP_EXP	1.0.1.0				HIPTENSOR_OP_EXP
CUTENSOR_OP_FLOOR	1.0.1.0				HIPTENSOR_OP_FLOOR
CUTENSOR_OP_IDENTITY	1.0.1.0				HIPTENSOR_OP_IDENTITY
CUTENSOR_OP_LOG	1.0.1.0				HIPTENSOR_OP_LOG
CUTENSOR_OP_MAX	1.0.1.0				HIPTENSOR_OP_MAX
CUTENSOR_OP_MIN	1.0.1.0				HIPTENSOR_OP_MIN
CUTENSOR_OP_MISH	2.0.0.0				
CUTENSOR_OP_MUL	1.0.1.0				HIPTENSOR_OP_MUL
CUTENSOR_OP_NEG	1.0.1.0				HIPTENSOR_OP_NEG
CUTENSOR_OP_RCP	1.0.1.0				HIPTENSOR_OP_RCP
CUTENSOR_OP_RELU	1.0.1.0				HIPTENSOR_OP_RELU
CUTENSOR_OP_SIGMOID	1.0.1.0				HIPTENSOR_OP_SIGMOID
CUTENSOR_OP_SIN	1.0.1.0				HIPTENSOR_OP_SIN
CUTENSOR_OP_SINH	1.0.1.0				HIPTENSOR_OP_SINH
CUTENSOR_OP_SOFT_PLUS	2.0.0.0				
CUTENSOR_OP_SOFT_SIGN	2.0.0.0				
CUTENSOR_OP_SQRT	1.0.1.0				HIPTENSOR_OP_SQRT
CUTENSOR_OP_SWISH	2.0.0.0				
CUTENSOR_OP_TAN	1.0.1.0				HIPTENSOR_OP_TAN
CUTENSOR_OP_TANH	1.0.1.0				HIPTENSOR_OP_TANH
CUTENSOR_OP_UNKNOWN	1.0.1.0				HIPTENSOR_OP_UNKNOWN
CUTENSOR_PLAN_PREFERENCE_ALGO	2.0.0.0				HIPTENSOR_PLAN_PREFERENCE_ALGO
CUTENSOR_PLAN_PREFERENCE_AUTOTUNE_MODE	2.0.0.0				HIPTENSOR_PLAN_PREFERENCE_AUTOTUNE_MODE

Table 34 – continued from previous page

CUDA	A	D	C	R	HIP
CUTENSOR_PLAN_PREFERENCE_CACHE_MODE	2.0.0.0				HIPTENSOR_PLAN_PREFERENCE_C
CUTENSOR_PLAN_PREFERENCE_INCREMENTAL_COUNT	2.0.0.0				HIPTENSOR_PLAN_PREFERENCE_I
CUTENSOR_PLAN_PREFERENCE_JIT	2.0.0.0				HIPTENSOR_PLAN_PREFERENCE_J
CUTENSOR_PLAN_PREFERENCE_KERNEL_RANK	2.0.0.0				HIPTENSOR_PLAN_PREFERENCE_K
CUTENSOR_PLAN_REQUIRED_WORKSPACE	2.0.0.0				HIPTENSOR_PLAN_REQUIRED_WOR
CUTENSOR_R_16BF	2.0.0.0				HIPTENSOR_R_16BF
CUTENSOR_R_16F	2.0.0.0				HIPTENSOR_R_16F
CUTENSOR_R_16I	2.0.0.0				HIPTENSOR_R_16I
CUTENSOR_R_16U	2.0.0.0				HIPTENSOR_R_16U
CUTENSOR_R_32F	2.0.0.0				HIPTENSOR_R_32F
CUTENSOR_R_32I	2.0.0.0				HIPTENSOR_R_32I
CUTENSOR_R_32U	2.0.0.0				HIPTENSOR_R_32U
CUTENSOR_R_4I	2.0.0.0				HIPTENSOR_R_4I
CUTENSOR_R_4U	2.0.0.0				HIPTENSOR_R_4U
CUTENSOR_R_64F	2.0.0.0				HIPTENSOR_R_64F
CUTENSOR_R_64I	2.0.0.0				HIPTENSOR_R_64I
CUTENSOR_R_64U	2.0.0.0				HIPTENSOR_R_64U
CUTENSOR_R_8I	2.0.0.0				HIPTENSOR_R_8I
CUTENSOR_R_8U	2.0.0.0				HIPTENSOR_R_8U
CUTENSOR_R_MIN_16BF	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_R_MIN_16F	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_R_MIN_32F	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_R_MIN_32I	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_R_MIN_32U	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_R_MIN_64F	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_R_MIN_8I	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_R_MIN_8U	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_R_MIN_TF32	1.0.1.0	1.2.0.0		2.0.0.0	
CUTENSOR_STATUS_ALLOC_FAILED	1.0.1.0				HIPTENSOR_STATUS_ALLOC_FAIL
CUTENSOR_STATUS_ARCH_MISMATCH	1.0.1.0				HIPTENSOR_STATUS_ARCH_MISMA
CUTENSOR_STATUS_CUBLAS_ERROR	1.0.1.0				
CUTENSOR_STATUS_CUDA_ERROR	1.0.1.0				
CUTENSOR_STATUS_EXECUTION_FAILED	1.0.1.0				HIPTENSOR_STATUS_EXECUTION_
CUTENSOR_STATUS_INSUFFICIENT_DRIVER	1.0.1.0				HIPTENSOR_STATUS_INSUFFICIE
CUTENSOR_STATUS_INSUFFICIENT_WORKSPACE	1.0.1.0				HIPTENSOR_STATUS_INSUFFICIE
CUTENSOR_STATUS_INTERNAL_ERROR	1.0.1.0				HIPTENSOR_STATUS_INTERNAL_E
CUTENSOR_STATUS_INVALID_VALUE	1.0.1.0				HIPTENSOR_STATUS_INVALID_VA
CUTENSOR_STATUS_IO_ERROR	1.2.0.0				HIPTENSOR_STATUS_IO_ERROR
CUTENSOR_STATUS_LICENSE_ERROR	1.0.1.0				
CUTENSOR_STATUS_MAPPING_ERROR	1.0.1.0				
CUTENSOR_STATUS_NOT_INITIALIZED	1.0.1.0				HIPTENSOR_STATUS_NOT_INITIA
CUTENSOR_STATUS_NOT_SUPPORTED	1.0.1.0				HIPTENSOR_STATUS_NOT_SUPPOR
CUTENSOR_STATUS_SUCCESS	1.0.1.0				HIPTENSOR_STATUS_SUCCESS
CUTENSOR_WORKSPACE_DEFAULT	2.0.0.0				HIPTENSOR_WORKSPACE_DEFAULT
CUTENSOR_WORKSPACE_MAX	1.0.1.0				HIPTENSOR_WORKSPACE_MAX
CUTENSOR_WORKSPACE_MIN	1.0.1.0				HIPTENSOR_WORKSPACE_MIN
CUTENSOR_WORKSPACE_RECOMMENDED	1.0.1.0			2.0.0.0	
cutensorAlgo_t	1.0.1.0				hiptensorAlgo_t
cutensorAutotuneMode_t	1.2.0.0		2.0.0.0		hiptensorAutotuneMode_t
cutensorBlockSparseTensorDescriptor	2.3.0.0				

Table 34 – continued from previous page

CUDA	A	D	C	R	HIP
cutensorBlockSparseTensorDescriptor_t	2.3.0.0				
cutensorCacheMode_t	1.2.0.0				hiptensorCacheMode_t
cutensorComputeDescriptor	2.0.0.0				
cutensorComputeDescriptor_t	2.0.0.0				hiptensorComputeDescriptor_t
cutensorComputeType_t					hiptensorComputeDescriptor_t
cutensorContractionPlan_t	1.0.1.0			2.0.0.0	hiptensorContractionPlan_t
cutensorDataType_t	2.0.0.0				hiptensorDataType_t
cutensorHandle	2.0.0.0				hiptensorHandle
cutensorHandle_t	1.0.1.0				hiptensorHandle_t
cutensorJitMode_t	2.0.0.0				hiptensorJitMode_t
cutensorLoggerCallback_t	1.3.2.0				hiptensorLoggerCallback_t
cutensorMgAlgo_t	1.4.0.0				
cutensorMgContractionDescriptor_s	1.4.0.0				
cutensorMgContractionDescriptor_t	1.4.0.0				
cutensorMgContractionFindAttribute_t	1.5.0.0				
cutensorMgContractionFind_s	1.4.0.0				
cutensorMgContractionFind_t	1.4.0.0				
cutensorMgContractionPlan_s	1.4.0.0				
cutensorMgContractionPlan_t	1.4.0.0				
cutensorMgCopyDescriptor_s	1.4.0.0				
cutensorMgCopyDescriptor_t	1.4.0.0				
cutensorMgCopyPlan_s	1.4.0.0				
cutensorMgCopyPlan_t	1.4.0.0				
cutensorMgHandle_s	1.4.0.0				
cutensorMgHandle_t	1.4.0.0				
cutensorMgHostDevice_t	1.4.0.0				
cutensorMgTensorDescriptor_s	1.4.0.0				
cutensorMgTensorDescriptor_t	1.4.0.0				
cutensorOperationDescriptor	2.0.0.0				hiptensorOperationDescriptor_t
cutensorOperationDescriptorAttribute_t	2.0.0.0				hiptensorOperationDescriptor_t
cutensorOperationDescriptor_t	2.0.0.0				hiptensorOperationDescriptor_t
cutensorOperator_t	1.0.1.0				hiptensorOperator_t
cutensorPlan	2.0.0.0				hiptensorPlan
cutensorPlanAttribute_t	2.0.0.0				hiptensorPlanAttribute_t
cutensorPlanPreference	2.0.0.0				hiptensorPlanPreference
cutensorPlanPreferenceAttribute_t	2.0.0.0				hiptensorPlanPreferenceAttribute_t
cutensorPlanPreference_t	2.0.0.0				hiptensorPlanPreference_t
cutensorPlan_t	2.0.0.0				hiptensorPlan_t
cutensorStatus_t	1.0.1.0				hiptensorStatus_t
cutensorTensorDescriptor	2.0.0.0				hiptensorTensorDescriptor
cutensorTensorDescriptor_t	1.0.1.0				hiptensorTensorDescriptor_t
cutensorWorksizePreference_t	1.0.1.0				hiptensorWorksizePreference_t

9.11.2 2. CUTENSOR Function Reference

CUDA	A	D	C	R	HIP
cutensorBlockSparseContract	2.3.0.0				
cutensorContract	2.0.0.0				hiptensorContract
cutensorContractTrinary	2.2.0.0				

Table 35 – continued from previous page

CUDA	A	D	C	R	HIP
cutensorContraction	1.0.1.0			2.0.0.0	hiptensorContraction
cutensorCreate	1.7.0.0		2.0.0.0		hiptensorCreate
cutensorCreateBlockSparseContraction	2.3.0.0				
cutensorCreateBlockSparseTensorDescriptor	2.3.0.0				
cutensorCreateContraction	2.0.0.0				hiptensorCreateContraction
cutensorCreateContractionTrinary	2.2.0.0				
cutensorCreateElementwiseBinary	2.0.0.0				hiptensorCreateElementwiseBinary
cutensorCreateElementwiseTrinary	2.0.0.0				hiptensorCreateElementwiseTrinary
cutensorCreatePermutation	2.0.0.0				hiptensorCreatePermutation
cutensorCreatePlan	2.0.0.0				hiptensorCreatePlan
cutensorCreatePlanPreference	2.0.0.0				hiptensorCreatePlanPreference
cutensorCreateReduction	2.0.0.0				hiptensorCreateReduction
cutensorCreateTensorDescriptor	2.0.0.0				hiptensorCreateTensorDescriptor
cutensorDestroy	1.7.0.0		2.0.0.0		hiptensorDestroy
cutensorDestroyBlockSparseTensorDescriptor	2.3.0.0				
cutensorDestroyOperationDescriptor	2.0.0.0				hiptensorDestroyOperationDescriptor
cutensorDestroyPlan	2.0.0.0				hiptensorDestroyPlan
cutensorDestroyPlanPreference	2.0.0.0				hiptensorDestroyPlanPreference
cutensorDestroyTensorDescriptor	2.0.0.0				hiptensorDestroyTensorDescriptor
cutensorElementwiseBinaryExecute	2.0.0.0				hiptensorElementwiseBinaryExecute
cutensorElementwiseTrinaryExecute	2.0.0.0				hiptensorElementwiseTrinaryExecute
cutensorEstimateWorkspaceSize	2.0.0.0				hiptensorEstimateWorkspaceSize
cutensorGetCudartVersion	1.0.1.0				hiptensorGetHiptVersion
cutensorGetErrorString	1.0.1.0				hiptensorGetErrorString
cutensorGetVersion	1.0.1.0				hiptensorGetVersion
cutensorHandleReadPlanCacheFromFile	2.0.0.0				hiptensorHandleReadPlanCacheFromFile
cutensorHandleResizePlanCache	2.0.0.0				hiptensorHandleResizePlanCache
cutensorHandleWritePlanCacheToFile	2.0.0.0				hiptensorHandleWritePlanCacheToFile
cutensorInitTensorDescriptor	1.0.1.0			2.0.0.0	hiptensorInitTensorDescriptor
cutensorLoggerForceDisable	1.3.2.0				hiptensorLoggerForceDisable
cutensorLoggerOpenFile	1.3.2.0				hiptensorLoggerOpenFile
cutensorLoggerSetCallback	1.3.2.0				hiptensorLoggerSetCallback
cutensorLoggerSetFile	1.3.2.0				hiptensorLoggerSetFile
cutensorLoggerSetLevel	1.3.2.0				hiptensorLoggerSetLevel
cutensorLoggerSetMask	1.3.2.0				hiptensorLoggerSetMask
cutensorMgContraction	1.4.0.0				
cutensorMgContractionFindSetAttribute	1.5.0.0				
cutensorMgContractionGetWorkspace	1.4.0.0				
cutensorMgCopy	1.4.0.0				
cutensorMgCopyGetWorkspace	1.4.0.0				
cutensorMgCreate	1.4.0.0				
cutensorMgCreateContractionDescriptor	1.4.0.0				
cutensorMgCreateContractionFind	1.4.0.0				
cutensorMgCreateContractionPlan	1.4.0.0				
cutensorMgCreateCopyDescriptor	1.4.0.0				
cutensorMgCreateCopyPlan	1.4.0.0				
cutensorMgCreateTensorDescriptor	1.4.0.0				
cutensorMgDestroy	1.4.0.0				
cutensorMgDestroyContractionDescriptor	1.4.0.0				
cutensorMgDestroyContractionFind	1.4.0.0				

Table 35 – continued from previous page

CUDA	A	D	C	R	HIP
cutensorMgDestroyContractionPlan	1.4.0.0				
cutensorMgDestroyCopyDescriptor	1.4.0.0				
cutensorMgDestroyCopyPlan	1.4.0.0				
cutensorMgDestroyTensorDescriptor	1.4.0.0				
cutensorOperationDescriptorGetAttribute	2.0.0.0				hiptensorOperationDescriptorGetA
cutensorOperationDescriptorSetAttribute	2.0.0.0				hiptensorOperationDescriptorSetA
cutensorPermutation	1.0.1.0			2.0.0.0	hiptensorPermutation
cutensorPermute	2.0.0.0				hiptensorPermute
cutensorPlanGetAttribute	2.0.0.0				hiptensorPlanGetAttribute
cutensorPlanPreferenceSetAttribute	2.0.0.0				hiptensorPlanPreferenceSetAttrib
cutensorReadKernelCacheFromFile	2.0.0.0				hiptensorReadKernelCacheFromFile
cutensorReduce	2.0.0.0				hiptensorReduce
cutensorReduction	1.0.1.0			2.0.0.0	hiptensorReduction
cutensorWriteKernelCacheToFile	2.0.0.0				hiptensorWriteKernelCacheToFile

9.12 CUB API supported by HIP

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

9.12.1 1. CUB Data types

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
CUB_ALIGN											
CUB_CAT											
CUB_CAT_											
CUB_COMPILER_DEPRECATED											
CUB_COMPILER_DEPRECATED_SOFT											
CUB_COMP_DEPR_IMPL											
CUB_COMP_DEPR_IMPL0											
CUB_COMP_DEPR_IMPL1											
CUB_CPLUSPLUS											
CUB_CPP_DIALECT											
CUB_DEFINE_DETECT_NESTED_TYPE											
CUB_DEFINE_VECTOR_TYPE											
CUB_DEPRECATED											
CUB_DEVICE_COMPILER											
CUB_DEVICE_COMPILER_CLANG											
CUB_DEVICE_COMPILER_GCC											
CUB_DEVICE_COMPILER_MSVC											
CUB_DEVICE_COMPILER_NVCC											
CUB_DEVICE_COMPILER_UNKNOWN											
CUB_HOST_COMPILER											
CUB_HOST_COMPILER_CLANG											
CUB_HOST_COMPILER_GCC											
CUB_HOST_COMPILER_MSVC											
CUB_HOST_COMPILER_UNKNOWN											
CUB_IGNORE_DEPRECATED_API											

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Table 36 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E
CUB_IGNORE_DEPRECATED_COMPILER											
CUB_IGNORE_DEPRECATED_CPP_11											
CUB_IGNORE_DEPRECATED_CPP_DIALECT											
CUB_IGNORE_DEPRECATED_DIALECT											
CUB_INCLUDE_DEVICE_CODE											
CUB_INCLUDE_HOST_CODE											
CUB_IS_DEVICE_CODE											
CUB_IS_HOST_CODE											
CUB_LOG_SMEM_BANKS											
CUB_LOG_WARP_THREADS											
CUB_MAX					CUB_MAX		4.5.0				
CUB_MAX_DEVICES											
CUB_MIN					CUB_MIN		4.5.0				
CUB_MSVC_VERSION											
CUB_MSVC_VERSION_FULL											
CUB_NAMESPACE_BEGIN					BEGIN_HIPCUB_NAMESPACE		2.5.0				
CUB_NAMESPACE_END					END_HIPCUB_NAMESPACE		2.5.0				
CUB_PREFER_CONFLICT_OVER_PADDING											
CUB_PREVENT_MACRO_SUBSTITUTION											
CUB_PTX_ARCH					HIPCUB_ARCH		2.5.0				
CUB_PTX_LOG_SMEM_BANKS											
CUB_PTX_LOG_WARP_THREADS											
CUB_PTX_PREFER_CONFLICT_OVER_PADDING											
CUB_PTX_SMEM_BANKS											
CUB_PTX_SUBSCRIPTION_FACTOR											
CUB_PTX_WARP_THREADS					HIPCUB_WARP_THREADS		2.5.0				
CUB_QUOTIENT_CEILING											
CUB_QUOTIENT_FLOOR											
CUB_ROUND_DOWN_NEAREST											
CUB_ROUND_UP_NEAREST											
CUB_RUNTIME_ENABLED											
CUB_RUNTIME_FUNCTION					HIPCUB_RUNTIME_FUNCTION		2.5.0				
CUB_SMEM_BANKS											
CUB_STATIC_ASSERT											
CUB_STDERR					HIPCUB_STDERR		2.5.0				
CUB_SUBSCRIPTION_FACTOR											
CUB_USE_COOPERATIVE_GROUPS											
CubDebug					HipcubDebug		2.5.0				
CubDebugExit											
CubVector											
_CUB_ASM_PTR_											
_CUB_ASM_PTR_SIZE_											
_CubLog					_HipcubLog		2.5.0				
__CUB_ALIGN_BYTES					__HIPCUB_ALIGN_BYTES		4.5.0				
__CUB_LP64__											

CUDA APIS SUPPORTED BY ROC

CUDA	ROC
CUBLAS API	<i>ROC BLAS API</i>
CUSPARSE API	<i>ROC SPARSE API</i>
CURAND API	<i>ROC RAND API</i>
CUDNN API	<i>MIOPEN API</i>

To generate the above documentation with the information about all supported CUDA APIs in Markdown format, run `hipify-clang --md --doc-format=full --doc-roc=separate` with or without specifying the output directory (-o). By running `hipify-clang --csv --doc-format=full --doc-roc=separate`, the documentation will be generated in CSV format.

10.1 CUBLAS API supported by ROC

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

10.1.1 1. CUBLAS Data types

CUDA	A	D	C	R	ROC
CUBLAS_ATOMICS_ALLOWED					rocblas_atomics_allowed
CUBLAS_ATOMICS_NOT_ALLOWED					rocblas_atomics_not_allowed
CUBLAS_COMPUTE_16F	11.0				
CUBLAS_COMPUTE_16F_PEDANTIC	11.0				
CUBLAS_COMPUTE_32F	11.0				rocblas_compute_type_f32
CUBLAS_COMPUTE_32F_EMULATED_16BFX9	12.9				
CUBLAS_COMPUTE_32F_FAST_16BF	11.0				
CUBLAS_COMPUTE_32F_FAST_16F	11.0				
CUBLAS_COMPUTE_32F_FAST_TF32	11.0				
CUBLAS_COMPUTE_32F_PEDANTIC	11.0				
CUBLAS_COMPUTE_32I	11.0				
CUBLAS_COMPUTE_32I_PEDANTIC	11.0				
CUBLAS_COMPUTE_64F	11.0				
CUBLAS_COMPUTE_64F_PEDANTIC	11.0				
CUBLAS_DEFAULT_MATH	9.0				rocblas_default_math
CUBLAS_DIAG_NON_UNIT					rocblas_diagonal_non_unit
CUBLAS_DIAG_UNIT					rocblas_diagonal_unit

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CUDA	A	D	C	R	ROC
CUBLAS_EMULATION_STRATEGY_DEFAULT	12.9				
CUBLAS_EMULATION_STRATEGY_EAGER	12.9				
CUBLAS_EMULATION_STRATEGY_PERFORMANT	12.9				
CUBLAS_FILL_MODE_FULL	10.1				rocblas_fill_full
CUBLAS_FILL_MODE_LOWER					rocblas_fill_lower
CUBLAS_FILL_MODE_UPPER					rocblas_fill_upper
CUBLAS_FP32_EMULATED_BF16X9_MATH	12.9				
CUBLAS_GEMM_ALG00	8.0				
CUBLAS_GEMM_ALG00_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG01	8.0				
CUBLAS_GEMM_ALG010	9.0				
CUBLAS_GEMM_ALG010_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG011	9.0				
CUBLAS_GEMM_ALG011_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG012	9.0				
CUBLAS_GEMM_ALG012_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG013	9.0				
CUBLAS_GEMM_ALG013_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG014	9.0				
CUBLAS_GEMM_ALG014_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG015	9.0				
CUBLAS_GEMM_ALG015_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG016	9.0				
CUBLAS_GEMM_ALG017	9.0				
CUBLAS_GEMM_ALG018	9.2				
CUBLAS_GEMM_ALG019	9.2				
CUBLAS_GEMM_ALG01_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG02	8.0				
CUBLAS_GEMM_ALG020	9.2				
CUBLAS_GEMM_ALG021	9.2				
CUBLAS_GEMM_ALG022	9.2				
CUBLAS_GEMM_ALG023	9.2				
CUBLAS_GEMM_ALG02_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG03	8.0				
CUBLAS_GEMM_ALG03_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG04	8.0				
CUBLAS_GEMM_ALG04_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG05	8.0				
CUBLAS_GEMM_ALG05_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG06	8.0				
CUBLAS_GEMM_ALG06_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG07	8.0				
CUBLAS_GEMM_ALG07_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG08	9.0				
CUBLAS_GEMM_ALG08_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG09	9.0				
CUBLAS_GEMM_ALG09_TENSOR_OP	9.2				
CUBLAS_GEMM_AUTOTUNE	13.0				
CUBLAS_GEMM_DEFAULT	9.0				rocblas_gemm_algo_standard
CUBLAS_GEMM_DEFAULT_TENSOR_OP	9.0				

Table 1 – continued from previous page

CUDA	A	D	C	R	ROC
CUBLAS_GEMM_DFALT	8.0				rocblas_gemm_algo_standard
CUBLAS_GEMM_DFALT_TENSOR_OP	9.0				
CUBLAS_MATH_DISALLOW_REDUCED_PRECISION_REDUCTION	11.0				
CUBLAS_OP_C					rocblas_operation_conjugate_transpose
CUBLAS_OP_CONJG	10.1				
CUBLAS_OP_HERMITAN	10.1				rocblas_operation_conjugate_transpose
CUBLAS_OP_N					rocblas_operation_none
CUBLAS_OP_T					rocblas_operation_transpose
CUBLAS_PEDANTIC_MATH	11.0				
CUBLAS_POINTER_MODE_DEVICE					rocblas_pointer_mode_device
CUBLAS_POINTER_MODE_HOST					rocblas_pointer_mode_host
CUBLAS_SIDE_LEFT					rocblas_side_left
CUBLAS_SIDE_RIGHT					rocblas_side_right
CUBLAS_STATUS_ALLOC_FAILED					rocblas_status_not_implemented
CUBLAS_STATUS_ARCH_MISMATCH					rocblas_status_arch_mismatch
CUBLAS_STATUS_EXECUTION_FAILED					rocblas_status_memory_error
CUBLAS_STATUS_INTERNAL_ERROR					rocblas_status_internal_error
CUBLAS_STATUS_INVALID_VALUE					rocblas_status_invalid_value
CUBLAS_STATUS_LICENSE_ERROR					
CUBLAS_STATUS_MAPPING_ERROR					rocblas_status_invalid_size
CUBLAS_STATUS_NOT_INITIALIZED					rocblas_status_invalid_handle
CUBLAS_STATUS_NOT_SUPPORTED					rocblas_status_perf_degraded
CUBLAS_STATUS_SUCCESS					rocblas_status_success
CUBLAS_TENSOR_OP_MATH	9.0	11.0			
CUBLAS_TF32_TENSOR_OP_MATH	11.0				
rocblasAtomicsMode_t					rocblas_atomics_mode
rocblasComputeType_t	11.0				rocblas_computetype
rocblasContext					_rocblas_handle
rocblasDiagType_t					rocblas_diagonal
rocblasEmulationStrategy_t	12.9				
rocblasFillMode_t					rocblas_fill
rocblasGemmAlgo_t	8.0				rocblas_gemm_algo
rocblasHandle_t					rocblas_handle
rocblasMath_t	9.0				rocblas_math_mode
rocblasOperation_t					rocblas_operation
rocblasPointerMode_t					rocblas_pointer_mode
rocblasSideMode_t					rocblas_side
rocblasStatus					rocblas_status
rocblasStatus_t					rocblas_status

10.1.2 2. CUDA Library Data types

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
CUDA_C_16BF					rocblas_datatype_bf16_c	3.5.0					
CUDA_C_16F	8.0				rocblas_datatype_f16_c	1.8.2					
CUDA_C_16I	11.0										
CUDA_C_16U	11.0										
CUDA_C_32F	8.0				rocblas_datatype_f32_c	1.8.2					
CUDA_C_32I	8.0				rocblas_datatype_i32_c	2.0.0					

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Table 2 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
CUDA_C_32U	8.0				rocblas_datatype_u32_c	2.0.0					
CUDA_C_4I	11.0										
CUDA_C_4U	11.0										
CUDA_C_64F	8.0				rocblas_datatype_f64_c	1.8.2					
CUDA_C_64I	11.0										
CUDA_C_64U	11.0										
CUDA_C_8I	8.0				rocblas_datatype_i8_c	2.0.0					
CUDA_C_8U	8.0				rocblas_datatype_u8_c	2.0.0					
CUDA_R_16BF					rocblas_datatype_bf16_r	3.5.0					
CUDA_R_16F	8.0				rocblas_datatype_f16_r	1.8.2					
CUDA_R_16I	11.0										
CUDA_R_16U	11.0										
CUDA_R_32F	8.0				rocblas_datatype_f32_r	1.8.2					
CUDA_R_32I	8.0				rocblas_datatype_i32_r	2.0.0					
CUDA_R_32U	8.0				rocblas_datatype_u32_r	2.0.0					
CUDA_R_4F_E2M1	12.8										
CUDA_R_4I	11.0										
CUDA_R_4U	11.0										
CUDA_R_64F	8.0				rocblas_datatype_f64_r	1.8.2					
CUDA_R_64I	11.0										
CUDA_R_64U	11.0										
CUDA_R_6F_E2M3	12.8										
CUDA_R_6F_E3M2	12.8										
CUDA_R_8F_E4M3	11.8										
CUDA_R_8F_E5M2	11.8										
CUDA_R_8F_UE4M3	12.8										
CUDA_R_8F_UE8M0	12.8										
CUDA_R_8I	8.0				rocblas_datatype_i8_r	2.0.0					
CUDA_R_8U	8.0				rocblas_datatype_u8_r	2.0.0					
cublasDataType_t	7.5				rocblas_datatype	1.8.2					
cudaDataType	8.0				rocblas_datatype	1.8.2					
cudaDataType_t	8.0				rocblas_datatype_	1.8.2					

10.1.3 3. CUBLASLt Data types

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
CUBLASLT_ALGO_CAP_ATOMIC_SYNC	12.2				13.0						
CUBLASLT_ALGO_CAP_CTA_SWIZZLING_SUPPORT	10.1										
CUBLASLT_ALGO_CAP_CUSTOM_MEMORY_ORDER	10.1										
CUBLASLT_ALGO_CAP_CUSTOM_OPTION_MAX	10.1										
CUBLASLT_ALGO_CAP_EPILOGUE_MASK	10.1										
CUBLASLT_ALGO_CAP_FLOATING_POINT_EMULATION_SUPPORT	12.9										
CUBLASLT_ALGO_CAP_LD_NEGATIVE	11.0										
CUBLASLT_ALGO_CAP_MIN_ALIGNMENT_A_BYTES	11.0										
CUBLASLT_ALGO_CAP_MIN_ALIGNMENT_B_BYTES	11.0										
CUBLASLT_ALGO_CAP_MIN_ALIGNMENT_C_BYTES	11.0										
CUBLASLT_ALGO_CAP_MIN_ALIGNMENT_D_BYTES	11.0										
CUBLASLT_ALGO_CAP_NUMERICAL_IMPL_FLAGS	11.0										
CUBLASLT_ALGO_CAP_OUT_OF_PLACE_RESULT_SUPPORT	10.1										

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_ALGO_CAP_POINTER_ARRAY_BATCH_SUPPORT	12.9									
CUBLASLT_ALGO_CAP_POINTER_MODE_MASK	10.1									
CUBLASLT_ALGO_CAP_REDUCTION_SCHEME_MASK	10.1									
CUBLASLT_ALGO_CAP_SPLITK_SUPPORT	10.1									
CUBLASLT_ALGO_CAP_STAGES_IDS	11.0									
CUBLASLT_ALGO_CAP_STRIDED_BATCH_SUPPORT	10.1									
CUBLASLT_ALGO_CAP_TILE_IDS	10.1									
CUBLASLT_ALGO_CAP_UPLO_SUPPORT	10.1									
CUBLASLT_ALGO_CONFIG_CLUSTER_SHAPE_ID	11.8									
CUBLASLT_ALGO_CONFIG_CTA_SWIZZLING	10.1									
CUBLASLT_ALGO_CONFIG_CUSTOM_OPTION	10.1									
CUBLASLT_ALGO_CONFIG_ID	10.1									
CUBLASLT_ALGO_CONFIG_INNER_SHAPE_ID	11.8									
CUBLASLT_ALGO_CONFIG_REDUCTION_SCHEME	10.1									
CUBLASLT_ALGO_CONFIG_SPLITK_NUM	10.1									
CUBLASLT_ALGO_CONFIG_STAGES_ID	11.0									
CUBLASLT_ALGO_CONFIG_TILE_ID	10.1									
CUBLASLT_BATCH_MODE_POINTER_ARRAY	12.9									
CUBLASLT_BATCH_MODE_STRIDED	12.9									
CUBLASLT_CLUSTER_SHAPE_10x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_11x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_12x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_13x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_14x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_15x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_16x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x10x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x11x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x12x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x13x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x14x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x15x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x16x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x2x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x3x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x4x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x5x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x6x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x7x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x8x1	11.8									
CUBLASLT_CLUSTER_SHAPE_1x9x1	11.8									
CUBLASLT_CLUSTER_SHAPE_2x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_2x2x1	11.8									
CUBLASLT_CLUSTER_SHAPE_2x3x1	11.8									
CUBLASLT_CLUSTER_SHAPE_2x4x1	11.8									
CUBLASLT_CLUSTER_SHAPE_2x5x1	11.8									
CUBLASLT_CLUSTER_SHAPE_2x6x1	11.8									
CUBLASLT_CLUSTER_SHAPE_2x7x1	11.8									
CUBLASLT_CLUSTER_SHAPE_2x8x1	11.8									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_CLUSTER_SHAPE_3x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_3x2x1	11.8									
CUBLASLT_CLUSTER_SHAPE_3x3x1	11.8									
CUBLASLT_CLUSTER_SHAPE_3x4x1	11.8									
CUBLASLT_CLUSTER_SHAPE_3x5x1	11.8									
CUBLASLT_CLUSTER_SHAPE_4x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_4x2x1	11.8									
CUBLASLT_CLUSTER_SHAPE_4x3x1	11.8									
CUBLASLT_CLUSTER_SHAPE_4x4x1	11.8									
CUBLASLT_CLUSTER_SHAPE_5x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_5x2x1	11.8									
CUBLASLT_CLUSTER_SHAPE_5x3x1	11.8									
CUBLASLT_CLUSTER_SHAPE_6x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_6x2x1	11.8									
CUBLASLT_CLUSTER_SHAPE_7x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_7x2x1	11.8									
CUBLASLT_CLUSTER_SHAPE_8x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_8x2x1	11.8									
CUBLASLT_CLUSTER_SHAPE_9x1x1	11.8									
CUBLASLT_CLUSTER_SHAPE_AUTO	11.8									
CUBLASLT_CLUSTER_SHAPE_END	11.8									
CUBLASLT_EPILOGUE_BGRADA	11.4									
CUBLASLT_EPILOGUE_BGRADB	11.4									
CUBLASLT_EPILOGUE_BIAS	10.1									
CUBLASLT_EPILOGUE_DEFAULT	10.1									
CUBLASLT_EPILOGUE_DGELU	11.6									
CUBLASLT_EPILOGUE_DGELU_BGRAD	11.3									
CUBLASLT_EPILOGUE_DRELU	11.6									
CUBLASLT_EPILOGUE_DRELU_BGRAD	11.3									
CUBLASLT_EPILOGUE_GELU	11.3									
CUBLASLT_EPILOGUE_GELU_AUX	11.3									
CUBLASLT_EPILOGUE_GELU_AUX_BIAS	11.3									
CUBLASLT_EPILOGUE_GELU_BIAS	11.3									
CUBLASLT_EPILOGUE_RELU	10.1									
CUBLASLT_EPILOGUE_RELU_AUX	11.3									
CUBLASLT_EPILOGUE_RELU_AUX_BIAS	11.3									
CUBLASLT_EPILOGUE_RELU_BIAS	10.1									
CUBLASLT_MATMUL_DESC_ALPHA_VECTOR_BATCH_STRIDE	11.4									
CUBLASLT_MATMUL_DESC_AMAX_D_POINTER	11.8									
CUBLASLT_MATMUL_DESC_ATOMIC_SYNC_IN_COUNTERS_POINTER	12.2								13.0	
CUBLASLT_MATMUL_DESC_ATOMIC_SYNC_NUM_CHUNKS_D_COLS	12.2	12.8							13.0	
CUBLASLT_MATMUL_DESC_ATOMIC_SYNC_NUM_CHUNKS_D_ROWS	12.2	12.8							13.0	
CUBLASLT_MATMUL_DESC_ATOMIC_SYNC_OUT_COUNTERS_POINTER	12.2								13.0	
CUBLASLT_MATMUL_DESC_A_SCALE_MODE	12.8									
CUBLASLT_MATMUL_DESC_A_SCALE_POINTER	11.8									
CUBLASLT_MATMUL_DESC_BIAS_BATCH_STRIDE	11.3									
CUBLASLT_MATMUL_DESC_BIAS_DATA_TYPE	11.8									
CUBLASLT_MATMUL_DESC_BIAS_POINTER	10.1									
CUBLASLT_MATMUL_DESC_B_SCALE_MODE	12.8									
CUBLASLT_MATMUL_DESC_B_SCALE_POINTER	11.8									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_DESC_COMPUTE_TYPE	10.1									
CUBLASLT_MATMUL_DESC_C_SCALE_MODE	12.8									
CUBLASLT_MATMUL_DESC_C_SCALE_POINTER	11.8									
CUBLASLT_MATMUL_DESC_D_OUT_SCALE_MODE	12.8									
CUBLASLT_MATMUL_DESC_D_OUT_SCALE_POINTER	12.8									
CUBLASLT_MATMUL_DESC_D_SCALE_MODE	12.8									
CUBLASLT_MATMUL_DESC_D_SCALE_POINTER	11.8									
CUBLASLT_MATMUL_DESC_EPILOGUE	10.1									
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_AMAX_POINTER	11.8									
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_BATCH_STRIDE	11.3									
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_DATA_TYPE	11.8									
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_LD	11.3									
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_POINTER	11.3									
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_SCALE_MODE	12.8									
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_SCALE_POINTER	11.8									
CUBLASLT_MATMUL_DESC_FAST_ACCUM	11.8									
CUBLASLT_MATMUL_DESC_FILL_MODE	10.1									
CUBLASLT_MATMUL_DESC_POINTER_MODE	10.1									
CUBLASLT_MATMUL_DESC_SCALE_TYPE	10.1									
CUBLASLT_MATMUL_DESC_SM_COUNT_TARGET	11.5									
CUBLASLT_MATMUL_DESC_TRANSA	10.1									
CUBLASLT_MATMUL_DESC_TRANSB	10.1									
CUBLASLT_MATMUL_DESC_TRANSC	10.1									
CUBLASLT_MATMUL_INNER_SHAPE_END	11.8									
CUBLASLT_MATMUL_INNER_SHAPE_MMA16816	11.8									
CUBLASLT_MATMUL_INNER_SHAPE_MMA1684	11.8									
CUBLASLT_MATMUL_INNER_SHAPE_MMA1688	11.8									
CUBLASLT_MATMUL_INNER_SHAPE_MMA884	11.8									
CUBLASLT_MATMUL_INNER_SHAPE_UNDEFINED	11.8									
CUBLASLT_MATMUL_MATRIX_SCALE_BLK128x128_32F	12.9									
CUBLASLT_MATMUL_MATRIX_SCALE_END	12.8									
CUBLASLT_MATMUL_MATRIX_SCALE_OUTER_VEC_32F	12.9									
CUBLASLT_MATMUL_MATRIX_SCALE_SCALAR_32F	12.8									
CUBLASLT_MATMUL_MATRIX_SCALE_VEC128_32F	12.9									
CUBLASLT_MATMUL_MATRIX_SCALE_VEC16_UE4M3	12.8									
CUBLASLT_MATMUL_MATRIX_SCALE_VEC32_UE8M0	12.8									
CUBLASLT_MATMUL_PREF_IMPL_MASK	11.0									
CUBLASLT_MATMUL_PREF_MAX WAVES_COUNT	10.1									
CUBLASLT_MATMUL_PREF_MAX_WORKSPACE_BYTES	10.1									
CUBLASLT_MATMUL_PREF_MIN_ALIGNMENT_A_BYTES	10.1									
CUBLASLT_MATMUL_PREF_MIN_ALIGNMENT_B_BYTES	10.1									
CUBLASLT_MATMUL_PREF_MIN_ALIGNMENT_C_BYTES	10.1									
CUBLASLT_MATMUL_PREF_MIN_ALIGNMENT_D_BYTES	10.1									
CUBLASLT_MATMUL_PREF_REDUCTION_SCHEME_MASK	10.1									
CUBLASLT_MATMUL_PREF_SEARCH_MODE	10.1									
CUBLASLT_MATMUL_STAGES_128x1	11.0									
CUBLASLT_MATMUL_STAGES_128x2	11.0									
CUBLASLT_MATMUL_STAGES_128x3	11.0									
CUBLASLT_MATMUL_STAGES_128x4	11.0									
CUBLASLT_MATMUL_STAGES_128x5	11.0									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_STAGES_128x6	11.0									
CUBLASLT_MATMUL_STAGES_128xAUTO	11.8									
CUBLASLT_MATMUL_STAGES_16x1	11.0									
CUBLASLT_MATMUL_STAGES_16x10	11.0									
CUBLASLT_MATMUL_STAGES_16x2	11.0									
CUBLASLT_MATMUL_STAGES_16x3	11.0									
CUBLASLT_MATMUL_STAGES_16x4	11.0									
CUBLASLT_MATMUL_STAGES_16x5	11.0									
CUBLASLT_MATMUL_STAGES_16x6	11.0									
CUBLASLT_MATMUL_STAGES_16xAUTO	11.8									
CUBLASLT_MATMUL_STAGES_256xAUTO	12.8									
CUBLASLT_MATMUL_STAGES_32x1	11.0									
CUBLASLT_MATMUL_STAGES_32x10	11.0									
CUBLASLT_MATMUL_STAGES_32x2	11.0									
CUBLASLT_MATMUL_STAGES_32x3	11.0									
CUBLASLT_MATMUL_STAGES_32x4	11.0									
CUBLASLT_MATMUL_STAGES_32x5	11.0									
CUBLASLT_MATMUL_STAGES_32x6	11.0									
CUBLASLT_MATMUL_STAGES_32xAUTO	11.8									
CUBLASLT_MATMUL_STAGES_64x1	11.0									
CUBLASLT_MATMUL_STAGES_64x2	11.0									
CUBLASLT_MATMUL_STAGES_64x3	11.0									
CUBLASLT_MATMUL_STAGES_64x4	11.0									
CUBLASLT_MATMUL_STAGES_64x5	11.0									
CUBLASLT_MATMUL_STAGES_64x6	11.0									
CUBLASLT_MATMUL_STAGES_64xAUTO	11.8									
CUBLASLT_MATMUL_STAGES_768xAUTO	13.0									
CUBLASLT_MATMUL_STAGES_8x3	11.8									
CUBLASLT_MATMUL_STAGES_8x4	11.0									
CUBLASLT_MATMUL_STAGES_8x5	11.2									
CUBLASLT_MATMUL_STAGES_8xAUTO	11.8									
CUBLASLT_MATMUL_STAGES_END	11.0									
CUBLASLT_MATMUL_STAGES_UNDEFINED	11.0									
CUBLASLT_MATMUL_TILE_104x128	12.6									
CUBLASLT_MATMUL_TILE_104x192	12.6									
CUBLASLT_MATMUL_TILE_104x256	12.6									
CUBLASLT_MATMUL_TILE_104x320	12.6									
CUBLASLT_MATMUL_TILE_104x384	12.6									
CUBLASLT_MATMUL_TILE_104x448	12.6									
CUBLASLT_MATMUL_TILE_104x64	12.6									
CUBLASLT_MATMUL_TILE_112x128	12.6									
CUBLASLT_MATMUL_TILE_112x192	12.6									
CUBLASLT_MATMUL_TILE_112x256	12.6									
CUBLASLT_MATMUL_TILE_112x320	12.6									
CUBLASLT_MATMUL_TILE_112x384	12.6									
CUBLASLT_MATMUL_TILE_112x64	12.6									
CUBLASLT_MATMUL_TILE_120x128	12.6									
CUBLASLT_MATMUL_TILE_120x192	12.6									
CUBLASLT_MATMUL_TILE_120x256	12.6									
CUBLASLT_MATMUL_TILE_120x320	12.6									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_120x384	12.6									
CUBLASLT_MATMUL_TILE_120x64	12.6									
CUBLASLT_MATMUL_TILE_128x104	12.6									
CUBLASLT_MATMUL_TILE_128x112	12.6									
CUBLASLT_MATMUL_TILE_128x120	12.6									
CUBLASLT_MATMUL_TILE_128x128	10.1									
CUBLASLT_MATMUL_TILE_128x136	12.6									
CUBLASLT_MATMUL_TILE_128x144	12.6									
CUBLASLT_MATMUL_TILE_128x152	12.6									
CUBLASLT_MATMUL_TILE_128x16	12.6									
CUBLASLT_MATMUL_TILE_128x160	11.3									
CUBLASLT_MATMUL_TILE_128x168	12.6									
CUBLASLT_MATMUL_TILE_128x176	12.6									
CUBLASLT_MATMUL_TILE_128x184	12.6									
CUBLASLT_MATMUL_TILE_128x192	11.8									
CUBLASLT_MATMUL_TILE_128x200	12.6									
CUBLASLT_MATMUL_TILE_128x208	12.6									
CUBLASLT_MATMUL_TILE_128x216	12.6									
CUBLASLT_MATMUL_TILE_128x224	12.6									
CUBLASLT_MATMUL_TILE_128x232	12.6									
CUBLASLT_MATMUL_TILE_128x24	12.6									
CUBLASLT_MATMUL_TILE_128x240	12.6									
CUBLASLT_MATMUL_TILE_128x248	12.6									
CUBLASLT_MATMUL_TILE_128x256	10.1									
CUBLASLT_MATMUL_TILE_128x264	12.6									
CUBLASLT_MATMUL_TILE_128x272	12.6									
CUBLASLT_MATMUL_TILE_128x280	12.6									
CUBLASLT_MATMUL_TILE_128x288	12.6									
CUBLASLT_MATMUL_TILE_128x296	12.6									
CUBLASLT_MATMUL_TILE_128x304	12.6									
CUBLASLT_MATMUL_TILE_128x312	12.6									
CUBLASLT_MATMUL_TILE_128x32	10.1									
CUBLASLT_MATMUL_TILE_128x320	12.6									
CUBLASLT_MATMUL_TILE_128x328	12.6									
CUBLASLT_MATMUL_TILE_128x336	12.6									
CUBLASLT_MATMUL_TILE_128x344	12.6									
CUBLASLT_MATMUL_TILE_128x352	12.6									
CUBLASLT_MATMUL_TILE_128x360	12.6									
CUBLASLT_MATMUL_TILE_128x368	12.6									
CUBLASLT_MATMUL_TILE_128x376	12.6									
CUBLASLT_MATMUL_TILE_128x384	12.6									
CUBLASLT_MATMUL_TILE_128x392	12.6									
CUBLASLT_MATMUL_TILE_128x40	12.6									
CUBLASLT_MATMUL_TILE_128x400	12.6									
CUBLASLT_MATMUL_TILE_128x408	12.6									
CUBLASLT_MATMUL_TILE_128x416	12.6									
CUBLASLT_MATMUL_TILE_128x424	12.6									
CUBLASLT_MATMUL_TILE_128x432	12.6									
CUBLASLT_MATMUL_TILE_128x440	12.6									
CUBLASLT_MATMUL_TILE_128x448	12.6									

continues on next page

Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_128x456	12.6									
CUBLASLT_MATMUL_TILE_128x464	12.6									
CUBLASLT_MATMUL_TILE_128x472	12.6									
CUBLASLT_MATMUL_TILE_128x48	12.6									
CUBLASLT_MATMUL_TILE_128x480	12.6									
CUBLASLT_MATMUL_TILE_128x488	12.6									
CUBLASLT_MATMUL_TILE_128x496	12.6									
CUBLASLT_MATMUL_TILE_128x504	12.6									
CUBLASLT_MATMUL_TILE_128x512	12.6									
CUBLASLT_MATMUL_TILE_128x56	12.6									
CUBLASLT_MATMUL_TILE_128x64	10.1									
CUBLASLT_MATMUL_TILE_128x72	12.6									
CUBLASLT_MATMUL_TILE_128x8	12.6									
CUBLASLT_MATMUL_TILE_128x80	12.6									
CUBLASLT_MATMUL_TILE_128x88	12.6									
CUBLASLT_MATMUL_TILE_128x96	11.8									
CUBLASLT_MATMUL_TILE_136x128	12.6									
CUBLASLT_MATMUL_TILE_136x192	12.6									
CUBLASLT_MATMUL_TILE_136x256	12.6									
CUBLASLT_MATMUL_TILE_136x320	12.6									
CUBLASLT_MATMUL_TILE_136x64	12.6									
CUBLASLT_MATMUL_TILE_144x128	12.6									
CUBLASLT_MATMUL_TILE_144x192	12.6									
CUBLASLT_MATMUL_TILE_144x256	12.6									
CUBLASLT_MATMUL_TILE_144x320	12.6									
CUBLASLT_MATMUL_TILE_144x64	12.6									
CUBLASLT_MATMUL_TILE_152x128	12.6									
CUBLASLT_MATMUL_TILE_152x192	12.6									
CUBLASLT_MATMUL_TILE_152x256	12.6									
CUBLASLT_MATMUL_TILE_152x320	12.6									
CUBLASLT_MATMUL_TILE_152x64	12.6									
CUBLASLT_MATMUL_TILE_160x128	11.3									
CUBLASLT_MATMUL_TILE_160x192	12.6									
CUBLASLT_MATMUL_TILE_160x256	12.6									
CUBLASLT_MATMUL_TILE_160x64	12.6									
CUBLASLT_MATMUL_TILE_168x128	12.6									
CUBLASLT_MATMUL_TILE_168x192	12.6									
CUBLASLT_MATMUL_TILE_168x256	12.6									
CUBLASLT_MATMUL_TILE_168x64	12.6									
CUBLASLT_MATMUL_TILE_16x128	12.6									
CUBLASLT_MATMUL_TILE_16x16	10.1									
CUBLASLT_MATMUL_TILE_16x192	12.6									
CUBLASLT_MATMUL_TILE_16x256	12.6									
CUBLASLT_MATMUL_TILE_16x32	10.1									
CUBLASLT_MATMUL_TILE_16x320	12.6									
CUBLASLT_MATMUL_TILE_16x384	12.6									
CUBLASLT_MATMUL_TILE_16x448	12.6									
CUBLASLT_MATMUL_TILE_16x512	12.6									
CUBLASLT_MATMUL_TILE_16x576	12.6									
CUBLASLT_MATMUL_TILE_16x64	12.6									

continues on next page

Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_16x640	12.6									
CUBLASLT_MATMUL_TILE_16x704	12.6									
CUBLASLT_MATMUL_TILE_16x768	12.6									
CUBLASLT_MATMUL_TILE_16x8	10.1									
CUBLASLT_MATMUL_TILE_176x128	12.6									
CUBLASLT_MATMUL_TILE_176x192	12.6									
CUBLASLT_MATMUL_TILE_176x256	12.6									
CUBLASLT_MATMUL_TILE_176x64	12.6									
CUBLASLT_MATMUL_TILE_184x128	12.6									
CUBLASLT_MATMUL_TILE_184x192	12.6									
CUBLASLT_MATMUL_TILE_184x256	12.6									
CUBLASLT_MATMUL_TILE_184x64	12.6									
CUBLASLT_MATMUL_TILE_192x104	12.6									
CUBLASLT_MATMUL_TILE_192x112	12.6									
CUBLASLT_MATMUL_TILE_192x120	12.6									
CUBLASLT_MATMUL_TILE_192x128	11.3									
CUBLASLT_MATMUL_TILE_192x136	12.6									
CUBLASLT_MATMUL_TILE_192x144	12.6									
CUBLASLT_MATMUL_TILE_192x152	12.6									
CUBLASLT_MATMUL_TILE_192x16	12.6									
CUBLASLT_MATMUL_TILE_192x160	12.6									
CUBLASLT_MATMUL_TILE_192x168	12.6									
CUBLASLT_MATMUL_TILE_192x176	12.6									
CUBLASLT_MATMUL_TILE_192x184	12.6									
CUBLASLT_MATMUL_TILE_192x192	12.6									
CUBLASLT_MATMUL_TILE_192x200	12.6									
CUBLASLT_MATMUL_TILE_192x208	12.6									
CUBLASLT_MATMUL_TILE_192x216	12.6									
CUBLASLT_MATMUL_TILE_192x224	12.6									
CUBLASLT_MATMUL_TILE_192x232	12.6									
CUBLASLT_MATMUL_TILE_192x24	12.6									
CUBLASLT_MATMUL_TILE_192x240	12.6									
CUBLASLT_MATMUL_TILE_192x248	12.6									
CUBLASLT_MATMUL_TILE_192x256	12.6									
CUBLASLT_MATMUL_TILE_192x264	12.6									
CUBLASLT_MATMUL_TILE_192x272	12.6									
CUBLASLT_MATMUL_TILE_192x280	12.6									
CUBLASLT_MATMUL_TILE_192x288	12.6									
CUBLASLT_MATMUL_TILE_192x296	12.6									
CUBLASLT_MATMUL_TILE_192x304	12.6									
CUBLASLT_MATMUL_TILE_192x312	12.6									
CUBLASLT_MATMUL_TILE_192x32	12.6									
CUBLASLT_MATMUL_TILE_192x320	12.6									
CUBLASLT_MATMUL_TILE_192x328	12.6									
CUBLASLT_MATMUL_TILE_192x336	12.6									
CUBLASLT_MATMUL_TILE_192x40	12.6									
CUBLASLT_MATMUL_TILE_192x48	12.6									
CUBLASLT_MATMUL_TILE_192x56	12.6									
CUBLASLT_MATMUL_TILE_192x64	12.6									
CUBLASLT_MATMUL_TILE_192x72	12.6									

continues on next page

Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_192x8	12.6									
CUBLASLT_MATMUL_TILE_192x80	12.6									
CUBLASLT_MATMUL_TILE_192x88	12.6									
CUBLASLT_MATMUL_TILE_192x96	12.6									
CUBLASLT_MATMUL_TILE_200x128	12.6									
CUBLASLT_MATMUL_TILE_200x192	12.6									
CUBLASLT_MATMUL_TILE_200x64	12.6									
CUBLASLT_MATMUL_TILE_208x128	12.6									
CUBLASLT_MATMUL_TILE_208x192	12.6									
CUBLASLT_MATMUL_TILE_208x64	12.6									
CUBLASLT_MATMUL_TILE_216x128	12.6									
CUBLASLT_MATMUL_TILE_216x192	12.6									
CUBLASLT_MATMUL_TILE_216x64	12.6									
CUBLASLT_MATMUL_TILE_224x128	12.6									
CUBLASLT_MATMUL_TILE_224x192	12.6									
CUBLASLT_MATMUL_TILE_224x64	12.6									
CUBLASLT_MATMUL_TILE_232x128	12.6									
CUBLASLT_MATMUL_TILE_232x192	12.6									
CUBLASLT_MATMUL_TILE_232x64	12.6									
CUBLASLT_MATMUL_TILE_240x128	12.6									
CUBLASLT_MATMUL_TILE_240x192	12.6									
CUBLASLT_MATMUL_TILE_240x64	12.6									
CUBLASLT_MATMUL_TILE_248x128	12.6									
CUBLASLT_MATMUL_TILE_248x192	12.6									
CUBLASLT_MATMUL_TILE_248x64	12.6									
CUBLASLT_MATMUL_TILE_24x128	12.6									
CUBLASLT_MATMUL_TILE_24x192	12.6									
CUBLASLT_MATMUL_TILE_24x256	12.6									
CUBLASLT_MATMUL_TILE_24x320	12.6									
CUBLASLT_MATMUL_TILE_24x384	12.6									
CUBLASLT_MATMUL_TILE_24x448	12.6									
CUBLASLT_MATMUL_TILE_24x512	12.6									
CUBLASLT_MATMUL_TILE_24x576	12.6									
CUBLASLT_MATMUL_TILE_24x64	12.6									
CUBLASLT_MATMUL_TILE_24x640	12.6									
CUBLASLT_MATMUL_TILE_24x704	12.6									
CUBLASLT_MATMUL_TILE_24x768	12.6									
CUBLASLT_MATMUL_TILE_256x1024	12.8									
CUBLASLT_MATMUL_TILE_256x104	12.6									
CUBLASLT_MATMUL_TILE_256x112	12.6									
CUBLASLT_MATMUL_TILE_256x120	12.6									
CUBLASLT_MATMUL_TILE_256x128	10.1									
CUBLASLT_MATMUL_TILE_256x136	12.6									
CUBLASLT_MATMUL_TILE_256x144	12.6									
CUBLASLT_MATMUL_TILE_256x152	12.6									
CUBLASLT_MATMUL_TILE_256x16	12.6									
CUBLASLT_MATMUL_TILE_256x160	12.6									
CUBLASLT_MATMUL_TILE_256x168	12.6									
CUBLASLT_MATMUL_TILE_256x176	12.6									
CUBLASLT_MATMUL_TILE_256x184	12.6									

continues on next page

Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_256x192	12.6									
CUBLASLT_MATMUL_TILE_256x200	12.6									
CUBLASLT_MATMUL_TILE_256x208	12.6									
CUBLASLT_MATMUL_TILE_256x216	12.6									
CUBLASLT_MATMUL_TILE_256x224	12.6									
CUBLASLT_MATMUL_TILE_256x232	12.6									
CUBLASLT_MATMUL_TILE_256x24	12.6									
CUBLASLT_MATMUL_TILE_256x240	12.6									
CUBLASLT_MATMUL_TILE_256x248	12.6									
CUBLASLT_MATMUL_TILE_256x256	12.6									
CUBLASLT_MATMUL_TILE_256x32	12.1									
CUBLASLT_MATMUL_TILE_256x40	12.6									
CUBLASLT_MATMUL_TILE_256x48	12.6									
CUBLASLT_MATMUL_TILE_256x512	12.8									
CUBLASLT_MATMUL_TILE_256x56	12.6									
CUBLASLT_MATMUL_TILE_256x64	10.1									
CUBLASLT_MATMUL_TILE_256x72	12.6									
CUBLASLT_MATMUL_TILE_256x8	12.6									
CUBLASLT_MATMUL_TILE_256x80	12.6									
CUBLASLT_MATMUL_TILE_256x88	12.6									
CUBLASLT_MATMUL_TILE_256x96	12.6									
CUBLASLT_MATMUL_TILE_264x128	12.6									
CUBLASLT_MATMUL_TILE_264x64	12.6									
CUBLASLT_MATMUL_TILE_272x128	12.6									
CUBLASLT_MATMUL_TILE_272x64	12.6									
CUBLASLT_MATMUL_TILE_280x128	12.6									
CUBLASLT_MATMUL_TILE_280x64	12.6									
CUBLASLT_MATMUL_TILE_288x128	12.6									
CUBLASLT_MATMUL_TILE_288x64	12.6									
CUBLASLT_MATMUL_TILE_296x128	12.6									
CUBLASLT_MATMUL_TILE_296x64	12.6									
CUBLASLT_MATMUL_TILE_304x128	12.6									
CUBLASLT_MATMUL_TILE_304x64	12.6									
CUBLASLT_MATMUL_TILE_312x128	12.6									
CUBLASLT_MATMUL_TILE_312x64	12.6									
CUBLASLT_MATMUL_TILE_320x104	12.6									
CUBLASLT_MATMUL_TILE_320x112	12.6									
CUBLASLT_MATMUL_TILE_320x120	12.6									
CUBLASLT_MATMUL_TILE_320x128	12.6									
CUBLASLT_MATMUL_TILE_320x136	12.6									
CUBLASLT_MATMUL_TILE_320x144	12.6									
CUBLASLT_MATMUL_TILE_320x152	12.6									
CUBLASLT_MATMUL_TILE_320x16	12.6									
CUBLASLT_MATMUL_TILE_320x160	12.6									
CUBLASLT_MATMUL_TILE_320x168	12.6									
CUBLASLT_MATMUL_TILE_320x176	12.6									
CUBLASLT_MATMUL_TILE_320x184	12.6									
CUBLASLT_MATMUL_TILE_320x192	12.6									
CUBLASLT_MATMUL_TILE_320x200	12.6									
CUBLASLT_MATMUL_TILE_320x24	12.6									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_320x32	12.6									
CUBLASLT_MATMUL_TILE_320x40	12.6									
CUBLASLT_MATMUL_TILE_320x48	12.6									
CUBLASLT_MATMUL_TILE_320x56	12.6									
CUBLASLT_MATMUL_TILE_320x64	12.6									
CUBLASLT_MATMUL_TILE_320x72	12.6									
CUBLASLT_MATMUL_TILE_320x8	12.6									
CUBLASLT_MATMUL_TILE_320x80	12.6									
CUBLASLT_MATMUL_TILE_320x88	12.6									
CUBLASLT_MATMUL_TILE_320x96	12.6									
CUBLASLT_MATMUL_TILE_328x128	12.6									
CUBLASLT_MATMUL_TILE_328x64	12.6									
CUBLASLT_MATMUL_TILE_32x128	10.1									
CUBLASLT_MATMUL_TILE_32x16	10.1									
CUBLASLT_MATMUL_TILE_32x192	12.6									
CUBLASLT_MATMUL_TILE_32x256	12.1									
CUBLASLT_MATMUL_TILE_32x32	10.1									
CUBLASLT_MATMUL_TILE_32x320	12.6									
CUBLASLT_MATMUL_TILE_32x384	12.6									
CUBLASLT_MATMUL_TILE_32x448	12.6									
CUBLASLT_MATMUL_TILE_32x512	12.6									
CUBLASLT_MATMUL_TILE_32x576	12.6									
CUBLASLT_MATMUL_TILE_32x64	10.1									
CUBLASLT_MATMUL_TILE_32x640	12.6									
CUBLASLT_MATMUL_TILE_32x704	12.6									
CUBLASLT_MATMUL_TILE_32x768	12.6									
CUBLASLT_MATMUL_TILE_32x8	10.1									
CUBLASLT_MATMUL_TILE_336x128	12.6									
CUBLASLT_MATMUL_TILE_336x64	12.6									
CUBLASLT_MATMUL_TILE_344x128	12.6									
CUBLASLT_MATMUL_TILE_344x64	12.6									
CUBLASLT_MATMUL_TILE_352x128	12.6									
CUBLASLT_MATMUL_TILE_352x64	12.6									
CUBLASLT_MATMUL_TILE_360x128	12.6									
CUBLASLT_MATMUL_TILE_360x64	12.6									
CUBLASLT_MATMUL_TILE_368x128	12.6									
CUBLASLT_MATMUL_TILE_368x64	12.6									
CUBLASLT_MATMUL_TILE_376x128	12.6									
CUBLASLT_MATMUL_TILE_376x64	12.6									
CUBLASLT_MATMUL_TILE_384x104	12.6									
CUBLASLT_MATMUL_TILE_384x112	12.6									
CUBLASLT_MATMUL_TILE_384x120	12.6									
CUBLASLT_MATMUL_TILE_384x128	12.6									
CUBLASLT_MATMUL_TILE_384x136	12.6									
CUBLASLT_MATMUL_TILE_384x144	12.6									
CUBLASLT_MATMUL_TILE_384x152	12.6									
CUBLASLT_MATMUL_TILE_384x16	12.6									
CUBLASLT_MATMUL_TILE_384x160	12.6									
CUBLASLT_MATMUL_TILE_384x168	12.6									
CUBLASLT_MATMUL_TILE_384x24	12.6									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_384x32	12.6									
CUBLASLT_MATMUL_TILE_384x40	12.6									
CUBLASLT_MATMUL_TILE_384x48	12.6									
CUBLASLT_MATMUL_TILE_384x56	12.6									
CUBLASLT_MATMUL_TILE_384x64	12.6									
CUBLASLT_MATMUL_TILE_384x72	12.6									
CUBLASLT_MATMUL_TILE_384x8	12.6									
CUBLASLT_MATMUL_TILE_384x80	12.6									
CUBLASLT_MATMUL_TILE_384x88	12.6									
CUBLASLT_MATMUL_TILE_384x96	12.6									
CUBLASLT_MATMUL_TILE_392x64	12.6									
CUBLASLT_MATMUL_TILE_400x64	12.6									
CUBLASLT_MATMUL_TILE_408x64	12.6									
CUBLASLT_MATMUL_TILE_40x128	12.6									
CUBLASLT_MATMUL_TILE_40x192	12.6									
CUBLASLT_MATMUL_TILE_40x256	12.6									
CUBLASLT_MATMUL_TILE_40x320	12.6									
CUBLASLT_MATMUL_TILE_40x384	12.6									
CUBLASLT_MATMUL_TILE_40x448	12.6									
CUBLASLT_MATMUL_TILE_40x512	12.6									
CUBLASLT_MATMUL_TILE_40x576	12.6									
CUBLASLT_MATMUL_TILE_40x64	12.6									
CUBLASLT_MATMUL_TILE_40x640	12.6									
CUBLASLT_MATMUL_TILE_40x704	12.6									
CUBLASLT_MATMUL_TILE_40x768	12.6									
CUBLASLT_MATMUL_TILE_416x64	12.6									
CUBLASLT_MATMUL_TILE_424x64	12.6									
CUBLASLT_MATMUL_TILE_432x64	12.6									
CUBLASLT_MATMUL_TILE_440x64	12.6									
CUBLASLT_MATMUL_TILE_448x104	12.6									
CUBLASLT_MATMUL_TILE_448x112	12.6									
CUBLASLT_MATMUL_TILE_448x120	12.6									
CUBLASLT_MATMUL_TILE_448x128	12.6									
CUBLASLT_MATMUL_TILE_448x136	12.6									
CUBLASLT_MATMUL_TILE_448x144	12.6									
CUBLASLT_MATMUL_TILE_448x16	12.6									
CUBLASLT_MATMUL_TILE_448x24	12.6									
CUBLASLT_MATMUL_TILE_448x32	12.6									
CUBLASLT_MATMUL_TILE_448x40	12.6									
CUBLASLT_MATMUL_TILE_448x48	12.6									
CUBLASLT_MATMUL_TILE_448x56	12.6									
CUBLASLT_MATMUL_TILE_448x64	12.6									
CUBLASLT_MATMUL_TILE_448x72	12.6									
CUBLASLT_MATMUL_TILE_448x8	12.6									
CUBLASLT_MATMUL_TILE_448x80	12.6									
CUBLASLT_MATMUL_TILE_448x88	12.6									
CUBLASLT_MATMUL_TILE_448x96	12.6									
CUBLASLT_MATMUL_TILE_456x64	12.6									
CUBLASLT_MATMUL_TILE_464x64	12.6									
CUBLASLT_MATMUL_TILE_472x64	12.6									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_480x64	12.6									
CUBLASLT_MATMUL_TILE_488x64	12.6									
CUBLASLT_MATMUL_TILE_48x128	12.6									
CUBLASLT_MATMUL_TILE_48x192	12.6									
CUBLASLT_MATMUL_TILE_48x256	12.6									
CUBLASLT_MATMUL_TILE_48x320	12.6									
CUBLASLT_MATMUL_TILE_48x384	12.6									
CUBLASLT_MATMUL_TILE_48x448	12.6									
CUBLASLT_MATMUL_TILE_48x512	12.6									
CUBLASLT_MATMUL_TILE_48x576	12.6									
CUBLASLT_MATMUL_TILE_48x64	12.6									
CUBLASLT_MATMUL_TILE_48x640	12.6									
CUBLASLT_MATMUL_TILE_48x704	12.6									
CUBLASLT_MATMUL_TILE_48x768	12.6									
CUBLASLT_MATMUL_TILE_496x64	12.6									
CUBLASLT_MATMUL_TILE_504x64	12.6									
CUBLASLT_MATMUL_TILE_512x1024	12.8									
CUBLASLT_MATMUL_TILE_512x104	12.6									
CUBLASLT_MATMUL_TILE_512x112	12.6									
CUBLASLT_MATMUL_TILE_512x120	12.6									
CUBLASLT_MATMUL_TILE_512x128	12.6									
CUBLASLT_MATMUL_TILE_512x16	12.6									
CUBLASLT_MATMUL_TILE_512x24	12.6									
CUBLASLT_MATMUL_TILE_512x32	12.6									
CUBLASLT_MATMUL_TILE_512x40	12.6									
CUBLASLT_MATMUL_TILE_512x48	12.6									
CUBLASLT_MATMUL_TILE_512x512	12.8									
CUBLASLT_MATMUL_TILE_512x56	12.6									
CUBLASLT_MATMUL_TILE_512x64	10.1									
CUBLASLT_MATMUL_TILE_512x72	12.6									
CUBLASLT_MATMUL_TILE_512x8	12.6									
CUBLASLT_MATMUL_TILE_512x80	12.6									
CUBLASLT_MATMUL_TILE_512x88	12.6									
CUBLASLT_MATMUL_TILE_512x96	12.6									
CUBLASLT_MATMUL_TILE_520x64	12.6									
CUBLASLT_MATMUL_TILE_528x64	12.6									
CUBLASLT_MATMUL_TILE_536x64	12.6									
CUBLASLT_MATMUL_TILE_544x64	12.6									
CUBLASLT_MATMUL_TILE_552x64	12.6									
CUBLASLT_MATMUL_TILE_560x64	12.6									
CUBLASLT_MATMUL_TILE_568x64	12.6									
CUBLASLT_MATMUL_TILE_56x128	12.6									
CUBLASLT_MATMUL_TILE_56x192	12.6									
CUBLASLT_MATMUL_TILE_56x256	12.6									
CUBLASLT_MATMUL_TILE_56x320	12.6									
CUBLASLT_MATMUL_TILE_56x384	12.6									
CUBLASLT_MATMUL_TILE_56x448	12.6									
CUBLASLT_MATMUL_TILE_56x512	12.6									
CUBLASLT_MATMUL_TILE_56x576	12.6									
CUBLASLT_MATMUL_TILE_56x640	12.6									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_56x704	12.6									
CUBLASLT_MATMUL_TILE_56x768	12.6									
CUBLASLT_MATMUL_TILE_576x104	12.6									
CUBLASLT_MATMUL_TILE_576x112	12.6									
CUBLASLT_MATMUL_TILE_576x16	12.6									
CUBLASLT_MATMUL_TILE_576x24	12.6									
CUBLASLT_MATMUL_TILE_576x32	12.6									
CUBLASLT_MATMUL_TILE_576x40	12.6									
CUBLASLT_MATMUL_TILE_576x48	12.6									
CUBLASLT_MATMUL_TILE_576x56	12.6									
CUBLASLT_MATMUL_TILE_576x64	12.6									
CUBLASLT_MATMUL_TILE_576x72	12.6									
CUBLASLT_MATMUL_TILE_576x8	12.6									
CUBLASLT_MATMUL_TILE_576x80	12.6									
CUBLASLT_MATMUL_TILE_576x88	12.6									
CUBLASLT_MATMUL_TILE_576x96	12.6									
CUBLASLT_MATMUL_TILE_584x64	12.6									
CUBLASLT_MATMUL_TILE_592x64	12.6									
CUBLASLT_MATMUL_TILE_600x64	12.6									
CUBLASLT_MATMUL_TILE_608x64	12.6									
CUBLASLT_MATMUL_TILE_616x64	12.6									
CUBLASLT_MATMUL_TILE_624x64	12.6									
CUBLASLT_MATMUL_TILE_632x64	12.6									
CUBLASLT_MATMUL_TILE_640x16	12.6									
CUBLASLT_MATMUL_TILE_640x24	12.6									
CUBLASLT_MATMUL_TILE_640x32	12.6									
CUBLASLT_MATMUL_TILE_640x40	12.6									
CUBLASLT_MATMUL_TILE_640x48	12.6									
CUBLASLT_MATMUL_TILE_640x56	12.6									
CUBLASLT_MATMUL_TILE_640x64	12.6									
CUBLASLT_MATMUL_TILE_640x72	12.6									
CUBLASLT_MATMUL_TILE_640x8	12.6									
CUBLASLT_MATMUL_TILE_640x80	12.6									
CUBLASLT_MATMUL_TILE_640x88	12.6									
CUBLASLT_MATMUL_TILE_640x96	12.6									
CUBLASLT_MATMUL_TILE_648x64	12.6									
CUBLASLT_MATMUL_TILE_64x104	12.6									
CUBLASLT_MATMUL_TILE_64x112	12.6									
CUBLASLT_MATMUL_TILE_64x120	12.6									
CUBLASLT_MATMUL_TILE_64x128	10.1									
CUBLASLT_MATMUL_TILE_64x136	12.6									
CUBLASLT_MATMUL_TILE_64x144	12.6									
CUBLASLT_MATMUL_TILE_64x152	12.6									
CUBLASLT_MATMUL_TILE_64x16	12.6									
CUBLASLT_MATMUL_TILE_64x160	12.6									
CUBLASLT_MATMUL_TILE_64x168	12.6									
CUBLASLT_MATMUL_TILE_64x176	12.6									
CUBLASLT_MATMUL_TILE_64x184	12.6									
CUBLASLT_MATMUL_TILE_64x192	12.6									
CUBLASLT_MATMUL_TILE_64x200	12.6									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_64x208	12.6									
CUBLASLT_MATMUL_TILE_64x216	12.6									
CUBLASLT_MATMUL_TILE_64x224	12.6									
CUBLASLT_MATMUL_TILE_64x232	12.6									
CUBLASLT_MATMUL_TILE_64x24	12.6									
CUBLASLT_MATMUL_TILE_64x240	12.6									
CUBLASLT_MATMUL_TILE_64x248	12.6									
CUBLASLT_MATMUL_TILE_64x256	10.1									
CUBLASLT_MATMUL_TILE_64x264	12.6									
CUBLASLT_MATMUL_TILE_64x272	12.6									
CUBLASLT_MATMUL_TILE_64x280	12.6									
CUBLASLT_MATMUL_TILE_64x288	12.6									
CUBLASLT_MATMUL_TILE_64x296	12.6									
CUBLASLT_MATMUL_TILE_64x304	12.6									
CUBLASLT_MATMUL_TILE_64x312	12.6									
CUBLASLT_MATMUL_TILE_64x32	10.1									
CUBLASLT_MATMUL_TILE_64x320	12.6									
CUBLASLT_MATMUL_TILE_64x328	12.6									
CUBLASLT_MATMUL_TILE_64x336	12.6									
CUBLASLT_MATMUL_TILE_64x344	12.6									
CUBLASLT_MATMUL_TILE_64x352	12.6									
CUBLASLT_MATMUL_TILE_64x360	12.6									
CUBLASLT_MATMUL_TILE_64x368	12.6									
CUBLASLT_MATMUL_TILE_64x376	12.6									
CUBLASLT_MATMUL_TILE_64x384	12.6									
CUBLASLT_MATMUL_TILE_64x392	12.6									
CUBLASLT_MATMUL_TILE_64x40	12.6									
CUBLASLT_MATMUL_TILE_64x400	12.6									
CUBLASLT_MATMUL_TILE_64x408	12.6									
CUBLASLT_MATMUL_TILE_64x416	12.6									
CUBLASLT_MATMUL_TILE_64x424	12.6									
CUBLASLT_MATMUL_TILE_64x432	12.6									
CUBLASLT_MATMUL_TILE_64x440	12.6									
CUBLASLT_MATMUL_TILE_64x448	12.6									
CUBLASLT_MATMUL_TILE_64x456	12.6									
CUBLASLT_MATMUL_TILE_64x464	12.6									
CUBLASLT_MATMUL_TILE_64x472	12.6									
CUBLASLT_MATMUL_TILE_64x48	12.6									
CUBLASLT_MATMUL_TILE_64x480	12.6									
CUBLASLT_MATMUL_TILE_64x488	12.6									
CUBLASLT_MATMUL_TILE_64x496	12.6									
CUBLASLT_MATMUL_TILE_64x504	12.6									
CUBLASLT_MATMUL_TILE_64x512	10.1									
CUBLASLT_MATMUL_TILE_64x520	12.6									
CUBLASLT_MATMUL_TILE_64x528	12.6									
CUBLASLT_MATMUL_TILE_64x536	12.6									
CUBLASLT_MATMUL_TILE_64x544	12.6									
CUBLASLT_MATMUL_TILE_64x552	12.6									
CUBLASLT_MATMUL_TILE_64x56	12.6									
CUBLASLT_MATMUL_TILE_64x560	12.6									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_64x568	12.6									
CUBLASLT_MATMUL_TILE_64x576	12.6									
CUBLASLT_MATMUL_TILE_64x584	12.6									
CUBLASLT_MATMUL_TILE_64x592	12.6									
CUBLASLT_MATMUL_TILE_64x600	12.6									
CUBLASLT_MATMUL_TILE_64x608	12.6									
CUBLASLT_MATMUL_TILE_64x616	12.6									
CUBLASLT_MATMUL_TILE_64x624	12.6									
CUBLASLT_MATMUL_TILE_64x632	12.6									
CUBLASLT_MATMUL_TILE_64x64	10.1									
CUBLASLT_MATMUL_TILE_64x640	12.6									
CUBLASLT_MATMUL_TILE_64x648	12.6									
CUBLASLT_MATMUL_TILE_64x656	12.6									
CUBLASLT_MATMUL_TILE_64x664	12.6									
CUBLASLT_MATMUL_TILE_64x672	12.6									
CUBLASLT_MATMUL_TILE_64x680	12.6									
CUBLASLT_MATMUL_TILE_64x688	12.6									
CUBLASLT_MATMUL_TILE_64x696	12.6									
CUBLASLT_MATMUL_TILE_64x704	12.6									
CUBLASLT_MATMUL_TILE_64x712	12.6									
CUBLASLT_MATMUL_TILE_64x72	12.6									
CUBLASLT_MATMUL_TILE_64x720	12.6									
CUBLASLT_MATMUL_TILE_64x728	12.6									
CUBLASLT_MATMUL_TILE_64x736	12.6									
CUBLASLT_MATMUL_TILE_64x744	12.6									
CUBLASLT_MATMUL_TILE_64x752	12.6									
CUBLASLT_MATMUL_TILE_64x760	12.6									
CUBLASLT_MATMUL_TILE_64x768	12.6									
CUBLASLT_MATMUL_TILE_64x8	10.1									
CUBLASLT_MATMUL_TILE_64x80	12.6									
CUBLASLT_MATMUL_TILE_64x88	12.6									
CUBLASLT_MATMUL_TILE_64x96	11.3									
CUBLASLT_MATMUL_TILE_656x64	12.6									
CUBLASLT_MATMUL_TILE_664x64	12.6									
CUBLASLT_MATMUL_TILE_672x64	12.6									
CUBLASLT_MATMUL_TILE_680x64	12.6									
CUBLASLT_MATMUL_TILE_688x64	12.6									
CUBLASLT_MATMUL_TILE_696x64	12.6									
CUBLASLT_MATMUL_TILE_704x16	12.6									
CUBLASLT_MATMUL_TILE_704x24	12.6									
CUBLASLT_MATMUL_TILE_704x32	12.6									
CUBLASLT_MATMUL_TILE_704x40	12.6									
CUBLASLT_MATMUL_TILE_704x48	12.6									
CUBLASLT_MATMUL_TILE_704x56	12.6									
CUBLASLT_MATMUL_TILE_704x64	12.6									
CUBLASLT_MATMUL_TILE_704x72	12.6									
CUBLASLT_MATMUL_TILE_704x8	12.6									
CUBLASLT_MATMUL_TILE_704x80	12.6									
CUBLASLT_MATMUL_TILE_704x88	12.6									
CUBLASLT_MATMUL_TILE_712x64	12.6									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_720x64	12.6									
CUBLASLT_MATMUL_TILE_728x64	12.6									
CUBLASLT_MATMUL_TILE_72x128	12.6									
CUBLASLT_MATMUL_TILE_72x192	12.6									
CUBLASLT_MATMUL_TILE_72x256	12.6									
CUBLASLT_MATMUL_TILE_72x320	12.6									
CUBLASLT_MATMUL_TILE_72x384	12.6									
CUBLASLT_MATMUL_TILE_72x448	12.6									
CUBLASLT_MATMUL_TILE_72x512	12.6									
CUBLASLT_MATMUL_TILE_72x576	12.6									
CUBLASLT_MATMUL_TILE_72x64	12.6									
CUBLASLT_MATMUL_TILE_72x640	12.6									
CUBLASLT_MATMUL_TILE_736x64	12.6									
CUBLASLT_MATMUL_TILE_744x64	12.6									
CUBLASLT_MATMUL_TILE_752x64	12.6									
CUBLASLT_MATMUL_TILE_760x64	12.6									
CUBLASLT_MATMUL_TILE_768x16	12.6									
CUBLASLT_MATMUL_TILE_768x24	12.6									
CUBLASLT_MATMUL_TILE_768x32	12.6									
CUBLASLT_MATMUL_TILE_768x40	12.6									
CUBLASLT_MATMUL_TILE_768x48	12.6									
CUBLASLT_MATMUL_TILE_768x56	12.6									
CUBLASLT_MATMUL_TILE_768x64	12.6									
CUBLASLT_MATMUL_TILE_768x72	12.6									
CUBLASLT_MATMUL_TILE_768x8	12.6									
CUBLASLT_MATMUL_TILE_768x80	12.6									
CUBLASLT_MATMUL_TILE_80x128	12.6									
CUBLASLT_MATMUL_TILE_80x192	12.6									
CUBLASLT_MATMUL_TILE_80x256	12.6									
CUBLASLT_MATMUL_TILE_80x320	12.6									
CUBLASLT_MATMUL_TILE_80x384	12.6									
CUBLASLT_MATMUL_TILE_80x448	12.6									
CUBLASLT_MATMUL_TILE_80x512	12.6									
CUBLASLT_MATMUL_TILE_80x576	12.6									
CUBLASLT_MATMUL_TILE_80x64	12.6									
CUBLASLT_MATMUL_TILE_88x128	12.6									
CUBLASLT_MATMUL_TILE_88x192	12.6									
CUBLASLT_MATMUL_TILE_88x256	12.6									
CUBLASLT_MATMUL_TILE_88x320	12.6									
CUBLASLT_MATMUL_TILE_88x384	12.6									
CUBLASLT_MATMUL_TILE_88x448	12.6									
CUBLASLT_MATMUL_TILE_88x512	12.6									
CUBLASLT_MATMUL_TILE_88x64	12.6									
CUBLASLT_MATMUL_TILE_8x128	12.6									
CUBLASLT_MATMUL_TILE_8x16	10.1									
CUBLASLT_MATMUL_TILE_8x192	12.6									
CUBLASLT_MATMUL_TILE_8x256	12.6									
CUBLASLT_MATMUL_TILE_8x32	10.1									
CUBLASLT_MATMUL_TILE_8x320	12.6									
CUBLASLT_MATMUL_TILE_8x384	12.6									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_MATMUL_TILE_8x448	12.6									
CUBLASLT_MATMUL_TILE_8x512	12.6									
CUBLASLT_MATMUL_TILE_8x576	12.6									
CUBLASLT_MATMUL_TILE_8x64	10.1									
CUBLASLT_MATMUL_TILE_8x640	12.6									
CUBLASLT_MATMUL_TILE_8x704	12.6									
CUBLASLT_MATMUL_TILE_8x768	12.6									
CUBLASLT_MATMUL_TILE_8x8	10.1									
CUBLASLT_MATMUL_TILE_96x128	11.3									
CUBLASLT_MATMUL_TILE_96x192	12.6									
CUBLASLT_MATMUL_TILE_96x256	12.6									
CUBLASLT_MATMUL_TILE_96x320	12.6									
CUBLASLT_MATMUL_TILE_96x384	12.6									
CUBLASLT_MATMUL_TILE_96x448	12.6									
CUBLASLT_MATMUL_TILE_96x512	12.6									
CUBLASLT_MATMUL_TILE_96x64	11.3									
CUBLASLT_MATMUL_TILE_END	10.1									
CUBLASLT_MATMUL_TILE_UNDEFINED	10.1									
CUBLASLT_MATRIX_LAYOUT_BATCH_COUNT	10.1									
CUBLASLT_MATRIX_LAYOUT_BATCH_MODE	12.9									
CUBLASLT_MATRIX_LAYOUT_COLS	10.1									
CUBLASLT_MATRIX_LAYOUT_LD	10.1									
CUBLASLT_MATRIX_LAYOUT_ORDER	10.1									
CUBLASLT_MATRIX_LAYOUT_PLANE_OFFSET	10.1									
CUBLASLT_MATRIX_LAYOUT_ROWS	10.1									
CUBLASLT_MATRIX_LAYOUT_STRIDED_BATCH_OFFSET	10.1									
CUBLASLT_MATRIX_LAYOUT_TYPE	10.1									
CUBLASLT_MATRIX_TRANSFORM_DESC_POINTER_MODE	10.1									
CUBLASLT_MATRIX_TRANSFORM_DESC_SCALE_TYPE	10.1									
CUBLASLT_MATRIX_TRANSFORM_DESC_TRANSA	10.1									
CUBLASLT_MATRIX_TRANSFORM_DESC_TRANSB	10.1									
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_16F	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_32F	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_32I	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_64F	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_TYPE_MASK	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_DMMA	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_FMA	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_GAUSSIAN	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_HMMA	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_IMMA	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_16BF	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_16F	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_32F	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_64F	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_8F_E4M3	11.8									
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_8F_E5M2	11.8									
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_8I	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_TF32	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_OP_INPUT_TYPE_MASK	11.0									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
CUBLASLT_NUMERICAL_IMPL_FLAGS_OP_TYPE_MASK	11.0									
CUBLASLT_NUMERICAL_IMPL_FLAGS_TENSOR_OP_MASK	11.0									
CUBLASLT_ORDER_COL	10.1									
CUBLASLT_ORDER_COL32	10.1									
CUBLASLT_ORDER_COL32_2R_4R4	11.0									
CUBLASLT_ORDER_COL4_4R2_8C	10.1									
CUBLASLT_ORDER_ROW	10.1									
CUBLASLT_POINTER_MODE_ALPHA_DEVICE_VECTOR_BETA_HOST	11.4									
CUBLASLT_POINTER_MODE_ALPHA_DEVICE_VECTOR_BETA_ZERO	10.1									
CUBLASLT_POINTER_MODE_DEVICE										
CUBLASLT_POINTER_MODE_DEVICE_VECTOR	10.1									
CUBLASLT_POINTER_MODE_HOST	10.1									
CUBLASLT_POINTER_MODE_MASK_ALPHA_DEVICE_VECTOR_BETA_HOST	11.4									
CUBLASLT_POINTER_MODE_MASK_ALPHA_DEVICE_VECTOR_BETA_ZERO	10.1									
CUBLASLT_POINTER_MODE_MASK_DEVICE	10.1									
CUBLASLT_POINTER_MODE_MASK_DEVICE_VECTOR	10.1									
CUBLASLT_POINTER_MODE_MASK_HOST	10.1									
CUBLASLT_REDUCTION_SCHEME_COMPUTE_TYPE	10.1									
CUBLASLT_REDUCTION_SCHEME_INPLACE	10.1									
CUBLASLT_REDUCTION_SCHEME_MASK	10.1									
CUBLASLT_REDUCTION_SCHEME_NONE	10.1									
CUBLASLT_REDUCTION_SCHEME_OUTPUT_TYPE	10.1									
CUBLASLT_SEARCH_BEST_FIT	10.1									
CUBLASLT_SEARCH_LIMITED_BY_ALGO_ID	10.1									
CUBLASLT_SEARCH_RESERVED_02	11.0									
CUBLASLT_SEARCH_RESERVED_03	11.0									
CUBLASLT_SEARCH_RESERVED_04	11.0									
CUBLASLT_SEARCH_RESERVED_05	11.0									
CUBLASLT_SEARCH_RESERVED_06	12.6									
CUBLASLT_SEARCH_RESERVED_07	12.6									
CUBLASLT_SEARCH_RESERVED_08	12.6									
CUBLASLT_SEARCH_RESERVED_09	12.6									
cublasLtBatchMode_t	12.9									
cublasLtClusterShape_t	11.8									
cublasLtContext	10.1									
cublasLtEpilogue_t	10.1									
cublasLtHandle_t	10.1									
cublasLtLoggerCallback_t	11.0									
cublasLtMatmulAlgoCapAttributes_t	10.1									
cublasLtMatmulAlgoConfigAttributes_t	10.1									
cublasLtMatmulAlgo_t	10.1									
cublasLtMatmulDescAttributes_t	10.1									
cublasLtMatmulDescOpaque_t	11.0									
cublasLtMatmulDesc_t	10.1									
cublasLtMatmulHeuristicResult_t	10.1									
cublasLtMatmulInnerShape_t	11.8									
cublasLtMatmulMatrixScale_t	12.8									
cublasLtMatmulPreferenceAttributes_t	10.1									
cublasLtMatmulPreferenceOpaque_t	11.0									
cublasLtMatmulPreference_t	10.1									

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Table 3 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
cublasLtMatmulSearch_t	10.1									
cublasLtMatmulStages_t	11.0									
cublasLtMatmulTile_t	10.1									
cublasLtMatrixLayoutAttribute_t	10.1									
cublasLtMatrixLayoutOpaque_t	11.0									
cublasLtMatrixLayoutStruct	10.1							10.2		
cublasLtMatrixLayout_t	10.1									
cublasLtMatrixTransformDescAttributes_t	10.1									
cublasLtMatrixTransformDescOpaque_t	11.0									
cublasLtMatrixTransformDesc_t	10.1									
cublasLtNumericalImplFlags_t	11.0									
cublasLtOrder_t	10.1									
cublasLtPointerModeMask_t	10.1									
cublasLtPointerMode_t	10.1									
cublasLtReductionScheme_t	10.1									

10.1.4 4. CUBLAS Helper Function Reference

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasAlloc											
cublasCreate					rocblas_create_handle	1.5.0					
cublasCreate_v2					rocblas_create_handle	1.5.0					
cublasDestroy					rocblas_destroy_handle	1.5.0					
cublasDestroy_v2					rocblas_destroy_handle	1.5.0					
cublasFree											
cublasGetAtomicsMode					rocblas_get_atomics_mode	3.8.0					
cublasGetCudartVersion	10.1										
cublasGetEmulationStrategy	12.9										
cublasGetError											
cublasGetLoggerCallback	9.2										
cublasGetMathMode	9.0				rocblas_get_math_mode	5.7.0					
cublasGetMatrix					rocblas_get_matrix	1.6.0					
cublasGetMatrixAsync					rocblas_get_matrix_async	3.5.0					
cublasGetMatrixAsync_64	12.0										
cublasGetMatrix_64	12.0										
cublasGetPointerMode					rocblas_get_pointer_mode	1.6.0					
cublasGetPointerMode_v2					rocblas_get_pointer_mode	1.6.0					
cublasGetProperty											
cublasGetSmCountTarget	11.3										
cublasGetStatusName	11.4										
cublasGetStatusString	11.4				rocblas_status_to_string	3.5.0					
cublasGetStream					rocblas_get_stream	1.5.0					
cublasGetStream_v2					rocblas_get_stream	1.5.0					
cublasGetVector					rocblas_get_vector	1.6.0					
cublasGetVectorAsync					rocblas_get_vector_async	3.5.0					
cublasGetVectorAsync_64	12.0										
cublasGetVector_64	12.0										
cublasGetVersion											
cublasGetVersion_v2											

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Table 4 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasInit					rocblas_initialize	3.5.0					
cublasLogCallback	9.2										
cublasLoggerConfigure	9.2										
cublasMigrateComputeType	11.0										
cublasSetAtomicsMode					rocblas_set_atomics_mode	3.8.0					
cublasSetEmulationStrategy	12.9										
cublasSetKernelStream											
cublasSetLoggerCallback	9.2										
cublasSetMathMode	9.0				rocblas_set_math_mode	5.7.0					
cublasSetMatrix					rocblas_set_matrix	1.6.0					
cublasSetMatrixAsync					rocblas_set_matrix_async	3.5.0					
cublasSetMatrixAsync_64	12.0										
cublasSetMatrix_64	12.0										
cublasSetPointerMode					rocblas_set_pointer_mode	1.6.0					
cublasSetPointerMode_v2					rocblas_set_pointer_mode	1.6.0					
cublasSetSmCountTarget	11.3										
cublasSetStream					rocblas_set_stream	1.5.0					
cublasSetStream_v2					rocblas_set_stream	1.5.0					
cublasSetVector					rocblas_set_vector	1.6.0					
cublasSetVectorAsync					rocblas_set_vector_async	3.5.0					
cublasSetVectorAsync_64	12.0										
cublasSetVector_64	12.0										
cublasSetWorkspace	11.0										
cublasSetWorkspace_v2	11.0										
cublasShutdown											
cublasXerbla											

10.1.5 5. CUBLAS Level-1 Function Reference

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasCaxpy					rocblas_caxpy	1.5.0					
cublasCaxpy_64	12.0				rocblas_caxpy_64	6.1.0					
cublasCaxpy_v2					rocblas_caxpy	1.5.0					
cublasCaxpy_v2_64	12.0				rocblas_caxpy_64	6.1.0					
cublasCcopy					rocblas_ccopy	1.5.0					
cublasCcopy_64	12.0				rocblas_ccopy_64	6.1.0					
cublasCcopy_v2					rocblas_ccopy	1.5.0					
cublasCcopy_v2_64	12.0				rocblas_ccopy_64	6.1.0					
cublasCdotc					rocblas_cdotc	3.5.0					
cublasCdotc_64	12.0				rocblas_cdotc_64	6.1.0					
cublasCdotc_v2					rocblas_cdotc	3.5.0					
cublasCdotc_v2_64	12.0				rocblas_cdotc_64	6.1.0					
cublasCdotu					rocblas_cdotu	1.5.0					
cublasCdotu_64	12.0				rocblas_cdotu_64	6.1.0					
cublasCdotu_v2					rocblas_cdotu	1.5.0					
cublasCdotu_v2_64	12.0				rocblas_cdotu_64	6.1.0					
cublasCrot					rocblas_crot	3.5.0					
cublasCrot_64	12.0				rocblas_crot_64	6.1.0					
cublasCrot_v2					rocblas_crot	3.5.0					

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Table 5 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasCrot_v2_64	12.0				rocblas_crot_64	6.1.0					
cublasCrotg					rocblas_crotg	3.5.0					
cublasCrotg_v2					rocblas_crotg	3.5.0					
cublasCscal					rocblas_cscal	1.5.0					
cublasCscal_64	12.0				rocblas_cscal_64	6.1.0					
cublasCscal_v2					rocblas_cscal	1.5.0					
cublasCscal_v2_64	12.0				rocblas_cscal_64	6.1.0					
cublasCsrot					rocblas_csrot	3.5.0					
cublasCsrot_64	12.0				rocblas_csrot_64	6.1.0					
cublasCsrot_v2					rocblas_csrot	3.5.0					
cublasCsrot_v2_64	12.0				rocblas_csrot_64	6.1.0					
cublasCsscal					rocblas_csscal	3.5.0					
cublasCsscal_64	12.0				rocblas_csscal_64	6.1.0					
cublasCsscal_v2					rocblas_csscal	3.5.0					
cublasCsscal_v2_64	12.0				rocblas_csscal_64	6.1.0					
cublasCswap					rocblas_cswap	1.5.0					
cublasCswap_64	12.0				rocblas_cswap_64	6.1.0					
cublasCswap_v2					rocblas_cswap	1.5.0					
cublasCswap_v2_64	12.0				rocblas_cswap_64	6.1.0					
cublasDasum					rocblas_dasum	1.5.0					
cublasDasum_64	12.0				rocblas_dasum_64	6.1.0					
cublasDasum_v2					rocblas_dasum	1.5.0					
cublasDasum_v2_64	12.0				rocblas_dasum_64	6.1.0					
cublasDaxpy					rocblas_daxpy	1.5.0					
cublasDaxpy_64	12.0				rocblas_daxpy_64	6.1.0					
cublasDaxpy_v2					rocblas_daxpy	1.5.0					
cublasDaxpy_v2_64	12.0				rocblas_daxpy_64	6.1.0					
cublasDcopy					rocblas_dcopy	1.5.0					
cublasDcopy_64	12.0				rocblas_dcopy_64	6.1.0					
cublasDcopy_v2					rocblas_dcopy	1.5.0					
cublasDcopy_v2_64	12.0				rocblas_dcopy_64	6.1.0					
cublasDdot					rocblas_ddot	1.5.0					
cublasDdot_64	12.0				rocblas_ddot_64	6.1.0					
cublasDdot_v2					rocblas_ddot	1.5.0					
cublasDdot_v2_64	12.0				rocblas_ddot_64	6.1.0					
cublasDnrm2					rocblas_dnrm2	1.5.0					
cublasDnrm2_64	12.0				rocblas_dnrm2_64	6.1.0					
cublasDnrm2_v2					rocblas_dnrm2	1.5.0					
cublasDnrm2_v2_64	12.0				rocblas_dnrm2_64	6.1.0					
cublasDrot					rocblas_drot	3.5.0					
cublasDrot_64	12.0				rocblas_drot_64	6.1.0					
cublasDrot_v2					rocblas_drot	3.5.0					
cublasDrot_v2_64	12.0				rocblas_drot_64	6.1.0					
cublasDrotg					rocblas_drotg	3.5.0					
cublasDrotg_v2					rocblas_drotg	3.5.0					
cublasDrotm					rocblas_drotm	3.5.0					
cublasDrotm_64	12.0				rocblas_drotm_64	6.1.0					
cublasDrotm_v2					rocblas_drotm	3.5.0					
cublasDrotm_v2_64	12.0				rocblas_drotm_64	6.1.0					
cublasDrotmg					rocblas_drotmg	3.5.0					

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Table 5 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasDrotmg_v2					rocblas_drotmg	3.5.0					
cublasDscal					rocblas_dscal	1.5.0					
cublasDscal_64	12.0				rocblas_dscal_64	6.1.0					
cublasDscal_v2					rocblas_dscal	1.5.0					
cublasDscal_v2_64	12.0				rocblas_dscal_64	6.1.0					
cublasDswap					rocblas_dswap	1.5.0					
cublasDswap_64	12.0				rocblas_dswap_64	6.1.0					
cublasDswap_v2					rocblas_dswap	1.5.0					
cublasDswap_v2_64	12.0				rocblas_dswap_64	6.1.0					
cublasDzasum					rocblas_dzasum	1.5.0					
cublasDzasum_64	12.0				rocblas_dzasum_64	6.1.0					
cublasDzasum_v2					rocblas_dzasum	1.5.0					
cublasDzasum_v2_64	12.0				rocblas_dzasum_64	6.1.0					
cublasDznrm2					rocblas_dznrm2	1.5.0					
cublasDznrm2_64	12.0				rocblas_dznrm2_64	6.1.0					
cublasDznrm2_v2					rocblas_dznrm2	1.5.0					
cublasDznrm2_v2_64	12.0				rocblas_dznrm2_64	6.1.0					
cublasIcamax					rocblas_icamax	3.5.0					
cublasIcamax_64	12.0				rocblas_icamax_64	6.1.0					
cublasIcamax_v2					rocblas_icamax	3.5.0					
cublasIcamax_v2_64	12.0				rocblas_icamax_64	6.1.0					
cublasIcamin					rocblas_icamin	3.5.0					
cublasIcamin_64	12.0				rocblas_icamin_64	6.1.0					
cublasIcamin_v2					rocblas_icamin	3.5.0					
cublasIcamin_v2_64	12.0				rocblas_icamin_64	6.1.0					
cublasIdamax					rocblas_idamax	1.6.4					
cublasIdamax_64	12.0				rocblas_idamax_64	6.1.0					
cublasIdamax_v2					rocblas_idamax	1.6.4					
cublasIdamax_v2_64	12.0				rocblas_idamax_64	6.1.0					
cublasIdamin					rocblas_idamin	1.6.4					
cublasIdamin_64	12.0				rocblas_idamin_64	6.1.0					
cublasIdamin_v2					rocblas_idamin	1.6.4					
cublasIdamin_v2_64	12.0				rocblas_idamin_64	6.1.0					
cublasIsamax					rocblas_isamax	1.6.4					
cublasIsamax_64	12.0				rocblas_isamax_64	6.1.0					
cublasIsamax_v2					rocblas_isamax	1.6.4					
cublasIsamax_v2_64	12.0				rocblas_isamax_64	6.1.0					
cublasIsamin					rocblas_isamin	1.6.4					
cublasIsamin_64	12.0				rocblas_isamin_64	6.1.0					
cublasIsamin_v2					rocblas_isamin	1.6.4					
cublasIsamin_v2_64	12.0				rocblas_isamin_64	6.1.0					
cublasIzamax					rocblas_izamax	3.5.0					
cublasIzamax_64	12.0				rocblas_izamax_64	6.1.0					
cublasIzamax_v2					rocblas_izamax	3.5.0					
cublasIzamax_v2_64	12.0				rocblas_izamax_64	6.1.0					
cublasIzamin					rocblas_izamin	3.5.0					
cublasIzamin_64	12.0				rocblas_izamin_64	6.1.0					
cublasIzamin_v2					rocblas_izamin	3.5.0					
cublasIzamin_v2_64	12.0				rocblas_izamin_64	6.1.0					
cublasNrm2Ex	8.0				rocblas_nrm2_ex	4.1.0					

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Table 5 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasNrm2Ex_64	12.0				rocblas_nrm2_ex_64	6.1.0					
cublasSasum					rocblas_sasum	1.5.0					
cublasSasum_64	12.0				rocblas_sasum_64	6.1.0					
cublasSasum_v2					rocblas_sasum	1.5.0					
cublasSasum_v2_64	12.0				rocblas_sasum_64	6.1.0					
cublasSaxpy					rocblas_saxpy	1.5.0					
cublasSaxpy_64	12.0				rocblas_saxpy_64	6.1.0					
cublasSaxpy_v2					rocblas_saxpy	1.5.0					
cublasSaxpy_v2_64	12.0				rocblas_saxpy_64	6.1.0					
cublasScasum					rocblas_scasum	1.5.0					
cublasScasum_64	12.0				rocblas_scasum_64	6.1.0					
cublasScasum_v2					rocblas_scasum	1.5.0					
cublasScasum_v2_64	12.0				rocblas_scasum_64	6.1.0					
cublasScnrm2					rocblas_scnrm2	1.5.0					
cublasScnrm2_64	12.0				rocblas_scnrm2_64	6.1.0					
cublasScnrm2_v2					rocblas_scnrm2	1.5.0					
cublasScnrm2_v2_64	12.0				rocblas_scnrm2_64	6.1.0					
cublasScopy					rocblas_scopy	1.5.0					
cublasScopy_64	12.0				rocblas_scopy_64	6.1.0					
cublasScopy_v2					rocblas_scopy	1.5.0					
cublasScopy_v2_64	12.0				rocblas_scopy_64	6.1.0					
cublasSdot					rocblas_sdot	1.5.0					
cublasSdot_64	12.0				rocblas_sdot_64	6.1.0					
cublasSdot_v2					rocblas_sdot	1.5.0					
cublasSdot_v2_64	12.0				rocblas_sdot_64	6.1.0					
cublasSnrm2					rocblas_snrm2	1.5.0					
cublasSnrm2_64	12.0				rocblas_snrm2_64	6.1.0					
cublasSnrm2_v2					rocblas_snrm2	1.5.0					
cublasSnrm2_v2_64	12.0				rocblas_snrm2_64	6.1.0					
cublasSrot					rocblas_srot	3.5.0					
cublasSrot_64	12.0				rocblas_srot_64	6.1.0					
cublasSrot_v2					rocblas_srot	3.5.0					
cublasSrot_v2_64	12.0				rocblas_srot_64	6.1.0					
cublasSrotg					rocblas_srotg	3.5.0					
cublasSrotg_v2					rocblas_srotg	3.5.0					
cublasSrotm					rocblas_srotm	3.5.0					
cublasSrotm_64	12.0				rocblas_srotm_64	6.1.0					
cublasSrotm_v2					rocblas_srotm	3.5.0					
cublasSrotm_v2_64	12.0				rocblas_srotm_64	6.1.0					
cublasSrotmg					rocblas_srotmg	3.5.0					
cublasSrotmg_v2					rocblas_srotmg	3.5.0					
cublasSscal					rocblas_sscal	1.5.0					
cublasSscal_64	12.0				rocblas_sscal_64	6.1.0					
cublasSscal_v2					rocblas_sscal	1.5.0					
cublasSscal_v2_64	12.0				rocblas_sscal_64	6.1.0					
cublasSswap					rocblas_sswap	1.5.0					
cublasSswap_64	12.0				rocblas_sswap_64	6.1.0					
cublasSswap_v2					rocblas_sswap	1.5.0					
cublasSswap_v2_64	12.0				rocblas_sswap_64	6.1.0					
cublasZaxpy					rocblas_zaxpy	1.5.0					

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Table 5 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasZaxpy_64	12.0				rocblas_zaxpy_64	6.1.0					
cublasZaxpy_v2					rocblas_zaxpy	1.5.0					
cublasZaxpy_v2_64	12.0				rocblas_zaxpy_64	6.1.0					
cublasZcopy					rocblas_zcopy	1.5.0					
cublasZcopy_64	12.0				rocblas_zcopy_64	6.1.0					
cublasZcopy_v2					rocblas_zcopy	1.5.0					
cublasZcopy_v2_64	12.0				rocblas_zcopy_64	6.1.0					
cublasZdotc					rocblas_zdotc	3.5.0					
cublasZdotc_64	12.0				rocblas_zdotc_64	6.1.0					
cublasZdotc_v2					rocblas_zdotc	3.5.0					
cublasZdotc_v2_64	12.0				rocblas_zdotc_64	6.1.0					
cublasZdotu					rocblas_zdotu	1.5.0					
cublasZdotu_64	12.0				rocblas_zdotu_64	6.1.0					
cublasZdotu_v2					rocblas_zdotu	1.5.0					
cublasZdotu_v2_64	12.0				rocblas_zdotu_64	6.1.0					
cublasZdrot					rocblas_zdrot	3.5.0					
cublasZdrot_64	12.0				rocblas_zdrot_64	6.1.0					
cublasZdrot_v2					rocblas_zdrot	3.5.0					
cublasZdrot_v2_64	12.0				rocblas_zdrot_64	6.1.0					
cublasZdscal					rocblas_zdscal	3.5.0					
cublasZdscal_64	12.0				rocblas_zdscal_64	6.1.0					
cublasZdscal_v2					rocblas_zdscal	3.5.0					
cublasZdscal_v2_64	12.0				rocblas_zdscal_64	6.1.0					
cublasZrot					rocblas_zrot	3.5.0					
cublasZrot_64	12.0				rocblas_zrot_64	6.1.0					
cublasZrot_v2					rocblas_zrot	3.5.0					
cublasZrot_v2_64	12.0				rocblas_zrot_64	6.1.0					
cublasZrotg					rocblas_zrotg	3.5.0					
cublasZrotg_v2					rocblas_zrotg	3.5.0					
cublasZscal					rocblas_zscal	1.5.0					
cublasZscal_64	12.0				rocblas_zscal_64	6.1.0					
cublasZscal_v2					rocblas_zscal	1.5.0					
cublasZscal_v2_64	12.0				rocblas_zscal_64	6.1.0					
cublasZswap					rocblas_zswap	1.5.0					
cublasZswap_64	12.0				rocblas_zswap_64	6.1.0					
cublasZswap_v2					rocblas_zswap	1.5.0					
cublasZswap_v2_64	12.0				rocblas_zswap_64	6.1.0					

10.1.6 6. CUBLAS Level-2 Function Reference

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasCgbmv					rocblas_cgbmv	3.5.0					
cublasCgbmv_64	12.0				rocblas_cgbmv_64	6.2.0					
cublasCgbmv_v2					rocblas_cgbmv	3.5.0					
cublasCgbmv_v2_64	12.0				rocblas_cgbmv_64	6.2.0					
cublasCgemv					rocblas_cgemv	1.5.0					
cublasCgemv_64	12.0				rocblas_cgemv_64	6.2.0					
cublasCgemv_v2					rocblas_cgemv	1.5.0					
cublasCgemv_v2_64	12.0				rocblas_cgemv_64	6.2.0					

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Table 6 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasCgerc					rocblas_cgerc	3.5.0					
cublasCgerc_64	12.0				rocblas_cgerc_64	6.2.0					
cublasCgerc_v2					rocblas_cgerc	3.5.0					
cublasCgerc_v2_64	12.0				rocblas_cgerc_64	6.2.0					
cublasCgeru					rocblas_cgeru	3.5.0					
cublasCgeru_64	12.0				rocblas_cgeru_64	6.2.0					
cublasCgeru_v2					rocblas_cgeru	3.5.0					
cublasCgeru_v2_64	12.0				rocblas_cgeru_64	6.2.0					
cublasChbmv					rocblas_chbmv	3.5.0					
cublasChbmv_64	12.0				rocblas_chbmv_64	6.2.0					
cublasChbmv_v2					rocblas_chbmv	3.5.0					
cublasChbmv_v2_64	12.0				rocblas_chbmv_64	6.2.0					
cublasChemv					rocblas_chemv	1.5.0					
cublasChemv_64	12.0				rocblas_chemv_64	6.2.0					
cublasChemv_v2					rocblas_chemv	1.5.0					
cublasChemv_v2_64	12.0				rocblas_chemv_64	6.2.0					
cublasCher					rocblas_cher	3.5.0					
cublasCher2					rocblas_cher2	3.5.0					
cublasCher2_64	12.0				rocblas_cher2_64	6.2.0					
cublasCher2_v2					rocblas_cher2	3.5.0					
cublasCher2_v2_64	12.0				rocblas_cher2_64	6.2.0					
cublasCher_64	12.0				rocblas_cher_64	6.2.0					
cublasCher_v2					rocblas_cher	3.5.0					
cublasCher_v2_64	12.0				rocblas_cher_64	6.2.0					
cublasChpmv					rocblas_chpmv	3.5.0					
cublasChpmv_64	12.0				rocblas_chpmv_64	6.2.0					
cublasChpmv_v2					rocblas_chpmv	3.5.0					
cublasChpmv_v2_64	12.0				rocblas_chpmv_64	6.2.0					
cublasChpr					rocblas_chpr	3.5.0					
cublasChpr2					rocblas_chpr2	3.5.0					
cublasChpr2_64	12.0				rocblas_chpr2_64	6.2.0					
cublasChpr2_v2					rocblas_chpr2	3.5.0					
cublasChpr2_v2_64	12.0				rocblas_chpr2_64	6.2.0					
cublasChpr_64	12.0				rocblas_chpr_64	6.2.0					
cublasChpr_v2					rocblas_chpr	3.5.0					
cublasChpr_v2_64	12.0				rocblas_chpr_64	6.2.0					
cublasCsymv					rocblas_csymv	3.5.0					
cublasCsymv_64	12.0				rocblas_csymv_64	6.2.0					
cublasCsymv_v2					rocblas_csymv	3.5.0					
cublasCsymv_v2_64	12.0				rocblas_csymv_64	6.2.0					
cublasCsyr					rocblas_csyr	1.7.1					
cublasCsyr2					rocblas_csyr2	3.5.0					
cublasCsyr2_64	12.0				rocblas_csyr2_64	6.2.0					
cublasCsyr2_v2					rocblas_csyr2	3.5.0					
cublasCsyr2_v2_64	12.0				rocblas_csyr2_64	6.2.0					
cublasCsyr_64	12.0				rocblas_csyr_64	6.2.0					
cublasCsyr_v2					rocblas_csyr	1.7.1					
cublasCsyr_v2_64	12.0				rocblas_csyr_64	6.2.0					
cublasCtbmv					rocblas_ctbmv	3.5.0					
cublasCtbmv_64	12.0				rocblas_ctbmv_64	6.2.0					

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Table 6 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasCtbnv_v2					rocblas_ctbnv	3.5.0					
cublasCtbnv_v2_64	12.0				rocblas_ctbnv_64	6.2.0					
cublasCtbsv					rocblas_ctbsv	3.5.0					
cublasCtbsv_64	12.0				rocblas_ctbsv_64	6.2.0					
cublasCtbsv_v2					rocblas_ctbsv	3.5.0					
cublasCtbsv_v2_64	12.0				rocblas_ctbsv_64	6.2.0					
cublasCtpmv					rocblas_ctpmv	3.5.0					
cublasCtpmv_64	12.0				rocblas_ctpmv_64	6.2.0					
cublasCtpmv_v2					rocblas_ctpmv	3.5.0					
cublasCtpmv_v2_64	12.0				rocblas_ctpmv_64	6.2.0					
cublasCtpsv					rocblas_ctpsv	3.5.0					
cublasCtpsv_64	12.0				rocblas_ctpsv_64	6.2.0					
cublasCtpsv_v2					rocblas_ctpsv	3.5.0					
cublasCtpsv_v2_64	12.0				rocblas_ctpsv_64	6.2.0					
cublasCtrmv					rocblas_ctrmv	3.5.0					
cublasCtrmv_64	12.0				rocblas_ctrmv_64	6.2.0					
cublasCtrmv_v2					rocblas_ctrmv	3.5.0					
cublasCtrmv_v2_64	12.0				rocblas_ctrmv_64	6.2.0					
cublasCtrsv					rocblas_ctrsv	3.5.0					
cublasCtrsv_64	12.0				rocblas_ctrsv_64	6.2.0					
cublasCtrsv_v2					rocblas_ctrsv	3.5.0					
cublasCtrsv_v2_64	12.0				rocblas_ctrsv_64	6.2.0					
cublasDgbmv					rocblas_dgbmv	3.5.0					
cublasDgbmv_64	12.0				rocblas_dgbmv_64	6.2.0					
cublasDgbmv_v2					rocblas_dgbmv	3.5.0					
cublasDgbmv_v2_64	12.0				rocblas_dgbmv_64	6.2.0					
cublasDgemv					rocblas_dgemv	1.5.0					
cublasDgemv_64	12.0				rocblas_dgemv_64	6.2.0					
cublasDgemv_v2					rocblas_dgemv	1.5.0					
cublasDgemv_v2_64	12.0				rocblas_dgemv_64	6.2.0					
cublasDger					rocblas_dger	1.5.0					
cublasDger_64	12.0				rocblas_dger_64	6.2.0					
cublasDger_v2					rocblas_dger	1.5.0					
cublasDger_v2_64	12.0				rocblas_dger_64	6.2.0					
cublasDsbmv					rocblas_dsbmv	3.5.0					
cublasDsbmv_64	12.0				rocblas_dsbmv_64	6.2.0					
cublasDsbmv_v2					rocblas_dsbmv	3.5.0					
cublasDsbmv_v2_64	12.0				rocblas_dsbmv_64	6.2.0					
cublasDspmv					rocblas_dspmv	3.5.0					
cublasDspmv_64	12.0				rocblas_dspmv_64	6.2.0					
cublasDspmv_v2					rocblas_dspmv	3.5.0					
cublasDspmv_v2_64	12.0				rocblas_dspmv_64	6.2.0					
cublasDspr					rocblas_dspr	3.5.0					
cublasDspr2					rocblas_dspr2	3.5.0					
cublasDspr2_64	12.0				rocblas_dspr2_64	6.2.0					
cublasDspr2_v2					rocblas_dspr2	3.5.0					
cublasDspr2_v2_64	12.0				rocblas_dspr2_64	6.2.0					
cublasDspr_64	12.0				rocblas_dspr_64	6.2.0					
cublasDspr_v2					rocblas_dspr	3.5.0					
cublasDspr_v2_64	12.0				rocblas_dspr_64	6.2.0					

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Table 6 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasDsymv					rocblas_dsymv	1.5.0					
cublasDsymv_64	12.0				rocblas_dsymv_64	6.2.0					
cublasDsymv_v2					rocblas_dsymv	1.5.0					
cublasDsymv_v2_64	12.0				rocblas_dsymv_64	6.2.0					
cublasDsyr					rocblas_dsyr	1.7.1					
cublasDsyr2					rocblas_dsyr2	3.5.0					
cublasDsyr2_64	12.0				rocblas_dsyr2_64	6.2.0					
cublasDsyr2_v2					rocblas_dsyr2	3.5.0					
cublasDsyr2_v2_64	12.0				rocblas_dsyr2_64	6.2.0					
cublasDsyr_64	12.0				rocblas_dsyr_64	6.2.0					
cublasDsyr_v2					rocblas_dsyr	1.7.1					
cublasDsyr_v2_64	12.0				rocblas_dsyr_64	6.2.0					
cublasDtbmv					rocblas_dtbmv	3.5.0					
cublasDtbmv_64	12.0				rocblas_dtbmv_64	6.2.0					
cublasDtbmv_v2					rocblas_dtbmv	3.5.0					
cublasDtbmv_v2_64	12.0				rocblas_dtbmv_64	6.2.0					
cublasDtbsv					rocblas_dtbsv	3.5.0					
cublasDtbsv_64	12.0				rocblas_dtbsv_64	6.2.0					
cublasDtbsv_v2					rocblas_dtbsv	3.5.0					
cublasDtbsv_v2_64	12.0				rocblas_dtbsv_64	6.2.0					
cublasDtpmv					rocblas_dtpmv	3.5.0					
cublasDtpmv_64	12.0				rocblas_dtpmv_64	6.2.0					
cublasDtpmv_v2					rocblas_dtpmv	3.5.0					
cublasDtpmv_v2_64	12.0				rocblas_dtpmv_64	6.2.0					
cublasDtpsv					rocblas_dtpsv	3.5.0					
cublasDtpsv_64	12.0				rocblas_dtpsv_64	6.2.0					
cublasDtpsv_v2					rocblas_dtpsv	3.5.0					
cublasDtpsv_v2_64	12.0				rocblas_dtpsv_64	6.2.0					
cublasDtrmv					rocblas_dtrmv	3.5.0					
cublasDtrmv_64	12.0				rocblas_dtrmv_64	6.2.0					
cublasDtrmv_v2					rocblas_dtrmv	3.5.0					
cublasDtrmv_v2_64	12.0				rocblas_dtrmv_64	6.2.0					
cublasDtrsv					rocblas_dtrsv	3.5.0					
cublasDtrsv_64	12.0				rocblas_dtrsv_64	6.2.0					
cublasDtrsv_v2					rocblas_dtrsv	3.5.0					
cublasDtrsv_v2_64	12.0				rocblas_dtrsv_64	6.2.0					
cublasSgbmv					rocblas_sgbmv	3.5.0					
cublasSgbmv_64	12.0				rocblas_sgbmv_64	6.2.0					
cublasSgbmv_v2					rocblas_sgbmv	3.5.0					
cublasSgbmv_v2_64	12.0				rocblas_sgbmv_64	6.2.0					
cublasSgemv					rocblas_sgemv	1.5.0					
cublasSgemv_64	12.0				rocblas_sgemv_64	6.2.0					
cublasSgemv_v2					rocblas_sgemv	1.5.0					
cublasSgemv_v2_64	12.0				rocblas_sgemv_64	6.2.0					
cublasSger					rocblas_sger	1.5.0					
cublasSger_64	12.0				rocblas_sger_64	6.2.0					
cublasSger_v2					rocblas_sger	1.5.0					
cublasSger_v2_64	12.0				rocblas_sger_64	6.2.0					
cublasSsbmv					rocblas_ssbmv	3.5.0					
cublasSsbmv_64	12.0				rocblas_ssbmv_64	6.2.0					

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Table 6 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasSsbmv_v2					rocblas_ssbmv	3.5.0					
cublasSsbmv_v2_64	12.0				rocblas_ssbmv_64	6.2.0					
cublasSspmv					rocblas_sspmv	3.5.0					
cublasSspmv_64	12.0				rocblas_sspmv_64	6.2.0					
cublasSspmv_v2					rocblas_sspmv	3.5.0					
cublasSspmv_v2_64	12.0				rocblas_sspmv_64	6.2.0					
cublasSspr					rocblas_sspr	3.5.0					
cublasSspr2					rocblas_sspr2	3.5.0					
cublasSspr2_64	12.0				rocblas_sspr2_64	6.2.0					
cublasSspr2_v2					rocblas_sspr2	3.5.0					
cublasSspr2_v2_64	12.0				rocblas_sspr2_64	6.2.0					
cublasSspr_64	12.0				rocblas_sspr_64	6.2.0					
cublasSspr_v2					rocblas_sspr	3.5.0					
cublasSspr_v2_64	12.0				rocblas_sspr_64	6.2.0					
cublasSsymv					rocblas_ssymv	1.5.0					
cublasSsymv_64	12.0				rocblas_ssymv_64	6.2.0					
cublasSsymv_v2					rocblas_ssymv	1.5.0					
cublasSsymv_v2_64	12.0				rocblas_ssymv_64	6.2.0					
cublasSsyrr					rocblas_ssyrr	1.7.1					
cublasSsyrr2					rocblas_ssyrr2	3.5.0					
cublasSsyrr2_64	12.0				rocblas_ssyrr2_64	6.2.0					
cublasSsyrr2_v2					rocblas_ssyrr2	3.5.0					
cublasSsyrr2_v2_64	12.0				rocblas_ssyrr2_64	6.2.0					
cublasSsyrr_64	12.0				rocblas_ssyrr_64	6.2.0					
cublasSsyrr_v2					rocblas_ssyrr	1.7.1					
cublasSsyrr_v2_64	12.0				rocblas_ssyrr_64	6.2.0					
cublasStbmv					rocblas_stbmv	3.5.0					
cublasStbmv_64	12.0				rocblas_stbmv_64	6.2.0					
cublasStbmv_v2					rocblas_stbmv	3.5.0					
cublasStbmv_v2_64	12.0				rocblas_stbmv_64	6.2.0					
cublasStbsv					rocblas_stbsv	3.5.0					
cublasStbsv_64	12.0				rocblas_stbsv_64	6.2.0					
cublasStbsv_v2					rocblas_stbsv	3.5.0					
cublasStbsv_v2_64	12.0				rocblas_stbsv_64	6.2.0					
cublasStpmv					rocblas_stpmv	3.5.0					
cublasStpmv_64	12.0				rocblas_stpmv_64	6.2.0					
cublasStpmv_v2					rocblas_stpmv	3.5.0					
cublasStpmv_v2_64	12.0				rocblas_stpmv_64	6.2.0					
cublasStpsv					rocblas_stpsv	3.5.0					
cublasStpsv_64	12.0				rocblas_stpsv_64	6.2.0					
cublasStpsv_v2					rocblas_stpsv	3.5.0					
cublasStpsv_v2_64	12.0				rocblas_stpsv_64	6.2.0					
cublasStrmv					rocblas_strmv	3.5.0					
cublasStrmv_64	12.0				rocblas_strmv_64	6.2.0					
cublasStrmv_v2					rocblas_strmv	3.5.0					
cublasStrmv_v2_64	12.0				rocblas_strmv_64	6.2.0					
cublasStrsv					rocblas_strsv	3.5.0					
cublasStrsv_64	12.0				rocblas_strsv_64	6.2.0					
cublasStrsv_v2					rocblas_strsv	3.5.0					
cublasStrsv_v2_64	12.0				rocblas_strsv_64	6.2.0					

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Table 6 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasZgbmv					rocblas_zgbmv	3.5.0					
cublasZgbmv_64	12.0				rocblas_zgbmv_64	6.2.0					
cublasZgbmv_v2					rocblas_zgbmv	3.5.0					
cublasZgbmv_v2_64	12.0				rocblas_zgbmv_64	6.2.0					
cublasZgemv					rocblas_zgemv	1.5.0					
cublasZgemv_64	12.0				rocblas_zgemv_64	6.2.0					
cublasZgemv_v2					rocblas_zgemv	1.5.0					
cublasZgemv_v2_64	12.0				rocblas_zgemv_64	6.2.0					
cublasZgerc					rocblas_zgerc	3.5.0					
cublasZgerc_64	12.0				rocblas_zgerc_64	6.2.0					
cublasZgerc_v2					rocblas_zgerc	3.5.0					
cublasZgerc_v2_64	12.0				rocblas_zgerc_64	6.2.0					
cublasZgeru					rocblas_zgeru	3.5.0					
cublasZgeru_64	12.0				rocblas_zgeru_64	6.2.0					
cublasZgeru_v2					rocblas_zgeru	3.5.0					
cublasZgeru_v2_64	12.0				rocblas_zgeru_64	6.2.0					
cublasZhbmvm					rocblas_zhbmvm	3.5.0					
cublasZhbmvm_64	12.0				rocblas_zhbmvm_64	6.2.0					
cublasZhbmvm_v2					rocblas_zhbmvm	3.5.0					
cublasZhbmvm_v2_64	12.0				rocblas_zhbmvm_64	6.2.0					
cublasZhemv					rocblas_zhemv	1.5.0					
cublasZhemv_64	12.0				rocblas_zhemv_64	6.2.0					
cublasZhemv_v2					rocblas_zhemv	1.5.0					
cublasZhemv_v2_64	12.0				rocblas_zhemv_64	6.2.0					
cublasZher					rocblas_zher	3.5.0					
cublasZher2					rocblas_zher2	3.5.0					
cublasZher2_64	12.0				rocblas_zher2_64	6.2.0					
cublasZher2_v2					rocblas_zher2	3.5.0					
cublasZher2_v2_64	12.0				rocblas_zher2_64	6.2.0					
cublasZher_64	12.0				rocblas_zher_64	6.2.0					
cublasZher_v2					rocblas_zher	3.5.0					
cublasZher_v2_64	12.0				rocblas_zher_64	6.2.0					
cublasZhpmv					rocblas_zhpmv	3.5.0					
cublasZhpmv_64	12.0				rocblas_zhpmv_64	6.2.0					
cublasZhpmv_v2					rocblas_zhpmv	3.5.0					
cublasZhpmv_v2_64	12.0				rocblas_zhpmv_64	6.2.0					
cublasZhpr					rocblas_zhpr	3.5.0					
cublasZhpr2					rocblas_zhpr2	3.5.0					
cublasZhpr2_64	12.0				rocblas_zhpr2_64	6.2.0					
cublasZhpr2_v2					rocblas_zhpr2	3.5.0					
cublasZhpr2_v2_64	12.0				rocblas_zhpr2_64	6.2.0					
cublasZhpr_64	12.0				rocblas_zhpr_64	6.2.0					
cublasZhpr_v2					rocblas_zhpr	3.5.0					
cublasZhpr_v2_64	12.0				rocblas_zhpr_64	6.2.0					
cublasZsymv					rocblas_zsymv	3.5.0					
cublasZsymv_64	12.0				rocblas_zsymv_64	6.2.0					
cublasZsymv_v2					rocblas_zsymv	3.5.0					
cublasZsymv_v2_64	12.0				rocblas_zsymv_64	6.2.0					
cublasZsyr					rocblas_zsyr	1.7.1					
cublasZsyr2					rocblas_zsyr2	3.5.0					

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Table 6 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasZsyr2_64	12.0				rocblas_zsyr2_64	6.2.0					
cublasZsyr2_v2					rocblas_zsyr2	3.5.0					
cublasZsyr2_v2_64	12.0				rocblas_zsyr2_64	6.2.0					
cublasZsyr_64	12.0				rocblas_zsyr_64	6.2.0					
cublasZsyr_v2					rocblas_zsyr	1.7.1					
cublasZsyr_v2_64	12.0				rocblas_zsyr_64	6.2.0					
cublasZtbmv					rocblas_ztbmv	3.5.0					
cublasZtbmv_64	12.0				rocblas_ztbmv_64	6.2.0					
cublasZtbmv_v2					rocblas_ztbmv	3.5.0					
cublasZtbmv_v2_64	12.0				rocblas_ztbmv_64	6.2.0					
cublasZtbsv					rocblas_ztbsv	3.5.0					
cublasZtbsv_64	12.0				rocblas_ztbsv_64	6.2.0					
cublasZtbsv_v2					rocblas_ztbsv	3.5.0					
cublasZtbsv_v2_64	12.0				rocblas_ztbsv_64	6.2.0					
cublasZtpmv					rocblas_ztpmv	3.5.0					
cublasZtpmv_64	12.0				rocblas_ztpmv_64	6.2.0					
cublasZtpmv_v2					rocblas_ztpmv	3.5.0					
cublasZtpmv_v2_64	12.0				rocblas_ztpmv_64	6.2.0					
cublasZtpsv					rocblas_ztpsv	3.5.0					
cublasZtpsv_64	12.0				rocblas_ztpsv_64	6.2.0					
cublasZtpsv_v2					rocblas_ztpsv	3.5.0					
cublasZtpsv_v2_64	12.0				rocblas_ztpsv_64	6.2.0					
cublasZtrmv					rocblas_ztrmv	3.5.0					
cublasZtrmv_64	12.0				rocblas_ztrmv_64	6.2.0					
cublasZtrmv_v2					rocblas_ztrmv	3.5.0					
cublasZtrmv_v2_64	12.0				rocblas_ztrmv_64	6.2.0					
cublasZtrsv					rocblas_ztrsv	3.5.0					
cublasZtrsv_64	12.0				rocblas_ztrsv_64	6.2.0					
cublasZtrsv_v2					rocblas_ztrsv	3.5.0					
cublasZtrsv_v2_64	12.0				rocblas_ztrsv_64	6.2.0					

10.1.7 7. CUBLAS Level-3 Function Reference

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasCgemm					rocblas_cgemm	1.5.0					
cublasCgemm3m	8.0										
cublasCgemm3mBatched	8.0										
cublasCgemm3mBatched_64	12.0										
cublasCgemm3mEx	8.0										
cublasCgemm3mEx_64	12.0										
cublasCgemm3mStridedBatched	8.0										
cublasCgemm3mStridedBatched_64	12.0										
cublasCgemm3m_64	12.0										
cublasCgemmBatched					rocblas_cgemm_batched	3.5.0					
cublasCgemmBatched_64	12.0				rocblas_cgemm_batched_64	6.3.0					
cublasCgemmStridedBatched	8.0				rocblas_cgemm_strided_batched	1.5.0					
cublasCgemmStridedBatched_64	12.0				rocblas_cgemm_strided_batched_64	6.3.0					
cublasCgemm_64	12.0				rocblas_cgemm_64	6.3.0					
cublasCgemm_v2					rocblas_cgemm	1.5.0					

continues on n

Table 7 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R
cublasCgemm_v2_64	12.0				rocblas_cgemm_64	6.3.0			
cublasCgemvBatched	11.6				rocblas_cgemv_batched	3.5.0			
cublasCgemvBatched_64	12.0				rocblas_cgemv_batched_64	6.2.0			
cublasCgemvStridedBatched	11.6				rocblas_cgemv_strided_batched	3.5.0			
cublasCgemvStridedBatched_64	12.0				rocblas_cgemv_strided_batched_64	6.2.0			
cublasChemmm					rocblas_chemm	3.5.0			
cublasChemmm_64	12.0				rocblas_chemm_64	6.3.0			
cublasChemmm_v2					rocblas_chemm	3.5.0			
cublasChemmm_v2_64	12.0				rocblas_chemm_64	6.3.0			
cublasCher2k					rocblas_cher2k	3.5.0			
cublasCher2k_64	12.0				rocblas_cher2k_64	6.3.0			
cublasCher2k_v2					rocblas_cher2k	3.5.0			
cublasCher2k_v2_64	12.0				rocblas_cher2k_64	6.3.0			
cublasCherk					rocblas_cherk	3.5.0			
cublasCherk_64	12.0				rocblas_cherk_64	6.3.0			
cublasCherk_v2					rocblas_cherk	3.5.0			
cublasCherk_v2_64	12.0				rocblas_cherk_64	6.3.0			
cublasCherkx					rocblas_cherkx	3.5.0			
cublasCherkx_64	12.0				rocblas_cherkx_64	6.3.0			
cublasCsymm					rocblas_csymm	3.5.0			
cublasCsymm_64	12.0				rocblas_csymm_64	6.3.0			
cublasCsymm_v2					rocblas_csymm	3.5.0			
cublasCsymm_v2_64	12.0				rocblas_csymm_64	6.3.0			
cublasCsyr2k					rocblas_csyr2k	3.5.0			
cublasCsyr2k_64	12.0				rocblas_csyr2k_64	6.3.0			
cublasCsyr2k_v2					rocblas_csyr2k	3.5.0			
cublasCsyr2k_v2_64	12.0				rocblas_csyr2k_64	6.3.0			
cublasCsyrk					rocblas_csyrk	3.5.0			
cublasCsyrk_64	12.0				rocblas_csyrk_64	6.3.0			
cublasCsyrk_v2					rocblas_csyrk	3.5.0			
cublasCsyrk_v2_64	12.0				rocblas_csyrk_64	6.3.0			
cublasCsyrkx					rocblas_csyrkx	3.5.0			
cublasCsyrkx_64	12.0				rocblas_csyrkx_64	6.3.0			
cublasCtrmm					rocblas_ctrmm	3.5.0		6.0.0	
cublasCtrmm_64	12.0				rocblas_ctrmm_64	6.3.0			
cublasCtrmm_v2					rocblas_ctrmm	3.5.0		6.0.0	
cublasCtrmm_v2_64	12.0				rocblas_ctrmm_64	6.3.0			
cublasCtrsm					rocblas_ctrsm	3.5.0			
cublasCtrsm_64	12.0				rocblas_ctrsm_64	6.2.0			
cublasCtrsm_v2					rocblas_ctrsm	3.5.0			
cublasCtrsm_v2_64	12.0				rocblas_ctrsm_64	6.2.0			
cublasDgemm					rocblas_dgemm	1.5.0			
cublasDgemmBatched					rocblas_dgemm_batched	3.5.0			
cublasDgemmBatched_64	12.0				rocblas_dgemm_batched_64	6.3.0			
cublasDgemmGroupedBatched	12.4								
cublasDgemmGroupedBatched_64	12.4								
cublasDgemmStridedBatched	8.0				rocblas_dgemm_strided_batched	1.5.0			
cublasDgemmStridedBatched_64	12.0				rocblas_dgemm_strided_batched_64	6.3.0			
cublasDgemm_64	12.0				rocblas_dgemm_64	6.3.0			
cublasDgemm_v2					rocblas_dgemm	1.5.0			

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Table 7 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R
cublasDgemm_v2_64	12.0				rocblas_dgemm_64	6.3.0			
cublasDgemvBatched	11.6				rocblas_dgemv_batched	3.5.0			
cublasDgemvBatched_64	12.0				rocblas_dgemv_batched_64	6.2.0			
cublasDgemvStridedBatched	11.6				rocblas_dgemv_strided_batched	3.5.0			
cublasDgemvStridedBatched_64	12.0				rocblas_dgemv_strided_batched_64	6.2.0			
cublasDsymm					rocblas_dsymm	3.5.0			
cublasDsymm_64	12.0				rocblas_dsymm_64	6.3.0			
cublasDsymm_v2					rocblas_dsymm	3.5.0			
cublasDsymm_v2_64	12.0				rocblas_dsymm_64	6.3.0			
cublasDsyr2k					rocblas_dsyr2k	3.5.0			
cublasDsyr2k_64	12.0				rocblas_dsyr2k_64	6.3.0			
cublasDsyr2k_v2					rocblas_dsyr2k	3.5.0			
cublasDsyr2k_v2_64	12.0				rocblas_dsyr2k_64	6.3.0			
cublasDsyrk					rocblas_dsyrk	3.5.0			
cublasDsyrk_64	12.0				rocblas_dsyrk_64	6.3.0			
cublasDsyrk_v2					rocblas_dsyrk	3.5.0			
cublasDsyrk_v2_64	12.0				rocblas_dsyrk_64	6.3.0			
cublasDsyrkx					rocblas_dsyrkx	3.5.0			
cublasDsyrkx_64	12.0				rocblas_dsyrkx_64	6.3.0			
cublasDtrmm					rocblas_dtrmm	3.5.0		6.0.0	
cublasDtrmm_64	12.0				rocblas_dtrmm_64	6.3.0			
cublasDtrmm_v2					rocblas_dtrmm	3.5.0		6.0.0	
cublasDtrmm_v2_64	12.0				rocblas_dtrmm_64	6.3.0			
cublasDtrsm					rocblas_dtrsm	1.5.0			
cublasDtrsm_64	12.0				rocblas_dtrsm_64	6.2.0			
cublasDtrsm_v2					rocblas_dtrsm	1.5.0			
cublasDtrsm_v2_64	12.0				rocblas_dtrsm_64	6.2.0			
cublasGemmGroupedBatchedEx	12.5								
cublasGemmGroupedBatchedEx_64	12.5								
cublasHSHgemvBatched	11.6				rocblas_hshgemv_batched	6.0.0			
cublasHSHgemvBatched_64	12.0				rocblas_hshgemv_batched_64	6.2.0			
cublasHSHgemvStridedBatched	11.6				rocblas_hshgemv_strided_batched	6.0.0			
cublasHSHgemvStridedBatched_64	12.0				rocblas_hshgemv_strided_batched_64	6.2.0			
cublasHSSgemvBatched	11.6				rocblas_hssgemv_batched	6.0.0			
cublasHSSgemvBatched_64	12.0				rocblas_hssgemv_batched_64	6.2.0			
cublasHSSgemvStridedBatched	11.6				rocblas_hssgemv_strided_batched	6.0.0			
cublasHSSgemvStridedBatched_64	12.0				rocblas_hssgemv_strided_batched_64	6.2.0			
cublasHgemm	7.5				rocblas_hgemm	1.5.0			
cublasHgemmBatched	9.0				rocblas_hgemm_batched	3.5.0			
cublasHgemmBatched_64	12.0				rocblas_hgemm_batched_64	6.3.0			
cublasHgemmStridedBatched	8.0				rocblas_hgemm_strided_batched	1.5.0			
cublasHgemmStridedBatched_64	12.0				rocblas_hgemm_strided_batched_64	6.3.0			
cublasHgemm_64	12.0				rocblas_hgemm_64	6.3.0			
cublasSgemm					rocblas_sgemm	1.5.0			
cublasSgemmBatched					rocblas_sgemm_batched	3.5.0			
cublasSgemmBatched_64	12.0				rocblas_sgemm_batched_64	6.3.0			
cublasSgemmGroupedBatched	12.4								
cublasSgemmGroupedBatched_64	12.4								
cublasSgemmStridedBatched	8.0				rocblas_sgemm_strided_batched	1.5.0			
cublasSgemmStridedBatched_64	12.0				rocblas_sgemm_strided_batched_64	6.3.0			

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Table 7 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R
cublasSgemm_64	12.0				rocblas_sgemm_64	6.3.0			
cublasSgemm_v2					rocblas_sgemm	1.5.0			
cublasSgemm_v2_64	12.0				rocblas_sgemm_64	6.3.0			
cublasSgemvBatched	11.6				rocblas_sgemv_batched	3.5.0			
cublasSgemvBatched_64	12.0				rocblas_sgemv_batched_64	6.2.0			
cublasSgemvStridedBatched	11.6				rocblas_sgemv_strided_batched	3.5.0			
cublasSgemvStridedBatched_64	12.0				rocblas_sgemv_strided_batched_64	6.2.0			
cublasSsymm					rocblas_ssymm	3.5.0			
cublasSsymm_64	12.0				rocblas_ssymm_64	6.3.0			
cublasSsymm_v2					rocblas_ssymm	3.5.0			
cublasSsymm_v2_64	12.0				rocblas_ssymm_64	6.3.0			
cublasSsyr2k					rocblas_ssr2k	3.5.0			
cublasSsyr2k_64	12.0				rocblas_ssr2k_64	6.3.0			
cublasSsyr2k_v2					rocblas_ssr2k	3.5.0			
cublasSsyr2k_v2_64	12.0				rocblas_ssr2k_64	6.3.0			
cublasSsyrk					rocblas_ssrk	3.5.0			
cublasSsyrk_64	12.0				rocblas_ssrk_64	6.3.0			
cublasSsyrk_v2					rocblas_ssrk	3.5.0			
cublasSsyrk_v2_64	12.0				rocblas_ssrk_64	6.3.0			
cublasSsyrkx					rocblas_ssrkx	3.5.0			
cublasSsyrkx_64	12.0				rocblas_ssrkx_64	6.3.0			
cublasStrmm					rocblas_strmm	3.5.0		6.0.0	
cublasStrmm_64	12.0				rocblas_strmm_64	6.3.0			
cublasStrmm_v2					rocblas_strmm	3.5.0		6.0.0	
cublasStrmm_v2_64	12.0				rocblas_strmm_64	6.3.0			
cublasStrsm					rocblas_strsm	1.5.0			
cublasStrsm_64	12.0				rocblas_strsm_64	6.2.0			
cublasStrsm_v2					rocblas_strsm	1.5.0			
cublasStrsm_v2_64	12.0				rocblas_strsm_64	6.2.0			
cublasTSSgemvBatched	11.6				rocblas_tssgemv_batched	6.0.0			
cublasTSSgemvBatched_64	12.0				rocblas_tssgemv_batched_64	6.2.0			
cublasTSSgemvStridedBatched	11.6				rocblas_tssgemv_strided_batched	6.0.0			
cublasTSSgemvStridedBatched_64	12.0				rocblas_tssgemv_strided_batched_64	6.2.0			
cublasTSTgemvBatched	11.6				rocblas_tstgemv_batched	6.0.0			
cublasTSTgemvBatched_64	12.0				rocblas_tstgemv_batched_64	6.2.0			
cublasTSTgemvStridedBatched	11.6				rocblas_tstgemv_strided_batched	6.0.0			
cublasTSTgemvStridedBatched_64	12.0				rocblas_tstgemv_strided_batched_64	6.2.0			
cublasZgemm					rocblas_zgemm	1.5.0			
cublasZgemm3m	8.0								
cublasZgemm3m_64	12.0								
cublasZgemmBatched					rocblas_zgemm_batched	3.5.0			
cublasZgemmBatched_64	12.0				rocblas_zgemm_batched_64	6.3.0			
cublasZgemmStridedBatched	8.0				rocblas_zgemm_strided_batched	1.5.0			
cublasZgemmStridedBatched_64	12.0				rocblas_zgemm_strided_batched_64	6.3.0			
cublasZgemm_64	12.0				rocblas_zgemm_64	6.3.0			
cublasZgemm_v2					rocblas_zgemm	1.5.0			
cublasZgemm_v2_64	12.0				rocblas_zgemm_64	6.3.0			
cublasZgemvBatched	11.6				rocblas_zgemv_batched	3.5.0			
cublasZgemvBatched_64	12.0				rocblas_zgemv_batched_64	6.2.0			
cublasZgemvStridedBatched	11.6				rocblas_zgemv_strided_batched	3.5.0			

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Table 7 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
cublasZgemvStridedBatched_64	12.0				rocblas_zgemv_strided_batched_64	6.2.0				
cublasZhemm					rocblas_zhemm	3.5.0				
cublasZhemm_64	12.0				rocblas_zhemm_64	6.3.0				
cublasZhemm_v2					rocblas_zhemm	3.5.0				
cublasZhemm_v2_64	12.0				rocblas_zhemm_64	6.3.0				
cublasZher2k					rocblas_zher2k	3.5.0				
cublasZher2k_64	12.0				rocblas_zher2k_64	6.3.0				
cublasZher2k_v2					rocblas_zher2k	3.5.0				
cublasZher2k_v2_64	12.0				rocblas_zher2k_64	6.3.0				
cublasZherk					rocblas_zherk	3.5.0				
cublasZherk_64	12.0				rocblas_zherk_64	6.3.0				
cublasZherk_v2					rocblas_zherk	3.5.0				
cublasZherk_v2_64	12.0				rocblas_zherk_64	6.3.0				
cublasZherkx					rocblas_zherkx	3.5.0				
cublasZherkx_64	12.0				rocblas_zherkx_64	6.3.0				
cublasZsymm					rocblas_zsymm	3.5.0				
cublasZsymm_64	12.0				rocblas_zsymm_64	6.3.0				
cublasZsymm_v2					rocblas_zsymm	3.5.0				
cublasZsymm_v2_64	12.0				rocblas_zsymm_64	6.3.0				
cublasZsyr2k					rocblas_zsyr2k	3.5.0				
cublasZsyr2k_64	12.0				rocblas_zsyr2k_64	6.3.0				
cublasZsyr2k_v2					rocblas_zsyr2k	3.5.0				
cublasZsyr2k_v2_64	12.0				rocblas_zsyr2k_64	6.3.0				
cublasZsyrk					rocblas_zsyrk	3.5.0				
cublasZsyrk_64	12.0				rocblas_zsyrk_64	6.3.0				
cublasZsyrk_v2					rocblas_zsyrk	3.5.0				
cublasZsyrk_v2_64	12.0				rocblas_zsyrk_64	6.3.0				
cublasZsyrkx					rocblas_zsyrkx	3.5.0				
cublasZsyrkx_64	12.0				rocblas_zsyrkx_64	6.3.0				
cublasZtrmm					rocblas_ztrmm	3.5.0				6.0.0
cublasZtrmm_64	12.0				rocblas_ztrmm_64	6.3.0				
cublasZtrmm_v2					rocblas_ztrmm	3.5.0				6.0.0
cublasZtrmm_v2_64	12.0				rocblas_ztrmm_64	6.3.0				
cublasZtrsm					rocblas_ztrsm	3.5.0				
cublasZtrsm_64	12.0				rocblas_ztrsm_64	6.2.0				
cublasZtrsm_v2					rocblas_ztrsm	3.5.0				
cublasZtrsm_v2_64	12.0				rocblas_ztrsm_64	6.2.0				

10.1.8 8. BLAS-like Extension

CUDA	A	D	C	R	ROC	A	D	C	R	U
cublasAsumEx	10.1									
cublasAsumEx_64	12.0									
cublasAxyEx	8.0				rocblas_axpy_ex	3.9.0				
cublasAxyEx_64	12.0				rocblas_axpy_ex_64	6.1.0				
cublasCdgmm					rocblas_cdgmm	3.5.0				
cublasCdgmm_64	12.0				rocblas_cdgmm_64	6.3.0				
cublasCgeam					rocblas_cgeam	3.5.0				
cublasCgeam_64	12.0				rocblas_cgeam_64	6.3.0				

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Table 8 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
cublasCgelsBatched										
cublasCgemmEx	8.0									
cublasCgemmEx_64	12.0									
cublasCgeqrfBatched										
cublasCgetrfBatched										
cublasCgetriBatched										
cublasCgetrsBatched										
cublasCherk3mEx	8.0									
cublasCherk3mEx_64	12.0									
cublasCherkEx	8.0									
cublasCherkEx_64	12.0									
cublasCmatinvBatched										
cublasCopyEx	10.1									
cublasCopyEx_64	12.0									
cublasCsyrk3mEx	8.0									
cublasCsyrk3mEx_64	12.0									
cublasCsyrkEx	8.0									
cublasCsyrkEx_64	12.0									
cublasCtpttr										
cublasCtrsmBatched					rocblas_ctrsm_batched	3.5.0				
cublasCtrsmBatched_64	12.0				rocblas_ctrsm_batched_64	6.2.0				
cublasCtrttp										
cublasDdgmm					rocblas_ddgmm	3.5.0				
cublasDdgmm_64	12.0				rocblas_ddgmm_64	6.3.0				
cublasDgeam					rocblas_dgeam	1.6.4				
cublasDgeam_64	12.0				rocblas_dgeam_64	6.3.0				
cublasDgelsBatched										
cublasDgeqrfBatched										
cublasDgetrfBatched										
cublasDgetriBatched										
cublasDgetrsBatched										
cublasDmatinvBatched										
cublasDotEx	8.0				rocblas_dot_ex	4.1.0				
cublasDotEx_64	12.0				rocblas_dot_ex_64	6.1.0				
cublasDotcEx	8.0				rocblas_dotc_ex	4.1.0				
cublasDotcEx_64	12.0				rocblas_dotc_ex_64	6.1.0				
cublasDtpttr										
cublasDtrsmBatched					rocblas_dtrsm_batched	3.5.0				
cublasDtrsmBatched_64	12.0				rocblas_dtrsm_batched_64	6.2.0				
cublasDtrttp										
cublasGemmBatchedEx	9.1		11.0		rocblas_gemm_batched_ex	3.5.0				
cublasGemmBatchedEx_64	12.0									
cublasGemmEx	8.0		11.0		rocblas_gemm_ex	1.8.2				
cublasGemmEx_64	12.0									
cublasGemmStridedBatchedEx	9.1		11.0		rocblas_gemm_strided_batched_ex	1.9.0				
cublasGemmStridedBatchedEx_64	12.0									
cublasIamaxEx	10.1									
cublasIamaxEx_64	12.0									
cublasIaminEx	10.1									
cublasIaminEx_64	12.0									

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Table 8 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
cublasRotEx	10.1				rocblas_rot_ex	4.1.0				
cublasRotEx_64	12.0				rocblas_rot_ex_64	6.1.0				
cublasRotgEx	10.1									
cublasRotmEx	10.1									
cublasRotmEx_64	12.0									
cublasRotmgEx	10.1									
cublasScalEx	8.0				rocblas_scal_ex	4.0.0				
cublasScalEx_64	12.0				rocblas_scal_ex_64	6.1.0				
cublasSdgmm					rocblas_sdgmm	3.5.0				
cublasSdgmm_64	12.0				rocblas_sdgmm_64	6.3.0				
cublasSgeam					rocblas_sgeam	1.6.4				
cublasSgeam_64	12.0				rocblas_sgeam_64	6.3.0				
cublasSgelsBatched										
cublasSgemmEx	7.5									
cublasSgemmEx_64	12.0									
cublasSgeqrfBatched										
cublasSgetrfBatched										
cublasSgetriBatched										
cublasSgetrsBatched										
cublasSmatinvBatched										
cublasStpttr										
cublasStrsmBatched					rocblas_strsm_batched	3.5.0				
cublasStrsmBatched_64	12.0				rocblas_strsm_batched_64	6.2.0				
cublasStrttp										
cublasSwapEx	10.1									
cublasSwapEx_64	12.0									
cublasUint8gemmBias	8.0									
cublasZdgmm					rocblas_zdgmm	3.5.0				
cublasZdgmm_64	12.0				rocblas_zdgmm_64	6.3.0				
cublasZgeam					rocblas_zgeam	3.5.0				
cublasZgeam_64	12.0				rocblas_zgeam_64	6.3.0				
cublasZgelsBatched										
cublasZgeqrfBatched										
cublasZgetrfBatched										
cublasZgetriBatched										
cublasZgetrsBatched										
cublasZmatinvBatched										
cublasZtpttr										
cublasZtrsmBatched					rocblas_ztrsm_batched	3.5.0				
cublasZtrsmBatched_64	12.0				rocblas_ztrsm_batched_64	6.2.0				
cublasZtrttp										

10.1.9 9. BLASLt Function Reference

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasLtCreate	10.1										
cublasLtDestroy	10.1										
cublasLtDisableCpuInstructionsSetMask	12.1										
cublasLtGetCudartVersion	10.1										

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Table 9 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cublasLtGetProperty	10.1										
cublasLtGetStatusName	11.4										
cublasLtGetStatusString	11.4										
cublasLtGetVersion	10.1										
cublasLtHeuristicsCacheGetCapacity	11.8										
cublasLtHeuristicsCacheSetCapacity	11.8										
cublasLtLoggerForceDisable	11.0										
cublasLtLoggerOpenFile	11.0										
cublasLtLoggerSetCallback	11.0										
cublasLtLoggerSetFile	11.0										
cublasLtLoggerSetLevel	11.0										
cublasLtLoggerSetMask	11.0										
cublasLtMatmul	10.1										
cublasLtMatmulAlgoCapGetAttribute	10.1										
cublasLtMatmulAlgoCheck	10.1										
cublasLtMatmulAlgoConfigGetAttribute	10.1										
cublasLtMatmulAlgoConfigSetAttribute	10.1										
cublasLtMatmulAlgoGetHeuristic	10.1										
cublasLtMatmulAlgoGetIds	10.1										
cublasLtMatmulAlgoInit	10.1										
cublasLtMatmulDescCreate	10.1		11.0								
cublasLtMatmulDescDestroy	10.1										
cublasLtMatmulDescGetAttribute	10.1										
cublasLtMatmulDescInit	11.0										
cublasLtMatmulDescSetAttribute	10.1										
cublasLtMatmulPreferenceCreate	10.1										
cublasLtMatmulPreferenceDestroy	10.1										
cublasLtMatmulPreferenceGetAttribute	10.1										
cublasLtMatmulPreferenceInit	11.0										
cublasLtMatmulPreferenceSetAttribute	10.1										
cublasLtMatrixLayoutCreate	10.1										
cublasLtMatrixLayoutDestroy	10.1										
cublasLtMatrixLayoutGetAttribute	10.1										
cublasLtMatrixLayoutInit	11.0										
cublasLtMatrixLayoutSetAttribute	10.1										
cublasLtMatrixTransform	10.1										
cublasLtMatrixTransformDescCreate	10.1										
cublasLtMatrixTransformDescDestroy	10.1										
cublasLtMatrixTransformDescGetAttribute	10.1										
cublasLtMatrixTransformDescInit	11.0										
cublasLtMatrixTransformDescSetAttribute	10.1										

10.2 CUSPARSE API supported by ROC

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

10.2.1 4. CUSPARSE Types References

CUDA	A	D	C	R	ROC
CUSPARSE_ACTION_NUMERIC					rocsparse_action_numeric
CUSPARSE_ACTION_SYMBOLIC					rocsparse_action_symbolic
CUSPARSE_ALG0	8.0			11.0	
CUSPARSE_ALG1	8.0			11.0	
CUSPARSE_ALG_MERGE_PATH	9.2			12.0	
CUSPARSE_ALG_NAIVE	9.2			11.0	
CUSPARSE_COLOR_ALG0	8.0	12.2			
CUSPARSE_COLOR_ALG1	8.0	12.2			
CUSPARSE_COOMM_ALG1	10.1	11.0		12.0	
CUSPARSE_COOMM_ALG2	10.1	11.0		12.0	
CUSPARSE_COOMM_ALG3	10.1	11.0		12.0	
CUSPARSE_COOMV_ALG	10.2	11.2		12.0	
CUSPARSE_CSR2CSC_ALG1	10.1				
CUSPARSE_CSR2CSC_ALG2	10.1			12.0	
CUSPARSE_CSR2CSC_ALG_DEFAULT	12.0				
CUSPARSE_CSRMM_ALG1	10.2	11.0		12.0	
CUSPARSE_CSRMV_ALG1	10.2	11.2		12.0	
CUSPARSE_CSRMV_ALG2	10.2	11.2		12.0	
CUSPARSE_DENSETOSPARSE_ALG_DEFAULT	11.1				rocsparse_dense_to_sparse_alg_default
CUSPARSE_DIAG_TYPE_NON_UNIT					rocsparse_diag_type_non_unit
CUSPARSE_DIAG_TYPE_UNIT					rocsparse_diag_type_unit
CUSPARSE_DIRECTION_COLUMN					rocsparse_direction_column
CUSPARSE_DIRECTION_ROW					rocsparse_direction_row
CUSPARSE_FILL_MODE_LOWER					rocsparse_fill_mode_lower
CUSPARSE_FILL_MODE_UPPER					rocsparse_fill_mode_upper
CUSPARSE_FORMAT_BLOCKED_ELL	11.2				rocsparse_format_bell
CUSPARSE_FORMAT_BSR	12.1				rocsparse_format_bsr
CUSPARSE_FORMAT_COO	10.1				rocsparse_format_coo
CUSPARSE_FORMAT_COO_AOS	10.2			12.0	rocsparse_format_coo_aos
CUSPARSE_FORMAT_CSC	10.1				rocsparse_format_csc
CUSPARSE_FORMAT_CSR	10.1				rocsparse_format_csr
CUSPARSE_FORMAT_SLICED_ELLPACK	12.1				rocsparse_format_ell
CUSPARSE_HYB_PARTITION_AUTO		10.2		11.0	rocsparse_hyb_partition_auto
CUSPARSE_HYB_PARTITION_MAX		10.2		11.0	rocsparse_hyb_partition_max
CUSPARSE_HYB_PARTITION_USER		10.2		11.0	rocsparse_hyb_partition_user
CUSPARSE_INDEX_16U	10.1				rocsparse_indextype_u16
CUSPARSE_INDEX_32I	10.1				rocsparse_indextype_i32
CUSPARSE_INDEX_64I	10.1				rocsparse_indextype_i64
CUSPARSE_INDEX_BASE_ONE					rocsparse_index_base_one
CUSPARSE_INDEX_BASE_ZERO					rocsparse_index_base_zero
CUSPARSE_MATRIX_TYPE_GENERAL					rocsparse_matrix_type_general
CUSPARSE_MATRIX_TYPE_HERMITIAN					rocsparse_matrix_type_hermitian
CUSPARSE_MATRIX_TYPE_SYMMETRIC					rocsparse_matrix_type_symmetric
CUSPARSE_MATRIX_TYPE_TRIANGULAR					rocsparse_matrix_type_triangular
CUSPARSE_MM_ALG_DEFAULT	10.2	11.0		12.0	
CUSPARSE_MV_ALG_DEFAULT	10.2	11.3		12.0	
CUSPARSE_OPERATION_CONJUGATE_TRANSPOSE					rocsparse_operation_conjugate_transpose
CUSPARSE_OPERATION_NON_TRANSPOSE					rocsparse_operation_none
CUSPARSE_OPERATION_TRANSPOSE					rocsparse_operation_transpose

Table 10 – continued from previous page

CUDA	A	D	C	R	ROC
CUSPARSE_ORDER_COL	10.1				rocparse_order_row
CUSPARSE_ORDER_ROW	10.1				rocparse_order_column
CUSPARSE_POINTER_MODE_DEVICE					rocparse_pointer_mode_device
CUSPARSE_POINTER_MODE_HOST					rocparse_pointer_mode_host
CUSPARSE_SDDMM_ALG_DEFAULT	11.2				rocparse_sddmm_alg_default
CUSPARSE_SIDE_LEFT				11.5	
CUSPARSE_SIDE_RIGHT				11.5	
CUSPARSE_SOLVE_POLICY_NO_LEVEL		12.2			rocparse_solve_policy_auto
CUSPARSE_SOLVE_POLICY_USE_LEVEL		12.2			rocparse_solve_policy_auto
CUSPARSE_SPARSETODENSE_ALG_DEFAULT	11.1				rocparse_sparse_to_dense_alg_default
CUSPARSE_SPGEMM_ALG1	12.0				
CUSPARSE_SPGEMM_ALG2	12.0				
CUSPARSE_SPGEMM_ALG3	12.0				
CUSPARSE_SPGEMM_CSR_ALG_DETERMINITIC	11.3				
CUSPARSE_SPGEMM_CSR_ALG_NONDETERMINITIC	11.3				
CUSPARSE_SPGEMM_DEFAULT	11.0				rocparse_spgemm_alg_default
CUSPARSE_SPMAT_DIAG_TYPE	11.3				rocparse_spmat_diag_type
CUSPARSE_SPMAT_FILL_MODE	11.3				rocparse_spmat_fill_mode
CUSPARSE_SPMMA_ALG1	11.1			11.2	
CUSPARSE_SPMMA_ALG2	11.1			11.2	
CUSPARSE_SPMMA_ALG3	11.1			11.2	
CUSPARSE_SPMMA_ALG4	11.1			11.2	
CUSPARSE_SPMMA_PREPROCESS	11.1			11.2	
CUSPARSE_SPMMA_ALG_DEFAULT	11.0				rocparse_spmma_alg_default
CUSPARSE_SPMMA_BLOCKED_ELL_ALG1	11.2				rocparse_spmma_alg_bell
CUSPARSE_SPMMA_BSR_ALG1	12.5				
CUSPARSE_SPMMA_COO_ALG1	11.0				rocparse_spmma_alg_coo_segmented
CUSPARSE_SPMMA_COO_ALG2	11.0				rocparse_spmma_alg_coo_atomic
CUSPARSE_SPMMA_COO_ALG3	11.0				rocparse_spmma_alg_coo_segmented_atomic
CUSPARSE_SPMMA_COO_ALG4	11.0				
CUSPARSE_SPMMA_CSR_ALG1	11.0				rocparse_spmma_alg_csr
CUSPARSE_SPMMA_CSR_ALG2	11.0				rocparse_spmma_alg_csr_row_split
CUSPARSE_SPMMA_CSR_ALG3	11.2				rocparse_spmma_alg_csr_merge
CUSPARSE_SPMMA_OP_ALG_DEFAULT	11.5				
CUSPARSE_SPMV_ALG_DEFAULT	11.2				rocparse_spmv_alg_default
CUSPARSE_SPMV_BSR_ALG1	13.0				
CUSPARSE_SPMV_COO_ALG1	11.2				rocparse_spmv_alg_coo
CUSPARSE_SPMV_COO_ALG2	11.2				rocparse_spmv_alg_coo_atomic
CUSPARSE_SPMV_CSR_ALG1	11.2				rocparse_spmv_alg_csr_adaptive
CUSPARSE_SPMV_CSR_ALG2	11.2				rocparse_spmv_alg_csr_stream
CUSPARSE_SPMV_SELL_ALG1	12.1				rocparse_spmv_alg_ell
CUSPARSE_SPSM_ALG_DEFAULT	11.3				rocparse_spsm_alg_default
CUSPARSE_SPSM_UPDATE_DIAGONAL	12.4				
CUSPARSE_SPSM_UPDATE_GENERAL	12.4				
CUSPARSE_SPSV_ALG_DEFAULT	11.3				rocparse_spsv_alg_default
CUSPARSE_SPSV_UPDATE_DIAGONAL	12.1				
CUSPARSE_SPSV_UPDATE_GENERAL	12.1				
CUSPARSE_STATUS_ALLOC_FAILED					rocparse_status_memory_error
CUSPARSE_STATUS_ARCH_MISMATCH					rocparse_status_arch_mismatch
CUSPARSE_STATUS_EXECUTION_FAILED					

Table 10 – continued from previous page

CUDA	A	D	C	R	ROC
CUSPARSE_STATUS_INSUFFICIENT_RESOURCES	11.0				
CUSPARSE_STATUS_INTERNAL_ERROR					rocsparse_status_internal_error
CUSPARSE_STATUS_INVALID_VALUE					rocsparse_status_invalid_value
CUSPARSE_STATUS_MAPPING_ERROR					
CUSPARSE_STATUS_MATRIX_TYPE_NOT_SUPPORTED					
CUSPARSE_STATUS_NOT_INITIALIZED					rocsparse_status_not_initialized
CUSPARSE_STATUS_NOT_SUPPORTED	10.2				rocsparse_status_not_implemented
CUSPARSE_STATUS_SUCCESS					rocsparse_status_success
CUSPARSE_STATUS_ZERO_PIVOT					rocsparse_status_zero_pivot
bsric02Info					_rocsparse_mat_info
bsric02Info_t					rocsparse_mat_info
bsrilu02Info		12.2			_rocsparse_mat_info
bsrilu02Info_t		12.2			rocsparse_mat_info
bsrsm2Info		12.2			_rocsparse_mat_info
bsrsm2Info_t		12.2			rocsparse_mat_info
bsrsv2Info		12.2			_rocsparse_mat_info
bsrsv2Info_t		12.2			rocsparse_mat_info
csrgemm2Info				12.0	_rocsparse_mat_info
csrgemm2Info_t				12.0	rocsparse_mat_info
csric02Info		12.2			_rocsparse_mat_info
csric02Info_t		12.2			rocsparse_mat_info
csrilu02Info		12.2			_rocsparse_mat_info
csrilu02Info_t		12.2			rocsparse_mat_info
csrsm2Info	9.2			12.0	_rocsparse_mat_info
csrsm2Info_t	9.2			12.0	rocsparse_mat_info
csrsv2Info				12.0	_rocsparse_mat_descr
csrsv2Info_t				12.0	rocsparse_mat_descr
csru2csrInfo		12.2			
csru2csrInfo_t		12.2			
cusparseAction_t					rocsparse_action
cusparseAlgMode_t	8.0			12.0	
cusparseColorAlg_t	8.0	12.2			
cusparseColorInfo		12.2			_rocsparse_color_info
cusparseColorInfo_t		12.2			rocsparse_color_info
cusparseConstDnMatDescr_t	12.0				rocsparse_const_dnmat_descr
cusparseConstDnVecDescr_t	12.0				rocsparse_const_dnvec_descr
cusparseConstSpMatDescr_t	12.0				rocsparse_const_spmat_descr
cusparseConstSpVecDescr_t	12.0				rocsparse_const_spvec_descr
cusparseContext					_rocsparse_handle
cusparseCsr2CscAlg_t	10.1				
cusparseDenseToSparseAlg_t	11.1				rocsparse_dense_to_sparse_alg
cusparseDiagType_t					rocsparse_diag_type
cusparseDirection_t					rocsparse_direction
cusparseDnMatDescr	10.1				_rocsparse_dnmat_descr
cusparseDnMatDescr_t	10.1				rocsparse_dnmat_descr
cusparseDnVecDescr	10.2				_rocsparse_dnvec_descr
cusparseDnVecDescr_t	10.2				rocsparse_dnvec_descr
cusparseFillMode_t					rocsparse_fill_mode
cusparseFormat_t	10.1				rocsparse_format
cusparseHandle_t					rocsparse_handle

Table 10 – continued from previous page

CUDA	A	D	C	R	ROC
cusparseHybMat		10.2		11.0	_rocsparse_hyb_mat
cusparseHybMat_t		10.2		11.0	rocsparse_hyb_mat
cusparseHybPartition_t		10.2		11.0	rocsparse_hyb_partition
cusparseIndexBase_t					rocsparse_index_base
cusparseIndexType_t	10.1				rocsparse_indextype
cusparseLoggerCallback_t	11.5				
cusparseMatDescr					_rocsparse_mat_descr
cusparseMatDescr_t					rocsparse_mat_descr
cusparseMatrixType_t					rocsparse_matrix_type
cusparseOperation_t					rocsparse_operation
cusparseOrder_t	10.1				rocsparse_order
cusparsePointerMode_t					rocsparse_pointer_mode
cusparseSDDMMAlg_t	11.2				rocsparse_sddmm_alg
cusparseSideMode_t				11.5	
cusparseSolveAnalysisInfo		10.2		11.0	
cusparseSolveAnalysisInfo_t		10.2		11.0	
cusparseSolvePolicy_t		12.2			rocsparse_solve_policy
cusparseSpGEMMAlg_t	11.0				rocsparse_spgemm_alg
cusparseSpGEMMDescr	11.0				
cusparseSpGEMMDescr_t	11.0				
cusparseSpMAlg_t	10.1				rocsparse_spm_alg
cusparseSpMOpAlg_t	11.5				
cusparseSpMOpPlan	11.5				
cusparseSpMOpPlan_t	11.5				
cusparseSpMValg_t	10.2				rocsparse_spmv_alg
cusparseSpMatAttribute_t	11.3				rocsparse_spmat_attribute
cusparseSpMatDescr	10.1				_rocsparse_spmat_descr
cusparseSpMatDescr_t	10.1				rocsparse_spmat_descr
cusparseSpSMAlg_t	11.3				rocsparse_spsm_alg
cusparseSpSMDescr	11.3				
cusparseSpSMDescr_t	11.3				
cusparseSpSMUpdate_t	12.4				
cusparseSpSValg_t	11.3				rocsparse_spsv_alg
cusparseSpSVDescr	11.3				
cusparseSpSVDescr_t	11.3				
cusparseSpSVUpdate_t	12.1				
cusparseSpVecDescr	10.2				_rocsparse_spvec_descr
cusparseSpVecDescr_t	10.2				rocsparse_spvec_descr
cusparseSparseToDenseAlg_t	11.1				rocsparse_sparse_to_dense_alg
cusparseStatus_t					rocsparse_status
pruneInfo	9.0	12.2			_rocsparse_mat_info
pruneInfo_t	9.0	12.2			rocsparse_mat_info

10.2.2 5. CUSPARSE Management Function Reference

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cusparseCreate					rocsparse_create_handle						1.9.0
cusparseDestroy					rocsparse_destroy_handle						1.9.0
cusparseGetErrorName	10.2				rocsparse_get_status_name						6.0.0
cusparseGetErrorStri	10.2				rocsparse_get_status_descrip						6.0.0
cusparseGetPointerMc					rocsparse_get_pointer_mode						1.9.0
cusparseGetStream	8.0				rocsparse_get_stream						1.9.0
cusparseGetVersion					rocsparse_get_version						1.9.0
cusparseSetPointerMc					rocsparse_set_pointer_mode						1.9.0
cusparseSetStream					rocsparse_set_stream						1.9.0

10.2.3 6. CUSPARSE Logging

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cusparseLoggerForceDisable	11.5										
cusparseLoggerOpenFile	11.5										
cusparseLoggerSetCallback	11.5										
cusparseLoggerSetFile	11.5										
cusparseLoggerSetLevel	11.5										
cusparseLoggerSetMask	11.5										

10.2.4 7. CUSPARSE Helper Function Reference

CUDA	A	D	C	R	ROC	A	D	C	R	U
cusparseCopyMatDescr	8.0			12.0	rocsparse_copy_mat_descr					1.9.0
cusparseCreateBsrirc02Info		12.2			rocsparse_create_mat_info					1.9.0
cusparseCreateBsrilu02Info		12.2			rocsparse_create_mat_info					1.9.0
cusparseCreateBsrsm2Info		12.2			rocsparse_create_mat_info					1.9.0
cusparseCreateBsrsv2Info		12.2			rocsparse_create_mat_info					1.9.0
cusparseCreateColorInfo		12.2			rocsparse_create_color_info					4.5.0
cusparseCreateCsrgemm2Info		11.0		12.0	rocsparse_create_mat_info					1.9.0

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CUDA	A	D	C	R	ROC	A	D	C	R	U
cusparseCreateCsrlic02Info		12.2			rocsparse_create_mat_info	1.9.0				
cusparseCreateCsrlu02Info		12.2			rocsparse_create_mat_info	1.9.0				
cusparseCreateCsrs2Info	9.2	11.3		12.0	rocsparse_create_mat_info	1.9.0				
cusparseCreateCsrsv2Info		11.3		12.0	rocsparse_create_mat_info	1.9.0				
cusparseCreateHybMat		10.2		11.0	rocsparse_create_hyb_mat	1.9.0				
cusparseCreateMatDescr					rocsparse_create_mat_descr	1.9.0				
cusparseCreatePruneInfo	9.0	12.2			rocsparse_create_mat_info	1.9.0				
cusparseCreateSolveAnalysisInfo		10.2		11.0						
cusparseDestroyBsrlic02Info		12.2			rocsparse_destroy_mat_info	1.9.0				
cusparseDestroyBsrlu02Info		12.2			rocsparse_destroy_mat_info	1.9.0				
cusparseDestroyBsrs2Info		12.2			rocsparse_destroy_mat_info	1.9.0				
cusparseDestroyBsrsv2Info		12.2			rocsparse_destroy_mat_info	1.9.0				
cusparseDestroyColorInfo		12.2			rocsparse_destroy_color_info	4.5.0				
cusparseDestroyCsr2Info		11.0		12.0	rocsparse_destroy_mat_info	1.9.0				
cusparseDestroyCsrlic02Info		12.2			rocsparse_destroy_mat_info	1.9.0				
cusparseDestroyCsrlu02Info		12.2			rocsparse_destroy_mat_info	1.9.0				
cusparseDestroyCsrs2Info	9.2	11.3		12.0	rocsparse_destroy_mat_info	1.9.0				
cusparseDestroyCsrsv2Info		11.3		12.0	rocsparse_destroy_mat_info	1.9.0				
cusparseDestroyHybMat		10.2		11.0	rocsparse_destroy_hyb_mat	1.9.0				
cusparseDestroyMatDescr					rocsparse_destroy_mat_descr	1.9.0				
cusparseDestroyPruneInfo	9.0	12.2			rocsparse_destroy_mat_info	1.9.0				
cusparseDestroySolveAnalysisInfo		10.2		11.0						
cusparseGetLevelInfo				11.0						
cusparseGetMatDiagType					rocsparse_get_mat_diag_type	1.9.0				
cusparseGetMatFillMode					rocsparse_get_mat_fill_mode	1.9.0				
cusparseGetMatIndexBase					rocsparse_get_mat_index_base	1.9.0				
cusparseGetMatType					rocsparse_get_mat_type	1.9.0				
cusparseSetMatDiagType					rocsparse_set_mat_diag_type	1.9.0				
cusparseSetMatFillMode					rocsparse_set_mat_fill_mode	1.9.0				
cusparseSetMatIndexBase					rocsparse_set_mat_index_base	1.9.0				
cusparseSetMatType					rocsparse_set_mat_type	1.9.0				

10.2.5 8. CUSPARSE Level 1 Function Reference

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cusparseCaxpyi		11.0		12.0	rocsparse_caxpyi	1.9.0					
cusparseCdotci		10.2		11.0	rocsparse_cdotci	3.0.0					
cusparseCdoti		10.2		11.0	rocsparse_cdoti	1.9.0					
cusparseCgthr		11.0		12.0	rocsparse_cgthr	1.9.0					
cusparseCgthrz		11.0		12.0	rocsparse_cgthrz	1.9.0					
cusparseCsctr		11.0		12.0	rocsparse_csctr	1.9.0					
cusparseDaxpyi		11.0		12.0	rocsparse_daxpyi	1.9.0					
cusparseDdoti		10.2		11.0	rocsparse_ddoti	1.9.0					
cusparseDgthr		11.0		12.0	rocsparse_dgthr	1.9.0					
cusparseDgthrz		11.0		12.0	rocsparse_dgthrz	1.9.0					
cusparseDroti		11.0		12.0	rocsparse_droti	1.9.0					
cusparseDsctr		11.0		12.0	rocsparse_dsctr	1.9.0					
cusparseSaxpyi		11.0		12.0	rocsparse_saxpyi	1.9.0					
cusparseSdoti		10.2		11.0	rocsparse_sdoti	1.9.0					
cusparseSgthr		11.0		12.0	rocsparse_sgthr	1.9.0					
cusparseSgthrz		11.0		12.0	rocsparse_sgthrz	1.9.0					
cusparseSroti		11.0		12.0	rocsparse_sroti	1.9.0					
cusparseSsctr		11.0		12.0	rocsparse_ssctr	1.9.0					
cusparseZaxpyi		11.0		12.0	rocsparse_zaxpyi	1.9.0					
cusparseZdotci		10.2		11.0	rocsparse_zdotci	3.0.0					
cusparseZdoti		10.2		11.0	rocsparse_zdoti	1.9.0					
cusparseZgthr		11.0		12.0	rocsparse_zgthr	1.9.0					
cusparseZgthrz		11.0		12.0	rocsparse_zgthrz	1.9.0					
cusparseZsctr		11.0		12.0	rocsparse_zsctr	1.9.0					

10.2.6 9. CUSPARSE Level 2 Function Reference

CUDA	A	D	C	R	ROC	A	D	C	R	U
cusparseCbsrmv					rocsparse_cbsrmv	3.5.0	5.4.0			
cusparseCbsrsv2_analysis		12.2			rocsparse_cbsrsv_analysis	3.6.0				
cusparseCbsrsv2_bufferSize		12.2			rocsparse_cbsrsv_buffer_size	3.6.0				
cusparseCbsrsv2_bufferSizeExt		12.2			rocsparse_cbsrsv_buffer_size	3.6.0				
cusparseCbsrsv2_solve		12.2			rocsparse_cbsrsv_solve	3.6.0				
cusparseCbsrxmv		12.2			rocsparse_cbsrxmv	4.5.0				
cusparseCcsrmmv		10.2		11.0	rocsparse_ccsrmmv	1.9.0				
cusparseCcsrmmv_mp	8.0	10.2		11.0						
cusparseCcsrsv2_analysis		11.3		12.0	rocsparse_ccsrsv_analysis	2.10.0				
cusparseCcsrsv2_bufferSize		11.3		12.0	rocsparse_ccsrsv_buffer_size	2.10.0				
cusparseCcsrsv2_bufferSizeExt		11.3		12.0	rocsparse_ccsrsv_buffer_size	2.10.0				
cusparseCcsrsv2_solve		11.3		12.0	rocsparse_ccsrsv_solve	2.10.0				
cusparseCcsrsv_analysis		10.2		11.0						
cusparseCcsrsv_solve		10.2		11.0						
cusparseCgemvi	7.5	12.8			rocsparse_cgemvi	4.3.0				
cusparseCgemvi_bufferSize	7.5	12.8			rocsparse_cgemvi_buffer_size	4.3.0				
cusparseChybmvm		10.2		11.0	rocsparse_chybmvm	2.10.0				
cusparseChybsv_analysis		10.2		11.0						
cusparseChybsv_solve		10.2		11.0						
cusparseCsrmmvEx	8.0	11.2		12.0						
cusparseCsrmmvEx_bufferSize	8.0	11.2		12.0						
cusparseCsrsv_analysisEx	8.0	10.2		11.0						
cusparseCsrsv_solveEx	8.0	10.2		11.0						
cusparseDbsrmv					rocsparse_dbsrmv	3.5.0	5.4.0			
cusparseDbsrsv2_analysis		12.2			rocsparse_dbsrsv_analysis	3.6.0				
cusparseDbsrsv2_bufferSize		12.2			rocsparse_dbsrsv_buffer_size	3.6.0				
cusparseDbsrsv2_bufferSizeExt		12.2			rocsparse_dbsrsv_buffer_size	3.6.0				
cusparseDbsrsv2_solve		12.2			rocsparse_dbsrsv_solve	3.6.0				
cusparseDbsrxmv		12.2			rocsparse_dbsrxmv	4.5.0				
cusparseDcsrmmv		10.2		11.0	rocsparse_dcsrmmv	1.9.0				
cusparseDcsrmmv_mp	8.0	10.2		11.0						
cusparseDcsrsv2_analysis		11.3		12.0	rocsparse_dcsrsv_analysis	1.9.0				
cusparseDcsrsv2_bufferSize		11.3		12.0	rocsparse_dcsrsv_buffer_size	1.9.0				
cusparseDcsrsv2_bufferSizeExt		11.3		12.0	rocsparse_dcsrsv_buffer_size	1.9.0				
cusparseDcsrsv2_solve		11.3		12.0	rocsparse_dcsrsv_solve	1.9.0				
cusparseDcsrsv_analysis		10.2		11.0						
cusparseDcsrsv_solve		10.2		11.0						
cusparseDgemvi	7.5	12.8			rocsparse_dgemvi	4.3.0				
cusparseDgemvi_bufferSize	7.5	12.8			rocsparse_dgemvi_buffer_size	4.3.0				
cusparseDhybmvm		10.2		11.0	rocsparse_dhybmvm	1.9.0				
cusparseDhybsv_analysis		10.2		11.0						
cusparseDhybsv_solve		10.2		11.0						
cusparseSbsrmv					rocsparse_sbsrmv	3.5.0	5.4.0			
cusparseSbsrsv2_analysis		12.2			rocsparse_sbsrsv_analysis	3.6.0				
cusparseSbsrsv2_bufferSize		12.2			rocsparse_sbsrsv_buffer_size	3.6.0				
cusparseSbsrsv2_bufferSizeExt		12.2			rocsparse_sbsrsv_buffer_size	3.6.0				
cusparseSbsrsv2_solve		12.2			rocsparse_sbsrsv_solve	3.6.0				
cusparseSbsrxmv		12.2			rocsparse_sbsrxmv	4.5.0				
cusparseScsrmmv		10.2		11.0	rocsparse_scsrmmv	1.9.0				

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Table 12 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
cusparseScsrmmv_mp	8.0	10.2		11.0						
cusparseScsrsv2_analysis		11.3		12.0	rocspase_scsrsv_analysis	1.9.0				
cusparseScsrsv2_bufferSize		11.3		12.0	rocspase_scsrsv_buffer_size	1.9.0				
cusparseScsrsv2_bufferSizeExt		11.3		12.0	rocspase_scsrsv_buffer_size	1.9.0				
cusparseScsrsv2_solve		11.3		12.0	rocspase_scsrsv_solve	1.9.0				
cusparseScsrsv_analysis		10.2		11.0						
cusparseScsrsv_solve		10.2		11.0						
cusparseSgemvi	7.5	12.8			rocspase_sgemvi	4.3.0				
cusparseSgemvi_bufferSize	7.5	12.8			rocspase_sgemvi_buffer_size	4.3.0				
cusparseShybmvm		10.2		11.0	rocspase_shybmvm	1.9.0				
cusparseShybsv_analysis		10.2		11.0						
cusparseShybsv_solve		10.2		11.0						
cusparseXbsrsv2_zeroPivot		12.2			rocspase_bsrsv_zero_pivot	3.6.0				
cusparseXcsrsv2_zeroPivot		11.3		12.0	rocspase_csrsv_zero_pivot	1.9.0				
cusparseZbsrmvm					rocspase_zbsrmvm	3.5.0	5.4.0			
cusparseZbsrsv2_analysis		12.2			rocspase_zbsrsv_analysis	3.6.0				
cusparseZbsrsv2_bufferSize		12.2			rocspase_zbsrsv_buffer_size	3.6.0				
cusparseZbsrsv2_bufferSizeExt		12.2			rocspase_zbsrsv_buffer_size	3.6.0				
cusparseZbsrsv2_solve		12.2			rocspase_zbsrsv_solve	3.6.0				
cusparseZbsrxmvm		12.2			rocspase_zbsrxmvm	4.5.0				
cusparseZcsrmmv		10.2		11.0	rocspase_zcsrmmv	1.9.0				
cusparseZcsrmmv_mp	8.0	10.2		11.0						
cusparseZcsrsv2_analysis		11.3		12.0	rocspase_zcsrsv_analysis	2.10.0				
cusparseZcsrsv2_bufferSize		11.3		12.0	rocspase_zcsrsv_buffer_size	2.10.0				
cusparseZcsrsv2_bufferSizeExt		11.3		12.0	rocspase_zcsrsv_buffer_size	2.10.0				
cusparseZcsrsv2_solve		11.3		12.0	rocspase_zcsrsv_solve	2.10.0				
cusparseZcsrsv_analysis		10.2		11.0						
cusparseZcsrsv_solve		10.2		11.0						
cusparseZgemvi	7.5	12.8			rocspase_zgemvi	4.3.0				
cusparseZgemvi_bufferSize	7.5	12.8			rocspase_zgemvi_buffer_size	4.3.0				
cusparseZhybmvm		10.2		11.0	rocspase_zhybmvm	2.10.0				
cusparseZhybsv_analysis		10.2		11.0						
cusparseZhybsv_solve		10.2		11.0						

10.2.7 10. CUSPARSE Level 3 Function Reference

CUDA	A	D	C	R	ROC	A	D	C	R	U
cusparseCbsrmm		12.8			rocspase_cbsrmm	3.7.0				
cusparseCbsrsm2_analysis		12.2			rocspase_cbsrsm_analysis	3.6.0				
cusparseCbsrsm2_bufferSize		12.2			rocspase_cbsrsm_buffer_size	4.5.0				
cusparseCbsrsm2_bufferSizeExt		12.2								
cusparseCbsrsm2_solve		12.2			rocspase_cbsrsm_solve	4.5.0				
cusparseCcsrmm		10.2		11.0	rocspase_ccsrmm	1.9.0				
cusparseCcsrmm2		10.2		11.0	rocspase_ccsrmm	1.9.0				
cusparseCcsrsm2_analysis	9.2	11.3		12.0	rocspase_ccsrsm_analysis	3.1.0				
cusparseCcsrsm2_bufferSizeExt	9.2	11.3		12.0	rocspase_ccsrsm_buffer_size	3.1.0				
cusparseCcsrsm2_solve	9.2	11.3		12.0	rocspase_ccsrsm_solve	3.1.0				
cusparseCcsrsm_analysis		10.2		11.0						
cusparseCcsrsm_solve		10.2		11.0						

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Table 13 – continued from previous page

CUDA	A	D	C	R	ROC	A	D	C	R	U
cusparseCgemmi	8.0	11.0		12.0						
cusparseDbsrmm		12.8			rocsparse_dbsrmm	3.7.0				
cusparseDbsrsm2_analysis		12.2			rocsparse_dbsrsm_analysis	3.6.0				
cusparseDbsrsm2_bufferSize		12.2			rocsparse_dbsrsm_buffer_size	4.5.0				
cusparseDbsrsm2_bufferSizeExt		12.2								
cusparseDbsrsm2_solve		12.2			rocsparse_dbsrsm_solve	4.5.0				
cusparseDcsrmm		10.2		11.0	rocsparse_dcsrmm	1.9.0				
cusparseDcsrmm2		10.2		11.0	rocsparse_dcsrmm	1.9.0				
cusparseDcsrsm2_analysis	9.2	11.3		12.0	rocsparse_dcsrsm_analysis	3.1.0				
cusparseDcsrsm2_bufferSizeExt	9.2	11.3		12.0	rocsparse_dcsrsm_buffer_size	3.1.0				
cusparseDcsrsm2_solve	9.2	11.3		12.0	rocsparse_dcsrsm_solve	3.1.0				
cusparseDcsrsm_analysis		10.2		11.0						
cusparseDcsrsm_solve		10.2		11.0						
cusparseDgemmi	8.0	11.0		12.0						
cusparseSbsrmm		12.8			rocsparse_sbsrmm	3.7.0				
cusparseSbsrsm2_analysis		12.2			rocsparse_sbsrsm_analysis	3.6.0				
cusparseSbsrsm2_bufferSize		12.2			rocsparse_sbsrsm_buffer_size	4.5.0				
cusparseSbsrsm2_bufferSizeExt		12.2								
cusparseSbsrsm2_solve		12.2			rocsparse_sbsrsm_solve	4.5.0				
cusparseScsrmm		10.2		11.0	rocsparse_scsrmm	1.9.0				
cusparseScsrmm2		10.2		11.0	rocsparse_scsrmm	1.9.0				
cusparseScsrsm2_analysis	9.2	11.3		12.0	rocsparse_scsrsm_analysis	3.1.0				
cusparseScsrsm2_bufferSizeExt	9.2	11.3		12.0	rocsparse_scsrsm_buffer_size	3.1.0				
cusparseScsrsm2_solve	9.2	11.3		12.0	rocsparse_scsrsm_solve	3.1.0				
cusparseScsrsm_analysis		10.2		11.0						
cusparseScsrsm_solve		10.2		11.0						
cusparseSgemmi	8.0	11.0		12.0						
cusparseXbsrsm2_zeroPivot		12.2			rocsparse_bsrsrm_zero_pivot	4.5.0				
cusparseXcsrsm2_zeroPivot	9.2	11.3		12.0	rocsparse_csrsm_zero_pivot	3.1.0				
cusparseZbsrmm		12.8			rocsparse_zbsrmm	3.7.0				
cusparseZbsrsm2_analysis		12.2			rocsparse_zbsrsm_analysis	3.6.0				
cusparseZbsrsm2_bufferSize		12.2			rocsparse_zbsrsm_buffer_size	4.5.0				
cusparseZbsrsm2_bufferSizeExt		12.2								
cusparseZbsrsm2_solve		12.2			rocsparse_zbsrsm_solve	4.5.0				
cusparseZcsrmm		10.2		11.0	rocsparse_zcsrmm	1.9.0				
cusparseZcsrmm2		10.2		11.0	rocsparse_zcsrmm	1.9.0				
cusparseZcsrsm2_analysis	9.2	11.3		12.0	rocsparse_zcsrsm_analysis	3.1.0				
cusparseZcsrsm2_bufferSizeExt	9.2	11.3		12.0	rocsparse_zcsrsm_buffer_size	3.1.0				
cusparseZcsrsm2_solve	9.2	11.3		12.0	rocsparse_zcsrsm_solve	3.1.0				
cusparseZcsrsm_analysis		10.2		11.0						
cusparseZcsrsm_solve		10.2		11.0						
cusparseZgemmi	8.0	11.0		12.0						

10.2.8 11. CUSPARSE Extra Function Reference

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cusparseCcsrgeam		10.2		11.0	rocsparse_ccsrgeam	3.5.0					
cusparseCcsrgeam2	10.0				rocsparse_ccsrgeam	3.5.0					
cusparseCcsrgeam2_buffer	10.0										
cusparseCcsrgemm		10.2		11.0							
cusparseCcsrgemm2		11.0		12.0	rocsparse_ccsrgemm	2.8.0					
cusparseCcsrgemm2_buffer		11.0		12.0	rocsparse_ccsrgemm_buf	2.8.0					
cusparseDcsrgeam		10.2		11.0	rocsparse_dcsrgeam	3.5.0					
cusparseDcsrgeam2	10.0				rocsparse_dcsrgeam	3.5.0					
cusparseDcsrgeam2_buffer	10.0										
cusparseDcsrgemm		10.2		11.0							
cusparseDcsrgemm2		11.0		12.0	rocsparse_dcsrgemm	2.8.0					
cusparseDcsrgemm2_buffer		11.0		12.0	rocsparse_dcsrgemm_buf	2.8.0					
cusparseScsrgeam		10.2		11.0	rocsparse_scsrgeam	3.5.0					
cusparseScsrgeam2	10.0				rocsparse_scsrgeam	3.5.0					
cusparseScsrgeam2_buffer	10.0										
cusparseScsrgemm		10.2		11.0							
cusparseScsrgemm2		11.0		12.0	rocsparse_scsrgemm	2.8.0					
cusparseScsrgemm2_buffer		11.0		12.0	rocsparse_scsrgemm_buf	2.8.0					
cusparseXcsrgeam2Nnz	10.0				rocsparse_csrgeam_nnz	3.5.0					
cusparseXcsrgeamNnz		10.2		11.0	rocsparse_csrgeam_nnz	3.5.0					
cusparseXcsrgemm2Nnz		11.0		12.0	rocsparse_csrgemm_nnz	2.8.0					
cusparseXcsrgemmNnz		10.2		11.0							
cusparseZcsrgeam		10.2		11.0	rocsparse_zcsrgeam	3.5.0					
cusparseZcsrgeam2	10.0				rocsparse_zcsrgeam	3.5.0					
cusparseZcsrgeam2_buffer	10.0										
cusparseZcsrgemm		10.2		11.0							
cusparseZcsrgemm2		11.0		12.0	rocsparse_zcsrgemm	2.8.0					
cusparseZcsrgemm2_buffer		11.0		12.0	rocsparse_zcsrgemm_buf	2.8.0					

10.2.9 12. CUSPARSE Preconditioners Reference

CUDA	A	D	C	R	ROC
cusparseCbsric02		12.2			rocparse_cbsric0
cusparseCbsric02_analysis		12.2			rocparse_cbsric0_analysis
cusparseCbsric02_bufferSize		12.2			rocparse_cbsric0_buffer_size
cusparseCbsric02_bufferSizeExt		12.2			
cusparseCbsrilu02		12.2			rocparse_cbsrilu0
cusparseCbsrilu02_analysis		12.2			rocparse_cbsrilu0_analysis
cusparseCbsrilu02_bufferSize		12.2			rocparse_cbsrilu0_buffer_size
cusparseCbsrilu02_bufferSizeExt		12.2			
cusparseCbsrilu02_numericBoost		12.2			rocparse_dcbsrilu0_numeric_boost
cusparseCcsric0		10.2		11.0	
cusparseCcsric02		12.2			rocparse_ccsric0
cusparseCcsric02_analysis		12.2			rocparse_ccsric0_analysis
cusparseCcsric02_bufferSize		12.2			rocparse_ccsric0_buffer_size
cusparseCcsric02_bufferSizeExt		12.2			rocparse_ccsric0_buffer_size
cusparseCcsrilu0		10.2		11.0	
cusparseCcsrilu02		12.2			rocparse_ccsrilu0
cusparseCcsrilu02_analysis		12.2			rocparse_ccsrilu0_analysis
cusparseCcsrilu02_bufferSize		12.2			rocparse_ccsrilu0_buffer_size
cusparseCcsrilu02_bufferSizeExt		12.2			rocparse_ccsrilu0_buffer_size
cusparseCcsrilu02_numericBoost		12.2			rocparse_dccsrilu0_numeric_boost
cusparseCgpsvInterleavedBatch	9.2				rocparse_cgpsv_interleaved_batch
cusparseCgpsvInterleavedBatch_bufferSizeExt	9.2				rocparse_cgpsv_interleaved_batch_buf
cusparseCgtsv		10.2		11.0	
cusparseCgtsv2	9.0				rocparse_cgtsv
cusparseCgtsv2StridedBatch	9.0				rocparse_cgtsv_no_pivot_strided_batch
cusparseCgtsv2StridedBatch_bufferSizeExt	9.0				rocparse_cgtsv_no_pivot_strided_batch
cusparseCgtsv2_bufferSizeExt	9.0				rocparse_cgtsv_buffer_size
cusparseCgtsv2_nopivot	9.0				rocparse_cgtsv_no_pivot
cusparseCgtsv2_nopivot_bufferSizeExt	9.0				rocparse_cgtsv_no_pivot_buffer_size
cusparseCgtsvInterleavedBatch	9.2				rocparse_cgtsv_interleaved_batch
cusparseCgtsvInterleavedBatch_bufferSizeExt	9.2				rocparse_cgtsv_interleaved_batch_buf
cusparseCgtsvStridedBatch		10.2		11.0	
cusparseCgtsv_nopivot		10.2		11.0	
cusparseCsrilu0Ex	8.0	10.2		11.0	
cusparseDbsric02		12.2			rocparse_dbsric0
cusparseDbsric02_analysis		12.2			rocparse_dbsric0_analysis
cusparseDbsric02_bufferSize		12.2			rocparse_dbsric0_buffer_size
cusparseDbsric02_bufferSizeExt		12.2			
cusparseDbsrilu02		12.2			rocparse_dbsrilu0
cusparseDbsrilu02_analysis		12.2			rocparse_dbsrilu0_analysis
cusparseDbsrilu02_bufferSize		12.2			rocparse_dbsrilu0_buffer_size
cusparseDbsrilu02_bufferSizeExt		12.2			
cusparseDbsrilu02_numericBoost		12.2			rocparse_dbsrilu0_numeric_boost
cusparseDcsric0		10.2		11.0	
cusparseDcsric02		12.2			rocparse_dcsric0
cusparseDcsric02_analysis		12.2			rocparse_dcsric0_analysis
cusparseDcsric02_bufferSize		12.2			rocparse_dcsric0_buffer_size
cusparseDcsric02_bufferSizeExt		12.2			rocparse_dcsric0_buffer_size
cusparseDcsrilu0		10.2		11.0	

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CUDA	A	D	C	R	ROC
cusparseDcsrilu02		12.2			rocparse_dcsrilu0
cusparseDcsrilu02_analysis		12.2			rocparse_dcsrilu0_analysis
cusparseDcsrilu02_bufferSize		12.2			rocparse_dcsrilu0_buffer_size
cusparseDcsrilu02_bufferSizeExt		12.2			rocparse_dcsrilu0_buffer_size
cusparseDcsrilu02_numericBoost		12.2			rocparse_dcsrilu0_numeric_boost
cusparseDgpsvInterleavedBatch	9.2				rocparse_dgpsv_interleaved_batch
cusparseDgpsvInterleavedBatch_bufferSizeExt	9.2				rocparse_dgpsv_interleaved_batch_buf
cusparseDgtsv		10.2		11.0	
cusparseDgtsv2	9.0				rocparse_dgtsv
cusparseDgtsv2StridedBatch	9.0				rocparse_dgtsv_no_pivot_strided_batch
cusparseDgtsv2StridedBatch_bufferSizeExt	9.0				rocparse_dgtsv_no_pivot_strided_batch
cusparseDgtsv2_bufferSizeExt	9.0				rocparse_dgtsv_buffer_size
cusparseDgtsv2_nopivot	9.0				rocparse_dgtsv_no_pivot
cusparseDgtsv2_nopivot_bufferSizeExt	9.0				rocparse_dgtsv_no_pivot_buffer_size
cusparseDgtsvInterleavedBatch	9.2				rocparse_dgtsv_interleaved_batch
cusparseDgtsvInterleavedBatch_bufferSizeExt	9.2				rocparse_dgtsv_interleaved_batch_buf
cusparseDgtsvStridedBatch		10.2		11.0	
cusparseDgtsv_nopivot		10.2		11.0	
cusparseSbsric02		12.2			rocparse_sbsric0
cusparseSbsric02_analysis		12.2			rocparse_sbsric0_analysis
cusparseSbsric02_bufferSize		12.2			rocparse_sbsric0_buffer_size
cusparseSbsric02_bufferSizeExt		12.2			
cusparseSbsrilu02		12.2			rocparse_sbsrilu0
cusparseSbsrilu02_analysis		12.2			rocparse_sbsrilu0_analysis
cusparseSbsrilu02_bufferSize		12.2			rocparse_sbsrilu0_buffer_size
cusparseSbsrilu02_bufferSizeExt		12.2			
cusparseSbsrilu02_numericBoost		12.2			rocparse_dsbsrilu0_numeric_boost
cusparseScsric0		10.2		11.0	
cusparseScsric02		12.2			rocparse_scsric0
cusparseScsric02_analysis		12.2			rocparse_scsric0_analysis
cusparseScsric02_bufferSize		12.2			rocparse_scsric0_buffer_size
cusparseScsric02_bufferSizeExt		12.2			rocparse_scsric0_buffer_size
cusparseScsrilu0		10.2		11.0	
cusparseScsrilu02		12.2			rocparse_scsrilu0
cusparseScsrilu02_analysis		12.2			rocparse_scsrilu0_analysis
cusparseScsrilu02_bufferSize		12.2			rocparse_scsrilu0_buffer_size
cusparseScsrilu02_bufferSizeExt		12.2			rocparse_scsrilu0_buffer_size
cusparseScsrilu02_numericBoost		12.2			rocparse_dscsrilu0_numeric_boost
cusparseSgpsvInterleavedBatch	9.2				rocparse_sgpsv_interleaved_batch
cusparseSgpsvInterleavedBatch_bufferSizeExt	9.2				rocparse_sgpsv_interleaved_batch_buf
cusparseSgtsv		10.2		11.0	
cusparseSgtsv2	9.0				rocparse_sgtsv
cusparseSgtsv2StridedBatch	9.0				rocparse_sgtsv_no_pivot_strided_batch
cusparseSgtsv2StridedBatch_bufferSizeExt	9.0				rocparse_sgtsv_no_pivot_strided_batch
cusparseSgtsv2_bufferSizeExt	9.0				rocparse_sgtsv_buffer_size
cusparseSgtsv2_nopivot	9.0				rocparse_sgtsv_no_pivot
cusparseSgtsv2_nopivot_bufferSizeExt	9.0				rocparse_sgtsv_no_pivot_buffer_size
cusparseSgtsvInterleavedBatch	9.2				rocparse_sgtsv_interleaved_batch
cusparseSgtsvInterleavedBatch_bufferSizeExt	9.2				rocparse_sgtsv_interleaved_batch_buf
cusparseSgtsvStridedBatch		10.2		11.0	

Table 14 – continued from previous page

CUDA	A	D	C	R	ROC
cusparseSgtsv_nopivot		10.2		11.0	
cusparseXbsric02_zeroPivot		12.2			rocsparse_bsric0_zero_pivot
cusparseXbsrilu02_zeroPivot		12.2			rocsparse_bsrilu0_zero_pivot
cusparseXcsric02_zeroPivot		12.2			rocsparse_csric0_zero_pivot
cusparseXcsrilu02_zeroPivot		12.2			rocsparse_csrilu0_zero_pivot
cusparseZbsric02		12.2			rocsparse_zbsric0
cusparseZbsric02_analysis		12.2			rocsparse_zbsric0_analysis
cusparseZbsric02_bufferSize		12.2			rocsparse_zbsric0_buffer_size
cusparseZbsric02_bufferSizeExt		12.2			
cusparseZbsrilu02		12.2			rocsparse_zbsrilu0
cusparseZbsrilu02_analysis		12.2			rocsparse_zbsrilu0_analysis
cusparseZbsrilu02_bufferSize		12.2			rocsparse_zbsrilu0_buffer_size
cusparseZbsrilu02_bufferSizeExt		12.2			
cusparseZbsrilu02_numericBoost		12.2			rocsparse_zbsrilu0_numeric_boost
cusparseZcsric0		10.2		11.0	
cusparseZcsric02		12.2			rocsparse_zcsric0
cusparseZcsric02_analysis		12.2			rocsparse_zcsric0_analysis
cusparseZcsric02_bufferSize		12.2			rocsparse_zcsric0_buffer_size
cusparseZcsric02_bufferSizeExt		12.2			rocsparse_zcsric0_buffer_size
cusparseZcsrilu0		10.2		11.0	
cusparseZcsrilu02		12.2			rocsparse_zcsrilu0
cusparseZcsrilu02_analysis		12.2			rocsparse_zcsrilu0_analysis
cusparseZcsrilu02_bufferSize		12.2			rocsparse_zcsrilu0_buffer_size
cusparseZcsrilu02_bufferSizeExt		12.2			rocsparse_zcsrilu0_buffer_size
cusparseZcsrilu02_numericBoost		12.2			rocsparse_zcsrilu0_numeric_boost
cusparseZgpsvInterleavedBatch	9.2				rocsparse_zgpsv_interleaved_batch
cusparseZgpsvInterleavedBatch_bufferSizeExt	9.2				rocsparse_zgpsv_interleaved_batch_buf
cusparseZgtsv		10.2		11.0	
cusparseZgtsv2	9.0				rocsparse_zgtsv
cusparseZgtsv2StridedBatch	9.0				rocsparse_zgtsv_no_pivot_strided_batch
cusparseZgtsv2StridedBatch_bufferSizeExt	9.0				rocsparse_zgtsv_no_pivot_strided_batch
cusparseZgtsv2_bufferSizeExt	9.0				rocsparse_zgtsv_buffer_size
cusparseZgtsv2_nopivot	9.0				rocsparse_zgtsv_no_pivot
cusparseZgtsv2_nopivot_bufferSizeExt	9.0				rocsparse_zgtsv_no_pivot_buffer_size
cusparseZgtsvInterleavedBatch	9.2				rocsparse_zgtsv_interleaved_batch
cusparseZgtsvInterleavedBatch_bufferSizeExt	9.2				rocsparse_zgtsv_interleaved_batch_buf
cusparseZgtsvStridedBatch		10.2		11.0	
cusparseZgtsv_nopivot		10.2		11.0	

10.2.10 13. CUSPARSE Reorderings Reference

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
cusparseCcsrcolor		12.2			rocsparse_ccsrcolor	4.5.0					
cusparseDcsrcolor		12.2			rocsparse_dcscrcolor	4.5.0					
cusparseScsrcolor		12.2			rocsparse_scscrcolor	4.5.0					
cusparseZcsrcolor		12.2			rocsparse_zcsrcolor	4.5.0					

10.2.11 14. CUSPARSE Format Conversion Reference

CUDA	A	D	C	R	ROC
cusparseCbsr2csr		12.8			rocsparse_cbsr2csr
cusparseCcsc2dense		11.1		12.0	rocsparse_ccsc2dense
cusparseCcsc2hyb		10.2		11.0	
cusparseCcsr2bsr		12.4			rocsparse_ccsr2bsr
cusparseCcsr2csc		10.2		11.0	
cusparseCcsr2csr_compress	8.0	12.2			rocsparse_ccsr2csr_compress
cusparseCcsr2csru		12.2			
cusparseCcsr2dense		11.1		12.0	rocsparse_ccsr2dense
cusparseCcsr2gebsr					rocsparse_ccsr2gebsr
cusparseCcsr2gebsr_bufferSize					rocsparse_ccsr2gebsr_buffer_si
cusparseCcsr2gebsr_bufferSizeExt					
cusparseCcsr2hyb		10.2		11.0	rocsparse_ccsr2hyb
cusparseCcsru2csr		12.2			
cusparseCcsru2csr_bufferSizeExt		12.2			
cusparseCdense2csc		11.1		12.0	rocsparse_cdense2csc
cusparseCdense2csr		11.1		12.0	rocsparse_cdense2csr
cusparseCdense2hyb		10.2		11.0	
cusparseCgebsr2csr		12.4			rocsparse_cgebsr2csr
cusparseCgebsr2gebsc					rocsparse_cgebsr2gebsc
cusparseCgebsr2gebsc_bufferSize					rocsparse_cgebsr2gebsc_buffer_
cusparseCgebsr2gebsc_bufferSizeExt					
cusparseCgebsr2gebsr		12.8			rocsparse_cgebsr2gebsr
cusparseCgebsr2gebsr_bufferSize		12.8			rocsparse_cgebsr2gebsr_buffer_
cusparseCgebsr2gebsr_bufferSizeExt		12.8			
cusparseChyb2csc		10.2		11.0	
cusparseChyb2csr		10.2		11.0	
cusparseChyb2dense		10.2		11.0	
cusparseCnnz					rocsparse_cnnz
cusparseCnnz_compress	8.0	12.2			rocsparse_cnnz_compress
cusparseCreateCsr2csrInfo		12.2			
cusparseCreateIdentityPermutation		12.2			rocsparse_create_identity_perm
cusparseCsr2cscEx	8.0	10.2		11.0	
cusparseCsr2cscEx2		10.1			
cusparseCsr2cscEx2_bufferSize		10.1			rocsparse_csr2csc_buffer_size
cusparseDbsr2csr		12.8			rocsparse_dbsr2csr

Table 15 – continued from previous page

CUDA	A	D	C	R	ROC
cusparseDcsc2dense		11.1		12.0	rocsparse_dcsc2dense
cusparseDcsc2hyb		10.2		11.0	
cusparseDcsr2bsr		12.4			rocsparse_dcsr2bsr
cusparseDcsr2csc		10.2		11.0	
cusparseDcsr2csr_compress	8.0	12.2			rocsparse_dcsr2csr_compress
cusparseDcsr2csru		12.2			
cusparseDcsr2dense		11.1		12.0	rocsparse_dcsr2dense
cusparseDcsr2gebsr					rocsparse_dcsr2gebsr
cusparseDcsr2gebsr_bufferSize					rocsparse_dcsr2gebsr_buffer_si
cusparseDcsr2gebsr_bufferSizeExt					
cusparseDcsr2hyb		10.2		11.0	rocsparse_dcsr2hyb
cusparseDcsru2csr		12.2			
cusparseDcsru2csr_bufferSizeExt		12.2			
cusparseDdense2csc		11.1		12.0	rocsparse_ddense2csc
cusparseDdense2csr		11.1		12.0	rocsparse_ddense2csr
cusparseDdense2hyb		10.2		11.0	
cusparseDestroyCsr2csrInfo		12.2			
cusparseDgebsr2csr		12.4			rocsparse_dgebsr2csr
cusparseDgebsr2gebsc					rocsparse_dgebsr2gebsc
cusparseDgebsr2gebsc_bufferSize					rocsparse_dgebsr2gebsc_buffer_
cusparseDgebsr2gebsc_bufferSizeExt					
cusparseDgebsr2gebsr		12.8			rocsparse_dgebsr2gebsr
cusparseDgebsr2gebsr_bufferSize		12.8			rocsparse_dgebsr2gebsr_buffer_
cusparseDgebsr2gebsr_bufferSizeExt		12.8			
cusparseDhyb2csc		10.2		11.0	
cusparseDhyb2csr		10.2		11.0	
cusparseDhyb2dense		10.2		11.0	
cusparseDnnz					rocsparse_dnnz
cusparseDnnz_compress	8.0	12.2			rocsparse_dnnz_compress
cusparseDpruneCsr2csr	9.0	12.2			rocsparse_dprune_csr2csr
cusparseDpruneCsr2csrByPercentage	9.0	12.2			rocsparse_dprune_csr2csr_by_per
cusparseDpruneCsr2csrByPercentage_bufferSizeExt	9.0	12.2			rocsparse_dprune_csr2csr_by_per
cusparseDpruneCsr2csrNnz	9.0	12.2			rocsparse_dprune_csr2csr_nnz
cusparseDpruneCsr2csrNnzByPercentage	9.0	12.2			rocsparse_dprune_csr2csr_nnz_by
cusparseDpruneCsr2csr_bufferSizeExt	9.0	12.2			rocsparse_dprune_csr2csr_buffer
cusparseDpruneDense2csr	9.0	12.2			rocsparse_dprune_dense2csr
cusparseDpruneDense2csrByPercentage	9.0	12.2			rocsparse_dprune_dense2csr_by_
cusparseDpruneDense2csrByPercentage_bufferSizeExt	9.0	12.2			rocsparse_dprune_dense2csr_by_
cusparseDpruneDense2csrNnz	9.0	12.2			rocsparse_dprune_dense2csr_nnz
cusparseDpruneDense2csrNnzByPercentage	9.0	12.2			rocsparse_dprune_dense2csr_nnz
cusparseDpruneDense2csr_bufferSizeExt	9.0	12.2			rocsparse_dprune_dense2csr_buf
cusparseHpruneCsr2csr	9.0	12.2			
cusparseHpruneCsr2csrByPercentage	9.0	12.2			
cusparseHpruneCsr2csrByPercentage_bufferSizeExt	9.0	12.2			
cusparseHpruneCsr2csrNnz	9.0	12.2			
cusparseHpruneCsr2csrNnzByPercentage	9.0	12.2			
cusparseHpruneCsr2csr_bufferSizeExt	9.0	12.2			
cusparseHpruneDense2csr	9.0	12.2			
cusparseHpruneDense2csrByPercentage	9.0	12.2			
cusparseHpruneDense2csrByPercentage_bufferSizeExt	9.0	12.2			

Table 15 – continued from previous page

CUDA	A	D	C	R	ROC
cusparseHpruneDense2csrNnz	9.0	12.2			
cusparseHpruneDense2csrNnzByPercentage	9.0	12.2			
cusparseHpruneDense2csr_bufferSizeExt	9.0	12.2			
cusparseSbsr2csr		12.8			rocparse_sbsr2csr
cusparseScsc2dense		11.1		12.0	rocparse_scsc2dense
cusparseScsc2hyb		10.2		11.0	
cusparseScsr2bsr		12.4			rocparse_scsr2bsr
cusparseScsr2csc		10.2		11.0	
cusparseScsr2csr_compress	8.0	12.2			rocparse_scsr2csr_compress
cusparseScsr2csru		12.2			
cusparseScsr2dense		11.1		12.0	rocparse_scsr2dense
cusparseScsr2gebsr					rocparse_scsr2gebsr
cusparseScsr2gebsr_bufferSize					rocparse_scsr2gebsr_buffer_si
cusparseScsr2gebsr_bufferSizeExt					
cusparseScsr2hyb		10.2		11.0	rocparse_scsr2hyb
cusparseScsru2csr		12.2			
cusparseScsru2csr_bufferSizeExt		12.2			
cusparseSdense2csc		11.1		12.0	rocparse_sdense2csc
cusparseSdense2csr		11.1		12.0	rocparse_sdense2csr
cusparseSdense2hyb		10.2		11.0	
cusparseSgebsr2csr		12.4			rocparse_sgebsr2csr
cusparseSgebsr2gebsc					rocparse_sgebsr2gebsc
cusparseSgebsr2gebsc_bufferSize					rocparse_sgebsr2gebsc_buffer_
cusparseSgebsr2gebsc_bufferSizeExt					
cusparseSgebsr2gebsr		12.8			rocparse_sgebsr2gebsr
cusparseSgebsr2gebsr_bufferSize		12.8			rocparse_sgebsr2gebsr_buffer_
cusparseSgebsr2gebsr_bufferSizeExt		12.8			
cusparseShyb2csc		10.2		11.0	
cusparseShyb2csr		10.2		11.0	
cusparseShyb2dense		10.2		11.0	
cusparseSnnz					rocparse_snnz
cusparseSnnz_compress	8.0	12.2			rocparse_snnz_compress
cusparseSpruneCsr2csr	9.0	12.2			rocparse_sprune_csr2csr
cusparseSpruneCsr2csrByPercentage	9.0	12.2			rocparse_sprune_csr2csr_by_pe
cusparseSpruneCsr2csrByPercentage_bufferSizeExt	9.0	12.2			rocparse_sprune_csr2csr_by_pe
cusparseSpruneCsr2csrNnz	9.0	12.2			rocparse_sprune_csr2csr_nnz
cusparseSpruneCsr2csrNnzByPercentage	9.0	12.2			rocparse_sprune_csr2csr_nnz_by
cusparseSpruneCsr2csr_bufferSizeExt	9.0	12.2			rocparse_sprune_csr2csr_buffer
cusparseSpruneDense2csr	9.0	12.2			rocparse_sprune_dense2csr
cusparseSpruneDense2csrByPercentage	9.0	12.2			rocparse_sprune_dense2csr_by_
cusparseSpruneDense2csrByPercentage_bufferSizeExt	9.0	12.2			rocparse_sprune_dense2csr_by_
cusparseSpruneDense2csrNnz	9.0	12.2			rocparse_sprune_dense2csr_nnz
cusparseSpruneDense2csrNnzByPercentage	9.0	12.2			rocparse_sprune_dense2csr_nnz
cusparseSpruneDense2csr_bufferSizeExt	9.0	12.2			rocparse_sprune_dense2csr_buf
cusparseXcoo2csr					rocparse_coo2csr
cusparseXcoosortByColumn					rocparse_coosort_by_column
cusparseXcoosortByRow					rocparse_coosort_by_row
cusparseXcoosort_bufferSizeExt					rocparse_coosort_buffer_size
cusparseXcscsort					rocparse_cscsort
cusparseXcscsort_bufferSizeExt					rocparse_cscsort_buffer_size

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CUDA	A	D	C	R	ROC
cusparseXcsr2bsrNnz		12.4			rocspase_csr2bsr_nnz
cusparseXcsr2coo					rocspase_csr2coo
cusparseXcsr2gebsrNnz					rocspase_csr2gebsr_nnz
cusparseXcsrsort					rocspase_csrsort
cusparseXcsrsort_bufferSizeExt					rocspase_csrsort_buffer_size
cusparseXgebsr2csr		12.4			
cusparseXgebsr2gebsrNnz		12.8			rocspase_gebsr2gebsr_nnz
cusparseZbsr2csr		12.8			rocspase_zbsr2csr
cusparseZcsc2dense		11.1		12.0	rocspase_zcsc2dense
cusparseZcsc2hyb		10.2		11.0	
cusparseZcsr2bsr		12.4			rocspase_zcsr2bsr
cusparseZcsr2csc		10.2		11.0	
cusparseZcsr2csr_compress	8.0	12.2			rocspase_zcsr2csr_compress
cusparseZcsr2csru		12.2			
cusparseZcsr2dense		11.1		12.0	rocspase_zcsr2dense
cusparseZcsr2gebsr					rocspase_zcsr2gebsr
cusparseZcsr2gebsr_bufferSize					rocspase_zcsr2gebsr_buffer_si
cusparseZcsr2gebsr_bufferSizeExt					
cusparseZcsr2hyb		10.2		11.0	rocspase_zcsr2hyb
cusparseZcsru2csr		12.2			
cusparseZcsru2csr_bufferSizeExt		12.2			
cusparseZdense2csc		11.1		12.0	rocspase_zdense2csc
cusparseZdense2csr		11.1		12.0	rocspase_zdense2csr
cusparseZdense2hyb		10.2		11.0	
cusparseZgebsr2csr		12.4			rocspase_zgebsr2csr
cusparseZgebsr2gebsc					rocspase_zgebsr2gebsc
cusparseZgebsr2gebsc_bufferSize					rocspase_zgebsr2gebsc_buffer_
cusparseZgebsr2gebsc_bufferSizeExt					
cusparseZgebsr2gebsr		12.8			rocspase_zgebsr2gebsr
cusparseZgebsr2gebsr_bufferSize		12.8			rocspase_zgebsr2gebsr_buffer_
cusparseZgebsr2gebsr_bufferSizeExt		12.8			
cusparseZhyb2csc		10.2		11.0	
cusparseZhyb2csr		10.2		11.0	
cusparseZhyb2dense		10.2		11.0	
cusparseZnnz					rocspase_znnz
cusparseZnnz_compress	8.0	12.2			rocspase_znnz_compress

10.2.12 15. CUSPARSE Generic API Reference

CUDA	A	D	C	R	ROC	A	D
cusparseAxpby	11.0	12.8	12.0		rocspase_axpby	4.1.0	
cusparseBlockedEllGet	11.2				rocspase_bell_get	4.1.0	
cusparseBsrSetStridedBatch	12.1						
cusparseConstBlockedEllGet	12.0				rocspase_const_bell_get	6.0.0	
cusparseConstCooGet	12.0				rocspase_const_coo_get	6.0.0	
cusparseConstCscGet	12.0				rocspase_const_csc_get	6.0.0	
cusparseConstCsrGet	12.0				rocspase_const_csr_get	6.0.0	
cusparseConstDnMatGet	12.0				rocspase_const_dnmat_get	6.0.0	
cusparseConstDnMatGetValues	12.0				rocspase_const_dnmat_get_values	6.0.0	

Table 16 – continued from previous page

CUDA	A	D	C	R	ROC	A	D
cusparseConstDnVecGet	12.0				rocsparse_const_dnvec_get	6.0.0	
cusparseConstDnVecGetValues	12.0				rocsparse_const_dnvec_get_values	6.0.0	
cusparseConstSpMatGetValues	12.0				rocsparse_const_spmat_get_values	6.0.0	
cusparseConstSpVecGet	12.0				rocsparse_const_spvec_get	6.0.0	
cusparseConstSpVecGetValues	12.0				rocsparse_const_spvec_get_values	6.0.0	
cusparseConstrainedGeMM	10.2	11.2		12.0			
cusparseConstrainedGeMM_bufferSize	10.2	11.2		12.0			
cusparseCooAoSGet	10.2	11.2		12.0	rocsparse_coo_aos_get	4.1.0	
cusparseCooGet	10.1				rocsparse_coo_get	4.1.0	
cusparseCooSetPointers	11.1				rocsparse_coo_set_pointers	4.1.0	
cusparseCooSetStridedBatch	11.0				rocsparse_coo_set_strided_batch	5.2.0	
cusparseCreateBlockedEll	11.2				rocsparse_create_bell_descr	4.5.0	
cusparseCreateBsr	12.1						
cusparseCreateConstBlockedEll	12.0				rocsparse_create_const_bell_descr	6.0.0	
cusparseCreateConstBsr	12.1						
cusparseCreateConstCoo	12.0				rocsparse_create_const_coo_descr	6.0.0	
cusparseCreateConstCsc	12.0				rocsparse_create_const_csc_descr	6.0.0	
cusparseCreateConstCsr	12.0				rocsparse_create_const_csr_descr	6.0.0	
cusparseCreateConstDnMat	12.0				rocsparse_create_const_dnmat_descr	6.0.0	
cusparseCreateConstDnVec	12.0				rocsparse_create_const_dnvec_descr	6.0.0	
cusparseCreateConstSlicedEll	12.1						
cusparseCreateConstSpVec	12.0				rocsparse_create_const_spvec_descr	6.0.0	
cusparseCreateCoo	10.1				rocsparse_create_coo_descr	4.1.0	
cusparseCreateCooAoS	10.2	11.2		12.0	rocsparse_create_coo_aos_descr	4.1.0	
cusparseCreateCsc	11.1				rocsparse_create_csc_descr	4.1.0	
cusparseCreateCsr	10.2				rocsparse_create_csr_descr	4.1.0	
cusparseCreateDnMat	10.1				rocsparse_create_dnmat_descr	4.1.0	
cusparseCreateDnVec	10.2				rocsparse_create_dnvec_descr	4.1.0	
cusparseCreateSlicedEll	12.1						
cusparseCreateSpVec	10.2				rocsparse_create_spvec_descr	4.1.0	
cusparseCscGet	11.7				rocsparse_csc_get	6.1.0	
cusparseCscSetPointers	11.1				rocsparse_csc_set_pointers	4.1.0	
cusparseCsrGet	10.2				rocsparse_csr_get	4.1.0	
cusparseCsrSetPointers	11.0				rocsparse_csr_set_pointers	4.1.0	
cusparseCsrSetStridedBatch	11.0				rocsparse_csr_set_strided_batch	5.2.0	
cusparseDenseToSparse_analysis	11.1		12.0		rocsparse_dense_to_sparse	4.1.0	
cusparseDenseToSparse_bufferSize	11.1		12.0		rocsparse_dense_to_sparse	4.1.0	
cusparseDenseToSparse_convert	11.1		12.0				
cusparseDestroyDnMat	10.1		12.0		rocsparse_destroy_dnmat_descr	4.1.0	
cusparseDestroyDnVec	10.2		12.0		rocsparse_destroy_dnvec_descr	4.1.0	
cusparseDestroySpMat	10.1		12.0		rocsparse_destroy_spmat_descr	4.1.0	
cusparseDestroySpVec	10.2		12.0		rocsparse_destroy_spvec_descr	4.1.0	
cusparseDnMatGet	10.1				rocsparse_dnmat_get	4.1.0	
cusparseDnMatGetStridedBatch	10.1		12.0		rocsparse_dnmat_get_strided_batch	5.2.0	
cusparseDnMatGetValues	10.2				rocsparse_dnmat_get_values	4.1.0	
cusparseDnMatSetStridedBatch	10.1				rocsparse_dnmat_set_strided_batch	5.2.0	
cusparseDnMatSetValues	10.2				rocsparse_dnmat_set_values	4.1.0	
cusparseDnVecGet	10.2				rocsparse_dnvec_get	4.1.0	
cusparseDnVecGetValues	10.2				rocsparse_dnvec_get_values	4.1.0	
cusparseDnVecSetValues	10.2				rocsparse_dnvec_set_values	4.1.0	

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Table 16 – continued from previous page

CUDA	A	D	C	R	ROC	A	D
cusparseGather	11.0		12.0		rocsparse_gather	4.1.0	
cusparseRot	11.0	12.2			rocsparse_rot	4.1.0	
cusparseSDDMM	11.2		12.0		rocsparse_sddmm	4.3.0	
cusparseSDDMM_bufferSize	11.2		12.0		rocsparse_sddmm_buffer_size	4.3.0	
cusparseSDDMM_preprocess	11.2		12.0		rocsparse_sddmm_preprocess	4.3.0	
cusparseScatter	11.0		12.0		rocsparse_scatter	4.1.0	
cusparseSpGEMM_compute	11.0		12.0				
cusparseSpGEMM_copy	11.0		12.0				
cusparseSpGEMM_createDescr	11.0						
cusparseSpGEMM_destroyDescr	11.0						
cusparseSpGEMM_estimateMemory	12.0						
cusparseSpGEMM_getNumProducts	12.0						
cusparseSpGEMM_workEstimation	11.0		12.0				
cusparseSpGEMMreuse_compute	11.3		12.0				
cusparseSpGEMMreuse_copy	11.3		12.0				
cusparseSpGEMMreuse_nnz	11.3		12.0				
cusparseSpGEMMreuse_workEstimation	11.3		12.0				
cusparseSpMM	10.1		12.0		rocsparse_spm	4.2.0	
cusparseSpMMOp	11.5						
cusparseSpMMOp_createPlan	11.5						
cusparseSpMMOp_destroyPlan	11.5						
cusparseSpMM_bufferSize	10.1		12.0		rocsparse_spm	4.2.0	
cusparseSpMM_preprocess	11.2		12.0		rocsparse_spm	4.2.0	
cusparseSpMV	10.1		12.0		rocsparse_spmv	4.1.0	
cusparseSpMV_bufferSize	10.1		12.0		rocsparse_spmv	4.1.0	
cusparseSpMV_preprocess	12.4						
cusparseSpMatGetAttribute	11.3		12.0		rocsparse_spmat_get_attribute	4.5.0	
cusparseSpMatGetFormat	10.1		12.0		rocsparse_spmat_get_format	4.1.0	
cusparseSpMatGetIndexBase	10.1		12.0		rocsparse_spmat_get_index_base	4.1.0	
cusparseSpMatGetNumBatches	10.1			10.2			
cusparseSpMatGetSize	11.0		12.0		rocsparse_spmat_get_size	4.1.0	
cusparseSpMatGetStridedBatch	10.2		12.0		rocsparse_spmat_get_strided_batch	5.2.0	
cusparseSpMatGetValues	10.2				rocsparse_spmat_get_values	4.1.0	
cusparseSpMatSetAttribute	11.3				rocsparse_spmat_set_attribute	4.5.0	
cusparseSpMatSetNumBatches	10.1			10.2			
cusparseSpMatSetStridedBatch	10.2			12.0	rocsparse_spmat_set_strided_batch	5.2.0	
cusparseSpMatSetValues	10.2				rocsparse_spmat_set_values	4.1.0	
cusparseSpSM_analysis	11.3		12.0		rocsparse_spsm	4.5.0	
cusparseSpSM_bufferSize	11.3		12.0				
cusparseSpSM_createDescr	11.3						
cusparseSpSM_destroyDescr	11.3						
cusparseSpSM_solve	11.3		12.0		rocsparse_spsm	4.5.0	
cusparseSpSM_updateMatrix	12.4						
cusparseSpSV_analysis	11.3		12.0				
cusparseSpSV_bufferSize	11.3		12.0		rocsparse_spsv	4.5.0	
cusparseSpSV_createDescr	11.3						
cusparseSpSV_destroyDescr	11.3						
cusparseSpSV_solve	11.3		12.0				
cusparseSpSV_updateMatrix	12.1						
cusparseSpVV	10.1	12.8	12.0		rocsparse_spvv	4.1.0	

Table 16 – continued from previous page

CUDA	A	D	C	R	ROC	A	D
cusparseSpVV_bufferSize	10.1	12.8	12.0		rocsparse_spvv		4.1.0
cusparseSpVecGet	10.2				rocsparse_spvec_get		4.1.0
cusparseSpVecGetIndexBase	10.2		12.0		rocsparse_spvec_get_index_base		4.1.0
cusparseSpVecGetValues	10.2				rocsparse_spvec_get_values		4.1.0
cusparseSpVecSetValues	10.2				rocsparse_spvec_set_values		4.1.0
cusparseSparseToDense	11.1		12.0		rocsparse_sparse_to_dense		4.1.0
cusparseSparseToDense_bufferSize	11.1		12.0		rocsparse_sparse_to_dense		4.1.0

10.3 CURAND API supported by ROC

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

10.3.1 1. CURAND Data types

CUDA	A	D	C	R	ROC
CURAND_3RD					
CURAND_BINARY_SEARCH					
CURAND_CHOOSE_BEST					
CURAND_DEFINITION					
CURAND_DEVICE_API					
CURAND_DIRECTION_VECTORS_32_JOEKU06					ROCRAND_DIRECTION_VECTORS_32_JOEKU06
CURAND_DIRECTION_VECTORS_64_JOEKU06					ROCRAND_DIRECTION_VECTORS_64_JOEKU06
CURAND_DISCRETE_GAUSS					
CURAND_FAST_REJECTION					
CURAND_HITR					
CURAND_ITR					
CURAND_KNUTH					
CURAND_M1					
CURAND_M2					
CURAND_ORDERING_PSEUDO_BEST					ROCRAND_ORDERING_PSEUDO_BEST
CURAND_ORDERING_PSEUDO_DEFAULT					ROCRAND_ORDERING_PSEUDO_DEFAULT
CURAND_ORDERING_PSEUDO_DYNAMIC			11.5		ROCRAND_ORDERING_PSEUDO_DYNAMIC
CURAND_ORDERING_PSEUDO_LEGACY			11.0		ROCRAND_ORDERING_PSEUDO_LEGACY
CURAND_ORDERING_PSEUDO_SEEDED					ROCRAND_ORDERING_PSEUDO_SEEDED
CURAND_ORDERING_QUASI_DEFAULT					ROCRAND_ORDERING_QUASI_DEFAULT
CURAND_POISSON					
CURAND_REJECTION					
CURAND_RNG_PSEUDO_DEFAULT					ROCRAND_RNG_PSEUDO_DEFAULT
CURAND_RNG_PSEUDO_MRG32K3A					ROCRAND_RNG_PSEUDO_MRG32K3A
CURAND_RNG_PSEUDO_MT19937					ROCRAND_RNG_PSEUDO_MT19937
CURAND_RNG_PSEUDO_MTGP32					ROCRAND_RNG_PSEUDO_MTGP32
CURAND_RNG_PSEUDO_PHILOX4_32_10					ROCRAND_RNG_PSEUDO_PHILOX4_32_10
CURAND_RNG_PSEUDO_XORWOW					ROCRAND_RNG_PSEUDO_XORWOW
CURAND_RNG_QUASI_DEFAULT					ROCRAND_RNG_QUASI_DEFAULT
CURAND_RNG_QUASI_SCRAMBLED_SOBOL32					ROCRAND_RNG_QUASI_SCRAMBLED_SOBOL32
CURAND_RNG_QUASI_SCRAMBLED_SOBOL64					ROCRAND_RNG_QUASI_SCRAMBLED_SOBOL64
CURAND_RNG_QUASI_SOBOL32					ROCRAND_RNG_QUASI_SOBOL32

Table 17 – continued from previous page

CUDA	A	D	C	R	ROC
CURAND_RNG_QUASI_SOBOL64					ROCRAND_RNG_QUASI_SOBOL64
CURAND_RNG_TEST					
CURAND_SCRAMBLED_DIRECTION_VECTORS_32_JOEKU06					ROCRAND_SCRAMBLED_DIRECTION_VECTORS_32
CURAND_SCRAMBLED_DIRECTION_VECTORS_64_JOEKU06					ROCRAND_SCRAMBLED_DIRECTION_VECTORS_64
CURAND_STATUS_ALLOCATION_FAILED					ROCRAND_STATUS_ALLOCATION_FAILED
CURAND_STATUS_ARCH_MISMATCH					
CURAND_STATUS_DOUBLE_PRECISION_REQUIRED					ROCRAND_STATUS_DOUBLE_PRECISION_REQUIRED
CURAND_STATUS_INITIALIZATION_FAILED					
CURAND_STATUS_INTERNAL_ERROR					ROCRAND_STATUS_INTERNAL_ERROR
CURAND_STATUS_LAUNCH_FAILURE					ROCRAND_STATUS_LAUNCH_FAILURE
CURAND_STATUS_LENGTH_NOT_MULTIPLE					ROCRAND_STATUS_LENGTH_NOT_MULTIPLE
CURAND_STATUS_NOT_INITIALIZED					ROCRAND_STATUS_NOT_CREATED
CURAND_STATUS_OUT_OF_RANGE					ROCRAND_STATUS_OUT_OF_RANGE
CURAND_STATUS_PREEXISTING_FAILURE					
CURAND_STATUS_SUCCESS					ROCRAND_STATUS_SUCCESS
CURAND_STATUS_TYPE_ERROR					ROCRAND_STATUS_TYPE_ERROR
CURAND_STATUS_VERSION_MISMATCH					ROCRAND_STATUS_VERSION_MISMATCH
curandDirectionVectorSet					rocrand_direction_vector_set
curandDirectionVectorSet_t					rocrand_direction_vector_set
curandDirectionVectors32_t					
curandDirectionVectors64_t					
curandDiscreteDistribution_st					rocrand_discrete_distribution_st
curandDiscreteDistribution_t					rocrand_discrete_distribution
curandDistributionM2Shift_st					
curandDistributionM2Shift_t					
curandDistributionShift_st					
curandDistributionShift_t					
curandDistribution_st					
curandDistribution_t					
curandGenerator_st					rocrand_generator_base_type
curandGenerator_t					rocrand_generator
curandHistogramM2K_st					
curandHistogramM2K_t					
curandHistogramM2V_st					
curandHistogramM2V_t					
curandHistogramM2_st					
curandHistogramM2_t					
curandMethod					
curandMethod_t					
curandOrdering					rocrand_ordering
curandOrdering_t					rocrand_ordering
curandRngType					rocrand_rng_type
curandRngType_t					rocrand_rng_type
curandState					
curandStateMRG32k3a					rocrand_device::mrg32k3a_engine
curandStateMRG32k3a_t					rocrand_state_mrg32k3a
curandStateMtg32					rocrand_device::mtgp32_engine
curandStateMtg32_t					rocrand_state_mtgp32
curandStatePhilox4_32_10					rocrand_device::philox4x32_10_engine
curandStatePhilox4_32_10_t					rocrand_state_philox4x32_10

Table 17 – continued from previous page

CUDA	A	D	C	R	ROC
curandStateScrambledSobol32					rocrand_device::scrambled_sobol32_engin
curandStateScrambledSobol32_t					rocrand_state_scrambled_sobol32
curandStateScrambledSobol64					rocrand_device::scrambled_sobol64_engin
curandStateScrambledSobol64_t					rocrand_state_scrambled_sobol64
curandStateSobol32					rocrand_device::sobol32_engine<false>
curandStateSobol32_t					rocrand_state_sobol32
curandStateSobol64					rocrand_device::sobol64_engine<false>
curandStateSobol64_t					rocrand_state_sobol64
curandStateXORWOW					rocrand_device::xorwow_engine
curandStateXORWOW_t					rocrand_state_xorwow
curandState_t					
curandStatus					rocrand_status
curandStatus_t					rocrand_status

10.3.2 2. Host API Functions

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
curandCreateGenerator					rocrand_create_generator	1.5.0					
curandCreateGeneratorHo					rocrand_create_generator_h	6.2.0					
curandCreatePoissonDist					rocrand_create_poisson_dis	1.5.0					
curandDestroyDistributi					rocrand_destroy_discrete_d	1.5.0					
curandDestroyGenerator					rocrand_destroy_generator	1.5.0					
curandGenerate					rocrand_generate	1.5.0					
curandGenerateLogNormal					rocrand_generate_log_norma	1.5.0					
curandGenerateLogNormal					rocrand_generate_log_norma	1.5.0					
curandGenerateLongLong					rocrand_generate_long_long	5.4.0					
curandGenerateNormal					rocrand_generate_normal	1.5.0					
curandGenerateNormalDou					rocrand_generate_normal_dc	1.5.0					
curandGeneratePoisson					rocrand_generate_poisson	1.5.0					
curandGenerateSeeds					rocrand_initialize_generat	1.5.0					
curandGenerateUniform					rocrand_generate_uniform	1.5.0					
curandGenerateUniformDo					rocrand_generate_uniform_d	1.5.0					
curandGetDirectionVecto					rocrand_get_direction_vect	6.0.0					
curandGetDirectionVecto					rocrand_get_direction_vect	6.0.0					
curandGetProperty	8.0										
curandGetScrambleConsta					rocrand_get_scramble_const	6.0.0					
curandGetScrambleConsta					rocrand_get_scramble_const	6.0.0					
curandGetVersion					rocrand_get_version	1.5.0					
curandMakeMTGP32Consta					rocrand_make_constant	1.5.0					
curandMakeMTGP32KernelS					rocrand_make_state_mtg32	1.5.0					
curandSetGeneratorOffse					rocrand_set_offset	1.5.0					
curandSetGeneratorOrder					rocrand_set_ordering	5.5.0					
curandSetPseudoRandomGe					rocrand_set_seed	1.5.0					
curandSetQuasiRandomGe					rocrand_set_quasi_random_g	1.5.0					
curandSetStream					rocrand_set_stream	1.5.0					

10.3.3 3. Device API Functions

CUDA	A	D	C	R	ROC	A	D	C	R	U	E
__curand_umul	11.5										
curand					rocrand	1.5.0					
curand_Philox4x32_10											
curand_discrete					rocrand_discrete	1.5.0					
curand_discrete4					rocrand_discrete4	1.5.0					
curand_init					rocrand_init	1.5.0					
curand_log_normal					rocrand_log_normal	1.5.0					
curand_log_normal2					rocrand_log_normal2	1.5.0					
curand_log_normal2_double					rocrand_log_normal_double	1.5.0					
curand_log_normal4					rocrand_log_normal4	1.5.0					
curand_log_normal4_double	13.0				rocrand_log_normal_double	1.5.0					
curand_log_normal_double					rocrand_log_normal_double	1.5.0					
curand_mrg32_single											
curand_mrg32_single_specific											
curand_mrg32_specific											
curand_normal					rocrand_normal	1.5.0					
curand_normal2					rocrand_normal2	1.5.0					
curand_normal2_double					rocrand_normal_double2	1.5.0					
curand_normal4					rocrand_normal4	1.5.0					
curand_normal4_double					rocrand_normal_double4	1.5.0					
curand_normal_double					rocrand_normal_double	1.5.0					
curand_poisson					rocrand_poisson	1.5.0					
curand_poisson4					rocrand_poisson4	1.5.0					
curand_uniform					rocrand_uniform	1.5.0					
curand_uniform2_double					rocrand_uniform_double	1.5.0					
curand_uniform4					rocrand_uniform4	1.5.0					
curand_uniform_double					rocrand_uniform_double	1.5.0					
curand_uniform_double					rocrand_uniform_double	1.5.0					

10.4 CUDNN API supported by MIOPEN

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

10.4.1 1. CUDNN Data types

CUDA	A	D	C	R	MIOPEN
CUDNN_16BIT_INDICES	6.0.0	9.0.0			MIOPEN_16BIT_IN
CUDNN_32BIT_INDICES	6.0.0	9.0.0			MIOPEN_32BIT_IN
CUDNN_64BIT_INDICES	6.0.0	9.0.0			MIOPEN_64BIT_IN
CUDNN_8BIT_INDICES	6.0.0	9.0.0			MIOPEN_8BIT_IND
CUDNN_ACTIVATION_CLIPPED_RELU	4.0.0	9.0.0			miopenActivatio
CUDNN_ACTIVATION_ELU	6.0.0	9.0.0			miopenActivatio
CUDNN_ACTIVATION_IDENTITY	7.1.3	9.0.0			miopenActivatio
CUDNN_ACTIVATION_RELU	1.0.0	9.0.0			miopenActivatio
CUDNN_ACTIVATION_SIGMOID	1.0.0	9.0.0			miopenActivatio
CUDNN_ACTIVATION_SWISH	8.2.0	9.0.0			
CUDNN_ACTIVATION_TANH	1.0.0	9.0.0			miopenActivatio
CUDNN_ADA_LAYER_NORM	9.7.0				
CUDNN_ATTN_DISABLE_PROJ_BIASES	7.6.3				
CUDNN_ATTN_ENABLE_PROJ_BIASES	7.6.3				
CUDNN_ATTN_QUERYMAP_ALL_TO_ONE	7.5.0				
CUDNN_ATTN_QUERYMAP_ONE_TO_ONE	7.5.0				
CUDNN_ATTN_WKIND_COUNT	7.6.3				
CUDNN_ATTR_CONVOLUTION_COMP_TYPE	8.0.1				MIOPEN_ATTR_CON
CUDNN_ATTR_CONVOLUTION_CONV_MODE	8.0.2				MIOPEN_ATTR_CON
CUDNN_ATTR_CONVOLUTION_DILATIONS	8.0.1				MIOPEN_ATTR_CON
CUDNN_ATTR_CONVOLUTION_FILTER_STRIDES	8.0.1				MIOPEN_ATTR_CON
CUDNN_ATTR_CONVOLUTION_POST_PADDINGS	8.0.1				MIOPEN_ATTR_CON
CUDNN_ATTR_CONVOLUTION_PRE_PADDINGS	8.0.1				MIOPEN_ATTR_CON
CUDNN_ATTR_CONVOLUTION_SPATIAL_DIMS	8.0.1				MIOPEN_ATTR_CON
CUDNN_ATTR_DEVICEPROP_DEVICE_ID	9.8.0				
CUDNN_ATTR_DEVICEPROP_HANDLE	9.8.0				
CUDNN_ATTR_DEVICEPROP_JSON_REPRESENTATION	9.8.0				
CUDNN_ATTR_ENGINECFG_ENGINE	8.0.1				MIOPEN_ATTR_ENG
CUDNN_ATTR_ENGINECFG_INTERMEDIATE_INFO	8.0.1				MIOPEN_ATTR_ENG
CUDNN_ATTR_ENGINECFG_KNOB_CHOICES	8.0.1				MIOPEN_ATTR_ENG
CUDNN_ATTR_ENGINECFG_SHARED_MEMORY_USED	9.2.0				
CUDNN_ATTR_ENGINECFG_WORKSPACE_SIZE	9.2.0				
CUDNN_ATTR_ENGINEHEUR_DEVICEPROP	9.8.0				
CUDNN_ATTR_ENGINEHEUR_MODE	8.0.1				MIOPEN_ATTR_ENG
CUDNN_ATTR_ENGINEHEUR_OPERATION_GRAPH	8.0.1				MIOPEN_ATTR_ENG
CUDNN_ATTR_ENGINEHEUR_RESULTS	8.0.1				MIOPEN_ATTR_ENG
CUDNN_ATTR_ENGINEHEUR_SM_COUNT_TARGET	8.9.5				MIOPEN_ATTR_ENG
CUDNN_ATTR_ENGINE_BEHAVIOR_NOTE	8.2.0				MIOPEN_ATTR_ENG
CUDNN_ATTR_ENGINE_DEVICEPROP	9.8.0				
CUDNN_ATTR_ENGINE_GLOBAL_INDEX	8.0.1				MIOPEN_ATTR_ENG
CUDNN_ATTR_ENGINE_KNOB_INFO	8.0.2				MIOPEN_ATTR_ENG
CUDNN_ATTR_ENGINE_LAYOUT_INFO	8.0.2				MIOPEN_ATTR_ENG
CUDNN_ATTR_ENGINE_NUMERICAL_NOTE	8.0.1				MIOPEN_ATTR_ENG
CUDNN_ATTR_ENGINE_OPERATION_GRAPH	8.0.1				MIOPEN_ATTR_ENG

Table 18 – continued from previous page

CUDA	A	D	C	R	MIOPEN
CUDNN_ATTR_ENGINE_SM_COUNT_TARGET	8.9.5				MIOPEN_ATTR_ENG
CUDNN_ATTR_EXECUTION_PLAN_COMPUTED_INTERMEDIATE_UIDS	8.0.2				MIOPEN_ATTR_EXE
CUDNN_ATTR_EXECUTION_PLAN_DEVICEPROP	9.8.0				
CUDNN_ATTR_EXECUTION_PLAN_ENGINE_CONFIG	8.0.1				MIOPEN_ATTR_EXE
CUDNN_ATTR_EXECUTION_PLAN_HANDLE	8.0.1	9.9.0			MIOPEN_ATTR_EXE
CUDNN_ATTR_EXECUTION_PLAN_JSON_REPRESENTATION	8.4.0				MIOPEN_ATTR_EXE
CUDNN_ATTR_EXECUTION_PLAN_KERNEL_CACHE	9.4.0				
CUDNN_ATTR_EXECUTION_PLAN_RUN_ONLY_INTERMEDIATE_UIDS	8.0.2				MIOPEN_ATTR_EXE
CUDNN_ATTR_EXECUTION_PLAN_WORKSPACE_SIZE	8.0.1				MIOPEN_ATTR_EXE
CUDNN_ATTR_INTERMEDIATE_INFO_DEPENDENT_ATTRIBUTES	8.0.2				MIOPEN_ATTR_INT
CUDNN_ATTR_INTERMEDIATE_INFO_DEPENDENT_DATA_UIDS	8.0.2				MIOPEN_ATTR_INT
CUDNN_ATTR_INTERMEDIATE_INFO_SIZE	8.0.1				MIOPEN_ATTR_INT
CUDNN_ATTR_INTERMEDIATE_INFO_UNIQUE_ID	8.0.2				MIOPEN_ATTR_INT
CUDNN_ATTR_KERNEL_CACHE_IS_ENGINECFG_KERNEL_CACHED	9.4.0				
CUDNN_ATTR_KERNEL_CACHE_JSON_REPRESENTATION	9.10.0				
CUDNN_ATTR_KERNEL_CACHE_OPERATION_GRAPH	9.5.0				
CUDNN_ATTR_KNOB_CHOICE_KNOB_TYPE	8.0.1				MIOPEN_ATTR_KNO
CUDNN_ATTR_KNOB_CHOICE_KNOB_VALUE	8.0.1				MIOPEN_ATTR_KNO
CUDNN_ATTR_KNOB_INFO_MAXIMUM_VALUE	8.0.1				MIOPEN_ATTR_KNO
CUDNN_ATTR_KNOB_INFO_MINIMUM_VALUE	8.0.1				MIOPEN_ATTR_KNO
CUDNN_ATTR_KNOB_INFO_STRIDE	8.0.1				MIOPEN_ATTR_KNO
CUDNN_ATTR_KNOB_INFO_TYPE	8.0.1				MIOPEN_ATTR_KNO
CUDNN_ATTR_LAYOUT_INFO_TENSOR_UID	8.0.2				MIOPEN_ATTR_LAY
CUDNN_ATTR_LAYOUT_INFO_TYPES	8.0.2				MIOPEN_ATTR_LAY
CUDNN_ATTR_MATMUL_COMP_TYPE	8.1.0				MIOPEN_ATTR_MAT
CUDNN_ATTR_MATMUL_PADDING_VALUE	8.9.0				MIOPEN_ATTR_MAT
CUDNN_ATTR_OPERATIONGRAPH_ENGINE_GLOBAL_COUNT	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATIONGRAPH_HANDLE	8.0.1	9.9.0			MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATIONGRAPH_IS_DYNAMIC_SHAPE_ENABLED	9.4.0				
CUDNN_ATTR_OPERATIONGRAPH_IS_SAME_TOPOLOGY	9.6.0				
CUDNN_ATTR_OPERATIONGRAPH_OPS	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BLOCK_SCALE_DEQUANTIZE_BLOCK_SIZE	9.7.0				
CUDNN_ATTR_OPERATION_BLOCK_SCALE_DEQUANTIZE_MATH_PREC	9.7.0				
CUDNN_ATTR_OPERATION_BLOCK_SCALE_DEQUANTIZE_NEG_SCALE	9.13.0				
CUDNN_ATTR_OPERATION_BLOCK_SCALE_DEQUANTIZE_SCALE_DESC	9.7.0				
CUDNN_ATTR_OPERATION_BLOCK_SCALE_DEQUANTIZE_XDESC	9.7.0				
CUDNN_ATTR_OPERATION_BLOCK_SCALE_DEQUANTIZE_YDESC	9.7.0				
CUDNN_ATTR_OPERATION_BLOCK_SCALE_QUANTIZE_BLOCK_SIZE	9.7.0				
CUDNN_ATTR_OPERATION_BLOCK_SCALE_QUANTIZE_DENOM_FACTOR_MODE	9.7.0			9.8.0	
CUDNN_ATTR_OPERATION_BLOCK_SCALE_QUANTIZE_MATH_PREC	9.7.0				
CUDNN_ATTR_OPERATION_BLOCK_SCALE_QUANTIZE_SCALE_DESC	9.7.0				
CUDNN_ATTR_OPERATION_BLOCK_SCALE_QUANTIZE_XDESC	9.7.0				
CUDNN_ATTR_OPERATION_BLOCK_SCALE_QUANTIZE_YDESC	9.7.0				
CUDNN_ATTR_OPERATION_BN_BWD_WEIGHTS_BN_SCALE_DESC	8.2.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_BWD_WEIGHTS_DBN_BIAS_DESC	8.2.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_BWD_WEIGHTS_DBN_SCALE_DESC	8.2.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_BWD_WEIGHTS_DY_DESC	8.2.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_BWD_WEIGHTS_EQ_BIAS	8.2.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_BWD_WEIGHTS_EQ_DY_SCALE_DESC	8.2.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_BWD_WEIGHTS_EQ_X_SCALE_DESC	8.2.0				MIOPEN_ATTR_OPE

Table 18 – continued from previous page

CUDA	A	D	C	R	MIOPEN
CUDNN_ATTR_OPERATION_BN_BWD_WEIGHTS_INVSTD_DESC	8.2.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_BWD_WEIGHTS_MATH_PREC	8.2.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_BWD_WEIGHTS_MEAN_DESC	8.2.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_BWD_WEIGHTS_X_DESC	8.2.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_ACCUM_COUNT_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_BIAS_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_EPSILON_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_EQ_BIAS_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_EQ_SCALE_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_EXP_AVERAGE_FACTOR_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_MATH_PREC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_PREV_RUNNING_MEAN_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_PREV_RUNNING_VAR_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_SAVED_INV_STD_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_SAVED_MEAN_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_SCALE_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_STATS_MODE	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_UPDATED_RUNNING_MEAN_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_UPDATED_RUNNING_VAR_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_Y_SQ_SUM_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_BN_FINALIZE_Y_SUM_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONCAT_AXIS	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONCAT_INPLACE_INDEX	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONCAT_INPUT_DESCS	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONCAT_OUTPUT_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONTRACT_BAND_MATRIX_AXIS	9.10.0				
CUDNN_ATTR_OPERATION_CONTRACT_BAND_MATRIX_LOWER_BANDWIDTH	9.10.0				
CUDNN_ATTR_OPERATION_CONTRACT_BAND_MATRIX_PAD_VALUE	9.10.0				
CUDNN_ATTR_OPERATION_CONTRACT_BAND_MATRIX_UPPER_BANDWIDTH	9.10.0				
CUDNN_ATTR_OPERATION_CONTRACT_BAND_MATRIX_XDESC	9.10.0				
CUDNN_ATTR_OPERATION_CONTRACT_BAND_MATRIX_YDESC	9.10.0				
CUDNN_ATTR_OPERATION_CONTRACT_BAND_MAX_TOKEN_VALUE	9.10.0				
CUDNN_ATTR_OPERATION_CONVOLUTION_BWD_DATA_ALPHA	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_BWD_DATA_BETA	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_BWD_DATA_CONV_DESC	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_BWD_DATA_DX	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_BWD_DATA_DY	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_BWD_DATA_W	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_BWD_FILTER_ALPHA	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_BWD_FILTER_BETA	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_BWD_FILTER_CONV_DESC	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_BWD_FILTER_DW	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_BWD_FILTER_DY	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_BWD_FILTER_X	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_FORWARD_ALPHA	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_FORWARD_BETA	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_FORWARD_CONV_DESC	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_FORWARD_W	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_FORWARD_X	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_CONVOLUTION_FORWARD_Y	8.0.1				MIOPEN_ATTR_OPE

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CUDA	A	D	C	R	MIOPEN
CUDNN_ATTR_OPERATION_EXPAND_BAND_MATRIX_AXIS	9.10.0				
CUDNN_ATTR_OPERATION_EXPAND_BAND_MATRIX_KV_TOKEN_OFFSET_DESC	9.10.0				
CUDNN_ATTR_OPERATION_EXPAND_BAND_MATRIX_LOWER_BANDWIDTH	9.10.0				
CUDNN_ATTR_OPERATION_EXPAND_BAND_MATRIX_PAD_VALUE	9.10.0				
CUDNN_ATTR_OPERATION_EXPAND_BAND_MATRIX_SPECULATIVE_MASK_DESC	9.13.0				
CUDNN_ATTR_OPERATION_EXPAND_BAND_MATRIX_UPPER_BANDWIDTH	9.10.0				
CUDNN_ATTR_OPERATION_EXPAND_BAND_MATRIX_XDESC	9.10.0				
CUDNN_ATTR_OPERATION_EXPAND_BAND_MATRIX_YDESC	9.10.0				
CUDNN_ATTR_OPERATION_GENSTATS_MATH_PREC	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_GENSTATS_MODE	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_GENSTATS_SQSUMDESC	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_GENSTATS_SUMDESC	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_GENSTATS_XDESC	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_MATMUL_ADESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_MATMUL_BDESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_MATMUL_CDESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_MATMUL_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_MATMUL_GEMM_K_OVERRIDE_DESC	8.7.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_MATMUL_GEMM_M_OVERRIDE_DESC	8.7.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_MATMUL_GEMM_N_OVERRIDE_DESC	8.7.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_MATMUL_IRREGULARLY_STRIDED_BATCH_COUNT	8.1.0	9.0.0			MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_BWD_DBIAS_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_BWD_DSCALE_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_BWD_DXDESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_BWD_DYDESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_BWD_EPSILON_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_BWD_INV_VARIANCE_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_BWD_MEAN_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_BWD_MODE	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_BWD_PEER_STAT_DESCS	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_BWD_SCALE_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_BWD_XDESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_BIAS_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_EPSILON_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_EXP_AVG_FACTOR_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_INPUT_RUNNING_MEAN_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_INPUT_RUNNING_VAR_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_INV_VARIANCE_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_MEAN_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_MODE	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_OUTPUT_RUNNING_MEAN_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_OUTPUT_RUNNING_VAR_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_PEER_STAT_DESCS	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_PHASE	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_SCALE_DESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_XDESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_NORM_FWD_YDESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_PAGED_CACHE_LOAD_CONTAINER_DESC	9.4.0				
CUDNN_ATTR_OPERATION_PAGED_CACHE_LOAD_PAGE_TABLE_DESC	9.4.0				
CUDNN_ATTR_OPERATION_PAGED_CACHE_LOAD_SEQUENCE_DESC	9.4.0				

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CUDA	A	D	C	R	MIOPEN
CUDNN_ATTR_OPERATION_PAGED_CACHE_LOAD_YDESC	9.4.0				
CUDNN_ATTR_OPERATION_POINTWISE_ALPHA1	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_POINTWISE_ALPHA2	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_POINTWISE_BDESC	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_POINTWISE_DXDESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_POINTWISE_DYDESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_POINTWISE_PW_DESCRIPTOR	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_POINTWISE_TDESC	8.3.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_POINTWISE_XDESC	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_POINTWISE_YDESC	8.0.1				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_REDUCTION_DESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_REDUCTION_XDESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_REDUCTION_YDESC	8.1.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_BWD_ALPHA	8.3.0	9.0.0			MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_BWD_BETA	8.3.0	9.0.0			MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_BWD_DESC	8.3.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_BWD_DXDESC	8.3.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_BWD_DYDESC	8.3.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_BWD_IDXDESC	8.3.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_BWD_XDESC	8.7.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_BWD_YDESC	8.7.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_FWD_ALPHA	8.3.0	9.0.0			MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_FWD_BETA	8.3.0	9.0.0			MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_FWD_DESC	8.3.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_FWD_IDXDESC	8.3.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_FWD_XDESC	8.3.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESAMPLE_FWD_YDESC	8.3.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESHAPE_XDESC	8.7.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RESHAPE_YDESC	8.7.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RNG_DESC	8.7.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RNG_OFFSET_DESC	8.8.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RNG_SEED	8.7.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_RNG_YDESC	8.7.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_SDPA_FWD_BLOCK_MASK_DESC	9.14.0				
CUDNN_ATTR_OPERATION_SDPA_FWD_KDESC	9.13.0				
CUDNN_ATTR_OPERATION_SDPA_FWD_ODESC	9.13.0				
CUDNN_ATTR_OPERATION_SDPA_FWD_QDESC	9.13.0				
CUDNN_ATTR_OPERATION_SDPA_FWD_SCALEDDESC	9.13.0				
CUDNN_ATTR_OPERATION_SDPA_FWD_STATSDESC	9.13.0				
CUDNN_ATTR_OPERATION_SDPA_FWD_VDESC	9.13.0				
CUDNN_ATTR_OPERATION_SIGNAL_FLAGDESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_SIGNAL_MODE	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_SIGNAL_VALUE	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_SIGNAL_XDESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_OPERATION_SIGNAL_YDESC	8.5.0				MIOPEN_ATTR_OPE
CUDNN_ATTR_POINTWISE_AXIS	8.4.0				MIOPEN_ATTR_POI
CUDNN_ATTR_POINTWISE_ELU_ALPHA	8.1.0				MIOPEN_ATTR_POI
CUDNN_ATTR_POINTWISE_MATH_PREC	8.0.1				MIOPEN_ATTR_POI
CUDNN_ATTR_POINTWISE_MODE	8.0.1				MIOPEN_ATTR_POI
CUDNN_ATTR_POINTWISE_NAN_PROPAGATION	8.0.1				MIOPEN_ATTR_POI

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CUDA	A	D	C	R	MIOPEN
CUDNN_ATTR_POINTWISE_RELU_LOWER_CLIP	8.0.1				MIOPEN_ATTR_POI
CUDNN_ATTR_POINTWISE_RELU_LOWER_CLIP_SLOPE	8.1.0				MIOPEN_ATTR_POI
CUDNN_ATTR_POINTWISE_RELU_UPPER_CLIP	8.0.1				MIOPEN_ATTR_POI
CUDNN_ATTR_POINTWISE_SOFTPLUS_BETA	8.1.0				MIOPEN_ATTR_POI
CUDNN_ATTR_POINTWISE_SWISH_BETA	8.1.0				MIOPEN_ATTR_POI
CUDNN_ATTR_REDUCTION_COMP_TYPE	8.1.0				MIOPEN_ATTR_RED
CUDNN_ATTR_REDUCTION_IS_DETERMINISTIC	9.11.0				
CUDNN_ATTR_REDUCTION_OPERATOR	8.1.0				MIOPEN_ATTR_RED
CUDNN_ATTR_RESAMPLE_COMP_TYPE	8.3.0				MIOPEN_ATTR_RES
CUDNN_ATTR_RESAMPLE_MODE	8.3.0				MIOPEN_ATTR_RES
CUDNN_ATTR_RESAMPLE_NAN_PROPAGATION	8.3.0				MIOPEN_ATTR_RES
CUDNN_ATTR_RESAMPLE_PADDING_MODE	8.3.0				MIOPEN_ATTR_RES
CUDNN_ATTR_RESAMPLE_POST_PADDINGS	8.3.0				MIOPEN_ATTR_RES
CUDNN_ATTR_RESAMPLE_PRE_PADDINGS	8.3.0				MIOPEN_ATTR_RES
CUDNN_ATTR_RESAMPLE_SPATIAL_DIMS	8.3.0				MIOPEN_ATTR_RES
CUDNN_ATTR_RESAMPLE_STRIDES	8.3.0				MIOPEN_ATTR_RES
CUDNN_ATTR_RESAMPLE_WINDOW_DIMS	8.3.0				MIOPEN_ATTR_RES
CUDNN_ATTR_RNG_BERNOULLI_DIST_PROBABILITY	8.7.0				MIOPEN_ATTR_RNG
CUDNN_ATTR_RNG_DISTRIBUTION	8.7.0				MIOPEN_ATTR_RNG
CUDNN_ATTR_RNG_NORMAL_DIST_MEAN	8.7.0				MIOPEN_ATTR_RNG
CUDNN_ATTR_RNG_NORMAL_DIST_STANDARD_DEVIATION	8.7.0				MIOPEN_ATTR_RNG
CUDNN_ATTR_RNG_UNIFORM_DIST_MAXIMUM	8.7.0				MIOPEN_ATTR_RNG
CUDNN_ATTR_RNG_UNIFORM_DIST_MINIMUM	8.7.0				MIOPEN_ATTR_RNG
CUDNN_ATTR_TENSOR_BYTE_ALIGNMENT	8.0.1				MIOPEN_ATTR_TEN
CUDNN_ATTR_TENSOR_DATA_TYPE	8.0.1				MIOPEN_ATTR_TEN
CUDNN_ATTR_TENSOR_DIMENSIONS	8.0.1				MIOPEN_ATTR_TEN
CUDNN_ATTR_TENSOR_IS_BY_VALUE	8.1.0				MIOPEN_ATTR_TEN
CUDNN_ATTR_TENSOR_IS_VIRTUAL	8.0.1				MIOPEN_ATTR_TEN
CUDNN_ATTR_TENSOR_RAGGED_OFFSET_DESC	8.9.0				MIOPEN_ATTR_TEN
CUDNN_ATTR_TENSOR_REORDERING_MODE	8.3.0				MIOPEN_ATTR_TEN
CUDNN_ATTR_TENSOR_STRIDES	8.0.1				MIOPEN_ATTR_TEN
CUDNN_ATTR_TENSOR_UNIQUE_ID	8.0.1				MIOPEN_ATTR_TEN
CUDNN_ATTR_TENSOR_VECTORIZED_DIMENSION	8.0.1				MIOPEN_ATTR_TEN
CUDNN_ATTR_TENSOR_VECTOR_COUNT	8.0.1				MIOPEN_ATTR_TEN
CUDNN_ATTR_VARIANT_PACK_DATA_POINTERS	8.0.1				MIOPEN_ATTR_VAR
CUDNN_ATTR_VARIANT_PACK_INTERMEDIATES	8.0.1				MIOPEN_ATTR_VAR
CUDNN_ATTR_VARIANT_PACK_UNIQUE_IDS	8.0.1				MIOPEN_ATTR_VAR
CUDNN_ATTR_VARIANT_PACK_WORKSPACE	8.0.1				MIOPEN_ATTR_VAR
CUDNN_BACKEND_CONVOLUTION_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_DEVICEPROP_DESCRIPTOR	9.8.0				
CUDNN_BACKEND_ENGINECFG_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_ENGINEHEUR_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_ENGINE_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_EXECUTION_PLAN_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_INTERMEDIATE_INFO_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_KERNEL_CACHE_DESCRIPTOR	9.4.0				
CUDNN_BACKEND_KNOB_CHOICE_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_KNOB_INFO_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_LAYOUT_INFO_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_MATMUL_DESCRIPTOR	8.1.0				MIOPEN_BACKEND_

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CUDA	A	D	C	R	MIOPEN
CUDNN_BACKEND_OPERATIONGRAPH_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_BLOCK_SCALE_DEQUANTIZE_DESCRIPTOR	9.7.0				
CUDNN_BACKEND_OPERATION_BLOCK_SCALE_QUANTIZE_DESCRIPTOR	9.7.0				
CUDNN_BACKEND_OPERATION_BN_BWD_WEIGHTS_DESCRIPTOR	8.2.0				
CUDNN_BACKEND_OPERATION_BN_FINALIZE_STATISTICS_DESCRIPTOR	8.1.0				
CUDNN_BACKEND_OPERATION_CONCAT_DESCRIPTOR	8.5.0				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_CONTRACT_BAND_MATRIX_DESCRIPTOR	9.10.0				
CUDNN_BACKEND_OPERATION_CONVOLUTION_BACKWARD_DATA_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_CONVOLUTION_BACKWARD_FILTER_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_CONVOLUTION_FORWARD_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_EXPAND_BAND_MATRIX_DESCRIPTOR	9.10.0				
CUDNN_BACKEND_OPERATION_GEN_STATS_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_MATMUL_DESCRIPTOR	8.1.0				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_NORM_BACKWARD_DESCRIPTOR	8.5.0				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_NORM_FORWARD_DESCRIPTOR	8.5.0				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_PAGED_CACHE_LOAD_DESCRIPTOR	9.4.0				
CUDNN_BACKEND_OPERATION_POINTWISE_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_REDUCTION_DESCRIPTOR	8.1.0				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_RESAMPLE_BWD_DESCRIPTOR	8.3.0				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_RESAMPLE_FWD_DESCRIPTOR	8.3.0				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_RESHAPE_DESCRIPTOR	8.7.0				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_RNG_DESCRIPTOR	8.7.0				MIOPEN_BACKEND_
CUDNN_BACKEND_OPERATION_SDPA_FWD_DESCRIPTOR	9.13.0				
CUDNN_BACKEND_OPERATION_SIGNAL_DESCRIPTOR	8.5.0				MIOPEN_BACKEND_
CUDNN_BACKEND_POINTWISE_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_REDUCTION_DESCRIPTOR	8.1.0				MIOPEN_BACKEND_
CUDNN_BACKEND_RESAMPLE_DESCRIPTOR	8.3.0				MIOPEN_BACKEND_
CUDNN_BACKEND_RNG_DESCRIPTOR	8.7.0				MIOPEN_BACKEND_
CUDNN_BACKEND_TENSOR_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BACKEND_VARIANT_PACK_DESCRIPTOR	8.0.1				MIOPEN_BACKEND_
CUDNN_BATCHNORM_OPS_BN	7.4.1	9.0.0			
CUDNN_BATCHNORM_OPS_BN_ACTIVATION	7.4.1	9.0.0			
CUDNN_BATCHNORM_OPS_BN_ADD_ACTIVATION	7.4.1	9.0.0			
CUDNN_BATCHNORM_PER_ACTIVATION	4.0.0	9.0.0			miopenBNPerActi
CUDNN_BATCHNORM_SPATIAL	4.0.0	9.0.0			miopenBNSpatial
CUDNN_BATCHNORM_SPATIAL_PERSISTENT	7.0.5	9.0.0			
CUDNN_BATCH_NORM	8.5.0				
CUDNN_BEHAVIOR_NOTE_REQUIRES_BIAS_INT8x32_REORDER	8.3.0				
CUDNN_BEHAVIOR_NOTE_REQUIRES_FILTER_INT8x32_REORDER	8.3.0				
CUDNN_BEHAVIOR_NOTE_RUNTIME_COMPILATION	8.2.0				
CUDNN_BEHAVIOR_NOTE_SUPPORTS_CUDA_GRAPH_NATIVE_API	9.5.0				
CUDNN_BEHAVIOR_NOTE_TYPE_COUNT	8.2.0				
CUDNN_BIDIRECTIONAL	5.0.0				miopenRNNbidire
CUDNN_BN_FINALIZE_STATISTICS_INFERENCE	8.1.0				
CUDNN_BN_FINALIZE_STATISTICS_TRAINING	8.1.0				
CUDNN_BN_MIN_EPSILON	4.0.0				
CUDNN_CONVOLUTION	1.0.0	9.0.0			miopenConvoluti
CUDNN_CONVOLUTION_BWD_DATA_ALGO_0	3.0.0				miopenConvoluti
CUDNN_CONVOLUTION_BWD_DATA_ALGO_1	3.0.0				miopenConvoluti
CUDNN_CONVOLUTION_BWD_DATA_ALGO_COUNT	6.0.0				miopenTranspose

Table 18 – continued from previous page

CUDA	A	D	C	R	MIOPEN
CUDNN_CONVOLUTION_BWD_DATA_ALGO_FFT	3.0.0				miopenConvoluti
CUDNN_CONVOLUTION_BWD_DATA_ALGO_FFT_TILING	4.0.0				
CUDNN_CONVOLUTION_BWD_DATA_ALGO_WINOGRAD	5.0.0				miopenConvoluti
CUDNN_CONVOLUTION_BWD_DATA_ALGO_WINOGRAD_NONFUSED	5.1.0				
CUDNN_CONVOLUTION_BWD_DATA_NO_WORKSPACE	3.0.0	7.6.5		8.0.1	
CUDNN_CONVOLUTION_BWD_DATA_PREFER_FASTEST	3.0.0	7.6.5		8.0.1	
CUDNN_CONVOLUTION_BWD_DATA_SPECIFY_WORKSPACE_LIMIT	3.0.0	7.6.5		8.0.1	
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_0	3.0.0				
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_1	3.0.0				
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_3	3.0.0				
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_COUNT	6.0.0				
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_FFT	3.0.0				
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_FFT_TILING	6.0.0				
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_WINOGRAD	5.1.0				
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_WINOGRAD_NONFUSED	5.1.0				
CUDNN_CONVOLUTION_BWD_FILTER_NO_WORKSPACE	3.0.0	7.6.5		8.0.1	
CUDNN_CONVOLUTION_BWD_FILTER_PREFER_FASTEST	3.0.0	7.6.5		8.0.1	
CUDNN_CONVOLUTION_BWD_FILTER_SPECIFY_WORKSPACE_LIMIT	3.0.0	7.6.5		8.0.1	
CUDNN_CONVOLUTION_FWD_ALGO_COUNT	6.0.0				
CUDNN_CONVOLUTION_FWD_ALGO_DIRECT	2.0.0				miopenConvoluti
CUDNN_CONVOLUTION_FWD_ALGO_FFT	3.0.0				miopenConvoluti
CUDNN_CONVOLUTION_FWD_ALGO_FFT_TILING	4.0.0				
CUDNN_CONVOLUTION_FWD_ALGO_GEMM	2.0.0				miopenConvoluti
CUDNN_CONVOLUTION_FWD_ALGO_IMPLICIT_GEMM	2.0.0				miopenConvoluti
CUDNN_CONVOLUTION_FWD_ALGO_IMPLICIT_PRECOMP_GEMM	2.0.0				
CUDNN_CONVOLUTION_FWD_ALGO_WINOGRAD	5.0.0				miopenConvoluti
CUDNN_CONVOLUTION_FWD_ALGO_WINOGRAD_NONFUSED	5.1.0				
CUDNN_CONVOLUTION_FWD_NO_WORKSPACE	2.0.0	7.6.5		8.0.1	
CUDNN_CONVOLUTION_FWD_PREFER_FASTEST	2.0.0	7.6.5		8.0.1	
CUDNN_CONVOLUTION_FWD_SPECIFY_WORKSPACE_LIMIT	2.0.0	7.6.5		8.0.1	
CUDNN_CROSS_CORRELATION	1.0.0	9.0.0			miopenConvoluti
CUDNN_CTC_LOSS_ALGO_DETERMINISTIC	7.0.5				MIOPEN_CTC_LOSS
CUDNN_CTC_LOSS_ALGO_NON_DETERMINISTIC	7.0.5				
CUDNN_CTC_SKIP_OOB_GRADIENTS	9.0.0				
CUDNN_CTC_ZERO_OOB_GRADIENTS	9.0.0				
CUDNN_DATA_BFLOAT16	8.1.0				miopenBFloat16
CUDNN_DATA_BOOLEAN	8.3.0				
CUDNN_DATA_COMPLEX_FP32	9.14.0				
CUDNN_DATA_COMPLEX_FP64	9.14.0				
CUDNN_DATA_DOUBLE	1.0.0				miopenDouble
CUDNN_DATA_FAST_FLOAT_FOR_FP8	8.7.0				
CUDNN_DATA_FLOAT	1.0.0				miopenFloat
CUDNN_DATA_FP4_E2M1	9.7.0				
CUDNN_DATA_FP8_E4M3	8.6.0				miopenFloat8
CUDNN_DATA_FP8_E5M2	8.6.0				miopenBFloat8
CUDNN_DATA_FP8_E8M0	9.7.0				
CUDNN_DATA_HALF	3.0.0				miopenHalf
CUDNN_DATA_INT32	6.0.0				miopenInt32
CUDNN_DATA_INT4	9.11.0				
CUDNN_DATA_INT64	8.1.0				miopenInt64

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CUDA	A	D	C	R	MIOPEN
CUDNN_DATA_INT8	6.0.0				miopenInt8
CUDNN_DATA_INT8x32	7.2.1	9.0.0			
CUDNN_DATA_INT8x4	6.0.0	9.0.0			miopenInt8x4
CUDNN_DATA_UINT32	9.11.0				
CUDNN_DATA_UINT4	9.11.0				
CUDNN_DATA_UINT8	7.1.3				
CUDNN_DATA_UINT8x4	7.1.3	9.0.0			
CUDNN_DEFAULT_MATH	7.0.5				
CUDNN_DEFAULT_REORDER	7.6.0	9.0.0			
CUDNN_DETERMINISTIC	6.0.0				
CUDNN_DIM_MAX	4.0.0				
CUDNN_DIVNORM_PRECOMPUTED_MEANS	3.0.0				
CUDNN_EDGE_VAL_PAD	8.3.0				miopenPaddingVa
CUDNN_ERRQUERY_BLOCKING	7.0.5				
CUDNN_ERRQUERY_NONBLOCKING	7.0.5				
CUDNN_ERRQUERY_RAWCODE	7.0.5				
CUDNN_FMA_MATH	8.0.1				
CUDNN_FUSED_BN_FINALIZE_STATISTICS_INFERENCE	7.6.0				
CUDNN_FUSED_BN_FINALIZE_STATISTICS_TRAINING	7.6.0				
CUDNN_FUSED_CONV_SCALE_BIAS_ADD_ACTIVATION	7.6.0				
CUDNN_FUSED_DACTIVATION_FORK_DBATCHNORM	7.6.0				
CUDNN_FUSED_SCALE_BIAS_ACTIVATION_CONV_BNSTATS	7.6.0				
CUDNN_FUSED_SCALE_BIAS_ACTIVATION_WGRAD	7.6.0				
CUDNN_FUSED_SCALE_BIAS_ADD_ACTIVATION_GEN_BITMASK	7.6.0				
CUDNN_FWD_MODE_INFERENCE	8.0.1				miopenRNInfere
CUDNN_FWD_MODE_TRAINING	8.0.1				miopenRNTraini
CUDNN_GENSTATS_SUM_SQSUM	8.0.1				
CUDNN_GROUP_NORM	8.5.0				
CUDNN_GRU	5.0.0				miopenGRU
CUDNN_HEUR_MODES_COUNT	8.0.1				MIOPEN_HEUR_MOD
CUDNN_HEUR_MODE_A	8.3.0				MIOPEN_HEUR_MOD
CUDNN_HEUR_MODE_B	8.0.1				MIOPEN_HEUR_MOD
CUDNN_HEUR_MODE_FALLBACK	8.3.0				MIOPEN_HEUR_MOD
CUDNN_HEUR_MODE_INSTANT	8.0.1				MIOPEN_HEUR_MOD
CUDNN_INSTANCE_NORM	8.5.0				
CUDNN_KNOB_TYPE_ARRAY_SIZE_PER_THREAD	8.9.0				
CUDNN_KNOB_TYPE_BLOCK_SIZE	8.8.0				
CUDNN_KNOB_TYPE_CHUNK_K	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_COUNTS	8.0.1				
CUDNN_KNOB_TYPE_CTA_COUNT	9.7.0				
CUDNN_KNOB_TYPE_CTA_SPLIT_K_MODE	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_EDGE	8.0.1				
CUDNN_KNOB_TYPE_IDX_MODE	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_KBLOCK	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_KERNEL_CFG	8.1.0				
CUDNN_KNOB_TYPE_LDGA	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_LDGB	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_LDGC	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_LOAD_SIZE	8.9.5				
CUDNN_KNOB_TYPE_MULTIPLY	8.0.1				

Table 18 – continued from previous page

CUDA	A	D	C	R	MIOPEN
CUDNN_KNOB_TYPE_NUM_C_PER_BLOCK	8.9.0	9.0.0			
CUDNN_KNOB_TYPE_OCCUPANCY	8.9.0				
CUDNN_KNOB_TYPE_REDUCTION_MODE	8.0.1				
CUDNN_KNOB_TYPE_SINGLEBUFFER	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_SLICED	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_SPECFILT	8.0.1				
CUDNN_KNOB_TYPE_SPLIT_COLS	8.9.5				
CUDNN_KNOB_TYPE_SPLIT_H	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_SPLIT_K	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_SPLIT_K_BUF	8.0.1				
CUDNN_KNOB_TYPE_SPLIT_K_SLC	8.0.1				
CUDNN_KNOB_TYPE_SPLIT_P_SLC	9.7.0				
CUDNN_KNOB_TYPE_SPLIT_RS	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_STAGES	8.0.1				
CUDNN_KNOB_TYPE_STREAM_K	9.7.0				
CUDNN_KNOB_TYPE_SWIZZLE	8.0.1				
CUDNN_KNOB_TYPE_TILEK	8.0.1				
CUDNN_KNOB_TYPE_TILE_CGA	8.6.0	9.0.0			
CUDNN_KNOB_TYPE_TILE_CGA_M	8.6.0				
CUDNN_KNOB_TYPE_TILE_CGA_N	8.6.0				
CUDNN_KNOB_TYPE_TILE_COLS	8.9.5				
CUDNN_KNOB_TYPE_TILE_M	9.7.0				
CUDNN_KNOB_TYPE_TILE_N	9.7.0				
CUDNN_KNOB_TYPE_TILE_ROWS	8.9.5				
CUDNN_KNOB_TYPE_TILE_SIZE	8.0.1				
CUDNN_KNOB_TYPE_USE_TEX	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_WARP_SPEC_CFG	9.7.0				
CUDNN_KNOB_TYPE_WINO_TILE	8.0.1	9.0.0			
CUDNN_KNOB_TYPE_WORKSPACE	8.4.0				
CUDNN_LAYER_NORM	8.5.0				
CUDNN_LAYOUT_TYPE_COUNT	8.0.2				
CUDNN_LAYOUT_TYPE_PREFERRED_NCHW	8.0.1				
CUDNN_LAYOUT_TYPE_PREFERRED_NHWC	8.0.2				
CUDNN_LAYOUT_TYPE_PREFERRED_PAD4CK	8.0.2				
CUDNN_LAYOUT_TYPE_PREFERRED_PAD8CK	8.0.2				
CUDNN_LINEAR_INPUT	5.0.0				miopenRNNlinear
CUDNN_LOSS_NORMALIZATION_NONE	7.6.0				
CUDNN_LOSS_NORMALIZATION_SOFTMAX	7.6.0				
CUDNN_LRN_CROSS_CHANNEL_DIM1	3.0.0				miopenLRNCrossC
CUDNN_LRN_MAX_N	3.0.0				
CUDNN_LRN_MIN_BETA	3.0.0				
CUDNN_LRN_MIN_K	3.0.0				
CUDNN_LRN_MIN_N	3.0.0				
CUDNN_LSTM	5.0.0				miopenLSTM
CUDNN_MH_ATTN_K_BIASES	7.6.3				
CUDNN_MH_ATTN_K_WEIGHTS	7.5.0				
CUDNN_MH_ATTN_O_BIASES	7.6.3				
CUDNN_MH_ATTN_O_WEIGHTS	7.5.0				
CUDNN_MH_ATTN_Q_BIASES	7.6.3				
CUDNN_MH_ATTN_Q_WEIGHTS	7.5.0				

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CUDA	A	D	C	R	MIOPEN
CUDNN_MH_ATTN_V_BIASES	7.6.3				
CUDNN_MH_ATTN_V_WEIGHTS	7.5.0				
CUDNN_NEG_INF_PAD	8.3.0				miopenPaddingSa
CUDNN_NON_DETERMINISTIC	6.0.0				
CUDNN_NORM_ALGO_PERSIST	8.0.1	9.0.0			
CUDNN_NORM_ALGO_STANDARD	8.0.1	9.0.0			
CUDNN_NORM_FWD_INFERENCE	8.5.0				
CUDNN_NORM_FWD_TRAINING	8.5.0				
CUDNN_NORM_OPS_NORM	8.0.1	9.0.0			
CUDNN_NORM_OPS_NORM_ACTIVATION	8.0.1	9.0.0			
CUDNN_NORM_OPS_NORM_ADD_ACTIVATION	8.0.1	9.0.0			
CUDNN_NORM_PER_ACTIVATION	8.0.1	9.0.0			
CUDNN_NORM_PER_CHANNEL	8.0.1	9.0.0			
CUDNN_NOT_PROPAGATE_NAN	4.0.0	9.0.0			MIOPEN_NOT_PROPO
CUDNN_NO_REORDER	7.6.0	9.0.0			
CUDNN_NUMERICAL_NOTE_DOWN_CONVERT_INPUTS	8.0.1				
CUDNN_NUMERICAL_NOTE_FFT	8.0.1				
CUDNN_NUMERICAL_NOTE_NONDETERMINISTIC	8.0.1				
CUDNN_NUMERICAL_NOTE_REduced_PRECISION_REDUCTION	8.0.1				
CUDNN_NUMERICAL_NOTE_STRICT_NAN_PROP	9.1.0				
CUDNN_NUMERICAL_NOTE_TENSOR_CORE	8.0.1				
CUDNN_NUMERICAL_NOTE_TYPE_COUNT	8.0.1				
CUDNN_NUMERICAL_NOTE_WINOGRA	8.0.1				
CUDNN_NUMERICAL_NOTE_WINOGRA_TILE_13x13	8.3.0				
CUDNN_NUMERICAL_NOTE_WINOGRA_TILE_4x4	8.3.0				
CUDNN_NUMERICAL_NOTE_WINOGRA_TILE_6x6	8.3.0				
CUDNN_OP_TENSOR_ADD	5.0.0				miopenTensorOpA
CUDNN_OP_TENSOR_MAX	5.0.0				miopenTensorOpM
CUDNN_OP_TENSOR_MIN	5.0.0				miopenTensorOpM
CUDNN_OP_TENSOR_MUL	5.0.0				miopenTensorOpM
CUDNN_OP_TENSOR_NOT	7.0.5				
CUDNN_OP_TENSOR_SQRT	6.0.0				
CUDNN_PARAM_ACTIVATION_BITMASK_DESC	7.6.0				
CUDNN_PARAM_ACTIVATION_BITMASK_PLACEHOLDER	7.6.0				
CUDNN_PARAM_ACTIVATION_DESC	7.6.0				
CUDNN_PARAM_BN_BIAS_PLACEHOLDER	7.6.0				
CUDNN_PARAM_BN_DBIAS_PLACEHOLDER	7.6.0				
CUDNN_PARAM_BN_DSCALE_PLACEHOLDER	7.6.0				
CUDNN_PARAM_BN_EQBIAS_PLACEHOLDER	7.6.0				
CUDNN_PARAM_BN_EQSCALEBIAS_DESC	7.6.0				
CUDNN_PARAM_BN_EQSCALE_PLACEHOLDER	7.6.0				
CUDNN_PARAM_BN_MODE	7.6.0				
CUDNN_PARAM_BN_RUNNING_MEAN_PLACEHOLDER	7.6.0				
CUDNN_PARAM_BN_RUNNING_VAR_PLACEHOLDER	7.6.0				
CUDNN_PARAM_BN_SAVED_INVSTD_PLACEHOLDER	7.6.0				
CUDNN_PARAM_BN_SAVED_MEAN_PLACEHOLDER	7.6.0				
CUDNN_PARAM_BN_SCALEBIAS_MEANVAR_DESC	7.6.0				
CUDNN_PARAM_BN_SCALE_PLACEHOLDER	7.6.0				
CUDNN_PARAM_BN_Z_EQBIAS_PLACEHOLDER	7.6.0				
CUDNN_PARAM_BN_Z_EQSCALEBIAS_DESC	7.6.0				

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CUDA	A	D	C	R	MIOPEN
CUDNN_PARAM_BN_Z_EQSCALE_PLACEHOLDER	7.6.0				
CUDNN_PARAM_CONV_DESC	7.6.0				
CUDNN_PARAM_DWDATA_PLACEHOLDER	7.6.0				
CUDNN_PARAM_DWDESC	7.6.0				
CUDNN_PARAM_DXDATA_PLACEHOLDER	7.6.0				
CUDNN_PARAM_DXDESC	7.6.0				
CUDNN_PARAM_DYDATA_PLACEHOLDER	7.6.0				
CUDNN_PARAM_DYDESC	7.6.0				
CUDNN_PARAM_DZDATA_PLACEHOLDER	7.6.0				
CUDNN_PARAM_DZDESC	7.6.0				
CUDNN_PARAM_WDATA_PLACEHOLDER	7.6.0				
CUDNN_PARAM_WDESC	7.6.0				
CUDNN_PARAM_XDATA_PLACEHOLDER	7.6.0				
CUDNN_PARAM_XDESC	7.6.0				
CUDNN_PARAM_YDATA_PLACEHOLDER	7.6.0				
CUDNN_PARAM_YDESC	7.6.0				
CUDNN_PARAM_YSQSUM_PLACEHOLDER	7.6.0				
CUDNN_PARAM_YSTATS_DESC	7.6.0				
CUDNN_PARAM_YSUM_PLACEHOLDER	7.6.0				
CUDNN_PARAM_ZDATA_PLACEHOLDER	7.6.0				
CUDNN_PARAM_ZDESC	7.6.0				
CUDNN_POINTWISE_ABS	8.3.0				MIOPEN_POINTWISE_ABS
CUDNN_POINTWISE_ADD	8.0.1				MIOPEN_POINTWISE_ADD
CUDNN_POINTWISE_ADD_SQUARE	8.3.0				MIOPEN_POINTWISE_ADD_SQUARE
CUDNN_POINTWISE_ATAN2	9.1.0				
CUDNN_POINTWISE_BINARY_SELECT	8.4.0				MIOPEN_POINTWISE_BINARY_SELECT
CUDNN_POINTWISE_CEIL	8.3.0				MIOPEN_POINTWISE_CEIL
CUDNN_POINTWISE_CMP_EQ	8.3.0				MIOPEN_POINTWISE_CMP_EQ
CUDNN_POINTWISE_CMP_GE	8.3.0				MIOPEN_POINTWISE_CMP_GE
CUDNN_POINTWISE_CMP_GT	8.3.0				MIOPEN_POINTWISE_CMP_GT
CUDNN_POINTWISE_CMP_LE	8.3.0				MIOPEN_POINTWISE_CMP_LE
CUDNN_POINTWISE_CMP_LT	8.3.0				MIOPEN_POINTWISE_CMP_LT
CUDNN_POINTWISE_CMP_NEQ	8.3.0				MIOPEN_POINTWISE_CMP_NEQ
CUDNN_POINTWISE_COS	8.3.0				MIOPEN_POINTWISE_COS
CUDNN_POINTWISE_DIV	8.3.0				MIOPEN_POINTWISE_DIV
CUDNN_POINTWISE_ELU_BWD	8.1.0				MIOPEN_POINTWISE_ELU_BWD
CUDNN_POINTWISE_ELU_FWD	8.0.1				MIOPEN_POINTWISE_ELU_FWD
CUDNN_POINTWISE_ERF	8.5.0				MIOPEN_POINTWISE_ERF
CUDNN_POINTWISE_EXP	8.3.0				MIOPEN_POINTWISE_EXP
CUDNN_POINTWISE_FLOOR	8.3.0				MIOPEN_POINTWISE_FLOOR
CUDNN_POINTWISE_GELU_APPROX_TANH_BWD	8.5.0				MIOPEN_POINTWISE_GELU_APPROX_TANH_BWD
CUDNN_POINTWISE_GELU_APPROX_TANH_FWD	8.5.0				MIOPEN_POINTWISE_GELU_APPROX_TANH_FWD
CUDNN_POINTWISE_GELU_BWD	8.1.0				MIOPEN_POINTWISE_GELU_BWD
CUDNN_POINTWISE_GELU_FWD	8.1.0				MIOPEN_POINTWISE_GELU_FWD
CUDNN_POINTWISE_GEN_INDEX	8.4.0				MIOPEN_POINTWISE_GEN_INDEX
CUDNN_POINTWISE_IDENTITY	8.5.0				MIOPEN_POINTWISE_IDENTITY
CUDNN_POINTWISE_LOG	8.3.0				MIOPEN_POINTWISE_LOG
CUDNN_POINTWISE_LOGICAL_AND	8.3.0				MIOPEN_POINTWISE_LOGICAL_AND
CUDNN_POINTWISE_LOGICAL_NOT	8.3.0				MIOPEN_POINTWISE_LOGICAL_NOT
CUDNN_POINTWISE_LOGICAL_OR	8.3.0				MIOPEN_POINTWISE_LOGICAL_OR

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CUDA	A	D	C	R	MIOPEN
CUDNN_POINTWISE_MAX	8.0.1				MIOPEN_POINTWISE_MAX
CUDNN_POINTWISE_MIN	8.0.1				MIOPEN_POINTWISE_MIN
CUDNN_POINTWISE_MOD	8.3.0				MIOPEN_POINTWISE_MOD
CUDNN_POINTWISE_MUL	8.0.1				MIOPEN_POINTWISE_MUL
CUDNN_POINTWISE_NEG	8.3.0				MIOPEN_POINTWISE_NEG
CUDNN_POINTWISE_POW	8.3.0				MIOPEN_POINTWISE_POW
CUDNN_POINTWISE_RECIPROCAL	8.9.0				MIOPEN_POINTWISE_RECIPROCAL
CUDNN_POINTWISE_RELU_BWD	8.1.0				MIOPEN_POINTWISE_RELU_BWD
CUDNN_POINTWISE_RELU_FWD	8.0.1				MIOPEN_POINTWISE_RELU_FWD
CUDNN_POINTWISE_RSQRT	8.3.0				MIOPEN_POINTWISE_RSQRT
CUDNN_POINTWISE_SIGMOID_BWD	8.1.0				MIOPEN_POINTWISE_SIGMOID_BWD
CUDNN_POINTWISE_SIGMOID_FWD	8.0.1				MIOPEN_POINTWISE_SIGMOID_FWD
CUDNN_POINTWISE_SIN	8.3.0				MIOPEN_POINTWISE_SIN
CUDNN_POINTWISE_SOFTPLUS_BWD	8.1.0				MIOPEN_POINTWISE_SOFTPLUS_BWD
CUDNN_POINTWISE_SOFTPLUS_FWD	8.1.0				MIOPEN_POINTWISE_SOFTPLUS_FWD
CUDNN_POINTWISE_SQRT	8.0.1				MIOPEN_POINTWISE_SQRT
CUDNN_POINTWISE_SUB	8.3.0				MIOPEN_POINTWISE_SUB
CUDNN_POINTWISE_SWISH_BWD	8.1.0				MIOPEN_POINTWISE_SWISH_BWD
CUDNN_POINTWISE_SWISH_FWD	8.1.0				MIOPEN_POINTWISE_SWISH_FWD
CUDNN_POINTWISE_TAN	8.3.0				MIOPEN_POINTWISE_TAN
CUDNN_POINTWISE_TANH_BWD	8.1.0				MIOPEN_POINTWISE_TANH_BWD
CUDNN_POINTWISE_TANH_FWD	8.0.1				MIOPEN_POINTWISE_TANH_FWD
CUDNN_POOLING_AVERAGE_COUNT_EXCLUDE_PADDING	2.0.0	9.0.0			miopenPoolingAverageCountExcludePadding
CUDNN_POOLING_AVERAGE_COUNT_INCLUDE_PADDING	2.0.0	9.0.0			miopenPoolingAverageCountIncludePadding
CUDNN_POOLING_MAX	1.0.0	9.0.0			miopenPoolingMax
CUDNN_POOLING_MAX_DETERMINISTIC	6.0.0	9.0.0			miopenPoolingMaxDeterministic
CUDNN_PROPAGATE_NAN	4.0.0	9.0.0			MIOPEN_PROPAGATE_NAN
CUDNN_PTR_16B_ALIGNED	7.6.0				MIOPEN_PTR_16B_ALIGNED
CUDNN_PTR_ACTIVATION_BITMASK	7.6.0				MIOPEN_PTR_ACTIVATION_BITMASK
CUDNN_PTR_BN_BIAS	7.6.0				MIOPEN_PTR_BN_BIAS
CUDNN_PTR_BN_DBIAS	7.6.0				MIOPEN_PTR_BN_DBIAS
CUDNN_PTR_BN_DSCALE	7.6.0				MIOPEN_PTR_BN_DSCALE
CUDNN_PTR_BN_EQBIAS	7.6.0				MIOPEN_PTR_BN_EQBIAS
CUDNN_PTR_BN_EQSCALE	7.6.0				MIOPEN_PTR_BN_EQSCALE
CUDNN_PTR_BN_RUNNING_MEAN	7.6.0				MIOPEN_PTR_BN_RUNNING_MEAN
CUDNN_PTR_BN_RUNNING_VAR	7.6.0				MIOPEN_PTR_BN_RUNNING_VAR
CUDNN_PTR_BN_SAVED_INVSTD	7.6.0				MIOPEN_PTR_BN_SAVED_INVSTD
CUDNN_PTR_BN_SAVED_MEAN	7.6.0				MIOPEN_PTR_BN_SAVED_MEAN
CUDNN_PTR_BN_SCALE	7.6.0				MIOPEN_PTR_BN_SCALE
CUDNN_PTR_BN_Z_EQBIAS	7.6.0				MIOPEN_PTR_BN_Z_EQBIAS
CUDNN_PTR_BN_Z_EQSCALE	7.6.0				MIOPEN_PTR_BN_Z_EQSCALE
CUDNN_PTR_DWDATA	7.6.0				MIOPEN_PTR_DWDATA
CUDNN_PTR_DXDATA	7.6.0				MIOPEN_PTR_DXDATA
CUDNN_PTR_DYDATA	7.6.0				MIOPEN_PTR_DYDATA
CUDNN_PTR_DZDATA	7.6.0				MIOPEN_PTR_DZDATA
CUDNN_PTR_ELEM_ALIGNED	7.6.0				MIOPEN_PTR_ELEM_ALIGNED
CUDNN_PTR_NULL	7.6.0				MIOPEN_PTR_NULL
CUDNN_PTR_WDATA	7.6.0				MIOPEN_PTR_WDATA
CUDNN_PTR_WORKSPACE	7.6.0				MIOPEN_PTR_WORKSPACE
CUDNN_PTR_XDATA	7.6.0				MIOPEN_PTR_XDATA

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CUDA	A	D	C	R	MIOPEN
CUDNN_PTR_YDATA	7.6.0				
CUDNN_PTR_YSQSUM	7.6.0				
CUDNN_PTR_YSUM	7.6.0				
CUDNN_PTR_ZDATA	7.6.0				
CUDNN_REDUCE_TENSOR_ADD	6.0.0				MIOPEN_REDUCE_T
CUDNN_REDUCE_TENSOR_AMAX	6.0.0				MIOPEN_REDUCE_T
CUDNN_REDUCE_TENSOR_AVG	6.0.0				MIOPEN_REDUCE_T
CUDNN_REDUCE_TENSOR_FLATTENED_INDICES	6.0.0	9.0.0			MIOPEN_REDUCE_T
CUDNN_REDUCE_TENSOR_MAX	6.0.0				MIOPEN_REDUCE_T
CUDNN_REDUCE_TENSOR_MIN	6.0.0				MIOPEN_REDUCE_T
CUDNN_REDUCE_TENSOR_MUL	6.0.0				MIOPEN_REDUCE_T
CUDNN_REDUCE_TENSOR_MUL_NO_ZEROS	7.0.5				
CUDNN_REDUCE_TENSOR_NORM1	6.0.0				MIOPEN_REDUCE_T
CUDNN_REDUCE_TENSOR_NORM2	6.0.0				MIOPEN_REDUCE_T
CUDNN_REDUCE_TENSOR_NO_INDICES	6.0.0	9.0.0			MIOPEN_REDUCE_T
CUDNN_RESAMPLE_AVGPOOL	8.3.0				
CUDNN_RESAMPLE_AVGPOOL_EXCLUDE_PADDING	8.6.0				
CUDNN_RESAMPLE_AVGPOOL_INCLUDE_PADDING	8.6.0				
CUDNN_RESAMPLE_BILINEAR	8.3.0				
CUDNN_RESAMPLE_MAXPOOL	8.3.0				
CUDNN_RESAMPLE_NEAREST	8.3.0				
CUDNN_RMS_NORM	8.9.6				
CUDNN_RNG_DISTRIBUTION_BERNOULLI	8.7.0				MIOPEN_RNG_DIST
CUDNN_RNG_DISTRIBUTION_NORMAL	8.7.0				MIOPEN_RNG_DIST
CUDNN_RNG_DISTRIBUTION_UNIFORM	8.7.0				MIOPEN_RNG_DIST
CUDNN_RNN_ALGO_COUNT	7.1.3				
CUDNN_RNN_ALGO_PERSIST_DYNAMIC	6.0.0				
CUDNN_RNN_ALGO_PERSIST_STATIC	6.0.0				
CUDNN_RNN_ALGO_PERSIST_STATIC_SMALL_H	8.1.0				
CUDNN_RNN_ALGO_STANDARD	6.0.0				miopenRNNdefaul
CUDNN_RNN_CLIP_MINMAX	7.2.1				
CUDNN_RNN_CLIP_NONE	7.2.1				
CUDNN_RNN_DATA_LAYOUT_BATCH_MAJOR_UNPACKED	7.2.1				
CUDNN_RNN_DATA_LAYOUT_SEQ_MAJOR_PACKED	7.2.1				
CUDNN_RNN_DATA_LAYOUT_SEQ_MAJOR_UNPACKED	7.2.1				
CUDNN_RNN_DOUBLE_BIAS	7.5.0				miopenRNNwithBi
CUDNN_RNN_NO_BIAS	7.5.0				miopenRNNNoBias
CUDNN_RNN_PADDED_IO_DISABLED	7.2.1	8.0.1		9.0.0	miopenRNNIONotP
CUDNN_RNN_PADDED_IO_ENABLED	7.2.1	8.0.1		9.0.0	miopenRNNIOWith
CUDNN_RNN_RELU	5.0.0				miopenRNNRELU
CUDNN_RNN_SINGLE_INP_BIAS	7.5.0				miopenRNNwithBi
CUDNN_RNN_SINGLE_REC_BIAS	7.5.0				miopenRNNwithBi
CUDNN_RNN_TANH	5.0.0				miopenRNNTANH
CUDNN_SAMPLER_BILINEAR	5.0.0				
CUDNN_SCALAR_DOUBLE_BN_EPSILON	7.6.0				
CUDNN_SCALAR_DOUBLE_BN_EXP_AVG_FACTOR	7.6.0				
CUDNN_SCALAR_INT64_T_BN_ACCUMULATION_COUNT	7.6.0				
CUDNN_SCALAR_SIZE_T_WORKSPACE_SIZE_IN_BYTES	7.6.0				
CUDNN_SEQDATA_BATCH_DIM	7.5.0				
CUDNN_SEQDATA_BEAM_DIM	7.5.0				

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CUDA	A	D	C	R	MIOPEN
CUDNN_SEQDATA_DIM_COUNT	7.5.0				
CUDNN_SEQDATA_TIME_DIM	7.5.0				
CUDNN_SEQDATA_VECT_DIM	7.5.0				
CUDNN_SEV_ERROR	7.1.3				
CUDNN_SEV_ERROR_EN	7.1.3				
CUDNN_SEV_FATAL	7.1.3				
CUDNN_SEV_INFO	7.1.3				
CUDNN_SEV_INFO_EN	7.1.3				
CUDNN_SEV_WARNING	7.1.3				
CUDNN_SEV_WARNING_EN	7.1.3				
CUDNN_SIGNAL_SET	8.5.0				
CUDNN_SIGNAL_WAIT	8.5.0				
CUDNN_SKIP_INPUT	5.0.0				miopenRNNskip
CUDNN_SOFTMAX_ACCURATE	1.0.0				MIOPEN_SOFTMAX_
CUDNN_SOFTMAX_FAST	1.0.0				MIOPEN_SOFTMAX_
CUDNN_SOFTMAX_LOG	3.0.0				MIOPEN_SOFTMAX_
CUDNN_SOFTMAX_MODE_CHANNEL	1.0.0				MIOPEN_SOFTMAX_
CUDNN_SOFTMAX_MODE_INSTANCE	1.0.0				MIOPEN_SOFTMAX_
CUDNN_STATUS_ALLOC_FAILED	1.0.0	9.0.0			miopenStatusAll
CUDNN_STATUS_ARCH_MISMATCH	1.0.0	9.0.0			
CUDNN_STATUS_BAD_PARAM	1.0.0				miopenStatusBad
CUDNN_STATUS_BAD_PARAM_ATTRIBUTE_TYPE	9.0.0				
CUDNN_STATUS_BAD_PARAM_CUDA_GRAPH_MISMATCH	9.5.0				
CUDNN_STATUS_BAD_PARAM_DESCRIPTOR_TYPE	9.6.0				
CUDNN_STATUS_BAD_PARAM_DUPLICATED_ENTRIES	9.0.0				
CUDNN_STATUS_BAD_PARAM_MISALIGNED_POINTER	9.0.0				
CUDNN_STATUS_BAD_PARAM_NOT_FINALIZED	9.0.0				
CUDNN_STATUS_BAD_PARAM_NULL_POINTER	9.0.0				
CUDNN_STATUS_BAD_PARAM_OUT_OF_BOUND	9.0.0				
CUDNN_STATUS_BAD_PARAM_SHAPE_MISMATCH	9.0.0				
CUDNN_STATUS_BAD_PARAM_SIZE_INSUFFICIENT	9.0.0				
CUDNN_STATUS_BAD_PARAM_STREAM_MISMATCH	9.0.0				
CUDNN_STATUS_CATEGORY	9.0.0				
CUDNN_STATUS_DEPRECATED	9.0.0				
CUDNN_STATUS_EXECUTION_FAILED	1.0.0				
CUDNN_STATUS_EXECUTION_FAILED_CUBLAS	9.0.0				
CUDNN_STATUS_EXECUTION_FAILED_CUDART	9.0.0				
CUDNN_STATUS_EXECUTION_FAILED_CUDA_DRIVER	9.0.0				
CUDNN_STATUS_EXECUTION_FAILED_CURAND	9.0.0				
CUDNN_STATUS_FULL_ERROR_CODE	9.0.0				
CUDNN_STATUS_INTERNAL_ERROR	1.0.0				miopenStatusInt
CUDNN_STATUS_INTERNAL_ERROR_BAD_LAUNCH_PARAM	9.0.0				
CUDNN_STATUS_INTERNAL_ERROR_COMPILATION_FAILED	9.0.0				
CUDNN_STATUS_INTERNAL_ERROR_DEVICE_ALLOCATION_FAILED	9.0.0				
CUDNN_STATUS_INTERNAL_ERROR_HOST_ALLOCATION_FAILED	9.0.0				
CUDNN_STATUS_INTERNAL_ERROR_TEXTURE_CREATION_FAILED	9.0.0				
CUDNN_STATUS_INTERNAL_ERROR_UNEXPECTED_VALUE	9.0.0				
CUDNN_STATUS_INVALID_VALUE	1.0.0	9.0.0			miopenStatusInv
CUDNN_STATUS_LICENSE_ERROR	1.0.0				
CUDNN_STATUS_MAPPING_ERROR	1.0.0	9.0.0			

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CUDA	A	D	C	R	MIOPEN
CUDNN_STATUS_NOT_INITIALIZED	1.0.0				miopenStatusNot
CUDNN_STATUS_NOT_SUPPORTED	1.0.0				miopenStatusUns
CUDNN_STATUS_NOT_SUPPORTED_ARCH_MISMATCH	9.0.0				
CUDNN_STATUS_NOT_SUPPORTED_BAD_LAUNCH_PARAM	9.0.0				
CUDNN_STATUS_NOT_SUPPORTED_CUDA_GRAPH_NATIVE_API	9.5.0				
CUDNN_STATUS_NOT_SUPPORTED_DATA_TYPE	9.0.0				
CUDNN_STATUS_NOT_SUPPORTED_GRAPH_PATTERN	9.0.0				
CUDNN_STATUS_NOT_SUPPORTED_INCOMPATIBLE_CUDART	9.0.0				
CUDNN_STATUS_NOT_SUPPORTED_INCOMPATIBLE_CUDA_DRIVER	9.0.0				
CUDNN_STATUS_NOT_SUPPORTED_LAYOUT	9.0.0				
CUDNN_STATUS_NOT_SUPPORTED_PADDING	9.0.0				
CUDNN_STATUS_NOT_SUPPORTED_RUNTIME_PREREQUISITE_MISSING	9.0.0				
CUDNN_STATUS_NOT_SUPPORTED_SHAPE	9.0.0				
CUDNN_STATUS_NOT_SUPPORTED_SHARED_MEMORY_INSUFFICIENT	9.0.0				
CUDNN_STATUS_NOT_SUPPORTED_SUBLIBRARY_UNAVAILABLE	9.0.0				
CUDNN_STATUS_RUNTIME_FP_OVERFLOW	7.0.5				
CUDNN_STATUS_RUNTIME_IN_PROGRESS	7.0.5				
CUDNN_STATUS_RUNTIME_PREREQUISITE_MISSING	6.0.0	9.0.0			
CUDNN_STATUS_SERIALIZATION_VERSION_MISMATCH	9.0.0				
CUDNN_STATUS_SPECIFIC_ERROR	9.0.0				
CUDNN_STATUS_SUBLIBRARY_LOADING_FAILED	9.2.0				
CUDNN_STATUS_SUBLIBRARY_VERSION_MISMATCH	9.0.0				
CUDNN_STATUS_SUCCESS	1.0.0				miopenStatusSuc
CUDNN_STATUS_VERSION_MISMATCH	8.0.1	9.0.0			miopenStatusVer
CUDNN_TENSOR_NCHW	1.0.0				miopenTensorNCH
CUDNN_TENSOR_NCHW_VECT_C	6.0.0				
CUDNN_TENSOR_NHWC	1.0.0				miopenTensorNHW
CUDNN_TENSOR_OP_MATH	7.0.5				
CUDNN_TENSOR_OP_MATH_ALLOW_CONVERSION	7.2.1				
CUDNN_TENSOR_REORDERING_F16x16	8.8.0				
CUDNN_TENSOR_REORDERING_F8_128x4	9.7.0				
CUDNN_TENSOR_REORDERING_INT8x32	8.3.0				
CUDNN_TENSOR_REORDERING_NONE	8.3.0				
CUDNN_TRANSFORM_FOLD	7.5.0				
CUDNN_TRANSFORM_UNFOLD	7.5.0				
CUDNN_TYPE_ATTRIB_NAME	8.0.1				MIOPEN_TYPE_ATT
CUDNN_TYPE_BACKEND_DESCRIPTOR	8.0.1				MIOPEN_TYPE_BAC
CUDNN_TYPE_BEHAVIOR_NOTE	8.2.0				MIOPEN_TYPE_BEH
CUDNN_TYPE_BN_FINALIZE_STATS_MODE	8.1.0				MIOPEN_TYPE_BN_
CUDNN_TYPE_BOOLEAN	8.0.1				MIOPEN_TYPE_BOO
CUDNN_TYPE_CHAR	8.4.0				MIOPEN_TYPE_CHA
CUDNN_TYPE_CONVOLUTION_MODE	8.0.1				MIOPEN_TYPE_CON
CUDNN_TYPE_DATA_TYPE	8.0.1				MIOPEN_TYPE_DAT
CUDNN_TYPE_DOUBLE	8.0.1				MIOPEN_TYPE_DOU
CUDNN_TYPE_FLOAT	8.0.1				MIOPEN_TYPE_FLO
CUDNN_TYPE_FRACTION	8.5.0				MIOPEN_TYPE_FRA
CUDNN_TYPE_GENSTATS_MODE	8.0.1				MIOPEN_TYPE_GEN
CUDNN_TYPE_HANDLE	8.0.1				MIOPEN_TYPE_HAN
CUDNN_TYPE_HEUR_MODE	8.0.1				MIOPEN_TYPE_HEU
CUDNN_TYPE_INT32	8.3.0				MIOPEN_TYPE_INT

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CUDA	A	D	C	R	MIOPEN
CUDNN_TYPE_INT64	8.0.1				MIOPEN_TYPE_INT64
CUDNN_TYPE_KNOB_TYPE	8.0.1				MIOPEN_TYPE_KNOB_TYPE
CUDNN_TYPE_LAYOUT_TYPE	8.0.2				MIOPEN_TYPE_LAYOUT_TYPE
CUDNN_TYPE_NAN_PROPOGATION	8.0.1	9.0.0			MIOPEN_TYPE_NAN_PROPOGATION
CUDNN_TYPE_NORM_FWD_PHASE	8.5.0				MIOPEN_TYPE_NORM_FWD_PHASE
CUDNN_TYPE_NORM_MODE	8.5.0				MIOPEN_TYPE_NORM_MODE
CUDNN_TYPE_NUMERICAL_NOTE	8.0.1				MIOPEN_TYPE_NUMERICAL_NOTE
CUDNN_TYPE_PADDING_MODE	8.3.0				MIOPEN_TYPE_PADDING_MODE
CUDNN_TYPE_POINTWISE_MODE	8.0.1				MIOPEN_TYPE_POINTWISE_MODE
CUDNN_TYPE_REDUCTION_OPERATOR_TYPE	8.1.0				MIOPEN_TYPE_REDUCTION_OPERATOR_TYPE
CUDNN_TYPE_RESAMPLE_MODE	8.3.0				MIOPEN_TYPE_RESAMPLE_MODE
CUDNN_TYPE_RNG_DISTRIBUTION	8.7.0				MIOPEN_TYPE_RNG_DISTRIBUTION
CUDNN_TYPE_SIGNAL_MODE	8.5.0				MIOPEN_TYPE_SIGNAL_MODE
CUDNN_TYPE_TENSOR_REORDERING_MODE	8.3.0				MIOPEN_TYPE_TENSOR_REORDERING_MODE
CUDNN_TYPE_VOID_PTR	8.0.1				MIOPEN_TYPE_VOID_PTR
CUDNN_UNIDIRECTIONAL	5.0.0				miopenRNNUnidir
CUDNN_WGRAD_MODE_ADD	7.5.0				
CUDNN_WGRAD_MODE_SET	7.5.0				
CUDNN_ZERO_PAD	8.3.0				miopenPaddingDe
cudnnActivationDescriptor_t	4.0.0	9.0.0			miopenActivatio
cudnnActivationMode_t	1.0.0	9.0.0			miopenActivatio
cudnnActivationStruct	4.0.0	9.0.0			
cudnnAlgorithmDescriptor_t	7.1.3			9.0.0	
cudnnAlgorithmPerformanceStruct	7.1.3			9.0.0	
cudnnAlgorithmPerformance_t	7.1.3			9.0.0	
cudnnAlgorithmStruct	7.1.3			9.0.0	
cudnnAlgorithmUnionStruct	8.2.0			9.0.0	
cudnnAlgorithm_t	7.1.3			9.0.0	
cudnnAttnDescriptor_t	7.5.0	9.0.0			
cudnnAttnQueryMap_t	7.5.0			9.0.0	
cudnnAttnStruct	7.5.0				
cudnnBackendAttributeName_t	8.0.1				miopenBackendAt
cudnnBackendAttributeType_t	8.0.1				miopenBackendAt
cudnnBackendBehaviorNote_t	8.2.0				
cudnnBackendDescriptorType_t	8.0.1				miopenBackendDe
cudnnBackendDescriptor_t	8.0.1				miopenBackendDe
cudnnBackendHeurMode_t	8.0.1				miopenBackendHe
cudnnBackendKnobType_t	8.0.1				
cudnnBackendLayoutType_t	8.0.1				
cudnnBackendNormFwdPhase_t	8.5.0				
cudnnBackendNormMode_t	8.5.0				
cudnnBackendNumericalNote_t	8.0.1				
cudnnBackendTensorReordering_t	8.3.0				
cudnnBatchNormMode_t	4.0.0	9.0.0			miopenBatchNorm
cudnnBatchNormOps_t	7.4.1	9.0.0			
cudnnBnFinalizeStatsMode_t	8.1.0				
cudnnCTCGradMode_t	9.0.0				
cudnnCTCLossAlgo_t	7.0.5				miopenCTCLossAl
cudnnCTCLossDescriptor_t	7.0.5				miopenCTCLossDe
cudnnCTCLossStruct	7.0.5				

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CUDA	A	D	C	R	MIOPEN
cudaCallback_t	7.1.3				
cudaContext	1.0.0				miopenHandle
cudaConvolutionBwdDataAlgoPerfStruct	8.2.0	9.0.0			miopenConvAlgoP
cudaConvolutionBwdDataAlgoPerf_t	3.0.0	9.0.0			miopenConvAlgoP
cudaConvolutionBwdDataAlgo_t	3.0.0				miopenConvBwdDa
cudaConvolutionBwdDataPreference_t	3.0.0	7.6.5		8.0.1	
cudaConvolutionBwdFilterAlgoPerfStruct	8.2.0				
cudaConvolutionBwdFilterAlgoPerf_t	3.0.0	9.0.0			
cudaConvolutionBwdFilterAlgo_t	3.0.0				
cudaConvolutionBwdFilterPreference_t	3.0.0	7.6.5		8.0.1	
cudaConvolutionDescriptor_t	1.0.0	9.0.0			miopenConvoluti
cudaConvolutionFwdAlgoPerfStruct	8.2.0				miopenConvAlgoP
cudaConvolutionFwdAlgoPerf_t	3.0.0	9.0.0			miopenConvAlgoP
cudaConvolutionFwdAlgo_t	2.0.0				miopenConvFwdAL
cudaConvolutionFwdPreference_t	2.0.0	7.6.5		8.0.1	
cudaConvolutionMode_t	1.0.0				miopenConvoluti
cudaConvolutionStruct	1.0.0				
cudaDataType_t	1.0.0				miopenDataType_
cudaDebugStruct	8.2.0				
cudaDebug_t	7.1.3				
cudaDeterminism_t	6.0.0				
cudaDirectionMode_t	5.0.0				miopenRNNDirect
cudaDivNormMode_t	3.0.0				
cudaDropoutDescriptor_t	5.0.0				miopenDropoutDe
cudaDropoutStruct	5.0.0				
cudaErrQueryMode_t	7.0.5				
cudaFilterDescriptor_t	1.0.0				miopenTensorDes
cudaFilterStruct	1.0.0	9.0.0			
cudaFoldingDirection_t	7.5.0				
cudaForwardMode_t	8.0.1				miopenRNNFWDMod
cudaFractionStruct	8.5.0				
cudaFraction_t	8.5.0				
cudaFusedOpsConstParamLabel_t	7.6.0	9.0.0			
cudaFusedOpsConstParamPack_t	7.6.0	9.0.0			
cudaFusedOpsConstParamStruct	7.6.0	9.0.0			
cudaFusedOpsPlanStruct	7.6.0	9.0.0			
cudaFusedOpsPlan_t	7.6.0	9.0.0			
cudaFusedOpsPointerPlaceholder_t	7.6.0	9.0.0			
cudaFusedOpsVariantParamLabel_t	7.6.0	9.0.0			
cudaFusedOpsVariantParamPack_t	7.6.0	9.0.0			
cudaFusedOpsVariantParamStruct	7.6.0	9.0.0			
cudaFusedOps_t	7.6.0	9.0.0			
cudaGenStatsMode_t	8.0.1				
cudaHandle_t	1.0.0				miopenHandle_t
cudaIndicesType_t	6.0.0	9.0.0			miopenIndicesTy
cudaLRNDescriptor_t	3.0.0				miopenLRNDescri
cudaLRNMode_t	3.0.0				miopenLRNMode_t
cudaLRNStruct	3.0.0				
cudaLossNormalizationMode_t	7.6.0				
cudaMathType_t	7.0.5				

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CUDA	A	D	C	R	MIOPEN
cudaMultiHeadAttnWeightKind_t	7.5.0				
cudaNanPropagation_t	4.0.0				miopenNanPropag
cudaNormAlgo_t	8.0.1	9.0.0			
cudaNormMode_t	8.0.1	9.0.0			
cudaNormOps_t	8.0.1	9.0.0			
cudaOpTensorDescriptor_t	5.0.0	9.0.0			
cudaOpTensorOp_t	5.0.0				miopenTensorOp_
cudaOpTensorStruct	5.0.0	9.0.0			
cudaPaddingMode_t	8.3.0				miopenPaddingMo
cudaPersistentRNNPlan	6.0.0				
cudaPersistentRNNPlan_t	6.0.0				
cudaPointwiseMode_t	8.0.1				miopenPointwise
cudaPoolingDescriptor_t	1.0.0	9.0.0			miopenPoolingDe
cudaPoolingMode_t	1.0.0	9.0.0			miopenPoolingMo
cudaPoolingStruct	1.0.0	9.0.0			
cudaRNNAlgo_t	6.0.0				miopenRNNAlgo_t
cudaRNNBiasMode_t	7.5.0				miopenRNNBiasMo
cudaRNNClipMode_t	7.2.1				
cudaRNNDataDescriptor_t	7.2.1				
cudaRNNDataLayout_t	7.2.1				
cudaRNNDataStruct	7.2.1				
cudaRNNDescriptor_t	5.0.0				miopenRNNDescri
cudaRNNInputMode_t	5.0.0				miopenRNNInputM
cudaRNNMode_t	5.0.0				miopenRNNMode_t
cudaRNNPaddingMode_t	7.2.1	8.0.1		9.0.0	miopenRNNPaddin
cudaRNNStruct	5.0.0				
cudaReduceTensorDescriptor_t	6.0.0	9.0.0			miopenReduceTen
cudaReduceTensorIndices_t	6.0.0	9.0.0			miopenReduceTen
cudaReduceTensorOp_t	6.0.0				miopenReduceTen
cudaReduceTensorStruct	6.0.0	9.0.0			
cudaReorderType_t	7.6.0	9.0.0			
cudaResampleMode_t	8.3.0				
cudaRngDistribution_t	8.7.0				miopenRngDistri
cudaRuntimeTag_t	7.0.5	9.0.0			
cudaSamplerType_t	5.0.0				
cudaSeqDataAxis_t	7.5.0				
cudaSeqDataDescriptor_t	7.5.0	9.0.0			
cudaSeqDataStruct	7.5.0				
cudaSeverity_t	7.1.3				
cudaSignalMode_t	8.5.0				
cudaSoftmaxAlgorithm_t	1.0.0				miopenSoftmaxAL
cudaSoftmaxMode_t	1.0.0				miopenSoftmaxMo
cudaSpatialTransformerDescriptor_t	5.0.0				
cudaSpatialTransformerStruct	5.0.0				
cudaStatus_t	1.0.0				miopenStatus_t
cudaTensorDescriptor_t	2.0.0				miopenTensorDes
cudaTensorFormat_t	1.0.0				miopenTensorLay
cudaTensorStruct	2.0.0				
cudaTensorTransformDescriptor_t	7.5.0	9.0.0			
cudaTensorTransformStruct	7.5.0	9.0.0			

Table 18 – continued from previous page

CUDA	A	D	C	R	MIOPEN
cudaWgradMode_t	7.5.0				
libraryPropertyType	6.0.0				
libraryPropertyType_t	6.0.0			9.0.0	

10.4.2 2. CUDNN Functions

CUDA	A	D	C	R	MIOPEN
cudaActivationBackward	1.0.0	9.0.0			miopenActivationBackward
cudaActivationForward	1.0.0	9.0.0			miopenActivationForward
cudaAddTensor	2.0.0	9.0.0			
cudaAdvInferVersionCheck	8.0.1			9.0.0	
cudaAdvTrainVersionCheck	8.0.1			9.0.0	
cudaAdvVersionCheck	9.0.0				
cudaBackendCreateDescriptor	8.0.1				miopenBackendCreateDescriptor
cudaBackendDestroyDescriptor	8.0.1				miopenBackendDestroyDescriptor
cudaBackendExecute	8.0.1				miopenBackendExecute
cudaBackendFinalize	8.0.1				miopenBackendFinalize
cudaBackendGetAttribute	8.0.1				miopenBackendGetAttribute
cudaBackendInitialize	8.0.1	9.3.0			
cudaBackendPopulateCudaGraph	9.5.0				
cudaBackendSetAttribute	8.0.1				miopenBackendSetAttribute
cudaBackendUpdateCudaGraph	9.5.0				
cudaBatchNormalizationBackward	4.0.0	9.0.0			miopenBatchNormalizationBackward
cudaBatchNormalizationBackwardEx	7.4.1	9.0.0			
cudaBatchNormalizationForwardInference	4.0.0	9.0.0			miopenBatchNormalizationForwardInference
cudaBatchNormalizationForwardTraining	4.0.0	9.0.0			miopenBatchNormalizationForwardTraining
cudaBatchNormalizationForwardTrainingEx	7.4.1	9.0.0			
cudaBuildRNNDynamic	8.0.1				
cudaCTCLoss	7.0.5				miopenCTCLoss
cudaCTCLoss_v8	8.0.1				
cudaCnnInferVersionCheck	8.0.2				
cudaCnnTrainVersionCheck	8.0.2				
cudaConvolutionBackwardBias	1.0.0	9.0.0			miopenConvolutionBackwardBias
cudaConvolutionBackwardData	1.0.0	9.0.0			miopenConvolutionBackwardData
cudaConvolutionBackwardFilter	1.0.0	9.0.0			
cudaConvolutionBiasActivationForward	6.0.0	9.0.0			miopenConvolutionBiasActivationForward
cudaConvolutionForward	1.0.0	9.0.0			miopenConvolutionForward
cudaCopyAlgorithmDescriptor	7.1.3	8.0.2		9.0.0	
cudaCreate	1.0.0				miopenCreate
cudaCreateActivationDescriptor	4.0.0	9.0.0			miopenCreateActivationDescriptor
cudaCreateAlgorithmDescriptor	7.1.3	8.0.2		9.0.0	
cudaCreateAlgorithmPerformance	7.1.3	8.0.2		9.0.0	
cudaCreateAttnDescriptor	7.5.0	9.0.0			
cudaCreateCTCLossDescriptor	7.0.5				miopenCreateCTCLossDescriptor
cudaCreateConvolutionDescriptor	1.0.0	9.0.0			miopenCreateConvolutionDescriptor
cudaCreateDropoutDescriptor	5.0.0				miopenCreateDropoutDescriptor
cudaCreateFilterDescriptor	1.0.0	9.0.0			
cudaCreateFusedOpsConstParamPack	7.6.0	9.0.0			
cudaCreateFusedOpsPlan	7.6.0	9.0.0			

Table 19 – continued from previous page

CUDA	A	D	C	R	MIOPEN
cudaCreateFusedOpsVariantParamPack	7.6.0	9.0.0			
cudaCreateLRNDescriptor	3.0.0				miopenCreateLRNDescriptor
cudaCreateOpTensorDescriptor	5.0.0	9.0.0			
cudaCreatePersistentRNNPlan	6.0.0	8.0.1		9.0.0	
cudaCreatePoolingDescriptor	1.0.0	9.0.0			miopenCreatePoolingDescriptor
cudaCreateRNNDataDescriptor	7.2.1				
cudaCreateRNNDescriptor	5.0.0				miopenCreateRNNDescriptor
cudaCreateReduceTensorDescriptor	6.0.0	9.0.0			miopenCreateReduceTensorDescriptor
cudaCreateSeqDataDescriptor	7.5.0	9.0.0			
cudaCreateSpatialTransformerDescriptor	5.0.0				
cudaCreateTensorDescriptor	2.0.0				miopenCreateTensorDescriptor
cudaCreateTensorTransformDescriptor	7.5.0	9.0.0			
cudaDeriveBNTensorDescriptor	4.0.0	9.0.0			miopenDeriveBNTensorDescriptor
cudaDeriveNormTensorDescriptor	8.0.1	9.0.0			
cudaDestroy	1.0.0				miopenDestroy
cudaDestroyActivationDescriptor	4.0.0	9.0.0			miopenDestroyActivationDescriptor
cudaDestroyAlgorithmDescriptor	7.1.3	8.0.2		9.0.0	
cudaDestroyAlgorithmPerformance	7.1.3	8.0.2		9.0.0	
cudaDestroyAttnDescriptor	7.5.0	9.0.0			
cudaDestroyCTCLossDescriptor	7.0.5				miopenDestroyCTCLossDescriptor
cudaDestroyConvolutionDescriptor	1.0.0	9.0.0			miopenDestroyConvolutionDescriptor
cudaDestroyDropoutDescriptor	5.0.0				miopenDestroyDropoutDescriptor
cudaDestroyFilterDescriptor	1.0.0	9.0.0			
cudaDestroyFusedOpsConstParamPack	7.6.0	9.0.0			
cudaDestroyFusedOpsPlan	7.6.0	9.0.0			
cudaDestroyFusedOpsVariantParamPack	7.6.0	9.0.0			
cudaDestroyLRNDescriptor	3.0.0				miopenDestroyLRNDescriptor
cudaDestroyOpTensorDescriptor	5.0.0	9.0.0			
cudaDestroyPersistentRNNPlan	6.0.0	8.0.1		9.0.0	
cudaDestroyPoolingDescriptor	1.0.0	9.0.0			miopenDestroyPoolingDescriptor
cudaDestroyRNNDataDescriptor	7.2.1				
cudaDestroyRNNDescriptor	5.0.0				miopenDestroyRNNDescriptor
cudaDestroyReduceTensorDescriptor	6.0.0	9.0.0			miopenDestroyReduceTensorDescriptor
cudaDestroySeqDataDescriptor	7.5.0	9.0.0			
cudaDestroySpatialTransformerDescriptor	5.0.0				
cudaDestroyTensorDescriptor	2.0.0				miopenDestroyTensorDescriptor
cudaDestroyTensorTransformDescriptor	7.5.0	9.0.0			
cudaDivisiveNormalizationBackward	3.0.0				
cudaDivisiveNormalizationForward	3.0.0				
cudaDropoutBackward	5.0.0				miopenDropoutBackward
cudaDropoutForward	5.0.0				miopenDropoutForward
cudaDropoutGetReserveSpaceSize	5.0.0				miopenDropoutGetReserveSpaceSize
cudaDropoutGetStatesSize	5.0.0				miopenDropoutGetStatesSize
cudaFindConvolutionBackwardDataAlgorithm	3.0.0	9.0.0			
cudaFindConvolutionBackwardDataAlgorithmEx	5.0.0	9.0.0			
cudaFindConvolutionBackwardFilterAlgorithm	3.0.0	9.0.0			
cudaFindConvolutionBackwardFilterAlgorithmEx	5.0.0	9.0.0			
cudaFindConvolutionForwardAlgorithm	3.0.0	9.0.0			
cudaFindConvolutionForwardAlgorithmEx	5.0.0	9.0.0			miopenFindConvolutionForwardAlgorithmEx
cudaFindRNNBackwardDataAlgorithmEx	7.1.3	8.0.2		9.0.0	

Table 19 – continued from previous page

CUDA	A	D	C	R	MIOOPEN
cudaFindRNNBackwardWeightsAlgorithmEx	7.1.3	8.0.2		9.0.0	
cudaFindRNNForwardInferenceAlgorithmEx	7.1.3	8.0.2		9.0.0	
cudaFindRNNForwardTrainingAlgorithmEx	7.1.3	8.0.2		9.0.0	
cudaFusedOpsExecute	7.6.0	9.0.0			
cudaGetActivationDescriptor	4.0.0	9.0.0			
cudaGetActivationDescriptorSwishBeta	8.2.0	9.0.0			
cudaGetAlgorithmDescriptor	7.1.3	8.0.2		9.0.0	
cudaGetAlgorithmPerformance	7.1.3	8.0.2		9.0.0	
cudaGetAlgorithmSpaceSize	7.1.3	8.0.2		9.0.0	
cudaGetAttnDescriptor	7.5.0	9.0.0			
cudaGetBatchNormalizationBackwardExWorkspaceSize	7.4.1	9.0.0			
cudaGetBatchNormalizationForwardTrainingExWorkspaceSize	7.4.1	9.0.0			
cudaGetBatchNormalizationTrainingExReserveSpaceSize	7.4.1	9.0.0			
cudaGetCTCLossDescriptor	7.0.5	9.0.0			miopenGetCTCLossDescriptor
cudaGetCTCLossDescriptorEx	7.5.0	9.0.0			
cudaGetCTCLossDescriptor_v8	8.0.1	9.0.0			
cudaGetCTCLossDescriptor_v9	9.0.0				
cudaGetCTCLossWorkspaceSize	7.0.5				miopenGetCTCLossWorkspaceSize
cudaGetCTCLossWorkspaceSize_v8	8.0.1				
cudaGetCallback	7.1.3				
cudaGetConvolution2dDescriptor	2.0.0	9.0.0			
cudaGetConvolution2dForwardOutputDim	2.0.0	9.0.0			miopenGetConvolution2dForwardOutputDim
cudaGetConvolutionBackwardDataAlgorithm	3.0.0	7.6.5		8.0.1	
cudaGetConvolutionBackwardDataAlgorithmMaxCount	7.0.5	9.0.0			
cudaGetConvolutionBackwardDataAlgorithm_v7	7.0.5	9.0.0			
cudaGetConvolutionBackwardDataWorkspaceSize	3.0.0	9.0.0			miopenConvolutionBackwardDataWorkspaceSize
cudaGetConvolutionBackwardFilterAlgorithm	3.0.0	7.6.5		8.0.1	
cudaGetConvolutionBackwardFilterAlgorithmMaxCount	7.0.5				
cudaGetConvolutionBackwardFilterAlgorithm_v7	7.0.5	9.0.0			
cudaGetConvolutionBackwardFilterWorkspaceSize	3.0.0	9.0.0			
cudaGetConvolutionForwardAlgorithm	2.0.0	7.6.5		8.0.1	
cudaGetConvolutionForwardAlgorithmMaxCount	7.0.5	9.0.0			
cudaGetConvolutionForwardAlgorithm_v7	7.0.5	9.0.0			
cudaGetConvolutionForwardWorkspaceSize	2.0.0	9.0.0			miopenConvolutionForwardWorkspaceSize
cudaGetConvolutionGroupCount	7.0.5	9.0.0			
cudaGetConvolutionMathType	7.0.5	9.0.0			
cudaGetConvolutionNdDescriptor	2.0.0	9.0.0			
cudaGetConvolutionNdForwardOutputDim	2.0.0	9.0.0			
cudaGetConvolutionReorderType	7.6.0	9.0.0			
cudaGetCudartVersion	6.0.0				
cudaGetDropoutDescriptor	7.0.5				miopenGetDropoutDescriptor
cudaGetErrorString	2.0.0				miopenGetErrorString
cudaGetFilter4dDescriptor	2.0.0	9.0.0			
cudaGetFilterNdDescriptor	2.0.0	9.0.0			
cudaGetFilterSizeInBytes	7.6.0	9.0.0			
cudaGetFoldedConvBackwardDataDescriptors	7.6.0	9.0.0			
cudaGetFusedOpsConstParamPackAttribute	7.6.0	9.0.0			
cudaGetFusedOpsVariantParamPackAttribute	7.6.0	9.0.0			
cudaGetLRNDescriptor	3.0.0				miopenGetLRNDescriptor
cudaGetLastErrorString	9.0.0				

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CUDA	A	D	C	R	MIOPEN
cudaGetDeviceVersion	8.6.0				
cudaGetDeviceProperties	7.5.0	9.0.0			
cudaGetDeviceCount	7.5.0	9.0.0			
cudaGetDeviceAttribute	8.0.1	9.0.0			
cudaGetDeviceOrder	8.0.1	9.0.0			
cudaGetDeviceOverlapMode	8.0.1	9.0.0			
cudaGetDeviceSmemConfig	5.0.0	9.0.0			
cudaGetDeviceSmemPitch	2.0.0	9.0.0			miopenGet2dPoolingDescr
cudaGetDeviceSmemConfigV2	2.0.0	9.0.0			miopenGetPoolingForward
cudaGetDeviceSmemConfigV3	2.0.0	9.0.0			miopenGetNdPoolingDescr
cudaGetDeviceSmemConfigV4	2.0.0	9.0.0			miopenGetPoolingNdForward
cudaGetDeviceSmemConfigV5	6.0.0				
cudaGetDeviceSmemConfigV6	7.1.3	8.0.2		9.0.0	
cudaGetDeviceSmemConfigV7	7.1.3	8.0.2		9.0.0	
cudaGetDeviceSmemConfigV8	7.5.0	8.0.1		9.0.0	
cudaGetDeviceSmemConfigV9	7.2.1				
cudaGetDeviceSmemConfigV10	7.0.5	7.6.5		8.0.1	miopenGetRNNDescriptor
cudaGetDeviceSmemConfigV11	8.0.1	8.0.1		9.0.0	miopenGetRNNDescriptor
cudaGetDeviceSmemConfigV12	8.0.1				
cudaGetDeviceSmemConfigV13	7.1.3	8.0.2		9.0.0	
cudaGetDeviceSmemConfigV14	7.1.3	8.0.2		9.0.0	
cudaGetDeviceSmemConfigV15	5.0.0	8.0.1		9.0.0	
cudaGetDeviceSmemConfigV16	5.0.0	8.0.1		9.0.0	
cudaGetDeviceSmemConfigV17	7.1.3	8.0.1		9.0.0	
cudaGetDeviceSmemConfigV18	7.2.1	8.0.1		9.0.0	
cudaGetDeviceSmemConfigV19	5.0.0	8.0.1		9.0.0	miopenGetRNNParamsSize
cudaGetDeviceSmemConfigV20	7.1.3	8.0.1		9.0.0	
cudaGetDeviceSmemConfigV21	8.0.1				
cudaGetDeviceSmemConfigV22	5.0.0	8.0.1		9.0.0	miopenGetRNNTrainingRe
cudaGetDeviceSmemConfigV23	8.0.1				
cudaGetDeviceSmemConfigV24	8.0.1				
cudaGetDeviceSmemConfigV25	5.0.0	8.0.1		9.0.0	miopenGetRNNWorkspaceS
cudaGetDeviceSmemConfigV26	6.0.0	9.0.0			miopenGetReduceTensorD
cudaGetDeviceSmemConfigV27	6.0.0	9.0.0			miopenGetReductionIndi
cudaGetDeviceSmemConfigV28	6.0.0	9.0.0			miopenGetReductionWork
cudaGetDeviceSmemConfigV29	7.5.0	9.0.0			
cudaGetDeviceSmemConfigV30	1.0.0				miopenGetStream
cudaGetDeviceSmemConfigV31	1.0.0				miopenGet4dTensorDescr
cudaGetDeviceSmemConfigV32	2.0.0				
cudaGetDeviceSmemConfigV33	6.0.0				
cudaGetDeviceSmemConfigV34	7.5.0	9.0.0			
cudaGetDeviceSmemConfigV35	2.0.0				
cudaGetDeviceSmemConfigV36	9.0.0				
cudaIm2Col	2.0.0	9.0.0			
cudaInitTransformDest	7.5.0	9.0.0			
cudaLRNCrossChannelBackward	3.0.0				
cudaLRNCrossChannelForward	3.0.0				
cudaMakeFusedOpsPlan	7.6.0	9.0.0			
cudaMultiHeadAttnBackwardData	7.5.0	9.0.0			
cudaMultiHeadAttnBackwardWeights	7.5.0	9.0.0			

Table 19 – continued from previous page

CUDA	A	D	C	R	MIOPEN
cudaMultiHeadAttnForward	7.5.0	9.0.0			
cudaNormalizationBackward	8.0.1	9.0.0			
cudaNormalizationForwardInference	8.0.1	9.0.0			
cudaNormalizationForwardTraining	8.0.1	9.0.0			
cudaOpTensor	5.0.0	9.0.0			
cudaOpsInferVersionCheck	8.0.1				
cudaOpsTrainVersionCheck	8.0.1			9.0.0	
cudaOpsVersionCheck	9.0.0				
cudaPoolingBackward	1.0.0	9.0.0			
cudaPoolingForward	1.0.0	9.0.0			
cudaQueryRuntimeError	7.0.5	9.0.0			
cudaRNNBackwardData	5.0.0	8.0.2		9.0.0	miopenRNNBackwardData
cudaRNNBackwardDataEx	7.2.1	8.0.2		9.0.0	
cudaRNNBackwardData_v8	8.0.2				
cudaRNNBackwardWeights	5.0.0	8.0.2		9.0.0	miopenRNNBackwardWeights
cudaRNNBackwardWeightsEx	7.2.1	8.0.2		9.0.0	
cudaRNNBackwardWeights_v8	8.0.2				
cudaRNNForward	8.0.1				
cudaRNNForwardInference	5.0.0	8.0.1		9.0.0	miopenRNNForwardInference
cudaRNNForwardInferenceEx	7.2.1	8.0.1		9.0.0	
cudaRNNForwardTraining	5.0.0	8.0.1		9.0.0	miopenRNNForwardTraining
cudaRNNForwardTrainingEx	7.2.1	8.0.1		9.0.0	
cudaRNNGetClip	7.2.1	8.0.1		9.0.0	
cudaRNNGetClip_v8	8.0.1				
cudaRNNGetClip_v9	9.0.0				
cudaRNNSetClip	7.2.1	8.0.1		9.0.0	
cudaRNNSetClip_v8	8.0.1				
cudaRNNSetClip_v9	9.0.0				
cudaReduceTensor	6.0.0	9.0.0			miopenReduceTensor
cudaReorderFilterAndBias	7.6.0	9.0.0			
cudaRestoreAlgorithm	7.1.3	8.0.2		9.0.0	
cudaRestoreDropoutDescriptor	7.0.5				miopenRestoreDropoutDescriptor
cudaSaveAlgorithm	7.1.3	8.0.2		9.0.0	
cudaScaleTensor	2.0.0	9.0.0			miopenScaleTensor
cudaSetActivationDescriptor	4.0.0	9.0.0			
cudaSetActivationDescriptorSwishBeta	8.2.0	9.0.0			
cudaSetAlgorithmDescriptor	7.1.3	8.0.2		9.0.0	
cudaSetAlgorithmPerformance	7.1.3	8.0.2		9.0.0	
cudaSetAttnDescriptor	7.5.0	9.0.0			
cudaSetCTCLossDescriptor	7.0.5	9.0.0			miopenSetCTCLossDescriptor
cudaSetCTCLossDescriptorEx	7.6.0	9.0.0			
cudaSetCTCLossDescriptor_v8	8.0.1	9.0.0			
cudaSetCTCLossDescriptor_v9	9.0.0				
cudaSetCallback	7.1.3				
cudaSetConvolution2dDescriptor	2.0.0	9.0.0			
cudaSetConvolutionGroupCount	7.0.5	9.0.0			miopenSetConvolutionGroupCount
cudaSetConvolutionMathType	7.0.5	9.0.0			
cudaSetConvolutionNdDescriptor	2.0.0	9.0.0			
cudaSetConvolutionReorderType	7.6.0	9.0.0			
cudaSetDropoutDescriptor	5.0.0				miopenSetDropoutDescriptor

Table 19 – continued from previous page

CUDA	A	D	C	R	MIOPEN
cudaSetFilter4dDescriptor	2.0.0	9.0.0			
cudaSetFilterNdDescriptor	2.0.0	9.0.0			
cudaSetFusedOpsConstParamPackAttribute	7.6.0	9.0.0			
cudaSetFusedOpsVariantParamPackAttribute	7.6.0	9.0.0			
cudaSetLRNDescriptor	3.0.0				miopenSetLRNDescriptor
cudaSetOpTensorDescriptor	5.0.0	9.0.0			
cudaSetPersistentRNNPlan	6.0.0	8.0.1		9.0.0	
cudaSetPooling2dDescriptor	2.0.0	9.0.0			miopenSet2dPoolingDesc
cudaSetPoolingNdDescriptor	2.0.0	9.0.0			miopenSetNdPoolingDesc
cudaSetRNNAlgorithmDescriptor	7.1.3	8.0.2		9.0.0	
cudaSetRNNBiasMode	7.5.0	8.0.1		9.0.0	
cudaSetRNNDataDescriptor	7.2.1				
cudaSetRNNDescriptor	5.0.0	7.6.5		8.0.1	
cudaSetRNNDescriptor_v5	7.0.5	7.6.5		8.0.1	
cudaSetRNNDescriptor_v6	6.0.0	8.0.1		9.0.0	miopenSetRNNDescriptor
cudaSetRNNDescriptor_v8	8.0.1				
cudaSetRNNMatrixMathType	7.0.5	8.0.1		9.0.0	
cudaSetRNNPaddingMode	7.2.1	8.0.1		9.0.0	
cudaSetRNNProjectionLayers	7.1.3	8.0.1		9.0.0	
cudaSetReduceTensorDescriptor	6.0.0	9.0.0			miopenSetReduceTensorD
cudaSetSeqDataDescriptor	7.5.0	9.0.0			
cudaSetSpatialTransformerNdDescriptor	5.0.0				
cudaSetStream	1.0.0				miopenSetStream
cudaSetTensor	2.0.0				miopenSetTensor
cudaSetTensor4dDescriptor	1.0.0				
cudaSetTensor4dDescriptorEx	1.0.0				miopenSet4dTensorDescr
cudaSetTensorNdDescriptor	2.0.0				
cudaSetTensorNdDescriptorEx	6.0.0				
cudaSetTensorTransformDescriptor	7.5.0	9.0.0			
cudaSoftmaxBackward	1.0.0				miopenSoftmaxBackward_
cudaSoftmaxForward	1.0.0				miopenSoftmaxForward_V
cudaSpatialTfGridGeneratorBackward	5.0.0				
cudaSpatialTfGridGeneratorForward	5.0.0				
cudaSpatialTfSamplerBackward	5.0.0				
cudaSpatialTfSamplerForward	5.0.0				
cudaTransformFilter	7.6.0	9.0.0			
cudaTransformTensor	2.0.0	9.0.0			miopenTransformTensor
cudaTransformTensorEx	7.5.0	9.0.0			

CUDA APIS SUPPORTED BY HIP AND ROC

CUDA	HIP & ROC
CUBLAS API	<i>HIP + ROC BLAS API</i>
CUSPARSE API	<i>HIP + ROC SPARSE API</i>
CURAND API	<i>HIP + ROC RAND API</i>

To generate the above documentation with the information about all supported CUDA APIs in Markdown format, run `hipify-clang --md --doc-format=full --doc-roc=joint` with or without specifying the output directory (-o). By running `hipify-clang --csv --doc-format=full --doc-roc=joint`, the documentation will be generated in CSV format.

11.1 CUBLAS API supported by HIP and ROC

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

11.1.1 1. CUBLAS Data types

CUDA	A	D	C	R	HIP
CUBLAS_ATOMICS_ALLOWED					HIPBLAS_ATOMICS_ALLOWED
CUBLAS_ATOMICS_NOT_ALLOWED					HIPBLAS_ATOMICS_NOT_ALLOWED
CUBLAS_COMPUTE_16F	11.0				HIPBLAS_COMPUTE_16F
CUBLAS_COMPUTE_16F_PEDANTIC	11.0				HIPBLAS_COMPUTE_16F_PEDANTIC
CUBLAS_COMPUTE_32F	11.0				HIPBLAS_COMPUTE_32F
CUBLAS_COMPUTE_32F_EMULATED_16BFX9	12.9				
CUBLAS_COMPUTE_32F_FAST_16BF	11.0				HIPBLAS_COMPUTE_32F_FAST_16BF
CUBLAS_COMPUTE_32F_FAST_16F	11.0				HIPBLAS_COMPUTE_32F_FAST_16F
CUBLAS_COMPUTE_32F_FAST_TF32	11.0				HIPBLAS_COMPUTE_32F_FAST_TF32
CUBLAS_COMPUTE_32F_PEDANTIC	11.0				HIPBLAS_COMPUTE_32F_PEDANTIC
CUBLAS_COMPUTE_32I	11.0				HIPBLAS_COMPUTE_32I
CUBLAS_COMPUTE_32I_PEDANTIC	11.0				HIPBLAS_COMPUTE_32I_PEDANTIC
CUBLAS_COMPUTE_64F	11.0				HIPBLAS_COMPUTE_64F
CUBLAS_COMPUTE_64F_PEDANTIC	11.0				HIPBLAS_COMPUTE_64F_PEDANTIC
CUBLAS_DEFAULT_MATH	9.0				HIPBLAS_DEFAULT_MATH
CUBLAS_DIAG_NON_UNIT					HIPBLAS_DIAG_NON_UNIT
CUBLAS_DIAG_UNIT					HIPBLAS_DIAG_UNIT
CUBLAS_EMULATION_STRATEGY_DEFAULT	12.9				

CUDA	A	D	C	R	HIP
CUBLAS_EMULATION_STRATEGY_EAGER	12.9				
CUBLAS_EMULATION_STRATEGY_PERFORMANT	12.9				
CUBLAS_FILL_MODE_FULL	10.1				HIPBLAS_FILL_MODE_FULL
CUBLAS_FILL_MODE_LOWER					HIPBLAS_FILL_MODE_LOWER
CUBLAS_FILL_MODE_UPPER					HIPBLAS_FILL_MODE_UPPER
CUBLAS_FP32_EMULATED_BF16X9_MATH	12.9				HIPBLAS_FP32_EMULATED_BF16X9_MATH
CUBLAS_GEMM_ALG00	8.0				
CUBLAS_GEMM_ALG00_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG01	8.0				
CUBLAS_GEMM_ALG010	9.0				
CUBLAS_GEMM_ALG010_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG011	9.0				
CUBLAS_GEMM_ALG011_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG012	9.0				
CUBLAS_GEMM_ALG012_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG013	9.0				
CUBLAS_GEMM_ALG013_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG014	9.0				
CUBLAS_GEMM_ALG014_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG015	9.0				
CUBLAS_GEMM_ALG015_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG016	9.0				
CUBLAS_GEMM_ALG017	9.0				
CUBLAS_GEMM_ALG018	9.2				
CUBLAS_GEMM_ALG019	9.2				
CUBLAS_GEMM_ALG01_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG02	8.0				
CUBLAS_GEMM_ALG020	9.2				
CUBLAS_GEMM_ALG021	9.2				
CUBLAS_GEMM_ALG022	9.2				
CUBLAS_GEMM_ALG023	9.2				
CUBLAS_GEMM_ALG02_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG03	8.0				
CUBLAS_GEMM_ALG03_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG04	8.0				
CUBLAS_GEMM_ALG04_TENSOR_OP	9.0				
CUBLAS_GEMM_ALG05	8.0				
CUBLAS_GEMM_ALG05_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG06	8.0				
CUBLAS_GEMM_ALG06_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG07	8.0				
CUBLAS_GEMM_ALG07_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG08	9.0				
CUBLAS_GEMM_ALG08_TENSOR_OP	9.2				
CUBLAS_GEMM_ALG09	9.0				
CUBLAS_GEMM_ALG09_TENSOR_OP	9.2				
CUBLAS_GEMM_AUTOTUNE	13.0				
CUBLAS_GEMM_DEFAULT	9.0				HIPBLAS_GEMM_DEFAULT
CUBLAS_GEMM_DEFAULT_TENSOR_OP	9.0				
CUBLAS_GEMM_DFALT	8.0				HIPBLAS_GEMM_DEFAULT

Table 1 – continued

CUDA	A	D	C	R	HIP
CUBLAS_GEMM_DFALT_TENSOR_OP	9.0				
CUBLAS_MATH_DISALLOW_REDUCED_PRECISION_REDUCTION	11.0				HIPBLAS_MATH_DISALLOW_REDUCED_PRECISION_REDUCTION
CUBLAS_OP_C					HIPBLAS_OP_C
CUBLAS_OP_CONJG	10.1				
CUBLAS_OP_HERMITAN	10.1				HIPBLAS_OP_C
CUBLAS_OP_N					HIPBLAS_OP_N
CUBLAS_OP_T					HIPBLAS_OP_T
CUBLAS_PEDANTIC_MATH	11.0				HIPBLAS_PEDANTIC_MATH
CUBLAS_POINTER_MODE_DEVICE					HIPBLAS_POINTER_MODE_DEVICE
CUBLAS_POINTER_MODE_HOST					HIPBLAS_POINTER_MODE_HOST
CUBLAS_SIDE_LEFT					HIPBLAS_SIDE_LEFT
CUBLAS_SIDE_RIGHT					HIPBLAS_SIDE_RIGHT
CUBLAS_STATUS_ALLOC_FAILED					HIPBLAS_STATUS_ALLOC_FAILED
CUBLAS_STATUS_ARCH_MISMATCH					HIPBLAS_STATUS_ARCH_MISMATCH
CUBLAS_STATUS_EXECUTION_FAILED					HIPBLAS_STATUS_EXECUTION_FAILED
CUBLAS_STATUS_INTERNAL_ERROR					HIPBLAS_STATUS_INTERNAL_ERROR
CUBLAS_STATUS_INVALID_VALUE					HIPBLAS_STATUS_INVALID_VALUE
CUBLAS_STATUS_LICENSE_ERROR					HIPBLAS_STATUS_UNKNOWN
CUBLAS_STATUS_MAPPING_ERROR					HIPBLAS_STATUS_MAPPING_ERROR
CUBLAS_STATUS_NOT_INITIALIZED					HIPBLAS_STATUS_NOT_INITIALIZED
CUBLAS_STATUS_NOT_SUPPORTED					HIPBLAS_STATUS_NOT_SUPPORTED
CUBLAS_STATUS_SUCCESS					HIPBLAS_STATUS_SUCCESS
CUBLAS_TENSOR_OP_MATH	9.0	11.0			HIPBLAS_TENSOR_OP_MATH
CUBLAS_TF32_TENSOR_OP_MATH	11.0				HIPBLAS_TF32_TENSOR_OP_MATH
cusolverAtomicMode_t					hipblasAtomicMode_t
cusolverComputeType_t	11.0				hipblasComputeType_t
cusolverContext					
cusolverDiagType_t					hipblasDiagType_t
cusolverEmulationStrategy_t	12.9				hipblasEmulationStrategy_t
cusolverFillMode_t					hipblasFillMode_t
cusolverGemmAlgo_t	8.0				hipblasGemmAlgo_t
cusolverHandle_t					hipblasHandle_t
cusolverMath_t	9.0				hipblasMath_t
cusolverOperation_t					hipblasOperation_t
cusolverPointerMode_t					hipblasPointerMode_t
cusolverSideMode_t					hipblasSideMode_t
cusolverStatus					hipblasStatus_t
cusolverStatus_t					hipblasStatus_t

11.1.2 2. CUDA Library Data types

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A
CUDA_C_16BF					HIP_C_16BF	5.5.0						rocnblas_datatype_bf16_c	3.
CUDA_C_16F	8.0				HIP_C_16F	3.0.0						rocnblas_datatype_f16_c	1.
CUDA_C_16I	11.0				HIP_C_16I	5.5.0							
CUDA_C_16U	11.0				HIP_C_16U	5.5.0							
CUDA_C_32F	8.0				HIP_C_32F	3.0.0						rocnblas_datatype_f32_c	1.
CUDA_C_32I	8.0				HIP_C_32I	5.5.0						rocnblas_datatype_i32_c	2.
CUDA_C_32U	8.0				HIP_C_32U	5.5.0						rocnblas_datatype_u32_c	2.

Table 2 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A
CUDA_C_4I	11.0				HIP_C_4I	5.5.0							
CUDA_C_4U	11.0				HIP_C_4U	5.5.0							
CUDA_C_64F	8.0				HIP_C_64F	3.0.0						rocblas_datatype_f64_c	1.
CUDA_C_64I	11.0				HIP_C_64I	5.5.0							
CUDA_C_64U	11.0				HIP_C_64U	5.5.0							
CUDA_C_8I	8.0				HIP_C_8I	5.5.0						rocblas_datatype_i8_c	2.
CUDA_C_8U	8.0				HIP_C_8U	5.5.0						rocblas_datatype_u8_c	2.
CUDA_R_16BF					HIP_R_16BF	5.5.0						rocblas_datatype_bf16_r	3.
CUDA_R_16F	8.0				HIP_R_16F	3.0.0						rocblas_datatype_f16_r	1.
CUDA_R_16I	11.0				HIP_R_16I	5.5.0							
CUDA_R_16U	11.0				HIP_R_16U	5.5.0							
CUDA_R_32F	8.0				HIP_R_32F	3.0.0						rocblas_datatype_f32_r	1.
CUDA_R_32I	8.0				HIP_R_32I	5.5.0						rocblas_datatype_i32_r	2.
CUDA_R_32U	8.0				HIP_R_32U	5.5.0						rocblas_datatype_u32_r	2.
CUDA_R_4F_E2M1	12.8				HIP_R_4F_E2M1	7.0.0							
CUDA_R_4I	11.0				HIP_R_4I	5.5.0							
CUDA_R_4U	11.0				HIP_R_4U	5.5.0							
CUDA_R_64F	8.0				HIP_R_64F	3.0.0						rocblas_datatype_f64_r	1.
CUDA_R_64I	11.0				HIP_R_64I	5.5.0							
CUDA_R_64U	11.0				HIP_R_64U	5.5.0							
CUDA_R_6F_E2M3	12.8				HIP_R_6F_E2M3	7.0.0							
CUDA_R_6F_E3M2	12.8				HIP_R_6F_E3M2	7.0.0							
CUDA_R_8F_E4M3	11.8				HIP_R_8F_E4M3	6.3.0							
CUDA_R_8F_E5M2	11.8				HIP_R_8F_E5M2	6.3.0							
CUDA_R_8F_UE4M3	12.8				HIP_R_8F_UE4M3	6.3.0							
CUDA_R_8F_UE8M0	12.8				HIP_R_8F_UE8M0	7.0.0							
CUDA_R_8I	8.0				HIP_R_8I	5.5.0						rocblas_datatype_i8_r	2.
CUDA_R_8U	8.0				HIP_R_8U	5.5.0						rocblas_datatype_u8_r	2.
cublasDataType_t	7.5				hipDataType	3.0.0						rocblas_datatype	1.
cudaDataType	8.0				hipDataType	3.0.0						rocblas_datatype	1.
cudaDataType_t	8.0				hipDataType	3.0.0						rocblas_datatype_	1.

11.1.3 3. CUBLASLt Data types

CUDA	A	D	C	R	HIP
CUBLASLT_ALGO_CAP_ATOMIC_SYNC	12.2			13.0	
CUBLASLT_ALGO_CAP_CTA_SWIZZLING_SUPPORT	10.1				
CUBLASLT_ALGO_CAP_CUSTOM_MEMORY_ORDER	10.1				
CUBLASLT_ALGO_CAP_CUSTOM_OPTION_MAX	10.1				
CUBLASLT_ALGO_CAP_EPILOGUE_MASK	10.1				
CUBLASLT_ALGO_CAP_FLOATING_POINT_EMULATION_SUPPORT	12.9				
CUBLASLT_ALGO_CAP_LD_NEGATIVE	11.0				
CUBLASLT_ALGO_CAP_MIN_ALIGNMENT_A_BYTES	11.0				
CUBLASLT_ALGO_CAP_MIN_ALIGNMENT_B_BYTES	11.0				
CUBLASLT_ALGO_CAP_MIN_ALIGNMENT_C_BYTES	11.0				
CUBLASLT_ALGO_CAP_MIN_ALIGNMENT_D_BYTES	11.0				
CUBLASLT_ALGO_CAP_NUMERICAL_IMPL_FLAGS	11.0				
CUBLASLT_ALGO_CAP_OUT_OF_PLACE_RESULT_SUPPORT	10.1				
CUBLASLT_ALGO_CAP_POINTER_ARRAY_BATCH_SUPPORT	12.9				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_ALGO_CAP_POINTER_MODE_MASK	10.1				
CUBLASLT_ALGO_CAP_REDUCTION_SCHEME_MASK	10.1				
CUBLASLT_ALGO_CAP_SPLITK_SUPPORT	10.1				
CUBLASLT_ALGO_CAP_STAGES_IDS	11.0				
CUBLASLT_ALGO_CAP_STRIDED_BATCH_SUPPORT	10.1				
CUBLASLT_ALGO_CAP_TILE_IDS	10.1				
CUBLASLT_ALGO_CAP_UPLO_SUPPORT	10.1				
CUBLASLT_ALGO_CONFIG_CLUSTER_SHAPE_ID	11.8				
CUBLASLT_ALGO_CONFIG_CTA_SWIZZLING	10.1				
CUBLASLT_ALGO_CONFIG_CUSTOM_OPTION	10.1				
CUBLASLT_ALGO_CONFIG_ID	10.1				
CUBLASLT_ALGO_CONFIG_INNER_SHAPE_ID	11.8				
CUBLASLT_ALGO_CONFIG_REDUCTION_SCHEME	10.1				
CUBLASLT_ALGO_CONFIG_SPLITK_NUM	10.1				
CUBLASLT_ALGO_CONFIG_STAGES_ID	11.0				
CUBLASLT_ALGO_CONFIG_TILE_ID	10.1				
CUBLASLT_BATCH_MODE_POINTER_ARRAY	12.9				
CUBLASLT_BATCH_MODE_STRIDED	12.9				
CUBLASLT_CLUSTER_SHAPE_10x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_11x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_12x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_13x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_14x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_15x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_16x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x10x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x11x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x12x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x13x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x14x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x15x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x16x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x3x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x4x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x5x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x6x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x7x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x8x1	11.8				
CUBLASLT_CLUSTER_SHAPE_1x9x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x3x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x4x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x5x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x6x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x7x1	11.8				
CUBLASLT_CLUSTER_SHAPE_2x8x1	11.8				
CUBLASLT_CLUSTER_SHAPE_3x1x1	11.8				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_CLUSTER_SHAPE_3x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_3x3x1	11.8				
CUBLASLT_CLUSTER_SHAPE_3x4x1	11.8				
CUBLASLT_CLUSTER_SHAPE_3x5x1	11.8				
CUBLASLT_CLUSTER_SHAPE_4x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_4x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_4x3x1	11.8				
CUBLASLT_CLUSTER_SHAPE_4x4x1	11.8				
CUBLASLT_CLUSTER_SHAPE_5x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_5x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_5x3x1	11.8				
CUBLASLT_CLUSTER_SHAPE_6x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_6x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_7x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_7x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_8x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_8x2x1	11.8				
CUBLASLT_CLUSTER_SHAPE_9x1x1	11.8				
CUBLASLT_CLUSTER_SHAPE_AUTO	11.8				
CUBLASLT_CLUSTER_SHAPE_END	11.8				
CUBLASLT_EPILOGUE_BGRADA	11.4				HIPBLASLT_EPILOGUE_BGRA
CUBLASLT_EPILOGUE_BGRADB	11.4				HIPBLASLT_EPILOGUE_BGRA
CUBLASLT_EPILOGUE_BIAS	10.1				HIPBLASLT_EPILOGUE_BIAS
CUBLASLT_EPILOGUE_DEFAULT	10.1				HIPBLASLT_EPILOGUE_DEFA
CUBLASLT_EPILOGUE_DGELU	11.6				HIPBLASLT_EPILOGUE_DGELU
CUBLASLT_EPILOGUE_DGELU_BGRAD	11.3				HIPBLASLT_EPILOGUE_DGELU
CUBLASLT_EPILOGUE_DRELU	11.6				
CUBLASLT_EPILOGUE_DRELU_BGRAD	11.3				
CUBLASLT_EPILOGUE_GELU	11.3				HIPBLASLT_EPILOGUE_GELU
CUBLASLT_EPILOGUE_GELU_AUX	11.3				HIPBLASLT_EPILOGUE_GELU
CUBLASLT_EPILOGUE_GELU_AUX_BIAS	11.3				HIPBLASLT_EPILOGUE_GELU
CUBLASLT_EPILOGUE_GELU_BIAS	11.3				HIPBLASLT_EPILOGUE_GELU
CUBLASLT_EPILOGUE_RELU	10.1				HIPBLASLT_EPILOGUE_RELU
CUBLASLT_EPILOGUE_RELU_AUX	11.3				HIPBLASLT_EPILOGUE_RELU
CUBLASLT_EPILOGUE_RELU_AUX_BIAS	11.3				HIPBLASLT_EPILOGUE_RELU
CUBLASLT_EPILOGUE_RELU_BIAS	10.1				HIPBLASLT_EPILOGUE_RELU
CUBLASLT_MATMUL_DESC_ALPHA_VECTOR_BATCH_STRIDE	11.4				
CUBLASLT_MATMUL_DESC_AMAX_D_POINTER	11.8				HIPBLASLT_MATMUL_DESC_A
CUBLASLT_MATMUL_DESC_ATOMIC_SYNC_IN_COUNTERS_POINTER	12.2			13.0	
CUBLASLT_MATMUL_DESC_ATOMIC_SYNC_NUM_CHUNKS_D_COLS	12.2	12.8		13.0	
CUBLASLT_MATMUL_DESC_ATOMIC_SYNC_NUM_CHUNKS_D_ROWS	12.2	12.8		13.0	
CUBLASLT_MATMUL_DESC_ATOMIC_SYNC_OUT_COUNTERS_POINTER	12.2			13.0	
CUBLASLT_MATMUL_DESC_A_SCALE_MODE	12.8				HIPBLASLT_MATMUL_DESC_A
CUBLASLT_MATMUL_DESC_A_SCALE_POINTER	11.8				HIPBLASLT_MATMUL_DESC_A
CUBLASLT_MATMUL_DESC_BIAS_BATCH_STRIDE	11.3				
CUBLASLT_MATMUL_DESC_BIAS_DATA_TYPE	11.8				HIPBLASLT_MATMUL_DESC_B
CUBLASLT_MATMUL_DESC_BIAS_POINTER	10.1				HIPBLASLT_MATMUL_DESC_B
CUBLASLT_MATMUL_DESC_B_SCALE_MODE	12.8				HIPBLASLT_MATMUL_DESC_B
CUBLASLT_MATMUL_DESC_B_SCALE_POINTER	11.8				HIPBLASLT_MATMUL_DESC_B
CUBLASLT_MATMUL_DESC_COMPUTE_TYPE	10.1				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_DESC_C_SCALE_MODE	12.8				
CUBLASLT_MATMUL_DESC_C_SCALE_POINTER	11.8				HIPBLASLT_MATMUL_DESC_C
CUBLASLT_MATMUL_DESC_D_OUT_SCALE_MODE	12.8				
CUBLASLT_MATMUL_DESC_D_OUT_SCALE_POINTER	12.8				
CUBLASLT_MATMUL_DESC_D_SCALE_MODE	12.8				
CUBLASLT_MATMUL_DESC_D_SCALE_POINTER	11.8				HIPBLASLT_MATMUL_DESC_D
CUBLASLT_MATMUL_DESC_EPILOGUE	10.1				HIPBLASLT_MATMUL_DESC_EI
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_AMAX_POINTER	11.8				
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_BATCH_STRIDE	11.3				HIPBLASLT_MATMUL_DESC_EI
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_DATA_TYPE	11.8				HIPBLASLT_MATMUL_DESC_EI
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_LD	11.3				HIPBLASLT_MATMUL_DESC_EI
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_POINTER	11.3				HIPBLASLT_MATMUL_DESC_EI
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_SCALE_MODE	12.8				
CUBLASLT_MATMUL_DESC_EPILOGUE_AUX_SCALE_POINTER	11.8				HIPBLASLT_MATMUL_DESC_EI
CUBLASLT_MATMUL_DESC_FAST_ACCUM	11.8				
CUBLASLT_MATMUL_DESC_FILL_MODE	10.1				
CUBLASLT_MATMUL_DESC_POINTER_MODE	10.1				HIPBLASLT_MATMUL_DESC_PO
CUBLASLT_MATMUL_DESC_SCALE_TYPE	10.1				
CUBLASLT_MATMUL_DESC_SM_COUNT_TARGET	11.5				
CUBLASLT_MATMUL_DESC_TRANSA	10.1				HIPBLASLT_MATMUL_DESC_TI
CUBLASLT_MATMUL_DESC_TRANSB	10.1				HIPBLASLT_MATMUL_DESC_TI
CUBLASLT_MATMUL_DESC_TRANSC	10.1				
CUBLASLT_MATMUL_INNER_SHAPE_END	11.8				
CUBLASLT_MATMUL_INNER_SHAPE_MMA16816	11.8				
CUBLASLT_MATMUL_INNER_SHAPE_MMA1684	11.8				
CUBLASLT_MATMUL_INNER_SHAPE_MMA1688	11.8				
CUBLASLT_MATMUL_INNER_SHAPE_MMA884	11.8				
CUBLASLT_MATMUL_INNER_SHAPE_UNDEFINED	11.8				
CUBLASLT_MATMUL_MATRIX_SCALE_BLK128x128_32F	12.9				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_MATRIX_SCALE_END	12.8				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_MATRIX_SCALE_OUTER_VEC_32F	12.9				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_MATRIX_SCALE_SCALAR_32F	12.8				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_MATRIX_SCALE_VEC128_32F	12.9				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_MATRIX_SCALE_VEC16_UE4M3	12.8				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_MATRIX_SCALE_VEC32_UE8M0	12.8				HIPBLASLT_MATMUL_MATRIX
CUBLASLT_MATMUL_PREF_IMPL_MASK	11.0				
CUBLASLT_MATMUL_PREF_MAX_WAVES_COUNT	10.1				
CUBLASLT_MATMUL_PREF_MAX_WORKSPACE_BYTES	10.1				HIPBLASLT_MATMUL_PREF_MA
CUBLASLT_MATMUL_PREF_MIN_ALIGNMENT_A_BYTES	10.1				
CUBLASLT_MATMUL_PREF_MIN_ALIGNMENT_B_BYTES	10.1				
CUBLASLT_MATMUL_PREF_MIN_ALIGNMENT_C_BYTES	10.1				
CUBLASLT_MATMUL_PREF_MIN_ALIGNMENT_D_BYTES	10.1				
CUBLASLT_MATMUL_PREF_REDUCTION_SCHEME_MASK	10.1				
CUBLASLT_MATMUL_PREF_SEARCH_MODE	10.1				HIPBLASLT_MATMUL_PREF_SI
CUBLASLT_MATMUL_STAGES_128x1	11.0				
CUBLASLT_MATMUL_STAGES_128x2	11.0				
CUBLASLT_MATMUL_STAGES_128x3	11.0				
CUBLASLT_MATMUL_STAGES_128x4	11.0				
CUBLASLT_MATMUL_STAGES_128x5	11.0				
CUBLASLT_MATMUL_STAGES_128x6	11.0				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_STAGES_128xAUTO	11.8				
CUBLASLT_MATMUL_STAGES_16x1	11.0				
CUBLASLT_MATMUL_STAGES_16x10	11.0				
CUBLASLT_MATMUL_STAGES_16x2	11.0				
CUBLASLT_MATMUL_STAGES_16x3	11.0				
CUBLASLT_MATMUL_STAGES_16x4	11.0				
CUBLASLT_MATMUL_STAGES_16x5	11.0				
CUBLASLT_MATMUL_STAGES_16x6	11.0				
CUBLASLT_MATMUL_STAGES_16xAUTO	11.8				
CUBLASLT_MATMUL_STAGES_256xAUTO	12.8				
CUBLASLT_MATMUL_STAGES_32x1	11.0				
CUBLASLT_MATMUL_STAGES_32x10	11.0				
CUBLASLT_MATMUL_STAGES_32x2	11.0				
CUBLASLT_MATMUL_STAGES_32x3	11.0				
CUBLASLT_MATMUL_STAGES_32x4	11.0				
CUBLASLT_MATMUL_STAGES_32x5	11.0				
CUBLASLT_MATMUL_STAGES_32x6	11.0				
CUBLASLT_MATMUL_STAGES_32xAUTO	11.8				
CUBLASLT_MATMUL_STAGES_64x1	11.0				
CUBLASLT_MATMUL_STAGES_64x2	11.0				
CUBLASLT_MATMUL_STAGES_64x3	11.0				
CUBLASLT_MATMUL_STAGES_64x4	11.0				
CUBLASLT_MATMUL_STAGES_64x5	11.0				
CUBLASLT_MATMUL_STAGES_64x6	11.0				
CUBLASLT_MATMUL_STAGES_64xAUTO	11.8				
CUBLASLT_MATMUL_STAGES_768xAUTO	13.0				
CUBLASLT_MATMUL_STAGES_8x3	11.8				
CUBLASLT_MATMUL_STAGES_8x4	11.0				
CUBLASLT_MATMUL_STAGES_8x5	11.2				
CUBLASLT_MATMUL_STAGES_8xAUTO	11.8				
CUBLASLT_MATMUL_STAGES_END	11.0				
CUBLASLT_MATMUL_STAGES_UNDEFINED	11.0				
CUBLASLT_MATMUL_TILE_104x128	12.6				
CUBLASLT_MATMUL_TILE_104x192	12.6				
CUBLASLT_MATMUL_TILE_104x256	12.6				
CUBLASLT_MATMUL_TILE_104x320	12.6				
CUBLASLT_MATMUL_TILE_104x384	12.6				
CUBLASLT_MATMUL_TILE_104x448	12.6				
CUBLASLT_MATMUL_TILE_104x64	12.6				
CUBLASLT_MATMUL_TILE_112x128	12.6				
CUBLASLT_MATMUL_TILE_112x192	12.6				
CUBLASLT_MATMUL_TILE_112x256	12.6				
CUBLASLT_MATMUL_TILE_112x320	12.6				
CUBLASLT_MATMUL_TILE_112x384	12.6				
CUBLASLT_MATMUL_TILE_112x64	12.6				
CUBLASLT_MATMUL_TILE_120x128	12.6				
CUBLASLT_MATMUL_TILE_120x192	12.6				
CUBLASLT_MATMUL_TILE_120x256	12.6				
CUBLASLT_MATMUL_TILE_120x320	12.6				
CUBLASLT_MATMUL_TILE_120x384	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_120x64	12.6				
CUBLASLT_MATMUL_TILE_128x104	12.6				
CUBLASLT_MATMUL_TILE_128x112	12.6				
CUBLASLT_MATMUL_TILE_128x120	12.6				
CUBLASLT_MATMUL_TILE_128x128	10.1				
CUBLASLT_MATMUL_TILE_128x136	12.6				
CUBLASLT_MATMUL_TILE_128x144	12.6				
CUBLASLT_MATMUL_TILE_128x152	12.6				
CUBLASLT_MATMUL_TILE_128x16	12.6				
CUBLASLT_MATMUL_TILE_128x160	11.3				
CUBLASLT_MATMUL_TILE_128x168	12.6				
CUBLASLT_MATMUL_TILE_128x176	12.6				
CUBLASLT_MATMUL_TILE_128x184	12.6				
CUBLASLT_MATMUL_TILE_128x192	11.8				
CUBLASLT_MATMUL_TILE_128x200	12.6				
CUBLASLT_MATMUL_TILE_128x208	12.6				
CUBLASLT_MATMUL_TILE_128x216	12.6				
CUBLASLT_MATMUL_TILE_128x224	12.6				
CUBLASLT_MATMUL_TILE_128x232	12.6				
CUBLASLT_MATMUL_TILE_128x24	12.6				
CUBLASLT_MATMUL_TILE_128x240	12.6				
CUBLASLT_MATMUL_TILE_128x248	12.6				
CUBLASLT_MATMUL_TILE_128x256	10.1				
CUBLASLT_MATMUL_TILE_128x264	12.6				
CUBLASLT_MATMUL_TILE_128x272	12.6				
CUBLASLT_MATMUL_TILE_128x280	12.6				
CUBLASLT_MATMUL_TILE_128x288	12.6				
CUBLASLT_MATMUL_TILE_128x296	12.6				
CUBLASLT_MATMUL_TILE_128x304	12.6				
CUBLASLT_MATMUL_TILE_128x312	12.6				
CUBLASLT_MATMUL_TILE_128x32	10.1				
CUBLASLT_MATMUL_TILE_128x320	12.6				
CUBLASLT_MATMUL_TILE_128x328	12.6				
CUBLASLT_MATMUL_TILE_128x336	12.6				
CUBLASLT_MATMUL_TILE_128x344	12.6				
CUBLASLT_MATMUL_TILE_128x352	12.6				
CUBLASLT_MATMUL_TILE_128x360	12.6				
CUBLASLT_MATMUL_TILE_128x368	12.6				
CUBLASLT_MATMUL_TILE_128x376	12.6				
CUBLASLT_MATMUL_TILE_128x384	12.6				
CUBLASLT_MATMUL_TILE_128x392	12.6				
CUBLASLT_MATMUL_TILE_128x40	12.6				
CUBLASLT_MATMUL_TILE_128x400	12.6				
CUBLASLT_MATMUL_TILE_128x408	12.6				
CUBLASLT_MATMUL_TILE_128x416	12.6				
CUBLASLT_MATMUL_TILE_128x424	12.6				
CUBLASLT_MATMUL_TILE_128x432	12.6				
CUBLASLT_MATMUL_TILE_128x440	12.6				
CUBLASLT_MATMUL_TILE_128x448	12.6				
CUBLASLT_MATMUL_TILE_128x456	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_128x464	12.6				
CUBLASLT_MATMUL_TILE_128x472	12.6				
CUBLASLT_MATMUL_TILE_128x48	12.6				
CUBLASLT_MATMUL_TILE_128x480	12.6				
CUBLASLT_MATMUL_TILE_128x488	12.6				
CUBLASLT_MATMUL_TILE_128x496	12.6				
CUBLASLT_MATMUL_TILE_128x504	12.6				
CUBLASLT_MATMUL_TILE_128x512	12.6				
CUBLASLT_MATMUL_TILE_128x56	12.6				
CUBLASLT_MATMUL_TILE_128x64	10.1				
CUBLASLT_MATMUL_TILE_128x72	12.6				
CUBLASLT_MATMUL_TILE_128x8	12.6				
CUBLASLT_MATMUL_TILE_128x80	12.6				
CUBLASLT_MATMUL_TILE_128x88	12.6				
CUBLASLT_MATMUL_TILE_128x96	11.8				
CUBLASLT_MATMUL_TILE_136x128	12.6				
CUBLASLT_MATMUL_TILE_136x192	12.6				
CUBLASLT_MATMUL_TILE_136x256	12.6				
CUBLASLT_MATMUL_TILE_136x320	12.6				
CUBLASLT_MATMUL_TILE_136x64	12.6				
CUBLASLT_MATMUL_TILE_144x128	12.6				
CUBLASLT_MATMUL_TILE_144x192	12.6				
CUBLASLT_MATMUL_TILE_144x256	12.6				
CUBLASLT_MATMUL_TILE_144x320	12.6				
CUBLASLT_MATMUL_TILE_144x64	12.6				
CUBLASLT_MATMUL_TILE_152x128	12.6				
CUBLASLT_MATMUL_TILE_152x192	12.6				
CUBLASLT_MATMUL_TILE_152x256	12.6				
CUBLASLT_MATMUL_TILE_152x320	12.6				
CUBLASLT_MATMUL_TILE_152x64	12.6				
CUBLASLT_MATMUL_TILE_160x128	11.3				
CUBLASLT_MATMUL_TILE_160x192	12.6				
CUBLASLT_MATMUL_TILE_160x256	12.6				
CUBLASLT_MATMUL_TILE_160x64	12.6				
CUBLASLT_MATMUL_TILE_168x128	12.6				
CUBLASLT_MATMUL_TILE_168x192	12.6				
CUBLASLT_MATMUL_TILE_168x256	12.6				
CUBLASLT_MATMUL_TILE_168x64	12.6				
CUBLASLT_MATMUL_TILE_16x128	12.6				
CUBLASLT_MATMUL_TILE_16x16	10.1				
CUBLASLT_MATMUL_TILE_16x192	12.6				
CUBLASLT_MATMUL_TILE_16x256	12.6				
CUBLASLT_MATMUL_TILE_16x32	10.1				
CUBLASLT_MATMUL_TILE_16x320	12.6				
CUBLASLT_MATMUL_TILE_16x384	12.6				
CUBLASLT_MATMUL_TILE_16x448	12.6				
CUBLASLT_MATMUL_TILE_16x512	12.6				
CUBLASLT_MATMUL_TILE_16x576	12.6				
CUBLASLT_MATMUL_TILE_16x64	12.6				
CUBLASLT_MATMUL_TILE_16x640	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_16x704	12.6				
CUBLASLT_MATMUL_TILE_16x768	12.6				
CUBLASLT_MATMUL_TILE_16x8	10.1				
CUBLASLT_MATMUL_TILE_176x128	12.6				
CUBLASLT_MATMUL_TILE_176x192	12.6				
CUBLASLT_MATMUL_TILE_176x256	12.6				
CUBLASLT_MATMUL_TILE_176x64	12.6				
CUBLASLT_MATMUL_TILE_184x128	12.6				
CUBLASLT_MATMUL_TILE_184x192	12.6				
CUBLASLT_MATMUL_TILE_184x256	12.6				
CUBLASLT_MATMUL_TILE_184x64	12.6				
CUBLASLT_MATMUL_TILE_192x104	12.6				
CUBLASLT_MATMUL_TILE_192x112	12.6				
CUBLASLT_MATMUL_TILE_192x120	12.6				
CUBLASLT_MATMUL_TILE_192x128	11.3				
CUBLASLT_MATMUL_TILE_192x136	12.6				
CUBLASLT_MATMUL_TILE_192x144	12.6				
CUBLASLT_MATMUL_TILE_192x152	12.6				
CUBLASLT_MATMUL_TILE_192x16	12.6				
CUBLASLT_MATMUL_TILE_192x160	12.6				
CUBLASLT_MATMUL_TILE_192x168	12.6				
CUBLASLT_MATMUL_TILE_192x176	12.6				
CUBLASLT_MATMUL_TILE_192x184	12.6				
CUBLASLT_MATMUL_TILE_192x192	12.6				
CUBLASLT_MATMUL_TILE_192x200	12.6				
CUBLASLT_MATMUL_TILE_192x208	12.6				
CUBLASLT_MATMUL_TILE_192x216	12.6				
CUBLASLT_MATMUL_TILE_192x224	12.6				
CUBLASLT_MATMUL_TILE_192x232	12.6				
CUBLASLT_MATMUL_TILE_192x24	12.6				
CUBLASLT_MATMUL_TILE_192x240	12.6				
CUBLASLT_MATMUL_TILE_192x248	12.6				
CUBLASLT_MATMUL_TILE_192x256	12.6				
CUBLASLT_MATMUL_TILE_192x264	12.6				
CUBLASLT_MATMUL_TILE_192x272	12.6				
CUBLASLT_MATMUL_TILE_192x280	12.6				
CUBLASLT_MATMUL_TILE_192x288	12.6				
CUBLASLT_MATMUL_TILE_192x296	12.6				
CUBLASLT_MATMUL_TILE_192x304	12.6				
CUBLASLT_MATMUL_TILE_192x312	12.6				
CUBLASLT_MATMUL_TILE_192x32	12.6				
CUBLASLT_MATMUL_TILE_192x320	12.6				
CUBLASLT_MATMUL_TILE_192x328	12.6				
CUBLASLT_MATMUL_TILE_192x336	12.6				
CUBLASLT_MATMUL_TILE_192x40	12.6				
CUBLASLT_MATMUL_TILE_192x48	12.6				
CUBLASLT_MATMUL_TILE_192x56	12.6				
CUBLASLT_MATMUL_TILE_192x64	12.6				
CUBLASLT_MATMUL_TILE_192x72	12.6				
CUBLASLT_MATMUL_TILE_192x8	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_192x80	12.6				
CUBLASLT_MATMUL_TILE_192x88	12.6				
CUBLASLT_MATMUL_TILE_192x96	12.6				
CUBLASLT_MATMUL_TILE_200x128	12.6				
CUBLASLT_MATMUL_TILE_200x192	12.6				
CUBLASLT_MATMUL_TILE_200x64	12.6				
CUBLASLT_MATMUL_TILE_208x128	12.6				
CUBLASLT_MATMUL_TILE_208x192	12.6				
CUBLASLT_MATMUL_TILE_208x64	12.6				
CUBLASLT_MATMUL_TILE_216x128	12.6				
CUBLASLT_MATMUL_TILE_216x192	12.6				
CUBLASLT_MATMUL_TILE_216x64	12.6				
CUBLASLT_MATMUL_TILE_224x128	12.6				
CUBLASLT_MATMUL_TILE_224x192	12.6				
CUBLASLT_MATMUL_TILE_224x64	12.6				
CUBLASLT_MATMUL_TILE_232x128	12.6				
CUBLASLT_MATMUL_TILE_232x192	12.6				
CUBLASLT_MATMUL_TILE_232x64	12.6				
CUBLASLT_MATMUL_TILE_240x128	12.6				
CUBLASLT_MATMUL_TILE_240x192	12.6				
CUBLASLT_MATMUL_TILE_240x64	12.6				
CUBLASLT_MATMUL_TILE_248x128	12.6				
CUBLASLT_MATMUL_TILE_248x192	12.6				
CUBLASLT_MATMUL_TILE_248x64	12.6				
CUBLASLT_MATMUL_TILE_24x128	12.6				
CUBLASLT_MATMUL_TILE_24x192	12.6				
CUBLASLT_MATMUL_TILE_24x256	12.6				
CUBLASLT_MATMUL_TILE_24x320	12.6				
CUBLASLT_MATMUL_TILE_24x384	12.6				
CUBLASLT_MATMUL_TILE_24x448	12.6				
CUBLASLT_MATMUL_TILE_24x512	12.6				
CUBLASLT_MATMUL_TILE_24x576	12.6				
CUBLASLT_MATMUL_TILE_24x64	12.6				
CUBLASLT_MATMUL_TILE_24x640	12.6				
CUBLASLT_MATMUL_TILE_24x704	12.6				
CUBLASLT_MATMUL_TILE_24x768	12.6				
CUBLASLT_MATMUL_TILE_256x1024	12.8				
CUBLASLT_MATMUL_TILE_256x104	12.6				
CUBLASLT_MATMUL_TILE_256x112	12.6				
CUBLASLT_MATMUL_TILE_256x120	12.6				
CUBLASLT_MATMUL_TILE_256x128	10.1				
CUBLASLT_MATMUL_TILE_256x136	12.6				
CUBLASLT_MATMUL_TILE_256x144	12.6				
CUBLASLT_MATMUL_TILE_256x152	12.6				
CUBLASLT_MATMUL_TILE_256x16	12.6				
CUBLASLT_MATMUL_TILE_256x160	12.6				
CUBLASLT_MATMUL_TILE_256x168	12.6				
CUBLASLT_MATMUL_TILE_256x176	12.6				
CUBLASLT_MATMUL_TILE_256x184	12.6				
CUBLASLT_MATMUL_TILE_256x192	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_256x200	12.6				
CUBLASLT_MATMUL_TILE_256x208	12.6				
CUBLASLT_MATMUL_TILE_256x216	12.6				
CUBLASLT_MATMUL_TILE_256x224	12.6				
CUBLASLT_MATMUL_TILE_256x232	12.6				
CUBLASLT_MATMUL_TILE_256x24	12.6				
CUBLASLT_MATMUL_TILE_256x240	12.6				
CUBLASLT_MATMUL_TILE_256x248	12.6				
CUBLASLT_MATMUL_TILE_256x256	12.6				
CUBLASLT_MATMUL_TILE_256x32	12.1				
CUBLASLT_MATMUL_TILE_256x40	12.6				
CUBLASLT_MATMUL_TILE_256x48	12.6				
CUBLASLT_MATMUL_TILE_256x512	12.8				
CUBLASLT_MATMUL_TILE_256x56	12.6				
CUBLASLT_MATMUL_TILE_256x64	10.1				
CUBLASLT_MATMUL_TILE_256x72	12.6				
CUBLASLT_MATMUL_TILE_256x8	12.6				
CUBLASLT_MATMUL_TILE_256x80	12.6				
CUBLASLT_MATMUL_TILE_256x88	12.6				
CUBLASLT_MATMUL_TILE_256x96	12.6				
CUBLASLT_MATMUL_TILE_264x128	12.6				
CUBLASLT_MATMUL_TILE_264x64	12.6				
CUBLASLT_MATMUL_TILE_272x128	12.6				
CUBLASLT_MATMUL_TILE_272x64	12.6				
CUBLASLT_MATMUL_TILE_280x128	12.6				
CUBLASLT_MATMUL_TILE_280x64	12.6				
CUBLASLT_MATMUL_TILE_288x128	12.6				
CUBLASLT_MATMUL_TILE_288x64	12.6				
CUBLASLT_MATMUL_TILE_296x128	12.6				
CUBLASLT_MATMUL_TILE_296x64	12.6				
CUBLASLT_MATMUL_TILE_304x128	12.6				
CUBLASLT_MATMUL_TILE_304x64	12.6				
CUBLASLT_MATMUL_TILE_312x128	12.6				
CUBLASLT_MATMUL_TILE_312x64	12.6				
CUBLASLT_MATMUL_TILE_320x104	12.6				
CUBLASLT_MATMUL_TILE_320x112	12.6				
CUBLASLT_MATMUL_TILE_320x120	12.6				
CUBLASLT_MATMUL_TILE_320x128	12.6				
CUBLASLT_MATMUL_TILE_320x136	12.6				
CUBLASLT_MATMUL_TILE_320x144	12.6				
CUBLASLT_MATMUL_TILE_320x152	12.6				
CUBLASLT_MATMUL_TILE_320x16	12.6				
CUBLASLT_MATMUL_TILE_320x160	12.6				
CUBLASLT_MATMUL_TILE_320x168	12.6				
CUBLASLT_MATMUL_TILE_320x176	12.6				
CUBLASLT_MATMUL_TILE_320x184	12.6				
CUBLASLT_MATMUL_TILE_320x192	12.6				
CUBLASLT_MATMUL_TILE_320x200	12.6				
CUBLASLT_MATMUL_TILE_320x24	12.6				
CUBLASLT_MATMUL_TILE_320x32	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_320x40	12.6				
CUBLASLT_MATMUL_TILE_320x48	12.6				
CUBLASLT_MATMUL_TILE_320x56	12.6				
CUBLASLT_MATMUL_TILE_320x64	12.6				
CUBLASLT_MATMUL_TILE_320x72	12.6				
CUBLASLT_MATMUL_TILE_320x8	12.6				
CUBLASLT_MATMUL_TILE_320x80	12.6				
CUBLASLT_MATMUL_TILE_320x88	12.6				
CUBLASLT_MATMUL_TILE_320x96	12.6				
CUBLASLT_MATMUL_TILE_328x128	12.6				
CUBLASLT_MATMUL_TILE_328x64	12.6				
CUBLASLT_MATMUL_TILE_32x128	10.1				
CUBLASLT_MATMUL_TILE_32x16	10.1				
CUBLASLT_MATMUL_TILE_32x192	12.6				
CUBLASLT_MATMUL_TILE_32x256	12.1				
CUBLASLT_MATMUL_TILE_32x32	10.1				
CUBLASLT_MATMUL_TILE_32x320	12.6				
CUBLASLT_MATMUL_TILE_32x384	12.6				
CUBLASLT_MATMUL_TILE_32x448	12.6				
CUBLASLT_MATMUL_TILE_32x512	12.6				
CUBLASLT_MATMUL_TILE_32x576	12.6				
CUBLASLT_MATMUL_TILE_32x64	10.1				
CUBLASLT_MATMUL_TILE_32x640	12.6				
CUBLASLT_MATMUL_TILE_32x704	12.6				
CUBLASLT_MATMUL_TILE_32x768	12.6				
CUBLASLT_MATMUL_TILE_32x8	10.1				
CUBLASLT_MATMUL_TILE_336x128	12.6				
CUBLASLT_MATMUL_TILE_336x64	12.6				
CUBLASLT_MATMUL_TILE_344x128	12.6				
CUBLASLT_MATMUL_TILE_344x64	12.6				
CUBLASLT_MATMUL_TILE_352x128	12.6				
CUBLASLT_MATMUL_TILE_352x64	12.6				
CUBLASLT_MATMUL_TILE_360x128	12.6				
CUBLASLT_MATMUL_TILE_360x64	12.6				
CUBLASLT_MATMUL_TILE_368x128	12.6				
CUBLASLT_MATMUL_TILE_368x64	12.6				
CUBLASLT_MATMUL_TILE_376x128	12.6				
CUBLASLT_MATMUL_TILE_376x64	12.6				
CUBLASLT_MATMUL_TILE_384x104	12.6				
CUBLASLT_MATMUL_TILE_384x112	12.6				
CUBLASLT_MATMUL_TILE_384x120	12.6				
CUBLASLT_MATMUL_TILE_384x128	12.6				
CUBLASLT_MATMUL_TILE_384x136	12.6				
CUBLASLT_MATMUL_TILE_384x144	12.6				
CUBLASLT_MATMUL_TILE_384x152	12.6				
CUBLASLT_MATMUL_TILE_384x16	12.6				
CUBLASLT_MATMUL_TILE_384x160	12.6				
CUBLASLT_MATMUL_TILE_384x168	12.6				
CUBLASLT_MATMUL_TILE_384x24	12.6				
CUBLASLT_MATMUL_TILE_384x32	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_384x40	12.6				
CUBLASLT_MATMUL_TILE_384x48	12.6				
CUBLASLT_MATMUL_TILE_384x56	12.6				
CUBLASLT_MATMUL_TILE_384x64	12.6				
CUBLASLT_MATMUL_TILE_384x72	12.6				
CUBLASLT_MATMUL_TILE_384x8	12.6				
CUBLASLT_MATMUL_TILE_384x80	12.6				
CUBLASLT_MATMUL_TILE_384x88	12.6				
CUBLASLT_MATMUL_TILE_384x96	12.6				
CUBLASLT_MATMUL_TILE_392x64	12.6				
CUBLASLT_MATMUL_TILE_400x64	12.6				
CUBLASLT_MATMUL_TILE_408x64	12.6				
CUBLASLT_MATMUL_TILE_40x128	12.6				
CUBLASLT_MATMUL_TILE_40x192	12.6				
CUBLASLT_MATMUL_TILE_40x256	12.6				
CUBLASLT_MATMUL_TILE_40x320	12.6				
CUBLASLT_MATMUL_TILE_40x384	12.6				
CUBLASLT_MATMUL_TILE_40x448	12.6				
CUBLASLT_MATMUL_TILE_40x512	12.6				
CUBLASLT_MATMUL_TILE_40x576	12.6				
CUBLASLT_MATMUL_TILE_40x64	12.6				
CUBLASLT_MATMUL_TILE_40x640	12.6				
CUBLASLT_MATMUL_TILE_40x704	12.6				
CUBLASLT_MATMUL_TILE_40x768	12.6				
CUBLASLT_MATMUL_TILE_416x64	12.6				
CUBLASLT_MATMUL_TILE_424x64	12.6				
CUBLASLT_MATMUL_TILE_432x64	12.6				
CUBLASLT_MATMUL_TILE_440x64	12.6				
CUBLASLT_MATMUL_TILE_448x104	12.6				
CUBLASLT_MATMUL_TILE_448x112	12.6				
CUBLASLT_MATMUL_TILE_448x120	12.6				
CUBLASLT_MATMUL_TILE_448x128	12.6				
CUBLASLT_MATMUL_TILE_448x136	12.6				
CUBLASLT_MATMUL_TILE_448x144	12.6				
CUBLASLT_MATMUL_TILE_448x16	12.6				
CUBLASLT_MATMUL_TILE_448x24	12.6				
CUBLASLT_MATMUL_TILE_448x32	12.6				
CUBLASLT_MATMUL_TILE_448x40	12.6				
CUBLASLT_MATMUL_TILE_448x48	12.6				
CUBLASLT_MATMUL_TILE_448x56	12.6				
CUBLASLT_MATMUL_TILE_448x64	12.6				
CUBLASLT_MATMUL_TILE_448x72	12.6				
CUBLASLT_MATMUL_TILE_448x8	12.6				
CUBLASLT_MATMUL_TILE_448x80	12.6				
CUBLASLT_MATMUL_TILE_448x88	12.6				
CUBLASLT_MATMUL_TILE_448x96	12.6				
CUBLASLT_MATMUL_TILE_456x64	12.6				
CUBLASLT_MATMUL_TILE_464x64	12.6				
CUBLASLT_MATMUL_TILE_472x64	12.6				
CUBLASLT_MATMUL_TILE_480x64	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_488x64	12.6				
CUBLASLT_MATMUL_TILE_48x128	12.6				
CUBLASLT_MATMUL_TILE_48x192	12.6				
CUBLASLT_MATMUL_TILE_48x256	12.6				
CUBLASLT_MATMUL_TILE_48x320	12.6				
CUBLASLT_MATMUL_TILE_48x384	12.6				
CUBLASLT_MATMUL_TILE_48x448	12.6				
CUBLASLT_MATMUL_TILE_48x512	12.6				
CUBLASLT_MATMUL_TILE_48x576	12.6				
CUBLASLT_MATMUL_TILE_48x64	12.6				
CUBLASLT_MATMUL_TILE_48x640	12.6				
CUBLASLT_MATMUL_TILE_48x704	12.6				
CUBLASLT_MATMUL_TILE_48x768	12.6				
CUBLASLT_MATMUL_TILE_496x64	12.6				
CUBLASLT_MATMUL_TILE_504x64	12.6				
CUBLASLT_MATMUL_TILE_512x1024	12.8				
CUBLASLT_MATMUL_TILE_512x104	12.6				
CUBLASLT_MATMUL_TILE_512x112	12.6				
CUBLASLT_MATMUL_TILE_512x120	12.6				
CUBLASLT_MATMUL_TILE_512x128	12.6				
CUBLASLT_MATMUL_TILE_512x16	12.6				
CUBLASLT_MATMUL_TILE_512x24	12.6				
CUBLASLT_MATMUL_TILE_512x32	12.6				
CUBLASLT_MATMUL_TILE_512x40	12.6				
CUBLASLT_MATMUL_TILE_512x48	12.6				
CUBLASLT_MATMUL_TILE_512x512	12.8				
CUBLASLT_MATMUL_TILE_512x56	12.6				
CUBLASLT_MATMUL_TILE_512x64	10.1				
CUBLASLT_MATMUL_TILE_512x72	12.6				
CUBLASLT_MATMUL_TILE_512x8	12.6				
CUBLASLT_MATMUL_TILE_512x80	12.6				
CUBLASLT_MATMUL_TILE_512x88	12.6				
CUBLASLT_MATMUL_TILE_512x96	12.6				
CUBLASLT_MATMUL_TILE_520x64	12.6				
CUBLASLT_MATMUL_TILE_528x64	12.6				
CUBLASLT_MATMUL_TILE_536x64	12.6				
CUBLASLT_MATMUL_TILE_544x64	12.6				
CUBLASLT_MATMUL_TILE_552x64	12.6				
CUBLASLT_MATMUL_TILE_560x64	12.6				
CUBLASLT_MATMUL_TILE_568x64	12.6				
CUBLASLT_MATMUL_TILE_56x128	12.6				
CUBLASLT_MATMUL_TILE_56x192	12.6				
CUBLASLT_MATMUL_TILE_56x256	12.6				
CUBLASLT_MATMUL_TILE_56x320	12.6				
CUBLASLT_MATMUL_TILE_56x384	12.6				
CUBLASLT_MATMUL_TILE_56x448	12.6				
CUBLASLT_MATMUL_TILE_56x512	12.6				
CUBLASLT_MATMUL_TILE_56x576	12.6				
CUBLASLT_MATMUL_TILE_56x640	12.6				
CUBLASLT_MATMUL_TILE_56x704	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_56x768	12.6				
CUBLASLT_MATMUL_TILE_576x104	12.6				
CUBLASLT_MATMUL_TILE_576x112	12.6				
CUBLASLT_MATMUL_TILE_576x16	12.6				
CUBLASLT_MATMUL_TILE_576x24	12.6				
CUBLASLT_MATMUL_TILE_576x32	12.6				
CUBLASLT_MATMUL_TILE_576x40	12.6				
CUBLASLT_MATMUL_TILE_576x48	12.6				
CUBLASLT_MATMUL_TILE_576x56	12.6				
CUBLASLT_MATMUL_TILE_576x64	12.6				
CUBLASLT_MATMUL_TILE_576x72	12.6				
CUBLASLT_MATMUL_TILE_576x8	12.6				
CUBLASLT_MATMUL_TILE_576x80	12.6				
CUBLASLT_MATMUL_TILE_576x88	12.6				
CUBLASLT_MATMUL_TILE_576x96	12.6				
CUBLASLT_MATMUL_TILE_584x64	12.6				
CUBLASLT_MATMUL_TILE_592x64	12.6				
CUBLASLT_MATMUL_TILE_600x64	12.6				
CUBLASLT_MATMUL_TILE_608x64	12.6				
CUBLASLT_MATMUL_TILE_616x64	12.6				
CUBLASLT_MATMUL_TILE_624x64	12.6				
CUBLASLT_MATMUL_TILE_632x64	12.6				
CUBLASLT_MATMUL_TILE_640x16	12.6				
CUBLASLT_MATMUL_TILE_640x24	12.6				
CUBLASLT_MATMUL_TILE_640x32	12.6				
CUBLASLT_MATMUL_TILE_640x40	12.6				
CUBLASLT_MATMUL_TILE_640x48	12.6				
CUBLASLT_MATMUL_TILE_640x56	12.6				
CUBLASLT_MATMUL_TILE_640x64	12.6				
CUBLASLT_MATMUL_TILE_640x72	12.6				
CUBLASLT_MATMUL_TILE_640x8	12.6				
CUBLASLT_MATMUL_TILE_640x80	12.6				
CUBLASLT_MATMUL_TILE_640x88	12.6				
CUBLASLT_MATMUL_TILE_640x96	12.6				
CUBLASLT_MATMUL_TILE_648x64	12.6				
CUBLASLT_MATMUL_TILE_64x104	12.6				
CUBLASLT_MATMUL_TILE_64x112	12.6				
CUBLASLT_MATMUL_TILE_64x120	12.6				
CUBLASLT_MATMUL_TILE_64x128	10.1				
CUBLASLT_MATMUL_TILE_64x136	12.6				
CUBLASLT_MATMUL_TILE_64x144	12.6				
CUBLASLT_MATMUL_TILE_64x152	12.6				
CUBLASLT_MATMUL_TILE_64x16	12.6				
CUBLASLT_MATMUL_TILE_64x160	12.6				
CUBLASLT_MATMUL_TILE_64x168	12.6				
CUBLASLT_MATMUL_TILE_64x176	12.6				
CUBLASLT_MATMUL_TILE_64x184	12.6				
CUBLASLT_MATMUL_TILE_64x192	12.6				
CUBLASLT_MATMUL_TILE_64x200	12.6				
CUBLASLT_MATMUL_TILE_64x208	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_64x216	12.6				
CUBLASLT_MATMUL_TILE_64x224	12.6				
CUBLASLT_MATMUL_TILE_64x232	12.6				
CUBLASLT_MATMUL_TILE_64x24	12.6				
CUBLASLT_MATMUL_TILE_64x240	12.6				
CUBLASLT_MATMUL_TILE_64x248	12.6				
CUBLASLT_MATMUL_TILE_64x256	10.1				
CUBLASLT_MATMUL_TILE_64x264	12.6				
CUBLASLT_MATMUL_TILE_64x272	12.6				
CUBLASLT_MATMUL_TILE_64x280	12.6				
CUBLASLT_MATMUL_TILE_64x288	12.6				
CUBLASLT_MATMUL_TILE_64x296	12.6				
CUBLASLT_MATMUL_TILE_64x304	12.6				
CUBLASLT_MATMUL_TILE_64x312	12.6				
CUBLASLT_MATMUL_TILE_64x32	10.1				
CUBLASLT_MATMUL_TILE_64x320	12.6				
CUBLASLT_MATMUL_TILE_64x328	12.6				
CUBLASLT_MATMUL_TILE_64x336	12.6				
CUBLASLT_MATMUL_TILE_64x344	12.6				
CUBLASLT_MATMUL_TILE_64x352	12.6				
CUBLASLT_MATMUL_TILE_64x360	12.6				
CUBLASLT_MATMUL_TILE_64x368	12.6				
CUBLASLT_MATMUL_TILE_64x376	12.6				
CUBLASLT_MATMUL_TILE_64x384	12.6				
CUBLASLT_MATMUL_TILE_64x392	12.6				
CUBLASLT_MATMUL_TILE_64x40	12.6				
CUBLASLT_MATMUL_TILE_64x400	12.6				
CUBLASLT_MATMUL_TILE_64x408	12.6				
CUBLASLT_MATMUL_TILE_64x416	12.6				
CUBLASLT_MATMUL_TILE_64x424	12.6				
CUBLASLT_MATMUL_TILE_64x432	12.6				
CUBLASLT_MATMUL_TILE_64x440	12.6				
CUBLASLT_MATMUL_TILE_64x448	12.6				
CUBLASLT_MATMUL_TILE_64x456	12.6				
CUBLASLT_MATMUL_TILE_64x464	12.6				
CUBLASLT_MATMUL_TILE_64x472	12.6				
CUBLASLT_MATMUL_TILE_64x48	12.6				
CUBLASLT_MATMUL_TILE_64x480	12.6				
CUBLASLT_MATMUL_TILE_64x488	12.6				
CUBLASLT_MATMUL_TILE_64x496	12.6				
CUBLASLT_MATMUL_TILE_64x504	12.6				
CUBLASLT_MATMUL_TILE_64x512	10.1				
CUBLASLT_MATMUL_TILE_64x520	12.6				
CUBLASLT_MATMUL_TILE_64x528	12.6				
CUBLASLT_MATMUL_TILE_64x536	12.6				
CUBLASLT_MATMUL_TILE_64x544	12.6				
CUBLASLT_MATMUL_TILE_64x552	12.6				
CUBLASLT_MATMUL_TILE_64x56	12.6				
CUBLASLT_MATMUL_TILE_64x560	12.6				
CUBLASLT_MATMUL_TILE_64x568	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_64x576	12.6				
CUBLASLT_MATMUL_TILE_64x584	12.6				
CUBLASLT_MATMUL_TILE_64x592	12.6				
CUBLASLT_MATMUL_TILE_64x600	12.6				
CUBLASLT_MATMUL_TILE_64x608	12.6				
CUBLASLT_MATMUL_TILE_64x616	12.6				
CUBLASLT_MATMUL_TILE_64x624	12.6				
CUBLASLT_MATMUL_TILE_64x632	12.6				
CUBLASLT_MATMUL_TILE_64x64	10.1				
CUBLASLT_MATMUL_TILE_64x640	12.6				
CUBLASLT_MATMUL_TILE_64x648	12.6				
CUBLASLT_MATMUL_TILE_64x656	12.6				
CUBLASLT_MATMUL_TILE_64x664	12.6				
CUBLASLT_MATMUL_TILE_64x672	12.6				
CUBLASLT_MATMUL_TILE_64x680	12.6				
CUBLASLT_MATMUL_TILE_64x688	12.6				
CUBLASLT_MATMUL_TILE_64x696	12.6				
CUBLASLT_MATMUL_TILE_64x704	12.6				
CUBLASLT_MATMUL_TILE_64x712	12.6				
CUBLASLT_MATMUL_TILE_64x72	12.6				
CUBLASLT_MATMUL_TILE_64x720	12.6				
CUBLASLT_MATMUL_TILE_64x728	12.6				
CUBLASLT_MATMUL_TILE_64x736	12.6				
CUBLASLT_MATMUL_TILE_64x744	12.6				
CUBLASLT_MATMUL_TILE_64x752	12.6				
CUBLASLT_MATMUL_TILE_64x760	12.6				
CUBLASLT_MATMUL_TILE_64x768	12.6				
CUBLASLT_MATMUL_TILE_64x8	10.1				
CUBLASLT_MATMUL_TILE_64x80	12.6				
CUBLASLT_MATMUL_TILE_64x88	12.6				
CUBLASLT_MATMUL_TILE_64x96	11.3				
CUBLASLT_MATMUL_TILE_656x64	12.6				
CUBLASLT_MATMUL_TILE_664x64	12.6				
CUBLASLT_MATMUL_TILE_672x64	12.6				
CUBLASLT_MATMUL_TILE_680x64	12.6				
CUBLASLT_MATMUL_TILE_688x64	12.6				
CUBLASLT_MATMUL_TILE_696x64	12.6				
CUBLASLT_MATMUL_TILE_704x16	12.6				
CUBLASLT_MATMUL_TILE_704x24	12.6				
CUBLASLT_MATMUL_TILE_704x32	12.6				
CUBLASLT_MATMUL_TILE_704x40	12.6				
CUBLASLT_MATMUL_TILE_704x48	12.6				
CUBLASLT_MATMUL_TILE_704x56	12.6				
CUBLASLT_MATMUL_TILE_704x64	12.6				
CUBLASLT_MATMUL_TILE_704x72	12.6				
CUBLASLT_MATMUL_TILE_704x8	12.6				
CUBLASLT_MATMUL_TILE_704x80	12.6				
CUBLASLT_MATMUL_TILE_704x88	12.6				
CUBLASLT_MATMUL_TILE_712x64	12.6				
CUBLASLT_MATMUL_TILE_720x64	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_728x64	12.6				
CUBLASLT_MATMUL_TILE_72x128	12.6				
CUBLASLT_MATMUL_TILE_72x192	12.6				
CUBLASLT_MATMUL_TILE_72x256	12.6				
CUBLASLT_MATMUL_TILE_72x320	12.6				
CUBLASLT_MATMUL_TILE_72x384	12.6				
CUBLASLT_MATMUL_TILE_72x448	12.6				
CUBLASLT_MATMUL_TILE_72x512	12.6				
CUBLASLT_MATMUL_TILE_72x576	12.6				
CUBLASLT_MATMUL_TILE_72x64	12.6				
CUBLASLT_MATMUL_TILE_72x640	12.6				
CUBLASLT_MATMUL_TILE_736x64	12.6				
CUBLASLT_MATMUL_TILE_744x64	12.6				
CUBLASLT_MATMUL_TILE_752x64	12.6				
CUBLASLT_MATMUL_TILE_760x64	12.6				
CUBLASLT_MATMUL_TILE_768x16	12.6				
CUBLASLT_MATMUL_TILE_768x24	12.6				
CUBLASLT_MATMUL_TILE_768x32	12.6				
CUBLASLT_MATMUL_TILE_768x40	12.6				
CUBLASLT_MATMUL_TILE_768x48	12.6				
CUBLASLT_MATMUL_TILE_768x56	12.6				
CUBLASLT_MATMUL_TILE_768x64	12.6				
CUBLASLT_MATMUL_TILE_768x72	12.6				
CUBLASLT_MATMUL_TILE_768x8	12.6				
CUBLASLT_MATMUL_TILE_768x80	12.6				
CUBLASLT_MATMUL_TILE_80x128	12.6				
CUBLASLT_MATMUL_TILE_80x192	12.6				
CUBLASLT_MATMUL_TILE_80x256	12.6				
CUBLASLT_MATMUL_TILE_80x320	12.6				
CUBLASLT_MATMUL_TILE_80x384	12.6				
CUBLASLT_MATMUL_TILE_80x448	12.6				
CUBLASLT_MATMUL_TILE_80x512	12.6				
CUBLASLT_MATMUL_TILE_80x576	12.6				
CUBLASLT_MATMUL_TILE_80x64	12.6				
CUBLASLT_MATMUL_TILE_88x128	12.6				
CUBLASLT_MATMUL_TILE_88x192	12.6				
CUBLASLT_MATMUL_TILE_88x256	12.6				
CUBLASLT_MATMUL_TILE_88x320	12.6				
CUBLASLT_MATMUL_TILE_88x384	12.6				
CUBLASLT_MATMUL_TILE_88x448	12.6				
CUBLASLT_MATMUL_TILE_88x512	12.6				
CUBLASLT_MATMUL_TILE_88x64	12.6				
CUBLASLT_MATMUL_TILE_8x128	12.6				
CUBLASLT_MATMUL_TILE_8x16	10.1				
CUBLASLT_MATMUL_TILE_8x192	12.6				
CUBLASLT_MATMUL_TILE_8x256	12.6				
CUBLASLT_MATMUL_TILE_8x32	10.1				
CUBLASLT_MATMUL_TILE_8x320	12.6				
CUBLASLT_MATMUL_TILE_8x384	12.6				
CUBLASLT_MATMUL_TILE_8x448	12.6				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_MATMUL_TILE_8x512	12.6				
CUBLASLT_MATMUL_TILE_8x576	12.6				
CUBLASLT_MATMUL_TILE_8x64	10.1				
CUBLASLT_MATMUL_TILE_8x640	12.6				
CUBLASLT_MATMUL_TILE_8x704	12.6				
CUBLASLT_MATMUL_TILE_8x768	12.6				
CUBLASLT_MATMUL_TILE_8x8	10.1				
CUBLASLT_MATMUL_TILE_96x128	11.3				
CUBLASLT_MATMUL_TILE_96x192	12.6				
CUBLASLT_MATMUL_TILE_96x256	12.6				
CUBLASLT_MATMUL_TILE_96x320	12.6				
CUBLASLT_MATMUL_TILE_96x384	12.6				
CUBLASLT_MATMUL_TILE_96x448	12.6				
CUBLASLT_MATMUL_TILE_96x512	12.6				
CUBLASLT_MATMUL_TILE_96x64	11.3				
CUBLASLT_MATMUL_TILE_END	10.1				
CUBLASLT_MATMUL_TILE_UNDEFINED	10.1				
CUBLASLT_MATRIX_LAYOUT_BATCH_COUNT	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_LAYOUT_BATCH_MODE	12.9				
CUBLASLT_MATRIX_LAYOUT_COLS	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_LAYOUT_LD	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_LAYOUT_ORDER	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_LAYOUT_PLANE_OFFSET	10.1				
CUBLASLT_MATRIX_LAYOUT_ROWS	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_LAYOUT_STRIDED_BATCH_OFFSET	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_LAYOUT_TYPE	10.1				HIPBLASLT_MATRIX_LAYOUT
CUBLASLT_MATRIX_TRANSFORM_DESC_POINTER_MODE	10.1				HIPBLASLT_MATRIX_TRANSF
CUBLASLT_MATRIX_TRANSFORM_DESC_SCALE_TYPE	10.1				HIPBLASLT_MATRIX_TRANSF
CUBLASLT_MATRIX_TRANSFORM_DESC_TRANSA	10.1				HIPBLASLT_MATRIX_TRANSF
CUBLASLT_MATRIX_TRANSFORM_DESC_TRANSB	10.1				HIPBLASLT_MATRIX_TRANSF
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_16F	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_32F	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_32I	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_64F	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_ACCUMULATOR_TYPE_MASK	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_DMMA	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_FMA	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_GAUSSIAN	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_HMMA	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_IMMA	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_16BF	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_16F	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_32F	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_64F	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_8F_E4M3	11.8				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_8F_E5M2	11.8				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_8I	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_INPUT_TF32	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_OP_INPUT_TYPE_MASK	11.0				
CUBLASLT_NUMERICAL_IMPL_FLAGS_OP_TYPE_MASK	11.0				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
CUBLASLT_NUMERICAL_IMPL_FLAGS_TENSOR_OP_MASK	11.0				
CUBLASLT_ORDER_COL	10.1				HIPBLASLT_ORDER_COL
CUBLASLT_ORDER_COL32	10.1				
CUBLASLT_ORDER_COL32_2R_4R4	11.0				
CUBLASLT_ORDER_COL4_4R2_8C	10.1				
CUBLASLT_ORDER_ROW	10.1				HIPBLASLT_ORDER_ROW
CUBLASLT_POINTER_MODE_ALPHA_DEVICE_VECTOR_BETA_HOST	11.4				HIPBLASLT_POINTER_MODE_
CUBLASLT_POINTER_MODE_ALPHA_DEVICE_VECTOR_BETA_ZERO	10.1				
CUBLASLT_POINTER_MODE_DEVICE					HIPBLASLT_POINTER_MODE_I
CUBLASLT_POINTER_MODE_DEVICE_VECTOR	10.1				
CUBLASLT_POINTER_MODE_HOST	10.1				HIPBLASLT_POINTER_MODE_I
CUBLASLT_POINTER_MODE_MASK_ALPHA_DEVICE_VECTOR_BETA_HOST	11.4				
CUBLASLT_POINTER_MODE_MASK_ALPHA_DEVICE_VECTOR_BETA_ZERO	10.1				
CUBLASLT_POINTER_MODE_MASK_DEVICE	10.1				
CUBLASLT_POINTER_MODE_MASK_DEVICE_VECTOR	10.1				
CUBLASLT_POINTER_MODE_MASK_HOST	10.1				
CUBLASLT_REDUCTION_SCHEME_COMPUTE_TYPE	10.1				
CUBLASLT_REDUCTION_SCHEME_INPLACE	10.1				
CUBLASLT_REDUCTION_SCHEME_MASK	10.1				
CUBLASLT_REDUCTION_SCHEME_NONE	10.1				
CUBLASLT_REDUCTION_SCHEME_OUTPUT_TYPE	10.1				
CUBLASLT_SEARCH_BEST_FIT	10.1				
CUBLASLT_SEARCH_LIMITED_BY_ALGO_ID	10.1				
CUBLASLT_SEARCH_RESERVED_02	11.0				
CUBLASLT_SEARCH_RESERVED_03	11.0				
CUBLASLT_SEARCH_RESERVED_04	11.0				
CUBLASLT_SEARCH_RESERVED_05	11.0				
CUBLASLT_SEARCH_RESERVED_06	12.6				
CUBLASLT_SEARCH_RESERVED_07	12.6				
CUBLASLT_SEARCH_RESERVED_08	12.6				
CUBLASLT_SEARCH_RESERVED_09	12.6				
cublasLtBatchMode_t	12.9				
cublasLtClusterShape_t	11.8				
cublasLtContext	10.1				
cublasLtEpilogue_t	10.1				hipblasLtEpilogue_t
cublasLtHandle_t	10.1				hipblasLtHandle_t
cublasLtLoggerCallback_t	11.0				
cublasLtMatmulAlgoCapAttributes_t	10.1				
cublasLtMatmulAlgoConfigAttributes_t	10.1				
cublasLtMatmulAlgo_t	10.1				hipblasLtMatmulAlgo_t
cublasLtMatmulDescAttributes_t	10.1				hipblasLtMatmulDescAttr
cublasLtMatmulDescOpaque_t	11.0				hipblasLtMatmulDescOpaq
cublasLtMatmulDesc_t	10.1				hipblasLtMatmulDesc_t
cublasLtMatmulHeuristicResult_t	10.1				hipblasLtMatmulHeuristi
cublasLtMatmulInnerShape_t	11.8				
cublasLtMatmulMatrixScale_t	12.8				hipblasLtMatmulMatrixSc
cublasLtMatmulPreferenceAttributes_t	10.1				hipblasLtMatmulPreferen
cublasLtMatmulPreferenceOpaque_t	11.0				hipblasLtMatmulPreferen
cublasLtMatmulPreference_t	10.1				hipblasLtMatmulPreferen
cublasLtMatmulSearch_t	10.1				

Table 3 – continued from previous

CUDA	A	D	C	R	HIP
cublasLtMatmulStages_t	11.0				
cublasLtMatmulTile_t	10.1				
cublasLtMatrixLayoutAttribute_t	10.1				hipblasLtMatrixLayoutAt
cublasLtMatrixLayoutOpaque_t	11.0				hipblasLtMatrixLayoutOp
cublasLtMatrixLayoutStruct	10.1			10.2	hipblasLtMatrixLayoutOp
cublasLtMatrixLayout_t	10.1				hipblasLtMatrixLayout_t
cublasLtMatrixTransformDescAttributes_t	10.1				hipblasLtMatrixTransform
cublasLtMatrixTransformDescOpaque_t	11.0				hipblasLtMatrixTransform
cublasLtMatrixTransformDesc_t	10.1				hipblasLtMatrixTransform
cublasLtNumericalImplFlags_t	11.0				
cublasLtOrder_t	10.1				hipblasLtOrder_t
cublasLtPointerModeMask_t	10.1				
cublasLtPointerMode_t	10.1				hipblasLtPointerMode_t
cublasLtReductionScheme_t	10.1				

11.1.4 4. CUBLAS Helper Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC
cublasAlloc												
cublasCreate					hipblasCreate	1.8.2						rocblas_c
cublasCreate_v2					hipblasCreate	1.8.2						rocblas_c
cublasDestroy					hipblasDestroy	1.8.2						rocblas_d
cublasDestroy_v2					hipblasDestroy	1.8.2						rocblas_d
cublasFree												
cublasGetAtomicsMode					hipblasGetAtomicsMode	3.10.0						rocblas_g
cublasGetCudartVersion	10.1											
cublasGetEmulationStrategy	12.9											
cublasGetError												
cublasGetLoggerCallback	9.2											
cublasGetMathMode	9.0				hipblasGetMathMode	6.1.0						rocblas_g
cublasGetMatrix					hipblasGetMatrix	1.8.2						rocblas_g
cublasGetMatrixAsync					hipblasGetMatrixAsync	3.7.0						rocblas_g
cublasGetMatrixAsync_64	12.0											
cublasGetMatrix_64	12.0											
cublasGetPointerMode					hipblasGetPointerMode	1.8.2						rocblas_g
cublasGetPointerMode_v2					hipblasGetPointerMode	1.8.2						rocblas_g
cublasGetProperty												
cublasGetSmCountTarget	11.3											
cublasGetStatusName	11.4											
cublasGetStatusString	11.4											rocblas_s
cublasGetStream					hipblasGetStream	1.8.2						rocblas_g
cublasGetStream_v2					hipblasGetStream	1.8.2						rocblas_g
cublasGetVector					hipblasGetVector	1.8.2						rocblas_g
cublasGetVectorAsync					hipblasGetVectorAsync	3.7.0						rocblas_g
cublasGetVectorAsync_64	12.0											
cublasGetVector_64	12.0											
cublasGetVersion												
cublasGetVersion_v2												
cublasInit												rocblas_i

Table 4 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC
cublasLogCallback	9.2											
cublasLoggerConfigure	9.2											
cublasMigrateComputeType	11.0											
cublasSetAtomicsMode					hipblasSetAtomicsMode	3.10.0						rocblas_s
cublasSetEmulationStrategy	12.9											
cublasSetKernelStream												
cublasSetLoggerCallback	9.2											
cublasSetMathMode	9.0				hipblasSetMathMode	6.1.0						rocblas_s
cublasSetMatrix					hipblasSetMatrix	1.8.2						rocblas_s
cublasSetMatrixAsync					hipblasSetMatrixAsync	3.7.0						rocblas_s
cublasSetMatrixAsync_64	12.0											
cublasSetMatrix_64	12.0											
cublasSetPointerMode					hipblasSetPointerMode	1.8.2						rocblas_s
cublasSetPointerMode_v2					hipblasSetPointerMode	1.8.2						rocblas_s
cublasSetSmCountTarget	11.3											
cublasSetStream					hipblasSetStream	1.8.2						rocblas_s
cublasSetStream_v2					hipblasSetStream	1.8.2						rocblas_s
cublasSetVector					hipblasSetVector	1.8.2						rocblas_s
cublasSetVectorAsync					hipblasSetVectorAsync	3.7.0						rocblas_s
cublasSetVectorAsync_64	12.0											
cublasSetVector_64	12.0											
cublasSetWorkspace	11.0				hipblasSetWorkspace	7.0.0						
cublasSetWorkspace_v2	11.0				hipblasSetWorkspace	7.0.0						
cublasShutdown												
cublasXerbla												

11.1.5 5. CUBLAS Level-1 Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC
cublasCaxpy					hipblasCaxpy	3.0.0		7.0.0				rocblas_caxpy
cublasCaxpy_64	12.0				hipblasCaxpy_64	6.1.0		7.0.0				rocblas_caxpy_64
cublasCaxpy_v2					hipblasCaxpy	3.0.0		7.0.0				rocblas_caxpy
cublasCaxpy_v2_64	12.0				hipblasCaxpy_64	6.1.0		7.0.0				rocblas_caxpy_64
cublasCcopy					hipblasCcopy	3.0.0		7.0.0				rocblas_ccopy
cublasCcopy_64	12.0				hipblasCcopy_64	6.1.0		7.0.0				rocblas_ccopy_64
cublasCcopy_v2					hipblasCcopy	3.0.0		7.0.0				rocblas_ccopy
cublasCcopy_v2_64	12.0				hipblasCcopy_64	6.1.0		7.0.0				rocblas_ccopy_64
cublasCdotc					hipblasCdotc	3.0.0		7.0.0				rocblas_cdotc
cublasCdotc_64	12.0				hipblasCdotc_64	6.1.0		7.0.0				rocblas_cdotc_64
cublasCdotc_v2					hipblasCdotc	3.0.0		7.0.0				rocblas_cdotc
cublasCdotc_v2_64	12.0				hipblasCdotc_64	6.1.0		7.0.0				rocblas_cdotc_64
cublasCdotu					hipblasCdotu	3.0.0		7.0.0				rocblas_cdotu
cublasCdotu_64	12.0				hipblasCdotu_64	6.1.0		7.0.0				rocblas_cdotu_64
cublasCdotu_v2					hipblasCdotu	3.0.0		7.0.0				rocblas_cdotu
cublasCdotu_v2_64	12.0				hipblasCdotu_64	6.1.0		7.0.0				rocblas_cdotu_64
cublasCrot					hipblasCrot	3.0.0		7.0.0				rocblas_crot
cublasCrot_64	12.0				hipblasCrot_64	6.1.0		7.0.0				rocblas_crot_64
cublasCrot_v2					hipblasCrot	3.0.0		7.0.0				rocblas_crot
cublasCrot_v2_64	12.0				hipblasCrot_64	6.1.0		7.0.0				rocblas_crot_64

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CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC
cublasCrotg					hipblasCrotg	3.0.0		7.0.0				rocblas_crotg
cublasCrotg_v2					hipblasCrotg	3.0.0		7.0.0				rocblas_crotg
cublasCscal					hipblasCscal	1.6.0		7.0.0				rocblas_cscal
cublasCscal_64	12.0				hipblasCscal_64	6.1.0		7.0.0				rocblas_cscal_64
cublasCscal_v2					hipblasCscal	1.6.0		7.0.0				rocblas_cscal
cublasCscal_v2_64	12.0				hipblasCscal_64	6.1.0		7.0.0				rocblas_cscal_64
cublasCsrot					hipblasCsrot	3.0.0		7.0.0				rocblas_csrot
cublasCsrot_64	12.0				hipblasCsrot_64	6.1.0		7.0.0				rocblas_csrot_64
cublasCsrot_v2					hipblasCsrot	3.0.0		7.0.0				rocblas_csrot
cublasCsrot_v2_64	12.0				hipblasCsrot_64	6.1.0		7.0.0				rocblas_csrot_64
cublasCsscal					hipblasCsscal	3.0.0		7.0.0				rocblas_csscal
cublasCsscal_64	12.0				hipblasCsscal_64	6.1.0		7.0.0				rocblas_csscal_64
cublasCsscal_v2					hipblasCsscal	3.0.0		7.0.0				rocblas_csscal
cublasCsscal_v2_64	12.0				hipblasCsscal_64	6.1.0		7.0.0				rocblas_csscal_64
cublasCswap					hipblasCswap	3.0.0		7.0.0				rocblas_cswap
cublasCswap_64	12.0				hipblasCswap_64	6.1.0		7.0.0				rocblas_cswap_64
cublasCswap_v2					hipblasCswap	3.0.0		7.0.0				rocblas_cswap
cublasCswap_v2_64	12.0				hipblasCswap_64	6.1.0		7.0.0				rocblas_cswap_64
cublasDasum					hipblasDasum	1.8.2						rocblas_dasum
cublasDasum_64	12.0				hipblasDasum_64	6.1.0						rocblas_dasum_64
cublasDasum_v2					hipblasDasum	1.8.2						rocblas_dasum
cublasDasum_v2_64	12.0				hipblasDasum_64	6.1.0						rocblas_dasum_64
cublasDaxpy					hipblasDaxpy	1.8.2						rocblas_daxpy
cublasDaxpy_64	12.0				hipblasDaxpy_64	6.1.0						rocblas_daxpy_64
cublasDaxpy_v2					hipblasDaxpy	1.8.2						rocblas_daxpy
cublasDaxpy_v2_64	12.0				hipblasDaxpy_64	6.1.0						rocblas_daxpy_64
cublasDcopy					hipblasDcopy	1.8.2						rocblas_dcopy
cublasDcopy_64	12.0				hipblasDcopy_64	6.1.0						rocblas_dcopy_64
cublasDcopy_v2					hipblasDcopy	1.8.2						rocblas_dcopy
cublasDcopy_v2_64	12.0				hipblasDcopy_64	6.1.0						rocblas_dcopy_64
cublasDdot					hipblasDdot	3.0.0						rocblas_ddot
cublasDdot_64	12.0				hipblasDdot_64	6.1.0						rocblas_ddot_64
cublasDdot_v2					hipblasDdot	3.0.0						rocblas_ddot
cublasDdot_v2_64	12.0				hipblasDdot_64	6.1.0						rocblas_ddot_64
cublasDnrm2					hipblasDnrm2	1.8.2						rocblas_dnrm2
cublasDnrm2_64	12.0				hipblasDnrm2_64	6.1.0						rocblas_dnrm2_64
cublasDnrm2_v2					hipblasDnrm2	1.8.2						rocblas_dnrm2
cublasDnrm2_v2_64	12.0				hipblasDnrm2_64	6.1.0						rocblas_dnrm2_64
cublasDrot					hipblasDrot	3.0.0						rocblas_drot
cublasDrot_64	12.0				hipblasDrot_64	6.1.0						rocblas_drot_64
cublasDrot_v2					hipblasDrot	3.0.0						rocblas_drot
cublasDrot_v2_64	12.0				hipblasDrot_64	6.1.0						rocblas_drot_64
cublasDrotg					hipblasDrotg	3.0.0						rocblas_drotg
cublasDrotg_v2					hipblasDrotg	3.0.0						rocblas_drotg
cublasDrotm					hipblasDrotm	3.0.0						rocblas_drotm
cublasDrotm_64	12.0				hipblasDrotm_64	6.1.0						rocblas_drotm_64
cublasDrotm_v2					hipblasDrotm	3.0.0						rocblas_drotm
cublasDrotm_v2_64	12.0				hipblasDrotm_64	6.1.0						rocblas_drotm_64
cublasDrotmg					hipblasDrotmg	3.0.0						rocblas_drotmg
cublasDrotmg_v2					hipblasDrotmg	3.0.0						rocblas_drotmg

Table 5 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC
cublasDscal					hipblasDscal	1.8.2						rocblas_dscal
cublasDscal_64	12.0				hipblasDscal_64	6.1.0						rocblas_dscal_64
cublasDscal_v2					hipblasDscal	1.8.2						rocblas_dscal
cublasDscal_v2_64	12.0				hipblasDscal_64	6.1.0						rocblas_dscal_64
cublasDswap					hipblasDswap	3.0.0						rocblas_dswap
cublasDswap_64	12.0				hipblasDswap_64	6.1.0						rocblas_dswap_64
cublasDswap_v2					hipblasDswap	3.0.0						rocblas_dswap
cublasDswap_v2_64	12.0				hipblasDswap_64	6.1.0						rocblas_dswap_64
cublasDzasum					hipblasDzasum	3.0.0		7.0.0				rocblas_dzasum
cublasDzasum_64	12.0				hipblasDzasum_64	6.1.0		7.0.0				rocblas_dzasum_64
cublasDzasum_v2					hipblasDzasum	3.0.0		7.0.0				rocblas_dzasum
cublasDzasum_v2_64	12.0				hipblasDzasum_64	6.1.0		7.0.0				rocblas_dzasum_64
cublasDznrm2					hipblasDznrm2	3.0.0		7.0.0				rocblas_dznrm2
cublasDznrm2_64	12.0				hipblasDznrm2_64	6.1.0		7.0.0				rocblas_dznrm2_64
cublasDznrm2_v2					hipblasDznrm2	3.0.0		7.0.0				rocblas_dznrm2
cublasDznrm2_v2_64	12.0				hipblasDznrm2_64	6.1.0		7.0.0				rocblas_dznrm2_64
cublasIcamax					hipblasIcamax	3.0.0		7.0.0				rocblas_icamax
cublasIcamax_64	12.0				hipblasIcamax_64	6.1.0		7.0.0				rocblas_icamax_64
cublasIcamax_v2					hipblasIcamax	3.0.0		7.0.0				rocblas_icamax
cublasIcamax_v2_64	12.0				hipblasIcamax_64	6.1.0		7.0.0				rocblas_icamax_64
cublasIcamin					hipblasIcamin	3.0.0		7.0.0				rocblas_icamin
cublasIcamin_64	12.0				hipblasIcamin_64	6.1.0		7.0.0				rocblas_icamin_64
cublasIcamin_v2					hipblasIcamin	3.0.0		7.0.0				rocblas_icamin
cublasIcamin_v2_64	12.0				hipblasIcamin_64	6.1.0		7.0.0				rocblas_icamin_64
cublasIdamax					hipblasIdamax	1.8.2						rocblas_idamax
cublasIdamax_64	12.0				hipblasIdamax_64	6.1.0						rocblas_idamax_64
cublasIdamax_v2					hipblasIdamax	1.8.2						rocblas_idamax
cublasIdamax_v2_64	12.0				hipblasIdamax_64	6.1.0						rocblas_idamax_64
cublasIdamin					hipblasIdamin	3.0.0						rocblas_idamin
cublasIdamin_64	12.0				hipblasIdamin_64	6.1.0						rocblas_idamin_64
cublasIdamin_v2					hipblasIdamin	3.0.0						rocblas_idamin
cublasIdamin_v2_64	12.0				hipblasIdamin_64	6.1.0						rocblas_idamin_64
cublasIsamax					hipblasIsamax	1.8.2						rocblas_isamax
cublasIsamax_64	12.0				hipblasIsamax_64	6.1.0						rocblas_isamax_64
cublasIsamax_v2					hipblasIsamax	1.8.2						rocblas_isamax
cublasIsamax_v2_64	12.0				hipblasIsamax_64	6.1.0						rocblas_isamax_64
cublasIsamin					hipblasIsamin	3.0.0						rocblas_isamin
cublasIsamin_64	12.0				hipblasIsamin_64	6.1.0						rocblas_isamin_64
cublasIsamin_v2					hipblasIsamin	3.0.0						rocblas_isamin
cublasIsamin_v2_64	12.0				hipblasIsamin_64	6.1.0						rocblas_isamin_64
cublasIzamax					hipblasIzamax	3.0.0		7.0.0				rocblas_izamax
cublasIzamax_64	12.0				hipblasIzamax_64	6.1.0		7.0.0				rocblas_izamax_64
cublasIzamax_v2					hipblasIzamax	3.0.0		7.0.0				rocblas_izamax
cublasIzamax_v2_64	12.0				hipblasIzamax_64	6.1.0		7.0.0				rocblas_izamax_64
cublasIzamin					hipblasIzamin	3.0.0		7.0.0				rocblas_izamin
cublasIzamin_64	12.0				hipblasIzamin_64	6.1.0		7.0.0				rocblas_izamin_64
cublasIzamin_v2					hipblasIzamin	3.0.0		7.0.0				rocblas_izamin
cublasIzamin_v2_64	12.0				hipblasIzamin_64	6.1.0		7.0.0				rocblas_izamin_64
cublasNrm2Ex	8.0				hipblasNrm2Ex	4.1.0		7.0.0				rocblas_nrm2_ex
cublasNrm2Ex_64	12.0				hipblasNrm2Ex_64	6.2.0		7.0.0				rocblas_nrm2_ex_64

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CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC
cublasSasum					hipblasSasum	1.8.2						rocblas_sasum
cublasSasum_64	12.0				hipblasSasum_64	6.1.0						rocblas_sasum_64
cublasSasum_v2					hipblasSasum	1.8.2						rocblas_sasum
cublasSasum_v2_64	12.0				hipblasSasum_64	6.1.0						rocblas_sasum_64
cublasSaxpy					hipblasSaxpy	1.8.2						rocblas_saxpy
cublasSaxpy_64	12.0				hipblasSaxpy_64	6.1.0						rocblas_saxpy_64
cublasSaxpy_v2					hipblasSaxpy	1.8.2						rocblas_saxpy
cublasSaxpy_v2_64	12.0				hipblasSaxpy_64	6.1.0						rocblas_saxpy_64
cublasScasum					hipblasScasum	3.0.0		7.0.0				rocblas_scasum
cublasScasum_64	12.0				hipblasScasum_64	6.1.0		7.0.0				rocblas_scasum_64
cublasScasum_v2					hipblasScasum	3.0.0		7.0.0				rocblas_scasum
cublasScasum_v2_64	12.0				hipblasScasum_64	6.1.0		7.0.0				rocblas_scasum_64
cublasScnrm2					hipblasScnrm2	3.0.0		7.0.0				rocblas_scnrm2
cublasScnrm2_64	12.0				hipblasScnrm2_64	6.1.0		7.0.0				rocblas_scnrm2_64
cublasScnrm2_v2					hipblasScnrm2	3.0.0		7.0.0				rocblas_scnrm2
cublasScnrm2_v2_64	12.0				hipblasScnrm2_64	6.1.0		7.0.0				rocblas_scnrm2_64
cublasScopy					hipblasScopy	1.8.2						rocblas_scopy
cublasScopy_64	12.0				hipblasScopy_64	6.1.0						rocblas_scopy_64
cublasScopy_v2					hipblasScopy	1.8.2						rocblas_scopy
cublasScopy_v2_64	12.0				hipblasScopy_64	6.1.0						rocblas_scopy_64
cublasSdot					hipblasSdot	3.0.0						rocblas_sdot
cublasSdot_64	12.0				hipblasSdot_64	6.1.0						rocblas_sdot_64
cublasSdot_v2					hipblasSdot	3.0.0						rocblas_sdot
cublasSdot_v2_64	12.0				hipblasSdot_64	6.1.0						rocblas_sdot_64
cublasSnrm2					hipblasSnrm2	1.8.2						rocblas_snrm2
cublasSnrm2_64	12.0				hipblasSnrm2_64	6.1.0						rocblas_snrm2_64
cublasSnrm2_v2					hipblasSnrm2	1.8.2						rocblas_snrm2
cublasSnrm2_v2_64	12.0				hipblasSnrm2_64	6.1.0						rocblas_snrm2_64
cublasSrot					hipblasSrot	3.0.0						rocblas_srot
cublasSrot_64	12.0				hipblasSrot_64	6.1.0						rocblas_srot_64
cublasSrot_v2					hipblasSrot	3.0.0						rocblas_srot
cublasSrot_v2_64	12.0				hipblasSrot_64	6.1.0						rocblas_srot_64
cublasSrotg					hipblasSrotg	3.0.0						rocblas_srotg
cublasSrotg_v2					hipblasSrotg	3.0.0						rocblas_srotg
cublasSrotm					hipblasSrotm	3.0.0						rocblas_srotm
cublasSrotm_64	12.0				hipblasSrotm_64	6.1.0						rocblas_srotm_64
cublasSrotm_v2					hipblasSrotm	3.0.0						rocblas_srotm
cublasSrotm_v2_64	12.0				hipblasSrotm_64	6.1.0						rocblas_srotm_64
cublasSrotmg					hipblasSrotmg	3.0.0						rocblas_srotmg
cublasSrotmg_v2					hipblasSrotmg	3.0.0						rocblas_srotmg
cublasSscal					hipblasSscal	1.8.2						rocblas_sscal
cublasSscal_64	12.0				hipblasSscal_64	6.1.0						rocblas_sscal_64
cublasSscal_v2					hipblasSscal	1.8.2						rocblas_sscal
cublasSscal_v2_64	12.0				hipblasSscal_64	6.1.0						rocblas_sscal_64
cublasSswap					hipblasSswap	3.0.0						rocblas_sswap
cublasSswap_64	12.0				hipblasSswap_64	6.1.0						rocblas_sswap_64
cublasSswap_v2					hipblasSswap	3.0.0						rocblas_sswap
cublasSswap_v2_64	12.0				hipblasSswap_64	6.1.0						rocblas_sswap_64
cublasZaxpy					hipblasZaxpy	3.0.0		7.0.0				rocblas_zaxpy
cublasZaxpy_64	12.0				hipblasZaxpy_64	6.1.0		7.0.0				rocblas_zaxpy_64

Table 5 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC
cublasZaxpy_v2					hipblasZaxpy	3.0.0		7.0.0				rocblas_zaxpy
cublasZaxpy_v2_64	12.0				hipblasZaxpy_64	6.1.0		7.0.0				rocblas_zaxpy_64
cublasZcopy					hipblasZcopy	3.0.0		7.0.0				rocblas_zcopy
cublasZcopy_64	12.0				hipblasZcopy_64	6.1.0		7.0.0				rocblas_zcopy_64
cublasZcopy_v2					hipblasZcopy	3.0.0		7.0.0				rocblas_zcopy
cublasZcopy_v2_64	12.0				hipblasZcopy_64	6.1.0		7.0.0				rocblas_zcopy_64
cublasZdotc					hipblasZdotc	3.0.0		7.0.0				rocblas_zdotc
cublasZdotc_64	12.0				hipblasZdotc_64	6.1.0		7.0.0				rocblas_zdotc_64
cublasZdotc_v2					hipblasZdotc	3.0.0		7.0.0				rocblas_zdotc
cublasZdotc_v2_64	12.0				hipblasZdotc_64	6.1.0		7.0.0				rocblas_zdotc_64
cublasZdotu					hipblasZdotu	3.0.0		7.0.0				rocblas_zdotu
cublasZdotu_64	12.0				hipblasZdotu_64	6.1.0		7.0.0				rocblas_zdotu_64
cublasZdotu_v2					hipblasZdotu	3.0.0		7.0.0				rocblas_zdotu
cublasZdotu_v2_64	12.0				hipblasZdotu_64	6.1.0		7.0.0				rocblas_zdotu_64
cublasZdrot					hipblasZdrot	3.0.0		7.0.0				rocblas_zdrot
cublasZdrot_64	12.0				hipblasZdrot_64	6.1.0		7.0.0				rocblas_zdrot_64
cublasZdrot_v2					hipblasZdrot	3.0.0		7.0.0				rocblas_zdrot
cublasZdrot_v2_64	12.0				hipblasZdrot_64	6.1.0		7.0.0				rocblas_zdrot_64
cublasZdscal					hipblasZdscal	3.0.0		7.0.0				rocblas_zdscal
cublasZdscal_64	12.0				hipblasZdscal_64	6.1.0		7.0.0				rocblas_zdscal_64
cublasZdscal_v2					hipblasZdscal	3.0.0		7.0.0				rocblas_zdscal
cublasZdscal_v2_64	12.0				hipblasZdscal_64	6.1.0		7.0.0				rocblas_zdscal_64
cublasZrot					hipblasZrot	3.0.0		7.0.0				rocblas_zrot
cublasZrot_64	12.0				hipblasZrot_64	6.1.0		7.0.0				rocblas_zrot_64
cublasZrot_v2					hipblasZrot	3.0.0		7.0.0				rocblas_zrot
cublasZrot_v2_64	12.0				hipblasZrot_64	6.1.0		7.0.0				rocblas_zrot_64
cublasZrotg					hipblasZrotg	3.0.0		7.0.0				rocblas_zrotg
cublasZrotg_v2					hipblasZrotg	3.0.0		7.0.0				rocblas_zrotg
cublasZscal					hipblasZscal	1.6.0		7.0.0				rocblas_zscal
cublasZscal_64	12.0				hipblasZscal_64	6.1.0		7.0.0				rocblas_zscal_64
cublasZscal_v2					hipblasZscal	1.6.0		7.0.0				rocblas_zscal
cublasZscal_v2_64	12.0				hipblasZscal_64	6.1.0		7.0.0				rocblas_zscal_64
cublasZswap					hipblasZswap	3.0.0		7.0.0				rocblas_zswap
cublasZswap_64	12.0				hipblasZswap_64	6.1.0		7.0.0				rocblas_zswap_64
cublasZswap_v2					hipblasZswap	3.0.0		7.0.0				rocblas_zswap
cublasZswap_v2_64	12.0				hipblasZswap_64	6.1.0		7.0.0				rocblas_zswap_64

11.1.6 6. CUBLAS Level-2 Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A
cublasCgbmv					hipblasCgbmv	3.5.0		7.0.0				rocblas_cgbmv	3.5.0
cublasCgbmv_64	12.0				hipblasCgbmv_64	6.2.0		7.0.0				rocblas_cgbmv_64	6.2.0
cublasCgbmv_v2					hipblasCgbmv	3.5.0		7.0.0				rocblas_cgbmv	3.5.0
cublasCgbmv_v2_64	12.0				hipblasCgbmv_64	6.2.0		7.0.0				rocblas_cgbmv_64	6.2.0
cublasCgemv					hipblasCgemv	3.0.0		7.0.0				rocblas_cgemv	1.5.0
cublasCgemv_64	12.0				hipblasCgemv_64	6.2.0		7.0.0				rocblas_cgemv_64	6.2.0
cublasCgemv_v2					hipblasCgemv	3.0.0		7.0.0				rocblas_cgemv	1.5.0
cublasCgemv_v2_64	12.0				hipblasCgemv_64	6.2.0		7.0.0				rocblas_cgemv_64	6.2.0
cublasCgerc					hipblasCgerc	3.5.0		7.0.0				rocblas_cgerc	3.5.0

contin

Table 6 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A
cublasCgerc_64	12.0				hipblasCgerc_64	6.2.0		7.0.0				rocblas_cgerc_64	6.2.0
cublasCgerc_v2					hipblasCgerc	3.5.0		7.0.0				rocblas_cgerc	3.5.0
cublasCgerc_v2_64	12.0				hipblasCgerc_64	6.2.0		7.0.0				rocblas_cgerc_64	6.2.0
cublasCgeru					hipblasCgeru	3.5.0		7.0.0				rocblas_cgeru	3.5.0
cublasCgeru_64	12.0				hipblasCgeru_64	6.2.0		7.0.0				rocblas_cgeru_64	6.2.0
cublasCgeru_v2					hipblasCgeru	3.5.0		7.0.0				rocblas_cgeru	3.5.0
cublasCgeru_v2_64	12.0				hipblasCgeru_64	6.2.0		7.0.0				rocblas_cgeru_64	6.2.0
cublasChbmv					hipblasChbmv	3.5.0		7.0.0				rocblas_chbmv	3.5.0
cublasChbmv_64	12.0				hipblasChbmv_64	6.2.0		7.0.0				rocblas_chbmv_64	6.2.0
cublasChbmv_v2					hipblasChbmv	3.5.0		7.0.0				rocblas_chbmv	3.5.0
cublasChbmv_v2_64	12.0				hipblasChbmv_64	6.2.0		7.0.0				rocblas_chbmv_64	6.2.0
cublasChemv					hipblasChemv	3.5.0		7.0.0				rocblas_chemv	1.5.0
cublasChemv_64	12.0				hipblasChemv_64	6.2.0		7.0.0				rocblas_chemv_64	6.2.0
cublasChemv_v2					hipblasChemv	3.5.0		7.0.0				rocblas_chemv	1.5.0
cublasChemv_v2_64	12.0				hipblasChemv_64	6.2.0		7.0.0				rocblas_chemv_64	6.2.0
cublasCher					hipblasCher	3.5.0		7.0.0				rocblas_cher	3.5.0
cublasCher2					hipblasCher2	3.5.0		7.0.0				rocblas_cher2	3.5.0
cublasCher2_64	12.0				hipblasCher2_64	6.2.0		7.0.0				rocblas_cher2_64	6.2.0
cublasCher2_v2					hipblasCher2	3.5.0		7.0.0				rocblas_cher2	3.5.0
cublasCher2_v2_64	12.0				hipblasCher2_64	6.2.0		7.0.0				rocblas_cher2_64	6.2.0
cublasCher_64	12.0				hipblasCher_64	6.2.0		7.0.0				rocblas_cher_64	6.2.0
cublasCher_v2					hipblasCher	3.5.0		7.0.0				rocblas_cher	3.5.0
cublasCher_v2_64	12.0				hipblasCher_64	6.2.0		7.0.0				rocblas_cher_64	6.2.0
cublasChpmv					hipblasChpmv	3.5.0		7.0.0				rocblas_chpmv	3.5.0
cublasChpmv_64	12.0				hipblasChpmv_64	6.2.0		7.0.0				rocblas_chpmv_64	6.2.0
cublasChpmv_v2					hipblasChpmv	3.5.0		7.0.0				rocblas_chpmv	3.5.0
cublasChpmv_v2_64	12.0				hipblasChpmv_64	6.2.0		7.0.0				rocblas_chpmv_64	6.2.0
cublasChpr					hipblasChpr	3.5.0		7.0.0				rocblas_chpr	3.5.0
cublasChpr2					hipblasChpr2	3.5.0		7.0.0				rocblas_chpr2	3.5.0
cublasChpr2_64	12.0				hipblasChpr2_64	6.2.0		7.0.0				rocblas_chpr2_64	6.2.0
cublasChpr2_v2					hipblasChpr2	3.5.0		7.0.0				rocblas_chpr2	3.5.0
cublasChpr2_v2_64	12.0				hipblasChpr2_64	6.2.0		7.0.0				rocblas_chpr2_64	6.2.0
cublasChpr_64	12.0				hipblasChpr_64	6.2.0		7.0.0				rocblas_chpr_64	6.2.0
cublasChpr_v2					hipblasChpr	3.5.0		7.0.0				rocblas_chpr	3.5.0
cublasChpr_v2_64	12.0				hipblasChpr_64	6.2.0		7.0.0				rocblas_chpr_64	6.2.0
cublasCsymv					hipblasCsymv	3.5.0		7.0.0				rocblas_csymv	3.5.0
cublasCsymv_64	12.0				hipblasCsymv_64	6.2.0		7.0.0				rocblas_csymv_64	6.2.0
cublasCsymv_v2					hipblasCsymv	3.5.0		7.0.0				rocblas_csymv	3.5.0
cublasCsymv_v2_64	12.0				hipblasCsymv_64	6.2.0		7.0.0				rocblas_csymv_64	6.2.0
cublasCsyrr					hipblasCsyrr	3.5.0		7.0.0				rocblas_csyrr	1.7.1
cublasCsyrr2					hipblasCsyrr2	3.5.0		7.0.0				rocblas_csyrr2	3.5.0
cublasCsyrr2_64	12.0				hipblasCsyrr2_64	6.2.0		7.0.0				rocblas_csyrr2_64	6.2.0
cublasCsyrr2_v2					hipblasCsyrr2	3.5.0		7.0.0				rocblas_csyrr2	3.5.0
cublasCsyrr2_v2_64	12.0				hipblasCsyrr2_64	6.2.0		7.0.0				rocblas_csyrr2_64	6.2.0
cublasCsyrr_64	12.0				hipblasCsyrr_64	6.2.0		7.0.0				rocblas_csyrr_64	6.2.0
cublasCsyrr_v2					hipblasCsyrr	3.5.0		7.0.0				rocblas_csyrr	1.7.1
cublasCsyrr_v2_64	12.0				hipblasCsyrr_64	6.2.0		7.0.0				rocblas_csyrr_64	6.2.0
cublasCtbbmv					hipblasCtbbmv	3.5.0		7.0.0				rocblas_ctbbmv	3.5.0
cublasCtbbmv_64	12.0				hipblasCtbbmv_64	6.2.0		7.0.0				rocblas_ctbbmv_64	6.2.0
cublasCtbbmv_v2					hipblasCtbbmv	3.5.0		7.0.0				rocblas_ctbbmv	3.5.0

contin

Table 6 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A
cublasCtbnv_v2_64	12.0				hipblasCtbnv_64	6.2.0		7.0.0				rocblas_ctbnv_64	6.2.0
cublasCtbsv					hipblasCtbsv	3.6.0		7.0.0				rocblas_ctbsv	3.5.0
cublasCtbsv_64	12.0				hipblasCtbsv_64	6.2.0		7.0.0				rocblas_ctbsv_64	6.2.0
cublasCtbsv_v2					hipblasCtbsv	3.6.0		7.0.0				rocblas_ctbsv	3.5.0
cublasCtbsv_v2_64	12.0				hipblasCtbsv_64	6.2.0		7.0.0				rocblas_ctbsv_64	6.2.0
cublasCtpmv					hipblasCtpmv	3.5.0		7.0.0				rocblas_ctpmv	3.5.0
cublasCtpmv_64	12.0				hipblasCtpmv_64	6.2.0		7.0.0				rocblas_ctpmv_64	6.2.0
cublasCtpmv_v2					hipblasCtpmv	3.5.0		7.0.0				rocblas_ctpmv	3.5.0
cublasCtpmv_v2_64	12.0				hipblasCtpmv_64	6.2.0		7.0.0				rocblas_ctpmv_64	6.2.0
cublasCtpsv					hipblasCtpsv	3.5.0		7.0.0				rocblas_ctpsv	3.5.0
cublasCtpsv_64	12.0				hipblasCtpsv_64	6.2.0		7.0.0				rocblas_ctpsv_64	6.2.0
cublasCtpsv_v2					hipblasCtpsv	3.5.0		7.0.0				rocblas_ctpsv	3.5.0
cublasCtpsv_v2_64	12.0				hipblasCtpsv_64	6.2.0		7.0.0				rocblas_ctpsv_64	6.2.0
cublasCtrmv					hipblasCtrmv	3.5.0		7.0.0				rocblas_ctrmv	3.5.0
cublasCtrmv_64	12.0				hipblasCtrmv_64	6.2.0		7.0.0				rocblas_ctrmv_64	6.2.0
cublasCtrmv_v2					hipblasCtrmv	3.5.0		7.0.0				rocblas_ctrmv	3.5.0
cublasCtrmv_v2_64	12.0				hipblasCtrmv_64	6.2.0		7.0.0				rocblas_ctrmv_64	6.2.0
cublasCtrsv					hipblasCtrsv	3.5.0		7.0.0				rocblas_ctrsv	3.5.0
cublasCtrsv_64	12.0				hipblasCtrsv_64	6.2.0		7.0.0				rocblas_ctrsv_64	6.2.0
cublasCtrsv_v2					hipblasCtrsv	3.5.0		7.0.0				rocblas_ctrsv	3.5.0
cublasCtrsv_v2_64	12.0				hipblasCtrsv_64	6.2.0		7.0.0				rocblas_ctrsv_64	6.2.0
cublasDgbmv					hipblasDgbmv	3.5.0						rocblas_dgbmv	3.5.0
cublasDgbmv_64	12.0				hipblasDgbmv_64	6.2.0						rocblas_dgbmv_64	6.2.0
cublasDgbmv_v2					hipblasDgbmv	3.5.0						rocblas_dgbmv	3.5.0
cublasDgbmv_v2_64	12.0				hipblasDgbmv_64	6.2.0						rocblas_dgbmv_64	6.2.0
cublasDgemv					hipblasDgemv	1.8.2						rocblas_dgemv	1.5.0
cublasDgemv_64	12.0				hipblasDgemv_64	6.2.0						rocblas_dgemv_64	6.2.0
cublasDgemv_v2					hipblasDgemv	1.8.2						rocblas_dgemv	1.5.0
cublasDgemv_v2_64	12.0				hipblasDgemv_64	6.2.0						rocblas_dgemv_64	6.2.0
cublasDger					hipblasDger	1.8.2						rocblas_dger	1.5.0
cublasDger_64	12.0				hipblasDger_64	6.2.0						rocblas_dger_64	6.2.0
cublasDger_v2					hipblasDger	1.8.2						rocblas_dger	1.5.0
cublasDger_v2_64	12.0				hipblasDger_64	6.2.0						rocblas_dger_64	6.2.0
cublasDsbmv					hipblasDsbmv	3.5.0						rocblas_dsbmv	3.5.0
cublasDsbmv_64	12.0				hipblasDsbmv_64	6.2.0						rocblas_dsbmv_64	6.2.0
cublasDsbmv_v2					hipblasDsbmv	3.5.0						rocblas_dsbmv	3.5.0
cublasDsbmv_v2_64	12.0				hipblasDsbmv_64	6.2.0						rocblas_dsbmv_64	6.2.0
cublasDspmv					hipblasDspmv	3.5.0						rocblas_dspmv	3.5.0
cublasDspmv_64	12.0				hipblasDspmv_64	6.2.0						rocblas_dspmv_64	6.2.0
cublasDspmv_v2					hipblasDspmv	3.5.0						rocblas_dspmv	3.5.0
cublasDspmv_v2_64	12.0				hipblasDspmv_64	6.2.0						rocblas_dspmv_64	6.2.0
cublasDspr					hipblasDspr	3.5.0						rocblas_dspr	3.5.0
cublasDspr2					hipblasDspr2	3.5.0						rocblas_dspr2	3.5.0
cublasDspr2_64	12.0				hipblasDspr2_64	6.2.0						rocblas_dspr2_64	6.2.0
cublasDspr2_v2					hipblasDspr2	3.5.0						rocblas_dspr2	3.5.0
cublasDspr2_v2_64	12.0				hipblasDspr2_64	6.2.0						rocblas_dspr2_64	6.2.0
cublasDspr_64	12.0				hipblasDspr_64	6.2.0						rocblas_dspr_64	6.2.0
cublasDspr_v2					hipblasDspr	3.5.0						rocblas_dspr	3.5.0
cublasDspr_v2_64	12.0				hipblasDspr_64	6.2.0						rocblas_dspr_64	6.2.0
cublasDsymv					hipblasDsymv	3.5.0						rocblas_dsymv	1.5.0

contin

Table 6 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A
cublasDsymv_64	12.0				hipblasDsymv_64	6.2.0						rocblas_dsymv_64	6.2.0
cublasDsymv_v2					hipblasDsymv	3.5.0						rocblas_dsymv	1.5.0
cublasDsymv_v2_64	12.0				hipblasDsymv_64	6.2.0						rocblas_dsymv_64	6.2.0
cublasDsyrr					hipblasDsyrr	3.0.0						rocblas_dsyrr	1.7.1
cublasDsyrr2					hipblasDsyrr2	3.5.0						rocblas_dsyrr2	3.5.0
cublasDsyrr2_64	12.0				hipblasDsyrr2_64	6.2.0						rocblas_dsyrr2_64	6.2.0
cublasDsyrr2_v2					hipblasDsyrr2	3.5.0						rocblas_dsyrr2	3.5.0
cublasDsyrr2_v2_64	12.0				hipblasDsyrr2_64	6.2.0						rocblas_dsyrr2_64	6.2.0
cublasDsyrr_64	12.0				hipblasDsyrr_64	6.2.0						rocblas_dsyrr_64	6.2.0
cublasDsyrr_v2					hipblasDsyrr	3.0.0						rocblas_dsyrr	1.7.1
cublasDsyrr_v2_64	12.0				hipblasDsyrr_64	6.2.0						rocblas_dsyrr_64	6.2.0
cublasDtbmv					hipblasDtbmv	3.5.0						rocblas_dtbmv	3.5.0
cublasDtbmv_64	12.0				hipblasDtbmv_64	6.2.0						rocblas_dtbmv_64	6.2.0
cublasDtbmv_v2					hipblasDtbmv	3.5.0						rocblas_dtbmv	3.5.0
cublasDtbmv_v2_64	12.0				hipblasDtbmv_64	6.2.0						rocblas_dtbmv_64	6.2.0
cublasDtbsv					hipblasDtbsv	3.6.0						rocblas_dtbsv	3.5.0
cublasDtbsv_64	12.0				hipblasDtbsv_64	6.2.0						rocblas_dtbsv_64	6.2.0
cublasDtbsv_v2					hipblasDtbsv	3.6.0						rocblas_dtbsv	3.5.0
cublasDtbsv_v2_64	12.0				hipblasDtbsv_64	6.2.0						rocblas_dtbsv_64	6.2.0
cublasDtpmv					hipblasDtpmv	3.5.0						rocblas_dtpmv	3.5.0
cublasDtpmv_64	12.0				hipblasDtpmv_64	6.2.0						rocblas_dtpmv_64	6.2.0
cublasDtpmv_v2					hipblasDtpmv	3.5.0						rocblas_dtpmv	3.5.0
cublasDtpmv_v2_64	12.0				hipblasDtpmv_64	6.2.0						rocblas_dtpmv_64	6.2.0
cublasDtpsv					hipblasDtpsv	3.5.0						rocblas_dtpsv	3.5.0
cublasDtpsv_64	12.0				hipblasDtpsv_64	6.2.0						rocblas_dtpsv_64	6.2.0
cublasDtpsv_v2					hipblasDtpsv	3.5.0						rocblas_dtpsv	3.5.0
cublasDtpsv_v2_64	12.0				hipblasDtpsv_64	6.2.0						rocblas_dtpsv_64	6.2.0
cublasDtrmv					hipblasDtrmv	3.5.0						rocblas_dtrmv	3.5.0
cublasDtrmv_64	12.0				hipblasDtrmv_64	6.2.0						rocblas_dtrmv_64	6.2.0
cublasDtrmv_v2					hipblasDtrmv	3.5.0						rocblas_dtrmv	3.5.0
cublasDtrmv_v2_64	12.0				hipblasDtrmv_64	6.2.0						rocblas_dtrmv_64	6.2.0
cublasDtrsv					hipblasDtrsv	3.0.0						rocblas_dtrsv	3.5.0
cublasDtrsv_64	12.0				hipblasDtrsv_64	6.2.0						rocblas_dtrsv_64	6.2.0
cublasDtrsv_v2					hipblasDtrsv	3.0.0						rocblas_dtrsv	3.5.0
cublasDtrsv_v2_64	12.0				hipblasDtrsv_64	6.2.0						rocblas_dtrsv_64	6.2.0
cublasSgbmv					hipblasSgbmv	3.5.0						rocblas_sgbmv	3.5.0
cublasSgbmv_64	12.0				hipblasSgbmv_64	6.2.0						rocblas_sgbmv_64	6.2.0
cublasSgbmv_v2					hipblasSgbmv	3.5.0						rocblas_sgbmv	3.5.0
cublasSgbmv_v2_64	12.0				hipblasSgbmv_64	6.2.0						rocblas_sgbmv_64	6.2.0
cublasSgemv					hipblasSgemv	1.8.2						rocblas_sgemv	1.5.0
cublasSgemv_64	12.0				hipblasSgemv_64	6.2.0						rocblas_sgemv_64	6.2.0
cublasSgemv_v2					hipblasSgemv	1.8.2						rocblas_sgemv	1.5.0
cublasSgemv_v2_64	12.0				hipblasSgemv_64	6.2.0						rocblas_sgemv_64	6.2.0
cublasSger					hipblasSger	1.8.2						rocblas_sger	1.5.0
cublasSger_64	12.0				hipblasSger_64	6.2.0						rocblas_sger_64	6.2.0
cublasSger_v2					hipblasSger	1.8.2						rocblas_sger	1.5.0
cublasSger_v2_64	12.0				hipblasSger_64	6.2.0						rocblas_sger_64	6.2.0
cublasSsbmv					hipblasSsbmv	3.5.0						rocblas_ssbmv	3.5.0
cublasSsbmv_64	12.0				hipblasSsbmv_64	6.2.0						rocblas_ssbmv_64	6.2.0
cublasSsbmv_v2					hipblasSsbmv	3.5.0						rocblas_ssbmv	3.5.0

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Table 6 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A
cublasSsbmv_v2_64	12.0				hipblasSsbmv_64	6.2.0						rocblas_ssbmv_64	6.2.0
cublasSspmv					hipblasSspmv	3.5.0						rocblas_sspmv	3.5.0
cublasSspmv_64	12.0				hipblasSspmv_64	6.2.0						rocblas_sspmv_64	6.2.0
cublasSspmv_v2					hipblasSspmv	3.5.0						rocblas_sspmv	3.5.0
cublasSspmv_v2_64	12.0				hipblasSspmv_64	6.2.0						rocblas_sspmv_64	6.2.0
cublasSspr					hipblasSspr	3.5.0						rocblas_sspr	3.5.0
cublasSspr2					hipblasSspr2	3.5.0						rocblas_sspr2	3.5.0
cublasSspr2_64	12.0				hipblasSspr2_64	6.2.0						rocblas_sspr2_64	6.2.0
cublasSspr2_v2					hipblasSspr2	3.5.0						rocblas_sspr2	3.5.0
cublasSspr2_v2_64	12.0				hipblasSspr2_64	6.2.0						rocblas_sspr2_64	6.2.0
cublasSspr_64	12.0				hipblasSspr_64	6.2.0						rocblas_sspr_64	6.2.0
cublasSspr_v2					hipblasSspr	3.5.0						rocblas_sspr	3.5.0
cublasSspr_v2_64	12.0				hipblasSspr_64	6.2.0						rocblas_sspr_64	6.2.0
cublasSsymv					hipblasSsymv	3.5.0						rocblas_ssymv	1.5.0
cublasSsymv_64	12.0				hipblasSsymv_64	6.2.0						rocblas_ssymv_64	6.2.0
cublasSsymv_v2					hipblasSsymv	3.5.0						rocblas_ssymv	1.5.0
cublasSsymv_v2_64	12.0				hipblasSsymv_64	6.2.0						rocblas_ssymv_64	6.2.0
cublasSsyrr					hipblasSsyrr	3.0.0						rocblas_ssyrr	1.7.1
cublasSsyrr2					hipblasSsyrr2	3.5.0						rocblas_ssyrr2	3.5.0
cublasSsyrr2_64	12.0				hipblasSsyrr2_64	6.2.0						rocblas_ssyrr2_64	6.2.0
cublasSsyrr2_v2					hipblasSsyrr2	3.5.0						rocblas_ssyrr2	3.5.0
cublasSsyrr2_v2_64	12.0				hipblasSsyrr2_64	6.2.0						rocblas_ssyrr2_64	6.2.0
cublasSsyrr_64	12.0				hipblasSsyrr_64	6.2.0						rocblas_ssyrr_64	6.2.0
cublasSsyrr_v2					hipblasSsyrr	3.0.0						rocblas_ssyrr	1.7.1
cublasSsyrr_v2_64	12.0				hipblasSsyrr_64	6.2.0						rocblas_ssyrr_64	6.2.0
cublasStbmv					hipblasStbmv	3.5.0						rocblas_stbmv	3.5.0
cublasStbmv_64	12.0				hipblasStbmv_64	6.2.0						rocblas_stbmv_64	6.2.0
cublasStbmv_v2					hipblasStbmv	3.5.0						rocblas_stbmv	3.5.0
cublasStbmv_v2_64	12.0				hipblasStbmv_64	6.2.0						rocblas_stbmv_64	6.2.0
cublasStbsv					hipblasStbsv	3.6.0						rocblas_stbsv	3.5.0
cublasStbsv_64	12.0				hipblasStbsv_64	6.2.0						rocblas_stbsv_64	6.2.0
cublasStbsv_v2					hipblasStbsv	3.6.0						rocblas_stbsv	3.5.0
cublasStbsv_v2_64	12.0				hipblasStbsv_64	6.2.0						rocblas_stbsv_64	6.2.0
cublasStpmv					hipblasStpmv	3.5.0						rocblas_stpmv	3.5.0
cublasStpmv_64	12.0				hipblasStpmv_64	6.2.0						rocblas_stpmv_64	6.2.0
cublasStpmv_v2					hipblasStpmv	3.5.0						rocblas_stpmv	3.5.0
cublasStpmv_v2_64	12.0				hipblasStpmv_64	6.2.0						rocblas_stpmv_64	6.2.0
cublasStpsv					hipblasStpsv	3.5.0						rocblas_stpsv	3.5.0
cublasStpsv_64	12.0				hipblasStpsv_64	6.2.0						rocblas_stpsv_64	6.2.0
cublasStpsv_v2					hipblasStpsv	3.5.0						rocblas_stpsv	3.5.0
cublasStpsv_v2_64	12.0				hipblasStpsv_64	6.2.0						rocblas_stpsv_64	6.2.0
cublasStrmv					hipblasStrmv	3.5.0						rocblas_strmv	3.5.0
cublasStrmv_64	12.0				hipblasStrmv_64	6.2.0						rocblas_strmv_64	6.2.0
cublasStrmv_v2					hipblasStrmv	3.5.0						rocblas_strmv	3.5.0
cublasStrmv_v2_64	12.0				hipblasStrmv_64	6.2.0						rocblas_strmv_64	6.2.0
cublasStrsv					hipblasStrsv	3.0.0						rocblas_strsv	3.5.0
cublasStrsv_64	12.0				hipblasStrsv_64	6.2.0						rocblas_strsv_64	6.2.0
cublasStrsv_v2					hipblasStrsv	3.0.0						rocblas_strsv	3.5.0
cublasStrsv_v2_64	12.0				hipblasStrsv_64	6.2.0						rocblas_strsv_64	6.2.0
cublasZgbmv					hipblasZgbmv	3.5.0				7.0.0		rocblas_zgbmv	3.5.0

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Table 6 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A
cublasZgbmv_64	12.0				hipblasZgbmv_64	6.2.0		7.0.0				rocblas_zgbmv_64	6.2.0
cublasZgbmv_v2					hipblasZgbmv	3.5.0		7.0.0				rocblas_zgbmv	3.5.0
cublasZgbmv_v2_64	12.0				hipblasZgbmv_64	6.2.0		7.0.0				rocblas_zgbmv_64	6.2.0
cublasZgemv					hipblasZgemv	3.0.0		7.0.0				rocblas_zgemv	1.5.0
cublasZgemv_64	12.0				hipblasZgemv_64	6.2.0		7.0.0				rocblas_zgemv_64	6.2.0
cublasZgemv_v2					hipblasZgemv	3.0.0		7.0.0				rocblas_zgemv	1.5.0
cublasZgemv_v2_64	12.0				hipblasZgemv_64	6.2.0		7.0.0				rocblas_zgemv_64	6.2.0
cublasZgerc					hipblasZgerc	3.5.0		7.0.0				rocblas_zgerc	3.5.0
cublasZgerc_64	12.0				hipblasZgerc_64	6.2.0		7.0.0				rocblas_zgerc_64	6.2.0
cublasZgerc_v2					hipblasZgerc	3.5.0		7.0.0				rocblas_zgerc	3.5.0
cublasZgerc_v2_64	12.0				hipblasZgerc_64	6.2.0		7.0.0				rocblas_zgerc_64	6.2.0
cublasZgeru					hipblasZgeru	3.5.0		7.0.0				rocblas_zgeru	3.5.0
cublasZgeru_64	12.0				hipblasZgeru_64	6.2.0		7.0.0				rocblas_zgeru_64	6.2.0
cublasZgeru_v2					hipblasZgeru	3.5.0		7.0.0				rocblas_zgeru	3.5.0
cublasZgeru_v2_64	12.0				hipblasZgeru_64	6.2.0		7.0.0				rocblas_zgeru_64	6.2.0
cublasZhbmvm					hipblasZhbmvm	3.5.0		7.0.0				rocblas_zhbmvm	3.5.0
cublasZhbmvm_64	12.0				hipblasZhbmvm_64	6.2.0		7.0.0				rocblas_zhbmvm_64	6.2.0
cublasZhbmvm_v2					hipblasZhbmvm	3.5.0		7.0.0				rocblas_zhbmvm	3.5.0
cublasZhbmvm_v2_64	12.0				hipblasZhbmvm_64	6.2.0		7.0.0				rocblas_zhbmvm_64	6.2.0
cublasZhemv					hipblasZhemv	3.5.0		7.0.0				rocblas_zhemv	1.5.0
cublasZhemv_64	12.0				hipblasZhemv_64	6.2.0		7.0.0				rocblas_zhemv_64	6.2.0
cublasZhemv_v2					hipblasZhemv	3.5.0		7.0.0				rocblas_zhemv	1.5.0
cublasZhemv_v2_64	12.0				hipblasZhemv_64	6.2.0		7.0.0				rocblas_zhemv_64	6.2.0
cublasZher					hipblasZher	3.5.0		7.0.0				rocblas_zher	3.5.0
cublasZher2					hipblasZher2	3.5.0		7.0.0				rocblas_zher2	3.5.0
cublasZher2_64	12.0				hipblasZher2_64	6.2.0		7.0.0				rocblas_zher2_64	6.2.0
cublasZher2_v2					hipblasZher2	3.5.0		7.0.0				rocblas_zher2	3.5.0
cublasZher2_v2_64	12.0				hipblasZher2_64	6.2.0		7.0.0				rocblas_zher2_64	6.2.0
cublasZher_64	12.0				hipblasZher_64	6.2.0		7.0.0				rocblas_zher_64	6.2.0
cublasZher_v2					hipblasZher	3.5.0		7.0.0				rocblas_zher	3.5.0
cublasZher_v2_64	12.0				hipblasZher_64	6.2.0		7.0.0				rocblas_zher_64	6.2.0
cublasZhpmv					hipblasZhpmv	3.5.0		7.0.0				rocblas_zhpmv	3.5.0
cublasZhpmv_64	12.0				hipblasZhpmv_64	6.2.0		7.0.0				rocblas_zhpmv_64	6.2.0
cublasZhpmv_v2					hipblasZhpmv	3.5.0		7.0.0				rocblas_zhpmv	3.5.0
cublasZhpmv_v2_64	12.0				hipblasZhpmv_64	6.2.0		7.0.0				rocblas_zhpmv_64	6.2.0
cublasZhpr					hipblasZhpr	3.5.0		7.0.0				rocblas_zhpr	3.5.0
cublasZhpr2					hipblasZhpr2	3.5.0		7.0.0				rocblas_zhpr2	3.5.0
cublasZhpr2_64	12.0				hipblasZhpr2_64	6.2.0		7.0.0				rocblas_zhpr2_64	6.2.0
cublasZhpr2_v2					hipblasZhpr2	3.5.0		7.0.0				rocblas_zhpr2	3.5.0
cublasZhpr2_v2_64	12.0				hipblasZhpr2_64	6.2.0		7.0.0				rocblas_zhpr2_64	6.2.0
cublasZhpr_64	12.0				hipblasZhpr_64	6.2.0		7.0.0				rocblas_zhpr_64	6.2.0
cublasZhpr_v2					hipblasZhpr	3.5.0		7.0.0				rocblas_zhpr	3.5.0
cublasZhpr_v2_64	12.0				hipblasZhpr_64	6.2.0		7.0.0				rocblas_zhpr_64	6.2.0
cublasZsymv					hipblasZsymv	3.5.0		7.0.0				rocblas_zsymv	3.5.0
cublasZsymv_64	12.0				hipblasZsymv_64	6.2.0		7.0.0				rocblas_zsymv_64	6.2.0
cublasZsymv_v2					hipblasZsymv	3.5.0		7.0.0				rocblas_zsymv	3.5.0
cublasZsymv_v2_64	12.0				hipblasZsymv_64	6.2.0		7.0.0				rocblas_zsymv_64	6.2.0
cublasZsyr					hipblasZsyr	3.5.0		7.0.0				rocblas_zsyr	1.7.1
cublasZsyr2					hipblasZsyr2	3.5.0		7.0.0				rocblas_zsyr2	3.5.0
cublasZsyr2_64	12.0				hipblasZsyr2_64	6.2.0		7.0.0				rocblas_zsyr2_64	6.2.0

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Table 6 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A
cublasZsyr2_v2					hipblasZsyr2	3.5.0		7.0.0				rocblas_zsyr2	3.5.0
cublasZsyr2_v2_64	12.0				hipblasZsyr2_64	6.2.0		7.0.0				rocblas_zsyr2_64	6.2.0
cublasZsyr_64	12.0				hipblasZsyr_64	6.2.0		7.0.0				rocblas_zsyr_64	6.2.0
cublasZsyr_v2					hipblasZsyr	3.5.0		7.0.0				rocblas_zsyr	1.7.
cublasZsyr_v2_64	12.0				hipblasZsyr_64	6.2.0		7.0.0				rocblas_zsyr_64	6.2.0
cublasZtbmv					hipblasZtbmv	3.5.0		7.0.0				rocblas_ztbmv	3.5.0
cublasZtbmv_64	12.0				hipblasZtbmv_64	6.2.0		7.0.0				rocblas_ztbmv_64	6.2.0
cublasZtbmv_v2					hipblasZtbmv	3.5.0		7.0.0				rocblas_ztbmv	3.5.0
cublasZtbmv_v2_64	12.0				hipblasZtbmv_64	6.2.0		7.0.0				rocblas_ztbmv_64	6.2.0
cublasZtbsv					hipblasZtbsv	3.6.0		7.0.0				rocblas_ztbsv	3.5.0
cublasZtbsv_64	12.0				hipblasZtbsv_64	6.2.0		7.0.0				rocblas_ztbsv_64	6.2.0
cublasZtbsv_v2					hipblasZtbsv	3.6.0		7.0.0				rocblas_ztbsv	3.5.0
cublasZtbsv_v2_64	12.0				hipblasZtbsv_64	6.2.0		7.0.0				rocblas_ztbsv_64	6.2.0
cublasZtpmv					hipblasZtpmv	3.5.0		7.0.0				rocblas_ztpmv	3.5.0
cublasZtpmv_64	12.0				hipblasZtpmv_64	6.2.0		7.0.0				rocblas_ztpmv_64	6.2.0
cublasZtpmv_v2					hipblasZtpmv	3.5.0		7.0.0				rocblas_ztpmv	3.5.0
cublasZtpmv_v2_64	12.0				hipblasZtpmv_64	6.2.0		7.0.0				rocblas_ztpmv_64	6.2.0
cublasZtpsv					hipblasZtpsv	3.5.0		7.0.0				rocblas_ztpsv	3.5.0
cublasZtpsv_64	12.0				hipblasZtpsv_64	6.2.0		7.0.0				rocblas_ztpsv_64	6.2.0
cublasZtpsv_v2					hipblasZtpsv	3.5.0		7.0.0				rocblas_ztpsv	3.5.0
cublasZtpsv_v2_64	12.0				hipblasZtpsv_64	6.2.0		7.0.0				rocblas_ztpsv_64	6.2.0
cublasZtrmv					hipblasZtrmv	3.5.0		7.0.0				rocblas_ztrmv	3.5.0
cublasZtrmv_64	12.0				hipblasZtrmv_64	6.2.0		7.0.0				rocblas_ztrmv_64	6.2.0
cublasZtrmv_v2					hipblasZtrmv	3.5.0		7.0.0				rocblas_ztrmv	3.5.0
cublasZtrmv_v2_64	12.0				hipblasZtrmv_64	6.2.0		7.0.0				rocblas_ztrmv_64	6.2.0
cublasZtrsv					hipblasZtrsv	3.5.0		7.0.0				rocblas_ztrsv	3.5.0
cublasZtrsv_64	12.0				hipblasZtrsv_64	6.2.0		7.0.0				rocblas_ztrsv_64	6.2.0
cublasZtrsv_v2					hipblasZtrsv	3.5.0		7.0.0				rocblas_ztrsv	3.5.0
cublasZtrsv_v2_64	12.0				hipblasZtrsv_64	6.2.0		7.0.0				rocblas_ztrsv_64	6.2.0

11.1.7 7. CUBLAS Level-3 Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasCgemm					hipblasCgemm	1.6.0		7.0.0		
cublasCgemm3m	8.0									
cublasCgemm3mBatched	8.0									
cublasCgemm3mBatched_64	12.0									
cublasCgemm3mEx	8.0									
cublasCgemm3mEx_64	12.0									
cublasCgemm3mStridedBatched	8.0									
cublasCgemm3mStridedBatched_64	12.0									
cublasCgemm3m_64	12.0									
cublasCgemmBatched					hipblasCgemmBatched	1.6.0		7.0.0		
cublasCgemmBatched_64	12.0				hipblasCgemmBatched_64	6.3.0		7.0.0		
cublasCgemmStridedBatched	8.0				hipblasCgemmStridedBatched	3.0.0		7.0.0		
cublasCgemmStridedBatched_64	12.0				hipblasCgemmStridedBatched_64	6.3.0		7.0.0		
cublasCgemm_64	12.0				hipblasCgemm_64	6.3.0		7.0.0		
cublasCgemm_v2					hipblasCgemm	1.6.0		7.0.0		
cublasCgemm_v2_64	12.0				hipblasCgemm_64	6.3.0		7.0.0		

Table 7 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasCgemvBatched	11.6				hipblasCgemvBatched	3.0.0		7.0.0		
cublasCgemvBatched_64	12.0				hipblasCgemvBatched_64	6.2.0		7.0.0		
cublasCgemvStridedBatched	11.6				hipblasCgemvStridedBatched	3.0.0		7.0.0		
cublasCgemvStridedBatched_64	12.0				hipblasCgemvStridedBatched_64	6.2.0		7.0.0		
cublasChemmm					hipblasChemmm	3.6.0		7.0.0		
cublasChemmm_64	12.0				hipblasChemmm_64	6.3.0		7.0.0		
cublasChemmm_v2					hipblasChemmm	3.6.0		7.0.0		
cublasChemmm_v2_64	12.0				hipblasChemmm_64	6.3.0		7.0.0		
cublasCher2k					hipblasCher2k	3.5.0		7.0.0		
cublasCher2k_64	12.0				hipblasCher2k_64	6.3.0		7.0.0		
cublasCher2k_v2					hipblasCher2k	3.5.0		7.0.0		
cublasCher2k_v2_64	12.0				hipblasCher2k_64	6.3.0		7.0.0		
cublasCherk					hipblasCherk	3.5.0		7.0.0		
cublasCherk_64	12.0				hipblasCherk_64	6.3.0		7.0.0		
cublasCherk_v2					hipblasCherk	3.5.0		7.0.0		
cublasCherk_v2_64	12.0				hipblasCherk_64	6.3.0		7.0.0		
cublasCherkx					hipblasCherkx	3.5.0		7.0.0		
cublasCherkx_64	12.0				hipblasCherkx_64	6.3.0		7.0.0		
cublasCsymm					hipblasCsymm	3.6.0		7.0.0		
cublasCsymm_64	12.0				hipblasCsymm_64	6.3.0		7.0.0		
cublasCsymm_v2					hipblasCsymm	3.6.0		7.0.0		
cublasCsymm_v2_64	12.0				hipblasCsymm_64	6.3.0		7.0.0		
cublasCsyr2k					hipblasCsyr2k	3.5.0		7.0.0		
cublasCsyr2k_64	12.0				hipblasCsyr2k_64	6.3.0		7.0.0		
cublasCsyr2k_v2					hipblasCsyr2k	3.5.0		7.0.0		
cublasCsyr2k_v2_64	12.0				hipblasCsyr2k_64	6.3.0		7.0.0		
cublasCsyrk					hipblasCsyrk	3.5.0		7.0.0		
cublasCsyrk_64	12.0				hipblasCsyrk_64	6.3.0		7.0.0		
cublasCsyrk_v2					hipblasCsyrk	3.5.0		7.0.0		
cublasCsyrk_v2_64	12.0				hipblasCsyrk_64	6.3.0		7.0.0		
cublasCsyrkx					hipblasCsyrkx	3.5.0		7.0.0		
cublasCsyrkx_64	12.0				hipblasCsyrkx_64	6.3.0		7.0.0		
cublasCtrmm					hipblasCtrmm	3.5.0		7.0.0		
cublasCtrmm_64	12.0				hipblasCtrmm_64	6.3.0		7.0.0		
cublasCtrmm_v2					hipblasCtrmm	3.5.0		7.0.0		
cublasCtrmm_v2_64	12.0				hipblasCtrmm_64	6.3.0		7.0.0		
cublasCtrsm					hipblasCtrsm	3.5.0		7.0.0		
cublasCtrsm_64	12.0				hipblasCtrsm_64	6.3.0		7.0.0		
cublasCtrsm_v2					hipblasCtrsm	3.5.0		7.0.0		
cublasCtrsm_v2_64	12.0				hipblasCtrsm_64	6.3.0		7.0.0		
cublasDgemm					hipblasDgemm	1.8.2				
cublasDgemmBatched					hipblasDgemmBatched	1.8.2				
cublasDgemmBatched_64	12.0				hipblasDgemmBatched_64	6.3.0				
cublasDgemmGroupedBatched	12.4									
cublasDgemmGroupedBatched_64	12.4									
cublasDgemmStridedBatched	8.0				hipblasDgemmStridedBatched	1.8.2				
cublasDgemmStridedBatched_64	12.0				hipblasDgemmStridedBatched_64	6.3.0				
cublasDgemm_64	12.0				hipblasDgemm_64	6.3.0				
cublasDgemm_v2					hipblasDgemm	1.8.2				
cublasDgemm_v2_64	12.0				hipblasDgemm_64	6.3.0				

Table 7 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasDgemvBatched	11.6				hipblasDgemvBatched	3.0.0				
cublasDgemvBatched_64	12.0				hipblasDgemvBatched_64	6.2.0				
cublasDgemvStridedBatched	11.6				hipblasDgemvStridedBatched	3.0.0				
cublasDgemvStridedBatched_64	12.0				hipblasDgemvStridedBatched_64	6.2.0				
cublasDsymm					hipblasDsymm	3.6.0				
cublasDsymm_64	12.0				hipblasDsymm_64	6.3.0				
cublasDsymm_v2					hipblasDsymm	3.6.0				
cublasDsymm_v2_64	12.0				hipblasDsymm_64	6.3.0				
cublasDsyr2k					hipblasDsyr2k	3.5.0				
cublasDsyr2k_64	12.0				hipblasDsyr2k_64	6.3.0				
cublasDsyr2k_v2					hipblasDsyr2k	3.5.0				
cublasDsyr2k_v2_64	12.0				hipblasDsyr2k_64	6.3.0				
cublasDsyrk					hipblasDsyrk	3.5.0				
cublasDsyrk_64	12.0				hipblasDsyrk_64	6.3.0				
cublasDsyrk_v2					hipblasDsyrk	3.5.0				
cublasDsyrk_v2_64	12.0				hipblasDsyrk_64	6.3.0				
cublasDsyrkx					hipblasDsyrkx	3.5.0				
cublasDsyrkx_64	12.0				hipblasDsyrkx_64	6.3.0				
cublasDtrmm					hipblasDtrmm	3.2.0		6.0.0		
cublasDtrmm_64	12.0				hipblasDtrmm_64	6.3.0				
cublasDtrmm_v2					hipblasDtrmm	3.2.0		6.0.0		
cublasDtrmm_v2_64	12.0				hipblasDtrmm_64	6.3.0				
cublasDtrsm					hipblasDtrsm	1.8.2				
cublasDtrsm_64	12.0				hipblasDtrsm_64	6.3.0				
cublasDtrsm_v2					hipblasDtrsm	1.8.2				
cublasDtrsm_v2_64	12.0				hipblasDtrsm_64	6.3.0				
cublasGemmGroupedBatchedEx	12.5									
cublasGemmGroupedBatchedEx_64	12.5									
cublasHSHgemvBatched	11.6									
cublasHSHgemvBatched_64	12.0									
cublasHSHgemvStridedBatched	11.6									
cublasHSHgemvStridedBatched_64	12.0									
cublasHSSgemvBatched	11.6									
cublasHSSgemvBatched_64	12.0									
cublasHSSgemvStridedBatched	11.6									
cublasHSSgemvStridedBatched_64	12.0									
cublasHgemm	7.5				hipblasHgemm	1.8.2				
cublasHgemmBatched	9.0				hipblasHgemmBatched	3.0.0				
cublasHgemmBatched_64	12.0				hipblasHgemmBatched_64	6.3.0				
cublasHgemmStridedBatched	8.0				hipblasHgemmStridedBatched	3.0.0				
cublasHgemmStridedBatched_64	12.0				hipblasHgemmStridedBatched_64	6.3.0				
cublasHgemm_64	12.0				hipblasHgemm_64	6.3.0				
cublasSgemm					hipblasSgemm	1.8.2				
cublasSgemmBatched					hipblasSgemmBatched	1.8.2				
cublasSgemmBatched_64	12.0				hipblasSgemmBatched_64	6.3.0				
cublasSgemmGroupedBatched	12.4									
cublasSgemmGroupedBatched_64	12.4									
cublasSgemmStridedBatched	8.0				hipblasSgemmStridedBatched	1.8.2				
cublasSgemmStridedBatched_64	12.0				hipblasSgemmStridedBatched_64	6.3.0				
cublasSgemm_64	12.0				hipblasSgemm_64	6.3.0				

Table 7 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasSgemm_v2					hipblasSgemm	1.8.2				
cublasSgemm_v2_64	12.0				hipblasSgemm_64	6.3.0				
cublasSgemvBatched	11.6				hipblasSgemvBatched	1.6.0				
cublasSgemvBatched_64	12.0				hipblasSgemvBatched_64	6.2.0				
cublasSgemvStridedBatched	11.6				hipblasSgemvStridedBatched	3.0.0				
cublasSgemvStridedBatched_64	12.0				hipblasSgemvStridedBatched_64	6.2.0				
cublasSsymm					hipblasSsymm	3.6.0				
cublasSsymm_64	12.0				hipblasSsymm_64	6.3.0				
cublasSsymm_v2					hipblasSsymm	3.6.0				
cublasSsymm_v2_64	12.0				hipblasSsymm_64	6.3.0				
cublasSsyr2k					hipblasSsyr2k	3.5.0				
cublasSsyr2k_64	12.0				hipblasSsyr2k_64	6.3.0				
cublasSsyr2k_v2					hipblasSsyr2k	3.5.0				
cublasSsyr2k_v2_64	12.0				hipblasSsyr2k_64	6.3.0				
cublasSsyrk					hipblasSsyrk	3.5.0				
cublasSsyrk_64	12.0				hipblasSsyrk_64	6.3.0				
cublasSsyrk_v2					hipblasSsyrk	3.5.0				
cublasSsyrk_v2_64	12.0				hipblasSsyrk_64	6.3.0				
cublasSsyrkx					hipblasSsyrkx	3.5.0				
cublasSsyrkx_64	12.0				hipblasSsyrkx_64	6.3.0				
cublasStrmm					hipblasStrmm	3.2.0		6.0.0		
cublasStrmm_64	12.0				hipblasStrmm_64	6.3.0				
cublasStrmm_v2					hipblasStrmm	3.2.0		6.0.0		
cublasStrmm_v2_64	12.0				hipblasStrmm_64	6.3.0				
cublasStrsm					hipblasStrsm	1.8.2				
cublasStrsm_64	12.0				hipblasStrsm_64	6.3.0				
cublasStrsm_v2					hipblasStrsm	1.8.2				
cublasStrsm_v2_64	12.0				hipblasStrsm_64	6.3.0				
cublasTSSgemvBatched	11.6									
cublasTSSgemvBatched_64	12.0									
cublasTSSgemvStridedBatched	11.6									
cublasTSSgemvStridedBatched_64	12.0									
cublasTSTgemvBatched	11.6									
cublasTSTgemvBatched_64	12.0									
cublasTSTgemvStridedBatched	11.6									
cublasTSTgemvStridedBatched_64	12.0									
cublasZgemm					hipblasZgemm	1.6.0		7.0.0		
cublasZgemm3m	8.0									
cublasZgemm3m_64	12.0									
cublasZgemmBatched					hipblasZgemmBatched	1.6.0		7.0.0		
cublasZgemmBatched_64	12.0				hipblasZgemmBatched_64	6.3.0		7.0.0		
cublasZgemmStridedBatched	8.0				hipblasZgemmStridedBatched	3.0.0		7.0.0		
cublasZgemmStridedBatched_64	12.0				hipblasZgemmStridedBatched_64	6.3.0		7.0.0		
cublasZgemm_64	12.0				hipblasZgemm_64	6.3.0		7.0.0		
cublasZgemm_v2					hipblasZgemm	1.6.0		7.0.0		
cublasZgemm_v2_64	12.0				hipblasZgemm_64	6.3.0		7.0.0		
cublasZgemvBatched	11.6				hipblasZgemvBatched	3.0.0		7.0.0		
cublasZgemvBatched_64	12.0				hipblasZgemvBatched_64	6.2.0		7.0.0		
cublasZgemvStridedBatched	11.6				hipblasZgemvStridedBatched	3.0.0		7.0.0		
cublasZgemvStridedBatched_64	12.0				hipblasZgemvStridedBatched_64	6.2.0		7.0.0		

Table 7 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasZhemm					hipblasZhemm	3.6.0		7.0.0		
cublasZhemm_64	12.0				hipblasZhemm_64	6.3.0		7.0.0		
cublasZhemm_v2					hipblasZhemm	3.6.0		7.0.0		
cublasZhemm_v2_64	12.0				hipblasZhemm_64	6.3.0		7.0.0		
cublasZher2k					hipblasZher2k	3.5.0		7.0.0		
cublasZher2k_64	12.0				hipblasZher2k_64	6.3.0		7.0.0		
cublasZher2k_v2					hipblasZher2k	3.5.0		7.0.0		
cublasZher2k_v2_64	12.0				hipblasZher2k_64	6.3.0		7.0.0		
cublasZherk					hipblasZherk	3.5.0		7.0.0		
cublasZherk_64	12.0				hipblasZherk_64	6.3.0		7.0.0		
cublasZherk_v2					hipblasZherk	3.5.0		7.0.0		
cublasZherk_v2_64	12.0				hipblasZherk_64	6.3.0		7.0.0		
cublasZherkx					hipblasZherkx	3.5.0		7.0.0		
cublasZherkx_64	12.0				hipblasZherkx_64	6.3.0		7.0.0		
cublasZsymm					hipblasZsymm	3.6.0		7.0.0		
cublasZsymm_64	12.0				hipblasZsymm_64	6.3.0		7.0.0		
cublasZsymm_v2					hipblasZsymm	3.6.0		7.0.0		
cublasZsymm_v2_64	12.0				hipblasZsymm_64	6.3.0		7.0.0		
cublasZsyr2k					hipblasZsyr2k	3.5.0		7.0.0		
cublasZsyr2k_64	12.0				hipblasZsyr2k_64	6.3.0		7.0.0		
cublasZsyr2k_v2					hipblasZsyr2k	3.5.0		7.0.0		
cublasZsyr2k_v2_64	12.0				hipblasZsyr2k_64	6.3.0		7.0.0		
cublasZsyrk					hipblasZsyrk	3.5.0		7.0.0		
cublasZsyrk_64	12.0				hipblasZsyrk_64	6.3.0		7.0.0		
cublasZsyrk_v2					hipblasZsyrk	3.5.0		7.0.0		
cublasZsyrk_v2_64	12.0				hipblasZsyrk_64	6.3.0		7.0.0		
cublasZsyrkx					hipblasZsyrkx	3.5.0		7.0.0		
cublasZsyrkx_64	12.0				hipblasZsyrkx_64	6.3.0		7.0.0		
cublasZtrmm					hipblasZtrmm	3.5.0		7.0.0		
cublasZtrmm_64	12.0				hipblasZtrmm_64	6.3.0		7.0.0		
cublasZtrmm_v2					hipblasZtrmm	3.5.0		7.0.0		
cublasZtrmm_v2_64	12.0				hipblasZtrmm_64	6.3.0		7.0.0		
cublasZtrsm					hipblasZtrsm	3.5.0		7.0.0		
cublasZtrsm_64	12.0				hipblasZtrsm_64	6.3.0		7.0.0		
cublasZtrsm_v2					hipblasZtrsm	3.5.0		7.0.0		
cublasZtrsm_v2_64	12.0				hipblasZtrsm_64	6.3.0		7.0.0		

11.1.8 8. BLAS-like Extension

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasAsumEx	10.1									
cublasAsumEx_64	12.0									
cublasAxyEx	8.0				hipblasAxyEx	4.1.0		7.0.0		
cublasAxyEx_64	12.0				hipblasAxyEx_64	6.2.0		7.0.0		
cublasCdghmm					hipblasCdghmm	3.6.0		7.0.0		
cublasCdghmm_64	12.0				hipblasCdghmm_64	6.3.0		7.0.0		
cublasCgeam					hipblasCgeam	3.6.0		7.0.0		
cublasCgeam_64	12.0				hipblasCgeam_64	6.3.0		7.0.0		
cublasCgelsBatched					hipblasCgelsBatched	5.4.0		7.0.0		

Table 8 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	U
cublasCgemmEx	8.0									
cublasCgemmEx_64	12.0									
cublasCgeqrfBatched					hipblasCgeqrfBatched	3.5.0		7.0.0		
cublasCgetrfBatched					hipblasCgetrfBatched	3.5.0		7.0.0		
cublasCgetriBatched					hipblasCgetriBatched	3.7.0		7.0.0		
cublasCgetrsBatched					hipblasCgetrsBatched	3.5.0		7.0.0		
cublasCherk3mEx	8.0									
cublasCherk3mEx_64	12.0									
cublasCherkEx	8.0									
cublasCherkEx_64	12.0									
cublasCmatinvBatched										
cublasCopyEx	10.1									
cublasCopyEx_64	12.0									
cublasCsyrk3mEx	8.0									
cublasCsyrk3mEx_64	12.0									
cublasCsyrkEx	8.0									
cublasCsyrkEx_64	12.0									
cublasCtpttr										
cublasCtrsmBatched					hipblasCtrsmBatched	3.5.0		7.0.0		
cublasCtrsmBatched_64	12.0				hipblasCtrsmBatched_64	6.3.0		7.0.0		
cublasCtrttp										
cublasDdgmm					hipblasDdgmm	3.6.0				
cublasDdgmm_64	12.0				hipblasDdgmm_64	6.3.0				
cublasDgeam					hipblasDgeam	1.8.2				
cublasDgeam_64	12.0				hipblasDgeam_64	6.3.0				
cublasDgelsBatched					hipblasDgelsBatched	5.4.0				
cublasDgeqrfBatched					hipblasDgeqrfBatched	3.5.0				
cublasDgetrfBatched					hipblasDgetrfBatched	3.5.0				
cublasDgetriBatched					hipblasDgetriBatched	3.7.0				
cublasDgetrsBatched					hipblasDgetrsBatched	3.5.0				
cublasDmatinvBatched										
cublasDotEx	8.0				hipblasDotEx	4.1.0		7.0.0		
cublasDotEx_64	12.0				hipblasDotEx_64	6.2.0		7.0.0		
cublasDotcEx	8.0				hipblasDotcEx	4.1.0		7.0.0		
cublasDotcEx_64	12.0				hipblasDotcEx_64	6.2.0		7.0.0		
cublasDtpttr										
cublasDtrsmBatched					hipblasDtrsmBatched	3.2.0				
cublasDtrsmBatched_64	12.0				hipblasDtrsmBatched_64	6.3.0				
cublasDtrttp										
cublasGemmBatchedEx	9.1		11.0		hipblasGemmBatchedEx	3.6.0		7.0.0		
cublasGemmBatchedEx_64	12.0				hipblasGemmBatchedEx_64	6.3.0		7.0.0		
cublasGemmEx	8.0		11.0		hipblasGemmEx	1.8.2		7.0.0		
cublasGemmEx_64	12.0				hipblasGemmEx_64	6.3.0		7.0.0		
cublasGemmStridedBatchedEx	9.1		11.0		hipblasGemmStridedBatchedEx	3.6.0		7.0.0		
cublasGemmStridedBatchedEx_64	12.0				hipblasGemmStridedBatchedEx_64	6.3.0		7.0.0		
cublasIamaxEx	10.1									
cublasIamaxEx_64	12.0									
cublasIaminEx	10.1									
cublasIaminEx_64	12.0									
cublasRotEx	10.1				hipblasRotEx	4.1.0		7.0.0		

Table 8 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R	HIP
cublasRotEx_64	12.0				hipblasRotEx_64	6.2.0		7.0.0		
cublasRotgEx	10.1									
cublasRotmEx	10.1									
cublasRotmEx_64	12.0									
cublasRotmgEx	10.1									
cublasScalEx	8.0				hipblasScalEx	4.1.0		7.0.0		
cublasScalEx_64	12.0				hipblasScalEx_64	6.2.0		7.0.0		
cublasSdggmm					hipblasSdggmm	3.6.0				
cublasSdggmm_64	12.0				hipblasSdggmm_64	6.3.0				
cublasSgeam					hipblasSgeam	1.8.2				
cublasSgeam_64	12.0				hipblasSgeam_64	6.3.0				
cublasSgelsBatched					hipblasSgelsBatched	5.4.0				
cublasSgemmEx	7.5									
cublasSgemmEx_64	12.0									
cublasSgeqrfBatched					hipblasSgeqrfBatched	3.5.0				
cublasSgetrfBatched					hipblasSgetrfBatched	3.5.0				
cublasSgetriBatched					hipblasSgetriBatched	3.7.0				
cublasSgetrsBatched					hipblasSgetrsBatched	3.5.0				
cublasSmatinvBatched										
cublasStpttr										
cublasStrsmBatched					hipblasStrsmBatched	3.2.0				
cublasStrsmBatched_64	12.0				hipblasStrsmBatched_64	6.3.0				
cublasStrttp										
cublasSwapEx	10.1									
cublasSwapEx_64	12.0									
cublasUint8gemmBias	8.0									
cublasZdggmm					hipblasZdggmm	3.6.0		7.0.0		
cublasZdggmm_64	12.0				hipblasZdggmm_64	6.3.0		7.0.0		
cublasZgeam					hipblasZgeam	3.6.0		7.0.0		
cublasZgeam_64	12.0				hipblasZgeam_64	6.3.0		7.0.0		
cublasZgelsBatched					hipblasZgelsBatched	5.4.0		7.0.0		
cublasZgeqrfBatched					hipblasZgeqrfBatched	3.5.0		7.0.0		
cublasZgetrfBatched					hipblasZgetrfBatched	3.5.0		7.0.0		
cublasZgetriBatched					hipblasZgetriBatched	3.7.0		7.0.0		
cublasZgetrsBatched					hipblasZgetrsBatched	3.5.0		7.0.0		
cublasZmatinvBatched										
cublasZtpttr										
cublasZtrsmBatched					hipblasZtrsmBatched	3.5.0		7.0.0		
cublasZtrsmBatched_64	12.0				hipblasZtrsmBatched_64	6.3.0		7.0.0		
cublasZtrttp										

11.1.9 9. BLASLt Function Reference

CUDA	A	D	C	R	HIP
cublasLtCreate	10.1				hipblasLtCreate
cublasLtDestroy	10.1				hipblasLtDestroy
cublasLtDisableCpuInstructionsSetMask	12.1				
cublasLtGetCudartVersion	10.1				
cublasLtGetProperty	10.1				

Table 9 – continued from previous page

CUDA	A	D	C	R	HIP
cublasLtGetStatusName	11.4				
cublasLtGetStatusString	11.4				
cublasLtGetVersion	10.1				
cublasLtHeuristicsCacheGetCapacity	11.8				
cublasLtHeuristicsCacheSetCapacity	11.8				
cublasLtLoggerForceDisable	11.0				
cublasLtLoggerOpenFile	11.0				
cublasLtLoggerSetCallback	11.0				
cublasLtLoggerSetFile	11.0				
cublasLtLoggerSetLevel	11.0				
cublasLtLoggerSetMask	11.0				
cublasLtMatmul	10.1				hipblasLtMatmul
cublasLtMatmulAlgoCapGetAttribute	10.1				
cublasLtMatmulAlgoCheck	10.1				
cublasLtMatmulAlgoConfigGetAttribute	10.1				
cublasLtMatmulAlgoConfigSetAttribute	10.1				
cublasLtMatmulAlgoGetHeuristic	10.1				hipblasLtMatmulAlgoGetHeuristic
cublasLtMatmulAlgoGetIds	10.1				
cublasLtMatmulAlgoInit	10.1				
cublasLtMatmulDescCreate	10.1		11.0		hipblasLtMatmulDescCreate
cublasLtMatmulDescDestroy	10.1				hipblasLtMatmulDescDestroy
cublasLtMatmulDescGetAttribute	10.1				hipblasLtMatmulDescGetAttribute
cublasLtMatmulDescInit	11.0				
cublasLtMatmulDescSetAttribute	10.1				hipblasLtMatmulDescSetAttribute
cublasLtMatmulPreferenceCreate	10.1				hipblasLtMatmulPreferenceCreate
cublasLtMatmulPreferenceDestroy	10.1				hipblasLtMatmulPreferenceDestroy
cublasLtMatmulPreferenceGetAttribute	10.1				hipblasLtMatmulPreferenceGetAttribute
cublasLtMatmulPreferenceInit	11.0				
cublasLtMatmulPreferenceSetAttribute	10.1				hipblasLtMatmulPreferenceSetAttribute
cublasLtMatrixLayoutCreate	10.1				hipblasLtMatrixLayoutCreate
cublasLtMatrixLayoutDestroy	10.1				hipblasLtMatrixLayoutDestroy
cublasLtMatrixLayoutGetAttribute	10.1				hipblasLtMatrixLayoutGetAttribute
cublasLtMatrixLayoutInit	11.0				
cublasLtMatrixLayoutSetAttribute	10.1				hipblasLtMatrixLayoutSetAttribute
cublasLtMatrixTransform	10.1				hipblasLtMatrixTransform
cublasLtMatrixTransformDescCreate	10.1				hipblasLtMatrixTransformDescCreate
cublasLtMatrixTransformDescDestroy	10.1				hipblasLtMatrixTransformDescDestroy
cublasLtMatrixTransformDescGetAttribute	10.1				hipblasLtMatrixTransformDescGetAttribute
cublasLtMatrixTransformDescInit	11.0				
cublasLtMatrixTransformDescSetAttribute	10.1				hipblasLtMatrixTransformDescSetAttribute

11.2 CUSPARSE API supported by HIP and ROC

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

11.2.1 4. CUSPARSE Types References

CUDA	A	D	C	R	HIP
CUSPARSE_ACTION_NUMERIC					HIPSPARSE_ACTION_NUMERIC
CUSPARSE_ACTION_SYMBOLIC					HIPSPARSE_ACTION_SYMBOLIC
CUSPARSE_ALG0	8.0			11.0	
CUSPARSE_ALG1	8.0			11.0	
CUSPARSE_ALG_MERGE_PATH	9.2			12.0	
CUSPARSE_ALG_NAIVE	9.2			11.0	
CUSPARSE_COLOR_ALG0	8.0	12.2			
CUSPARSE_COLOR_ALG1	8.0	12.2			
CUSPARSE_COOMM_ALG1	10.1	11.0		12.0	HIPSPARSE_COOMM_ALG1
CUSPARSE_COOMM_ALG2	10.1	11.0		12.0	HIPSPARSE_COOMM_ALG2
CUSPARSE_COOMM_ALG3	10.1	11.0		12.0	HIPSPARSE_COOMM_ALG3
CUSPARSE_COOMV_ALG	10.2	11.2		12.0	HIPSPARSE_COOMV_ALG
CUSPARSE_CSR2CSC_ALG1	10.1				HIPSPARSE_CSR2CSC_ALG1
CUSPARSE_CSR2CSC_ALG2	10.1			12.0	HIPSPARSE_CSR2CSC_ALG2
CUSPARSE_CSR2CSC_ALG_DEFAULT	12.0				HIPSPARSE_CSR2CSC_ALG_DEFAULT
CUSPARSE_CSRMM_ALG1	10.2	11.0		12.0	HIPSPARSE_CSRMM_ALG1
CUSPARSE_CSRMV_ALG1	10.2	11.2		12.0	HIPSPARSE_CSRMV_ALG1
CUSPARSE_CSRMV_ALG2	10.2	11.2		12.0	HIPSPARSE_CSRMV_ALG2
CUSPARSE_DENSETOSPARSE_ALG_DEFAULT	11.1				HIPSPARSE_DENSETOSPARSE_ALG_DEFAULT
CUSPARSE_DIAG_TYPE_NON_UNIT					HIPSPARSE_DIAG_TYPE_NON_UNIT
CUSPARSE_DIAG_TYPE_UNIT					HIPSPARSE_DIAG_TYPE_UNIT
CUSPARSE_DIRECTION_COLUMN					HIPSPARSE_DIRECTION_COLUMN
CUSPARSE_DIRECTION_ROW					HIPSPARSE_DIRECTION_ROW
CUSPARSE_FILL_MODE_LOWER					HIPSPARSE_FILL_MODE_LOWER
CUSPARSE_FILL_MODE_UPPER					HIPSPARSE_FILL_MODE_UPPER
CUSPARSE_FORMAT_BLOCKED_ELL	11.2				HIPSPARSE_FORMAT_BLOCKED_ELL
CUSPARSE_FORMAT_BSR	12.1				
CUSPARSE_FORMAT_COO	10.1				HIPSPARSE_FORMAT_COO
CUSPARSE_FORMAT_COO_AOS	10.2			12.0	HIPSPARSE_FORMAT_COO_AOS
CUSPARSE_FORMAT_CSC	10.1				HIPSPARSE_FORMAT_CSC
CUSPARSE_FORMAT_CSR	10.1				HIPSPARSE_FORMAT_CSR
CUSPARSE_FORMAT_SLICED_ELLPACK	12.1				
CUSPARSE_HYB_PARTITION_AUTO		10.2		11.0	HIPSPARSE_HYB_PARTITION_AUTO
CUSPARSE_HYB_PARTITION_MAX		10.2		11.0	HIPSPARSE_HYB_PARTITION_MAX
CUSPARSE_HYB_PARTITION_USER		10.2		11.0	HIPSPARSE_HYB_PARTITION_USER
CUSPARSE_INDEX_16U	10.1				HIPSPARSE_INDEX_16U
CUSPARSE_INDEX_32I	10.1				HIPSPARSE_INDEX_32I
CUSPARSE_INDEX_64I	10.1				HIPSPARSE_INDEX_64I
CUSPARSE_INDEX_BASE_ONE					HIPSPARSE_INDEX_BASE_ONE
CUSPARSE_INDEX_BASE_ZERO					HIPSPARSE_INDEX_BASE_ZERO
CUSPARSE_MATRIX_TYPE_GENERAL					HIPSPARSE_MATRIX_TYPE_GENERAL
CUSPARSE_MATRIX_TYPE_HERMITIAN					HIPSPARSE_MATRIX_TYPE_HERMITIAN
CUSPARSE_MATRIX_TYPE_SYMMETRIC					HIPSPARSE_MATRIX_TYPE_SYMMETRIC
CUSPARSE_MATRIX_TYPE_TRIANGULAR					HIPSPARSE_MATRIX_TYPE_TRIANGULAR
CUSPARSE_MM_ALG_DEFAULT	10.2	11.0		12.0	HIPSPARSE_MM_ALG_DEFAULT
CUSPARSE_MV_ALG_DEFAULT	10.2	11.3		12.0	HIPSPARSE_MV_ALG_DEFAULT
CUSPARSE_OPERATION_CONJUGATE_TRANSPOSE					HIPSPARSE_OPERATION_CONJUGATE_TRANSPOSE
CUSPARSE_OPERATION_NON_TRANSPOSE					HIPSPARSE_OPERATION_NON_TRANSPOSE
CUSPARSE_OPERATION_TRANSPOSE					HIPSPARSE_OPERATION_TRANSPOSE

Table 10 – continued from p

CUDA	A	D	C	R	HIP
CUSPARSE_ORDER_COL	10.1				HIPSPARSE_ORDER_COL
CUSPARSE_ORDER_ROW	10.1				HIPSPARSE_ORDER_ROW
CUSPARSE_POINTER_MODE_DEVICE					HIPSPARSE_POINTER_MODE_DEVICE
CUSPARSE_POINTER_MODE_HOST					HIPSPARSE_POINTER_MODE_HOST
CUSPARSE_SDDMM_ALG_DEFAULT	11.2				HIPSPARSE_SDDMM_ALG_DEFAULT
CUSPARSE_SIDE_LEFT				11.5	
CUSPARSE_SIDE_RIGHT				11.5	
CUSPARSE_SOLVE_POLICY_NO_LEVEL		12.2			HIPSPARSE_SOLVE_POLICY_NO_LEVEL
CUSPARSE_SOLVE_POLICY_USE_LEVEL		12.2			HIPSPARSE_SOLVE_POLICY_USE_LEVEL
CUSPARSE_SPARSETODENSE_ALG_DEFAULT	11.1				HIPSPARSE_SPARSETODENSE_ALG_DEFAULT
CUSPARSE_SPGEMM_ALG1	12.0				HIPSPARSE_SPGEMM_ALG1
CUSPARSE_SPGEMM_ALG2	12.0				HIPSPARSE_SPGEMM_ALG2
CUSPARSE_SPGEMM_ALG3	12.0				HIPSPARSE_SPGEMM_ALG3
CUSPARSE_SPGEMM_CSR_ALG_DETERMINISTIC	11.3				HIPSPARSE_SPGEMM_CSR_ALG_DETERMINISTIC
CUSPARSE_SPGEMM_CSR_ALG_NONDETERMINISTIC	11.3				HIPSPARSE_SPGEMM_CSR_ALG_NONDETERMINISTIC
CUSPARSE_SPGEMM_DEFAULT	11.0				HIPSPARSE_SPGEMM_DEFAULT
CUSPARSE_SPMAT_DIAG_TYPE	11.3				HIPSPARSE_SPMAT_DIAG_TYPE
CUSPARSE_SPMAT_FILL_MODE	11.3				HIPSPARSE_SPMAT_FILL_MODE
CUSPARSE_SPMM_ALG1	11.1			11.2	
CUSPARSE_SPMM_ALG2	11.1			11.2	
CUSPARSE_SPMM_ALG3	11.1			11.2	
CUSPARSE_SPMM_ALG4	11.1			11.2	
CUSPARSE_SPMM_PREPROCESS	11.1			11.2	
CUSPARSE_SPMM_ALG_DEFAULT	11.0				HIPSPARSE_SPMM_ALG_DEFAULT
CUSPARSE_SPMM_BLOCKED_ELL_ALG1	11.2				HIPSPARSE_SPMM_BLOCKED_ELL_ALG1
CUSPARSE_SPMM_BSR_ALG1	12.5				
CUSPARSE_SPMM_COO_ALG1	11.0				HIPSPARSE_SPMM_COO_ALG1
CUSPARSE_SPMM_COO_ALG2	11.0				HIPSPARSE_SPMM_COO_ALG2
CUSPARSE_SPMM_COO_ALG3	11.0				HIPSPARSE_SPMM_COO_ALG3
CUSPARSE_SPMM_COO_ALG4	11.0				HIPSPARSE_SPMM_COO_ALG4
CUSPARSE_SPMM_CSR_ALG1	11.0				HIPSPARSE_SPMM_CSR_ALG1
CUSPARSE_SPMM_CSR_ALG2	11.0				HIPSPARSE_SPMM_CSR_ALG2
CUSPARSE_SPMM_CSR_ALG3	11.2				HIPSPARSE_SPMM_CSR_ALG3
CUSPARSE_SPMM_OP_ALG_DEFAULT	11.5				
CUSPARSE_SPMV_ALG_DEFAULT	11.2				HIPSPARSE_SPMV_ALG_DEFAULT
CUSPARSE_SPMV_BSR_ALG1	13.0				
CUSPARSE_SPMV_COO_ALG1	11.2				HIPSPARSE_SPMV_COO_ALG1
CUSPARSE_SPMV_COO_ALG2	11.2				HIPSPARSE_SPMV_COO_ALG2
CUSPARSE_SPMV_CSR_ALG1	11.2				HIPSPARSE_SPMV_CSR_ALG1
CUSPARSE_SPMV_CSR_ALG2	11.2				HIPSPARSE_SPMV_CSR_ALG2
CUSPARSE_SPMV_SELL_ALG1	12.1				
CUSPARSE_SPSM_ALG_DEFAULT	11.3				HIPSPARSE_SPSM_ALG_DEFAULT
CUSPARSE_SPSM_UPDATE_DIAGONAL	12.4				
CUSPARSE_SPSM_UPDATE_GENERAL	12.4				
CUSPARSE_SPSV_ALG_DEFAULT	11.3				HIPSPARSE_SPSV_ALG_DEFAULT
CUSPARSE_SPSV_UPDATE_DIAGONAL	12.1				
CUSPARSE_SPSV_UPDATE_GENERAL	12.1				
CUSPARSE_STATUS_ALLOC_FAILED					HIPSPARSE_STATUS_ALLOC_FAILED
CUSPARSE_STATUS_ARCH_MISMATCH					HIPSPARSE_STATUS_ARCH_MISMATCH
CUSPARSE_STATUS_EXECUTION_FAILED					HIPSPARSE_STATUS_EXECUTION_FAILED

CUDA	A	D	C	R	HIP
CUSPARSE_STATUS_INSUFFICIENT_RESOURCES	11.0				HIPSPARSE_STATUS_INSUFFICIENT_RESOURCES
CUSPARSE_STATUS_INTERNAL_ERROR					HIPSPARSE_STATUS_INTERNAL_ERROR
CUSPARSE_STATUS_INVALID_VALUE					HIPSPARSE_STATUS_INVALID_VALUE
CUSPARSE_STATUS_MAPPING_ERROR					HIPSPARSE_STATUS_MAPPING_ERROR
CUSPARSE_STATUS_MATRIX_TYPE_NOT_SUPPORTED					HIPSPARSE_STATUS_MATRIX_TYPE_NOT_SUPPORTED
CUSPARSE_STATUS_NOT_INITIALIZED					HIPSPARSE_STATUS_NOT_INITIALIZED
CUSPARSE_STATUS_NOT_SUPPORTED	10.2				HIPSPARSE_STATUS_NOT_SUPPORTED
CUSPARSE_STATUS_SUCCESS					HIPSPARSE_STATUS_SUCCESS
CUSPARSE_STATUS_ZERO_PIVOT					HIPSPARSE_STATUS_ZERO_PIVOT
bsric02Info					bsric02Info
bsric02Info_t					bsric02Info_t
bsrilu02Info		12.2			bsrilu02Info
bsrilu02Info_t		12.2			bsrilu02Info_t
bsrsm2Info		12.2			bsrsm2Info
bsrsm2Info_t		12.2			bsrsm2Info_t
bsrsv2Info		12.2			bsrsv2Info
bsrsv2Info_t		12.2			bsrsv2Info_t
csrgemm2Info				12.0	csrgemm2Info
csrgemm2Info_t				12.0	csrgemm2Info_t
csric02Info		12.2			csric02Info
csric02Info_t		12.2			csric02Info_t
csrilu02Info		12.2			csrilu02Info
csrilu02Info_t		12.2			csrilu02Info_t
csrsm2Info	9.2			12.0	
csrsm2Info_t	9.2			12.0	csrsm2Info_t
csrsv2Info				12.0	
csrsv2Info_t				12.0	csrsv2Info_t
csru2csrInfo		12.2			csru2csrInfo
csru2csrInfo_t		12.2			csru2csrInfo_t
cusparseAction_t					hipsparseAction_t
cusparseAlgMode_t	8.0			12.0	
cusparseColorAlg_t	8.0	12.2			
cusparseColorInfo		12.2			
cusparseColorInfo_t		12.2			hipsparseColorInfo_t
cusparseConstDnMatDescr_t	12.0				hipsparseConstDnMatDescr_t
cusparseConstDnVecDescr_t	12.0				hipsparseConstDnVecDescr_t
cusparseConstSpMatDescr_t	12.0				hipsparseConstSpMatDescr_t
cusparseConstSpVecDescr_t	12.0				hipsparseConstSpVecDescr_t
cusparseContext					
cusparseCsr2CscAlg_t	10.1				hipsparseCsr2CscAlg_t
cusparseDenseToSparseAlg_t	11.1				hipsparseDenseToSparseAlg_t
cusparseDiagType_t					hipsparseDiagType_t
cusparseDirection_t					hipsparseDirection_t
cusparseDnMatDescr	10.1				
cusparseDnMatDescr_t	10.1				hipsparseDnMatDescr_t
cusparseDnVecDescr	10.2				
cusparseDnVecDescr_t	10.2				hipsparseDnVecDescr_t
cusparseFillMode_t					hipsparseFillMode_t
cusparseFormat_t	10.1				hipsparseFormat_t
cusparseHandle_t					hipsparseHandle_t

Table 10 – continued from p

CUDA	A	D	C	R	HIP
cusparseHybMat		10.2		11.0	
cusparseHybMat_t		10.2		11.0	hipsparseHybMat_t
cusparseHybPartition_t		10.2		11.0	hipsparseHybPartition_t
cusparseIndexBase_t					hipsparseIndexBase_t
cusparseIndexType_t	10.1				hipsparseIndexType_t
cusparseLoggerCallback_t	11.5				
cusparseMatDescr					
cusparseMatDescr_t					hipsparseMatDescr_t
cusparseMatrixType_t					hipsparseMatrixType_t
cusparseOperation_t					hipsparseOperation_t
cusparseOrder_t	10.1				hipsparseOrder_t
cusparsePointerMode_t					hipsparsePointerMode_t
cusparseSDDMMAlg_t	11.2				hipsparseSDDMMAlg_t
cusparseSideMode_t				11.5	
cusparseSolveAnalysisInfo		10.2		11.0	
cusparseSolveAnalysisInfo_t		10.2		11.0	
cusparseSolvePolicy_t		12.2			hipsparseSolvePolicy_t
cusparseSpGEMMAlg_t	11.0				hipsparseSpGEMMAlg_t
cusparseSpGEMMDescr	11.0				hipsparseSpGEMMDescr
cusparseSpGEMMDescr_t	11.0				hipsparseSpGEMMDescr_t
cusparseSpMMAAlg_t	10.1				hipsparseSpMMAAlg_t
cusparseSpMMOpAlg_t	11.5				
cusparseSpMMOpPlan	11.5				
cusparseSpMMOpPlan_t	11.5				
cusparseSpMVALg_t	10.2				hipsparseSpMVALg_t
cusparseSpMatAttribute_t	11.3				hipsparseSpMatAttribute_t
cusparseSpMatDescr	10.1				
cusparseSpMatDescr_t	10.1				hipsparseSpMatDescr_t
cusparseSpSMAlg_t	11.3				hipsparseSpSMAlg_t
cusparseSpSMDescr	11.3				hipsparseSpSMDescr
cusparseSpSMDescr_t	11.3				hipsparseSpSMDescr_t
cusparseSpSMUpdate_t	12.4				
cusparseSpSVALg_t	11.3				hipsparseSpSVALg_t
cusparseSpSVDescr	11.3				hipsparseSpSVDescr
cusparseSpSVDescr_t	11.3				hipsparseSpSVDescr_t
cusparseSpSVUpdate_t	12.1				
cusparseSpVecDescr	10.2				
cusparseSpVecDescr_t	10.2				hipsparseSpVecDescr_t
cusparseSparseToDenseAlg_t	11.1				hipsparseSparseToDenseAlg_t
cusparseStatus_t					hipsparseStatus_t
pruneInfo	9.0	12.2			pruneInfo
pruneInfo_t	9.0	12.2			pruneInfo_t

11.2.2 5. CUSPARSE Management Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A	D	C	R	E	
cusparse					hipspars	1.9.2						rocspars	c	1.9.0				
cusparse					hipspars	1.9.2						rocspars	d	1.9.0				
cusparse	10.2				hipspars	6.0.0						rocspars	g	6.0.0				
cusparse	10.2				hipspars	6.0.0						rocspars	g	6.0.0				m
cusparse					hipspars	1.9.2						rocspars	g	1.9.0				
cusparse	8.0				hipspars	1.9.2						rocspars	g	1.9.0				
cusparse					hipspars	1.9.2						rocspars	g	1.9.0				
cusparse					hipspars	1.9.2						rocspars	s	1.9.0				
cusparse					hipspars	1.9.2						rocspars	s	1.9.0				

11.2.3 6. CUSPARSE Logging

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A	D	C	R	E
cusparseLoggerForceDis	11.5																
cusparseLoggerOpenFile	11.5																
cusparseLoggerSetCallb	11.5																
cusparseLoggerSetFile	11.5																
cusparseLoggerSetLevel	11.5																
cusparseLoggerSetMask	11.5																

11.2.4 7. CUSPARSE Helper Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R
cusparseCopyMatDescr	8.0			12.0	hipspars	CopyMatDescr	1.9.2		
cusparseCreateBsrsm2Info		12.2			hipspars	CreateBsrsm2Info	3.8.0	6.2.0	
cusparseCreateBsrilu2Info		12.2			hipspars	CreateBsrilu2Info	3.9.0	6.2.0	
cusparseCreateBsrsm2Info		12.2			hipspars	CreateBsrsm2Info	4.5.0	6.2.0	
cusparseCreateBsrsv2Info		12.2			hipspars	CreateBsrsv2Info	3.6.0	6.2.0	
cusparseCreateColorInfo		12.2			hipspars	CreateColorInfo	4.5.0	6.2.0	
cusparseCreateCsrsmm2Info		11.0		12.0	hipspars	CreateCsrsmm2Info	2.8.0	3.9.0	

Table 11 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
cusparseCreateCsrlic02Info		12.2			hipsparseCreateCsrlic02Info	3.1.0	6.2.0		
cusparseCreateCsrlu02Info		12.2			hipsparseCreateCsrlu02Info	1.9.2	6.2.0		
cusparseCreateCsrm2Info	9.2	11.3		12.0	hipsparseCreateCsrm2Info	3.1.0	5.6.0		
cusparseCreateCsrsv2Info		11.3		12.0	hipsparseCreateCsrsv2Info	1.9.2	5.6.0		
cusparseCreateHybMat		10.2		11.0	hipsparseCreateHybMat	1.9.2	3.9.0		
cusparseCreateMatDescr					hipsparseCreateMatDescr	1.9.2			
cusparseCreatePruneInfo	9.0	12.2			hipsparseCreatePruneInfo	3.9.0	6.2.0		
cusparseCreateSolveAnalysisInfo		10.2		11.0					
cusparseDestroyBsrlic02Info		12.2			hipsparseDestroyBsrlic02Info	3.8.0	6.2.0		
cusparseDestroyBsrlu02Info		12.2			hipsparseDestroyBsrlu02Info	3.9.0	6.2.0		
cusparseDestroyBsrm2Info		12.2			hipsparseDestroyBsrm2Info	4.5.0	6.2.0		
cusparseDestroyBsrsv2Info		12.2			hipsparseDestroyBsrsv2Info	3.6.0	6.2.0		
cusparseDestroyColorInfo		12.2			hipsparseDestroyColorInfo	4.5.0	6.2.0		
cusparseDestroyCsrgermm2Info		11.0		12.0	hipsparseDestroyCsrgermm2Info	2.8.0	3.9.0		
cusparseDestroyCsrlic02Info		12.2			hipsparseDestroyCsrlic02Info	3.1.0	6.2.0		
cusparseDestroyCsrlu02Info		12.2			hipsparseDestroyCsrlu02Info	1.9.2	6.2.0		
cusparseDestroyCsrm2Info	9.2	11.3		12.0	hipsparseDestroyCsrm2Info	3.1.0	5.6.0		
cusparseDestroyCsrsv2Info		11.3		12.0	hipsparseDestroyCsrsv2Info	1.9.2	5.6.0		
cusparseDestroyHybMat		10.2		11.0	hipsparseDestroyHybMat	1.9.2	3.9.0		
cusparseDestroyMatDescr					hipsparseDestroyMatDescr	1.9.2			
cusparseDestroyPruneInfo	9.0	12.2			hipsparseDestroyPruneInfo	3.9.0	6.2.0		
cusparseDestroySolveAnalysisInfo		10.2		11.0					
cusparseGetLevelInfo				11.0					
cusparseGetMatDiagType					hipsparseGetMatDiagType	1.9.2			
cusparseGetMatFillMode					hipsparseGetMatFillMode	1.9.2			
cusparseGetMatIndexBase					hipsparseGetMatIndexBase	1.9.2			
cusparseGetMatType					hipsparseGetMatType	1.9.2			
cusparseSetMatDiagType					hipsparseSetMatDiagType	1.9.2			
cusparseSetMatFillMode					hipsparseSetMatFillMode	1.9.2			
cusparseSetMatIndexBase					hipsparseSetMatIndexBase	1.9.2			
cusparseSetMatType					hipsparseSetMatType	1.9.2			

11.2.5 8. CUSPARSE Level 1 Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A	D	C	R	E	
cusparse		11.0			12.0	hipspars		3.1.0			3.9.0		rocspars					1.9.0
cusparse		10.2			11.0	hipspars		3.1.0			3.9.0		rocspars					3.0.0
cusparse		10.2			11.0	hipspars		3.1.0			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		3.1.0			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		3.1.0			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		3.1.0			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		1.9.2			3.9.0		rocspars					1.9.0
cusparse		10.2			11.0	hipspars		1.9.2			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		1.9.2			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		1.9.2			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		1.9.2			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		1.9.2			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		1.9.2			3.9.0		rocspars					1.9.0
cusparse		10.2			11.0	hipspars		1.9.2			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		1.9.2			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		1.9.2			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		1.9.2			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		1.9.2			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		3.1.0			3.9.0		rocspars					1.9.0
cusparse		10.2			11.0	hipspars		3.1.0			3.9.0		rocspars					3.0.0
cusparse		10.2			11.0	hipspars		3.1.0			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		3.1.0			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		3.1.0			3.9.0		rocspars					1.9.0
cusparse		11.0			12.0	hipspars		3.1.0			3.9.0		rocspars					1.9.0

11.2.6 9. CUSPARSE Level 2 Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R
cusparseCbsrmv					hipsparsCbsrmv	3.5.0			
cusparseCbsrsv2_analysis		12.2			hipsparsCbsrsv2_analysis	3.6.0	6.2.0		
cusparseCbsrsv2_bufferSize		12.2			hipsparsCbsrsv2_bufferSize	3.6.0	6.2.0		
cusparseCbsrsv2_bufferSizeExt		12.2			hipsparsCbsrsv2_bufferSizeExt	3.6.0			
cusparseCbsrsv2_solve		12.2			hipsparsCbsrsv2_solve	3.6.0	6.2.0		
cusparseCbsrxmv		12.2			hipsparsCbsrxmv	4.5.0	6.2.0		
cusparseCcsrmmv		10.2		11.0	hipsparsCcsrmmv	3.1.0	3.9.0		
cusparseCcsrmmv_mp	8.0	10.2		11.0					
cusparseCcsrsv2_analysis		11.3		12.0	hipsparsCcsrsv2_analysis	3.1.0	5.6.0		
cusparseCcsrsv2_bufferSize		11.3		12.0	hipsparsCcsrsv2_bufferSize	3.1.0	5.6.0		
cusparseCcsrsv2_bufferSizeExt		11.3		12.0	hipsparsCcsrsv2_bufferSizeExt	3.1.0			
cusparseCcsrsv2_solve		11.3		12.0	hipsparsCcsrsv2_solve	3.1.0	5.6.0		
cusparseCcsrsv_analysis		10.2		11.0					
cusparseCcsrsv_solve		10.2		11.0					
cusparseCgemvi	7.5	12.8			hipsparsCgemvi	4.3.0			
cusparseCgemvi_bufferSize	7.5	12.8			hipsparsCgemvi_bufferSize	4.3.0			
cusparseChybmvm		10.2		11.0	hipsparsChybmvm	3.1.0	3.9.0		
cusparseChybsv_analysis		10.2		11.0					
cusparseChybsv_solve		10.2		11.0					
cusparseCsrmmvEx	8.0	11.2		12.0					
cusparseCsrmmvEx_bufferSize	8.0	11.2		12.0					
cusparseCsrsv_analysisEx	8.0	10.2		11.0					
cusparseCsrsv_solveEx	8.0	10.2		11.0					
cusparseDbsrmv					hipsparsDbsrmv	3.5.0			
cusparseDbsrsv2_analysis		12.2			hipsparsDbsrsv2_analysis	3.6.0	6.2.0		
cusparseDbsrsv2_bufferSize		12.2			hipsparsDbsrsv2_bufferSize	3.6.0	6.2.0		
cusparseDbsrsv2_bufferSizeExt		12.2			hipsparsDbsrsv2_bufferSizeExt	3.6.0			
cusparseDbsrsv2_solve		12.2			hipsparsDbsrsv2_solve	3.6.0	6.2.0		
cusparseDbsrxmv		12.2			hipsparsDbsrxmv	4.5.0	6.2.0		
cusparseDcsrmmv		10.2		11.0	hipsparsDcsrmmv	1.9.2	3.9.0		
cusparseDcsrmmv_mp	8.0	10.2		11.0					
cusparseDcsrsv2_analysis		11.3		12.0	hipsparsDcsrsv2_analysis	1.9.2	5.6.0		
cusparseDcsrsv2_bufferSize		11.3		12.0	hipsparsDcsrsv2_bufferSize	1.9.2	5.6.0		
cusparseDcsrsv2_bufferSizeExt		11.3		12.0	hipsparsDcsrsv2_bufferSizeExt	1.9.2			
cusparseDcsrsv2_solve		11.3		12.0	hipsparsDcsrsv2_solve	1.9.2	5.6.0		
cusparseDcsrsv_analysis		10.2		11.0					
cusparseDcsrsv_solve		10.2		11.0					
cusparseDgemvi	7.5	12.8			hipsparsDgemvi	4.3.0			
cusparseDgemvi_bufferSize	7.5	12.8			hipsparsDgemvi_bufferSize	4.3.0			
cusparseDhybmvm		10.2		11.0	hipsparsDhybmvm	1.9.2	3.9.0		
cusparseDhybsv_analysis		10.2		11.0					
cusparseDhybsv_solve		10.2		11.0					
cusparseSbsrmv					hipsparsSbsrmv	3.5.0			
cusparseSbsrsv2_analysis		12.2			hipsparsSbsrsv2_analysis	3.6.0	6.2.0		
cusparseSbsrsv2_bufferSize		12.2			hipsparsSbsrsv2_bufferSize	3.6.0	6.2.0		
cusparseSbsrsv2_bufferSizeExt		12.2			hipsparsSbsrsv2_bufferSizeExt	3.6.0			
cusparseSbsrsv2_solve		12.2			hipsparsSbsrsv2_solve	3.6.0	6.2.0		
cusparseSbsrxmv		12.2			hipsparsSbsrxmv	4.5.0	6.2.0		
cusparseScsrmmv		10.2		11.0	hipsparsScsrmmv	1.9.2	3.9.0		

Table 12 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
cusparseScsrmv_mp	8.0	10.2		11.0					
cusparseScsrsv2_analysis		11.3		12.0	hipsparsScsrsv2_analysis	1.9.2	5.6.0		
cusparseScsrsv2_bufferSize		11.3		12.0	hipsparsScsrsv2_bufferSize	1.9.2	5.6.0		
cusparseScsrsv2_bufferSizeExt		11.3		12.0	hipsparsScsrsv2_bufferSizeExt	1.9.2			
cusparseScsrsv2_solve		11.3		12.0	hipsparsScsrsv2_solve	1.9.2	5.6.0		
cusparseScsrsv_analysis		10.2		11.0					
cusparseScsrsv_solve		10.2		11.0					
cusparseSgemvi	7.5	12.8			hipsparsSgemvi	4.3.0			
cusparseSgemvi_bufferSize	7.5	12.8			hipsparsSgemvi_bufferSize	4.3.0			
cusparseShybm		10.2		11.0	hipsparsShybm	1.9.2	3.9.0		
cusparseShybsv_analysis		10.2		11.0					
cusparseShybsv_solve		10.2		11.0					
cusparseXbsrsv2_zeroPivot		12.2			hipsparsXbsrsv2_zeroPivot	3.6.0	6.2.0		
cusparseXcsrsv2_zeroPivot		11.3		12.0	hipsparsXcsrsv2_zeroPivot	1.9.2	5.6.0		
cusparseZbsrmv					hipsparsZbsrmv	3.5.0			
cusparseZbsrsv2_analysis		12.2			hipsparsZbsrsv2_analysis	3.6.0	6.2.0		
cusparseZbsrsv2_bufferSize		12.2			hipsparsZbsrsv2_bufferSize	3.6.0	6.2.0		
cusparseZbsrsv2_bufferSizeExt		12.2			hipsparsZbsrsv2_bufferSizeExt	3.6.0			
cusparseZbsrsv2_solve		12.2			hipsparsZbsrsv2_solve	3.6.0	6.2.0		
cusparseZbsrxmv		12.2			hipsparsZbsrxmv	4.5.0	6.2.0		
cusparseZcsrmv		10.2		11.0	hipsparsZcsrmv	3.1.0	3.9.0		
cusparseZcsrmv_mp	8.0	10.2		11.0					
cusparseZcsrsv2_analysis		11.3		12.0	hipsparsZcsrsv2_analysis	3.1.0	5.6.0		
cusparseZcsrsv2_bufferSize		11.3		12.0	hipsparsZcsrsv2_bufferSize	3.1.0	5.6.0		
cusparseZcsrsv2_bufferSizeExt		11.3		12.0	hipsparsZcsrsv2_bufferSizeExt	3.1.0			
cusparseZcsrsv2_solve		11.3		12.0	hipsparsZcsrsv2_solve	3.1.0	5.6.0		
cusparseZcsrsv_analysis		10.2		11.0					
cusparseZcsrsv_solve		10.2		11.0					
cusparseZgemvi	7.5	12.8			hipsparsZgemvi	4.3.0			
cusparseZgemvi_bufferSize	7.5	12.8			hipsparsZgemvi_bufferSize	4.3.0			
cusparseZhybm		10.2		11.0	hipsparsZhybm	3.1.0	3.9.0		
cusparseZhybsv_analysis		10.2		11.0					
cusparseZhybsv_solve		10.2		11.0					

11.2.7 10. CUSPARSE Level 3 Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R
cusparseCbsrmm		12.8			hipsparsCbsrmm	3.7.0			
cusparseCbsrsm2_analysis		12.2			hipsparsCbsrsm2_analysis	4.5.0	6.2.0		
cusparseCbsrsm2_bufferSize		12.2			hipsparsCbsrsm2_bufferSize	4.5.0	6.2.0		
cusparseCbsrsm2_bufferSizeExt		12.2							
cusparseCbsrsm2_solve		12.2			hipsparsCbsrsm2_solve	4.5.0	6.2.0		
cusparseCcsrmm		10.2		11.0	hipsparsCcsrmm	3.1.0	3.9.0		
cusparseCcsrmm2		10.2		11.0	hipsparsCcsrmm2	3.1.0	3.9.0		
cusparseCcsrsm2_analysis	9.2	11.3		12.0	hipsparsCcsrsm2_analysis	3.1.0	5.6.0		
cusparseCcsrsm2_bufferSizeExt	9.2	11.3		12.0	hipsparsCcsrsm2_bufferSizeExt	3.1.0	5.6.0		
cusparseCcsrsm2_solve	9.2	11.3		12.0	hipsparsCcsrsm2_solve	3.1.0	5.6.0		
cusparseCcsrsm_analysis		10.2		11.0					
cusparseCcsrsm_solve		10.2		11.0					

Table 13 – continued from previous page

CUDA	A	D	C	R	HIP	A	D	C	R
cusparseCgemmi	8.0	11.0		12.0	hipsparsCgemmi	3.7.0	3.9.0		
cusparseDbsrmm		12.8			hipsparsDbsrmm	3.7.0			
cusparseDbsrsm2_analysis		12.2			hipsparsDbsrsm2_analysis	4.5.0	6.2.0		
cusparseDbsrsm2_bufferSize		12.2			hipsparsDbsrsm2_bufferSize	4.5.0	6.2.0		
cusparseDbsrsm2_bufferSizeExt		12.2							
cusparseDbsrsm2_solve		12.2			hipsparsDbsrsm2_solve	4.5.0	6.2.0		
cusparseDcsrmm		10.2		11.0	hipsparsDcsrmm	1.9.2	3.9.0		
cusparseDcsrmm2		10.2		11.0	hipsparsDcsrmm2	1.9.2	3.9.0		
cusparseDcsrsm2_analysis	9.2	11.3		12.0	hipsparsDcsrsm2_analysis	3.1.0	5.6.0		
cusparseDcsrsm2_bufferSizeExt	9.2	11.3		12.0	hipsparsDcsrsm2_bufferSizeExt	3.1.0	5.6.0		
cusparseDcsrsm2_solve	9.2	11.3		12.0	hipsparsDcsrsm2_solve	3.1.0	5.6.0		
cusparseDcsrsm_analysis		10.2		11.0					
cusparseDcsrsm_solve		10.2		11.0					
cusparseDgemmi	8.0	11.0		12.0	hipsparsDgemmi	3.7.0	3.9.0		
cusparseSbsrmm		12.8			hipsparsSbsrmm	3.7.0			
cusparseSbsrsm2_analysis		12.2			hipsparsSbsrsm2_analysis	4.5.0	6.2.0		
cusparseSbsrsm2_bufferSize		12.2			hipsparsSbsrsm2_bufferSize	4.5.0	6.2.0		
cusparseSbsrsm2_bufferSizeExt		12.2							
cusparseSbsrsm2_solve		12.2			hipsparsSbsrsm2_solve	4.5.0	6.2.0		
cusparseScsrmm		10.2		11.0	hipsparsScsrmm	1.9.2	3.9.0		
cusparseScsrmm2		10.2		11.0	hipsparsScsrmm2	1.9.2	3.9.0		
cusparseScsrsm2_analysis	9.2	11.3		12.0	hipsparsScsrsm2_analysis	3.1.0	5.6.0		
cusparseScsrsm2_bufferSizeExt	9.2	11.3		12.0	hipsparsScsrsm2_bufferSizeExt	3.1.0	5.6.0		
cusparseScsrsm2_solve	9.2	11.3		12.0	hipsparsScsrsm2_solve	3.1.0	5.6.0		
cusparseScsrsm_analysis		10.2		11.0					
cusparseScsrsm_solve		10.2		11.0					
cusparseSgemmi	8.0	11.0		12.0	hipsparsSgemmi	3.7.0	3.9.0		
cusparseXbsrsm2_zeroPivot		12.2			hipsparsXbsrsm2_zeroPivot	4.5.0	6.2.0		
cusparseXcsrsm2_zeroPivot	9.2	11.3		12.0	hipsparsXcsrsm2_zeroPivot	3.1.0	5.6.0		
cusparseZbsrmm		12.8			hipsparsZbsrmm	3.7.0			
cusparseZbsrsm2_analysis		12.2			hipsparsZbsrsm2_analysis	4.5.0	6.2.0		
cusparseZbsrsm2_bufferSize		12.2			hipsparsZbsrsm2_bufferSize	4.5.0	6.2.0		
cusparseZbsrsm2_bufferSizeExt		12.2							
cusparseZbsrsm2_solve		12.2			hipsparsZbsrsm2_solve	4.5.0	6.2.0		
cusparseZcsrmm		10.2		11.0	hipsparsZcsrmm	3.1.0	3.9.0		
cusparseZcsrmm2		10.2		11.0	hipsparsZcsrmm2	3.1.0	3.9.0		
cusparseZcsrsm2_analysis	9.2	11.3		12.0	hipsparsZcsrsm2_analysis	3.1.0	5.6.0		
cusparseZcsrsm2_bufferSizeExt	9.2	11.3		12.0	hipsparsZcsrsm2_bufferSizeExt	3.1.0	5.6.0		
cusparseZcsrsm2_solve	9.2	11.3		12.0	hipsparsZcsrsm2_solve	3.1.0	5.6.0		
cusparseZcsrsm_analysis		10.2		11.0					
cusparseZcsrsm_solve		10.2		11.0					
cusparseZgemmi	8.0	11.0		12.0	hipsparsZgemmi	3.7.0	3.9.0		

11.2.8 11. CUSPARSE Extra Function Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A	D	C	R	E
cusparse		10.2			11.0	hipspars	3.5.0	3.9.0				rocspars	3.5.0				
cusparse	10.0					hipspars	3.5.0					rocspars	3.5.0				
cusparse	10.0					hipspars	3.5.0										
cusparse		10.2			11.0	hipspars	3.1.0	3.9.0									
cusparse			11.0		12.0	hipspars	3.1.0	3.9.0				rocspars	2.8.0				
cusparse			11.0		12.0	hipspars	3.1.0	3.9.0				rocspars	2.8.0				ize
cusparse		10.2			11.0	hipspars	3.5.0	3.9.0				rocspars	3.5.0				
cusparse	10.0					hipspars	3.5.0					rocspars	3.5.0				
cusparse	10.0					hipspars	3.5.0										
cusparse		10.2			11.0	hipspars	2.8.0	3.9.0									
cusparse			11.0		12.0	hipspars	2.8.0	3.9.0				rocspars	2.8.0				
cusparse			11.0		12.0	hipspars	2.8.0	3.9.0				rocspars	2.8.0				ize
cusparse		10.2			11.0	hipspars	3.5.0	3.9.0				rocspars	3.5.0				
cusparse	10.0					hipspars	3.5.0					rocspars	3.5.0				
cusparse	10.0					hipspars	3.5.0										
cusparse		10.2			11.0	hipspars	2.8.0	3.9.0									
cusparse			11.0		12.0	hipspars	2.8.0	3.9.0				rocspars	2.8.0				
cusparse			11.0		12.0	hipspars	2.8.0	3.9.0				rocspars	2.8.0				ize
cusparse	10.0					hipspars	3.5.0					rocspars	3.5.0				
cusparse		10.2			11.0	hipspars	3.5.0	3.9.0				rocspars	3.5.0				
cusparse			11.0		12.0	hipspars	2.8.0	3.9.0				rocspars	2.8.0				
cusparse		10.2			11.0	hipspars	2.8.0	3.9.0									
cusparse		10.2			11.0	hipspars	3.5.0	3.9.0				rocspars	3.5.0				
cusparse	10.0					hipspars	3.5.0					rocspars	3.5.0				
cusparse	10.0					hipspars	3.5.0										
cusparse		10.2			11.0	hipspars	3.1.0	3.9.0									
cusparse			11.0		12.0	hipspars	3.1.0	3.9.0				rocspars	2.8.0				403
cusparse			11.0		12.0	hipspars	3.1.0	3.9.0				rocspars	2.8.0				ize

11.2.9 12. CUSPARSE Preconditioners Reference

CUDA	A	D	C	R	HIP
cusparseCbsric02		12.2			hipsparsCbsric02
cusparseCbsric02_analysis		12.2			hipsparsCbsric02_analysis
cusparseCbsric02_bufferSize		12.2			hipsparsCbsric02_bufferSize
cusparseCbsric02_bufferSizeExt		12.2			
cusparseCbsrilu02		12.2			hipsparsCbsrilu02
cusparseCbsrilu02_analysis		12.2			hipsparsCbsrilu02_analysis
cusparseCbsrilu02_bufferSize		12.2			hipsparsCbsrilu02_bufferSize
cusparseCbsrilu02_bufferSizeExt		12.2			
cusparseCbsrilu02_numericBoost		12.2			hipsparsCbsrilu02_numericBoost
cusparseCcsric0		10.2		11.0	
cusparseCcsric02		12.2			hipsparsCcsric02
cusparseCcsric02_analysis		12.2			hipsparsCcsric02_analysis
cusparseCcsric02_bufferSize		12.2			hipsparsCcsric02_bufferSize
cusparseCcsric02_bufferSizeExt		12.2			hipsparsCcsric02_bufferSizeExt
cusparseCcsrilu0		10.2		11.0	
cusparseCcsrilu02		12.2			hipsparsCcsrilu02
cusparseCcsrilu02_analysis		12.2			hipsparsCcsrilu02_analysis
cusparseCcsrilu02_bufferSize		12.2			hipsparsCcsrilu02_bufferSize
cusparseCcsrilu02_bufferSizeExt		12.2			hipsparsCcsrilu02_bufferSizeExt
cusparseCcsrilu02_numericBoost		12.2			hipsparsCcsrilu02_numericBoost
cusparseCgpsvInterleavedBatch	9.2				hipsparsCgpsvInterleavedBatch
cusparseCgpsvInterleavedBatch_bufferSizeExt	9.2				hipsparsCgpsvInterleavedBatch_bufferSizeExt
cusparseCgtsv		10.2		11.0	
cusparseCgtsv2	9.0				hipsparsCgtsv2
cusparseCgtsv2StridedBatch	9.0				hipsparsCgtsv2StridedBatch
cusparseCgtsv2StridedBatch_bufferSizeExt	9.0				hipsparsCgtsv2StridedBatch_bufferSizeExt
cusparseCgtsv2_bufferSizeExt	9.0				hipsparsCgtsv2_bufferSizeExt
cusparseCgtsv2_nopivot	9.0				hipsparsCgtsv2_nopivot
cusparseCgtsv2_nopivot_bufferSizeExt	9.0				hipsparsCgtsv2_nopivot_bufferSizeExt
cusparseCgtsvInterleavedBatch	9.2				hipsparsCgtsvInterleavedBatch
cusparseCgtsvInterleavedBatch_bufferSizeExt	9.2				hipsparsCgtsvInterleavedBatch_bufferSizeExt
cusparseCgtsvStridedBatch		10.2		11.0	
cusparseCgtsv_nopivot		10.2		11.0	
cusparseCsrilu0Ex	8.0	10.2		11.0	
cusparseDbsric02		12.2			hipsparsDbsric02
cusparseDbsric02_analysis		12.2			hipsparsDbsric02_analysis
cusparseDbsric02_bufferSize		12.2			hipsparsDbsric02_bufferSize
cusparseDbsric02_bufferSizeExt		12.2			
cusparseDbsrilu02		12.2			hipsparsDbsrilu02
cusparseDbsrilu02_analysis		12.2			hipsparsDbsrilu02_analysis
cusparseDbsrilu02_bufferSize		12.2			hipsparsDbsrilu02_bufferSize
cusparseDbsrilu02_bufferSizeExt		12.2			
cusparseDbsrilu02_numericBoost		12.2			hipsparsDbsrilu02_numericBoost
cusparseDcsric0		10.2		11.0	
cusparseDcsric02		12.2			hipsparsDcsric02
cusparseDcsric02_analysis		12.2			hipsparsDcsric02_analysis
cusparseDcsric02_bufferSize		12.2			hipsparsDcsric02_bufferSize
cusparseDcsric02_bufferSizeExt		12.2			hipsparsDcsric02_bufferSizeExt
cusparseDcsrilu0		10.2		11.0	

Table 14 – contin

CUDA	A	D	C	R	HIP
cusparseDcsrilu02		12.2			hipsparsedcsrilu02
cusparseDcsrilu02_analysis		12.2			hipsparsedcsrilu02_analysis
cusparseDcsrilu02_bufferSize		12.2			hipsparsedcsrilu02_bufferSize
cusparseDcsrilu02_bufferSizeExt		12.2			hipsparsedcsrilu02_bufferSizeExt
cusparseDcsrilu02_numericBoost		12.2			hipsparsedcsrilu02_numericBoost
cusparseDgpsvInterleavedBatch	9.2				hipsparsedgpsvInterleavedBatch
cusparseDgpsvInterleavedBatch_bufferSizeExt	9.2				hipsparsedgpsvInterleavedBatch_bufferSizeExt
cusparseDgtsv		10.2		11.0	
cusparseDgtsv2	9.0				hipsparsedgtsv2
cusparseDgtsv2StridedBatch	9.0				hipsparsedgtsv2StridedBatch
cusparseDgtsv2StridedBatch_bufferSizeExt	9.0				hipsparsedgtsv2StridedBatch_bufferSizeExt
cusparseDgtsv2_bufferSizeExt	9.0				hipsparsedgtsv2_bufferSizeExt
cusparseDgtsv2_nopivot	9.0				hipsparsedgtsv2_nopivot
cusparseDgtsv2_nopivot_bufferSizeExt	9.0				hipsparsedgtsv2_nopivot_bufferSizeExt
cusparseDgtsvInterleavedBatch	9.2				hipsparsedgtsvInterleavedBatch
cusparseDgtsvInterleavedBatch_bufferSizeExt	9.2				hipsparsedgtsvInterleavedBatch_bufferSizeExt
cusparseDgtsvStridedBatch		10.2		11.0	
cusparseDgtsv_nopivot		10.2		11.0	
cusparseSbsric02		12.2			hipsparsedbsric02
cusparseSbsric02_analysis		12.2			hipsparsedbsric02_analysis
cusparseSbsric02_bufferSize		12.2			hipsparsedbsric02_bufferSize
cusparseSbsric02_bufferSizeExt		12.2			
cusparseSbsrilu02		12.2			hipsparsedbsrilu02
cusparseSbsrilu02_analysis		12.2			hipsparsedbsrilu02_analysis
cusparseSbsrilu02_bufferSize		12.2			hipsparsedbsrilu02_bufferSize
cusparseSbsrilu02_bufferSizeExt		12.2			
cusparseSbsrilu02_numericBoost		12.2			hipsparsedbsrilu02_numericBoost
cusparseScsric0		10.2		11.0	
cusparseScsric02		12.2			hipsparsedcsric02
cusparseScsric02_analysis		12.2			hipsparsedcsric02_analysis
cusparseScsric02_bufferSize		12.2			hipsparsedcsric02_bufferSize
cusparseScsric02_bufferSizeExt		12.2			hipsparsedcsric02_bufferSizeExt
cusparseScsrilu0		10.2		11.0	
cusparseScsrilu02		12.2			hipsparsedcsrilu02
cusparseScsrilu02_analysis		12.2			hipsparsedcsrilu02_analysis
cusparseScsrilu02_bufferSize		12.2			hipsparsedcsrilu02_bufferSize
cusparseScsrilu02_bufferSizeExt		12.2			hipsparsedcsrilu02_bufferSizeExt
cusparseScsrilu02_numericBoost		12.2			hipsparsedcsrilu02_numericBoost
cusparseSgpsvInterleavedBatch	9.2				hipsparsedgpsvInterleavedBatch
cusparseSgpsvInterleavedBatch_bufferSizeExt	9.2				hipsparsedgpsvInterleavedBatch_bufferSizeExt
cusparseSgtsv		10.2		11.0	
cusparseSgtsv2	9.0				hipsparsedgtsv2
cusparseSgtsv2StridedBatch	9.0				hipsparsedgtsv2StridedBatch
cusparseSgtsv2StridedBatch_bufferSizeExt	9.0				hipsparsedgtsv2StridedBatch_bufferSizeExt
cusparseSgtsv2_bufferSizeExt	9.0				hipsparsedgtsv2_bufferSizeExt
cusparseSgtsv2_nopivot	9.0				hipsparsedgtsv2_nopivot
cusparseSgtsv2_nopivot_bufferSizeExt	9.0				hipsparsedgtsv2_nopivot_bufferSizeExt
cusparseSgtsvInterleavedBatch	9.2				hipsparsedgtsvInterleavedBatch
cusparseSgtsvInterleavedBatch_bufferSizeExt	9.2				hipsparsedgtsvInterleavedBatch_bufferSizeExt
cusparseSgtsvStridedBatch		10.2		11.0	

CUDA	A	D	C	R	HIP
cusparseSgtsv_nopivot		10.2		11.0	
cusparseXbsric02_zeroPivot		12.2			hipsparsXbsric02_zeroPivot
cusparseXbsrilu02_zeroPivot		12.2			hipsparsXbsrilu02_zeroPivot
cusparseXcsric02_zeroPivot		12.2			hipsparsXcsric02_zeroPivot
cusparseXcsrilu02_zeroPivot		12.2			hipsparsXcsrilu02_zeroPivot
cusparseZbsric02		12.2			hipsparsZbsric02
cusparseZbsric02_analysis		12.2			hipsparsZbsric02_analysis
cusparseZbsric02_bufferSize		12.2			hipsparsZbsric02_bufferSize
cusparseZbsric02_bufferSizeExt		12.2			
cusparseZbsrilu02		12.2			hipsparsZbsrilu02
cusparseZbsrilu02_analysis		12.2			hipsparsZbsrilu02_analysis
cusparseZbsrilu02_bufferSize		12.2			hipsparsZbsrilu02_bufferSize
cusparseZbsrilu02_bufferSizeExt		12.2			
cusparseZbsrilu02_numericBoost		12.2			hipsparsZbsrilu02_numericBoost
cusparseZcsric0		10.2		11.0	
cusparseZcsric02		12.2			hipsparsZcsric02
cusparseZcsric02_analysis		12.2			hipsparsZcsric02_analysis
cusparseZcsric02_bufferSize		12.2			hipsparsZcsric02_bufferSize
cusparseZcsric02_bufferSizeExt		12.2			hipsparsZcsric02_bufferSizeExt
cusparseZcsrilu0		10.2		11.0	
cusparseZcsrilu02		12.2			hipsparsZcsrilu02
cusparseZcsrilu02_analysis		12.2			hipsparsZcsrilu02_analysis
cusparseZcsrilu02_bufferSize		12.2			hipsparsZcsrilu02_bufferSize
cusparseZcsrilu02_bufferSizeExt		12.2			hipsparsZcsrilu02_bufferSizeExt
cusparseZcsrilu02_numericBoost		12.2			hipsparsZcsrilu02_numericBoost
cusparseZgpsvInterleavedBatch	9.2				hipsparsZgpsvInterleavedBatch
cusparseZgpsvInterleavedBatch_bufferSizeExt	9.2				hipsparsZgpsvInterleavedBatch_bufferSizeExt
cusparseZgtsv		10.2		11.0	
cusparseZgtsv2	9.0				hipsparsZgtsv2
cusparseZgtsv2StridedBatch	9.0				hipsparsZgtsv2StridedBatch
cusparseZgtsv2StridedBatch_bufferSizeExt	9.0				hipsparsZgtsv2StridedBatch_bufferSizeExt
cusparseZgtsv2_bufferSizeExt	9.0				hipsparsZgtsv2_bufferSizeExt
cusparseZgtsv2_nopivot	9.0				hipsparsZgtsv2_nopivot
cusparseZgtsv2_nopivot_bufferSizeExt	9.0				hipsparsZgtsv2_nopivot_bufferSizeExt
cusparseZgtsvInterleavedBatch	9.2				hipsparsZgtsvInterleavedBatch
cusparseZgtsvInterleavedBatch_bufferSizeExt	9.2				hipsparsZgtsvInterleavedBatch_bufferSizeExt
cusparseZgtsvStridedBatch		10.2		11.0	
cusparseZgtsv_nopivot		10.2		11.0	

11.2.10 13. CUSPARSE Reorderings Reference

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A	D	C	R	E
cusparseCsr2csr		12.2			hipsparse	4.5.0	6.2.0					rocsparse	4.5.0				
cusparseCsr2csc		12.2			hipsparse	4.5.0	6.2.0					rocsparse	4.5.0				
cusparseCsr2csr_compress		12.2			hipsparse	4.5.0	6.2.0					rocsparse	4.5.0				
cusparseCsr2csr_u		12.2			hipsparse	4.5.0	6.2.0					rocsparse	4.5.0				

11.2.11 14. CUSPARSE Format Conversion Reference

CUDA	A	D	C	R	HIP
cusparseCbsr2csr		12.8			hipsparseCbsr2csr
cusparseCcsc2dense		11.1		12.0	hipsparseCcsc2dense
cusparseCcsc2hyb		10.2		11.0	
cusparseCcsr2bsr		12.4			hipsparseCcsr2bsr
cusparseCcsr2csc		10.2		11.0	hipsparseCcsr2csc
cusparseCcsr2csr_compress	8.0	12.2			hipsparseCcsr2csr_compress
cusparseCcsr2csru		12.2			hipsparseCcsr2csru
cusparseCcsr2dense		11.1		12.0	hipsparseCcsr2dense
cusparseCcsr2gebsr					hipsparseCcsr2gebsr
cusparseCcsr2gebsr_bufferSize					hipsparseCcsr2gebsr_bufferSize
cusparseCcsr2gebsr_bufferSizeExt					
cusparseCcsr2hyb		10.2		11.0	hipsparseCcsr2hyb
cusparseCcsru2csr		12.2			hipsparseCcsru2csr
cusparseCcsru2csr_bufferSizeExt		12.2			hipsparseCcsru2csr_bufferSizeExt
cusparseCdense2csc		11.1		12.0	hipsparseCdense2csc
cusparseCdense2csr		11.1		12.0	hipsparseCdense2csr
cusparseCdense2hyb		10.2		11.0	
cusparseCgebsr2csr		12.4			hipsparseCgebsr2csr
cusparseCgebsr2gebsc					hipsparseCgebsr2gebsc
cusparseCgebsr2gebsc_bufferSize					hipsparseCgebsr2gebsc_bufferSize
cusparseCgebsr2gebsc_bufferSizeExt					
cusparseCgebsr2gebsr		12.8			hipsparseCgebsr2gebsr
cusparseCgebsr2gebsr_bufferSize		12.8			hipsparseCgebsr2gebsr_bufferSize
cusparseCgebsr2gebsr_bufferSizeExt		12.8			
cusparseChyb2csc		10.2		11.0	
cusparseChyb2csr		10.2		11.0	hipsparseChyb2csr
cusparseChyb2dense		10.2		11.0	
cusparseCnnz					hipsparseCnnz
cusparseCnnz_compress	8.0	12.2			hipsparseCnnz_compress
cusparseCreateCsru2csrInfo		12.2			hipsparseCreateCsru2csrInfo
cusparseCreateIdentityPermutation		12.2			hipsparseCreateIdentityPermutation
cusparseCsr2cscEx	8.0	10.2		11.0	
cusparseCsr2cscEx2		10.1			hipsparseCsr2cscEx2
cusparseCsr2cscEx2_bufferSize		10.1			hipsparseCsr2cscEx2_bufferSize
cusparseDbsr2csr		12.8			hipsparseDbsr2csr

CUDA	A	D	C	R	HIP
cusparseDcsc2dense		11.1		12.0	hipsparsedcsc2dense
cusparseDcsc2hyb		10.2		11.0	
cusparseDcsr2bsr		12.4			hipsparsedcsr2bsr
cusparseDcsr2csc		10.2		11.0	hipsparsedcsr2csc
cusparseDcsr2csr_compress	8.0	12.2			hipsparsedcsr2csr_compress
cusparseDcsr2csru		12.2			hipsparsedcsr2csru
cusparseDcsr2dense		11.1		12.0	hipsparsedcsr2dense
cusparseDcsr2gebsr					hipsparsedcsr2gebsr
cusparseDcsr2gebsr_bufferSize					hipsparsedcsr2gebsr_bufferSize
cusparseDcsr2gebsr_bufferSizeExt					
cusparseDcsr2hyb		10.2		11.0	hipsparsedcsr2hyb
cusparseDcsru2csr		12.2			hipsparsedcsru2csr
cusparseDcsru2csr_bufferSizeExt		12.2			hipsparsedcsru2csr_bufferSizeExt
cusparseDdense2csc		11.1		12.0	hipsparseddense2csc
cusparseDdense2csr		11.1		12.0	hipsparseddense2csr
cusparseDdense2hyb		10.2		11.0	
cusparseDestroyCsr2csrInfo		12.2			hipsparsedestroycsr2csrInfo
cusparseDgebsr2csr		12.4			hipsparsedgebsr2csr
cusparseDgebsr2gebbsc					hipsparsedgebsr2gebbsc
cusparseDgebsr2gebbsc_bufferSize					hipsparsedgebsr2gebbsc_bufferSize
cusparseDgebsr2gebbsc_bufferSizeExt					
cusparseDgebsr2gebsr		12.8			hipsparsedgebsr2gebsr
cusparseDgebsr2gebsr_bufferSize		12.8			hipsparsedgebsr2gebsr_bufferSize
cusparseDgebsr2gebsr_bufferSizeExt		12.8			
cusparseDhyb2csc		10.2		11.0	
cusparseDhyb2csr		10.2		11.0	hipsparsedhyb2csr
cusparseDhyb2dense		10.2		11.0	
cusparseDnnz					hipsparsednnz
cusparseDnnz_compress	8.0	12.2			hipsparsednnz_compress
cusparseDpruneCsr2csr	9.0	12.2			hipsparsedpruneCsr2csr
cusparseDpruneCsr2csrByPercentage	9.0	12.2			hipsparsedpruneCsr2csrByPercentage
cusparseDpruneCsr2csrByPercentage_bufferSizeExt	9.0	12.2			hipsparsedpruneCsr2csrByPercentage_bufferSizeExt
cusparseDpruneCsr2csrNnz	9.0	12.2			hipsparsedpruneCsr2csrNnz
cusparseDpruneCsr2csrNnzByPercentage	9.0	12.2			hipsparsedpruneCsr2csrNnzByPercentage
cusparseDpruneCsr2csr_bufferSizeExt	9.0	12.2			hipsparsedpruneCsr2csr_bufferSizeExt
cusparseDpruneDense2csr	9.0	12.2			hipsparsedpruneDense2csr
cusparseDpruneDense2csrByPercentage	9.0	12.2			hipsparsedpruneDense2csrByPercentage
cusparseDpruneDense2csrByPercentage_bufferSizeExt	9.0	12.2			hipsparsedpruneDense2csrByPercentage_bufferSizeExt
cusparseDpruneDense2csrNnz	9.0	12.2			hipsparsedpruneDense2csrNnz
cusparseDpruneDense2csrNnzByPercentage	9.0	12.2			hipsparsedpruneDense2csrNnzByPercentage
cusparseDpruneDense2csr_bufferSizeExt	9.0	12.2			hipsparsedpruneDense2csr_bufferSizeExt
cusparseHpruneCsr2csr	9.0	12.2			
cusparseHpruneCsr2csrByPercentage	9.0	12.2			
cusparseHpruneCsr2csrByPercentage_bufferSizeExt	9.0	12.2			
cusparseHpruneCsr2csrNnz	9.0	12.2			
cusparseHpruneCsr2csrNnzByPercentage	9.0	12.2			
cusparseHpruneCsr2csr_bufferSizeExt	9.0	12.2			
cusparseHpruneDense2csr	9.0	12.2			
cusparseHpruneDense2csrByPercentage	9.0	12.2			
cusparseHpruneDense2csrByPercentage_bufferSizeExt	9.0	12.2			

CUDA	A	D	C	R	HIP
cusparseHpruneDense2csrNnz	9.0	12.2			
cusparseHpruneDense2csrNnzByPercentage	9.0	12.2			
cusparseHpruneDense2csr_bufferSizeExt	9.0	12.2			
cusparseSbsr2csr		12.8			hipsparseSbsr2csr
cusparseScsc2dense		11.1		12.0	hipsparseScsc2dense
cusparseScsc2hyb		10.2		11.0	
cusparseScsr2bsr		12.4			hipsparseScsr2bsr
cusparseScsr2csc		10.2		11.0	hipsparseScsr2csc
cusparseScsr2csr_compress	8.0	12.2			hipsparseScsr2csr_compress
cusparseScsr2csru		12.2			hipsparseScsr2csru
cusparseScsr2dense		11.1		12.0	hipsparseScsr2dense
cusparseScsr2gebsr					hipsparseScsr2gebsr
cusparseScsr2gebsr_bufferSize					hipsparseScsr2gebsr_bufferSize
cusparseScsr2gebsr_bufferSizeExt					
cusparseScsr2hyb		10.2		11.0	hipsparseScsr2hyb
cusparseScsru2csr		12.2			hipsparseScsru2csr
cusparseScsru2csr_bufferSizeExt		12.2			hipsparseScsru2csr_bufferSizeExt
cusparseSdense2csc		11.1		12.0	hipsparseSdense2csc
cusparseSdense2csr		11.1		12.0	hipsparseSdense2csr
cusparseSdense2hyb		10.2		11.0	
cusparseSgebsr2csr		12.4			hipsparseSgebsr2csr
cusparseSgebsr2gebsc					hipsparseSgebsr2gebsc
cusparseSgebsr2gebsc_bufferSize					hipsparseSgebsr2gebsc_bufferSize
cusparseSgebsr2gebsc_bufferSizeExt					
cusparseSgebsr2gebsr		12.8			hipsparseSgebsr2gebsr
cusparseSgebsr2gebsr_bufferSize		12.8			hipsparseSgebsr2gebsr_bufferSize
cusparseSgebsr2gebsr_bufferSizeExt		12.8			
cusparseShyb2csc		10.2		11.0	
cusparseShyb2csr		10.2		11.0	hipsparseShyb2csr
cusparseShyb2dense		10.2		11.0	
cusparseSnnz					hipsparseSnnz
cusparseSnnz_compress	8.0	12.2			hipsparseSnnz_compress
cusparseSpruneCsr2csr	9.0	12.2			hipsparseSpruneCsr2csr
cusparseSpruneCsr2csrByPercentage	9.0	12.2			hipsparseSpruneCsr2csrByPercentage
cusparseSpruneCsr2csrByPercentage_bufferSizeExt	9.0	12.2			hipsparseSpruneCsr2csrByPercentage_bufferSizeExt
cusparseSpruneCsr2csrNnz	9.0	12.2			hipsparseSpruneCsr2csrNnz
cusparseSpruneCsr2csrNnzByPercentage	9.0	12.2			hipsparseSpruneCsr2csrNnzByPercentage
cusparseSpruneCsr2csr_bufferSizeExt	9.0	12.2			hipsparseSpruneCsr2csr_bufferSizeExt
cusparseSpruneDense2csr	9.0	12.2			hipsparseSpruneDense2csr
cusparseSpruneDense2csrByPercentage	9.0	12.2			hipsparseSpruneDense2csrByPercentage
cusparseSpruneDense2csrByPercentage_bufferSizeExt	9.0	12.2			hipsparseSpruneDense2csrByPercentage_bufferSizeExt
cusparseSpruneDense2csrNnz	9.0	12.2			hipsparseSpruneDense2csrNnz
cusparseSpruneDense2csrNnzByPercentage	9.0	12.2			hipsparseSpruneDense2csrNnzByPercentage
cusparseSpruneDense2csr_bufferSizeExt	9.0	12.2			hipsparseSpruneDense2csr_bufferSizeExt
cusparseXcoo2csr					hipsparseXcoo2csr
cusparseXcoosortByColumn					hipsparseXcoosortByColumn
cusparseXcoosortByRow					hipsparseXcoosortByRow
cusparseXcoosort_bufferSizeExt					hipsparseXcoosort_bufferSizeExt
cusparseXcscsort					hipsparseXcscsort
cusparseXcscsort_bufferSizeExt					hipsparseXcscsort_bufferSizeExt

CUDA	A	D	C	R	HIP
cusparseXcsr2bsrNnz		12.4			hipsparsXcsr2bsrNnz
cusparseXcsr2coo					hipsparsXcsr2coo
cusparseXcsr2gebsrNnz					hipsparsXcsr2gebsrNnz
cusparseXcsrsort					hipsparsXcsrsort
cusparseXcsrsort_bufferSizeExt					hipsparsXcsrsort_bufferSizeExt
cusparseXgebsr2csr		12.4			
cusparseXgebsr2gebsrNnz		12.8			hipsparsXgebsr2gebsrNnz
cusparseZbsr2csr		12.8			hipsparsZbsr2csr
cusparseZcsc2dense		11.1		12.0	hipsparsZcsc2dense
cusparseZcsc2hyb		10.2		11.0	
cusparseZcsr2bsr		12.4			hipsparsZcsr2bsr
cusparseZcsr2csc		10.2		11.0	hipsparsZcsr2csc
cusparseZcsr2csr_compress	8.0	12.2			hipsparsZcsr2csr_compress
cusparseZcsr2csru		12.2			hipsparsZcsr2csru
cusparseZcsr2dense		11.1		12.0	hipsparsZcsr2dense
cusparseZcsr2gebsr					hipsparsZcsr2gebsr
cusparseZcsr2gebsr_bufferSize					hipsparsZcsr2gebsr_bufferSize
cusparseZcsr2gebsr_bufferSizeExt					
cusparseZcsr2hyb		10.2		11.0	hipsparsZcsr2hyb
cusparseZcsru2csr		12.2			hipsparsZcsru2csr
cusparseZcsru2csr_bufferSizeExt		12.2			hipsparsZcsru2csr_bufferSizeExt
cusparseZdense2csc		11.1		12.0	hipsparsZdense2csc
cusparseZdense2csr		11.1		12.0	hipsparsZdense2csr
cusparseZdense2hyb		10.2		11.0	
cusparseZgebsr2csr		12.4			hipsparsZgebsr2csr
cusparseZgebsr2gebsc					hipsparsZgebsr2gebsc
cusparseZgebsr2gebsc_bufferSize					hipsparsZgebsr2gebsc_bufferSi
cusparseZgebsr2gebsc_bufferSizeExt					
cusparseZgebsr2gebsr		12.8			hipsparsZgebsr2gebsr
cusparseZgebsr2gebsr_bufferSize		12.8			hipsparsZgebsr2gebsr_bufferSi
cusparseZgebsr2gebsr_bufferSizeExt		12.8			
cusparseZhyb2csc		10.2		11.0	
cusparseZhyb2csr		10.2		11.0	hipsparsZhyb2csr
cusparseZhyb2dense		10.2		11.0	
cusparseZnnz					hipsparsZnnz
cusparseZnnz_compress	8.0	12.2			hipsparsZnnz_compress

11.2.12 15. CUSPARSE Generic API Reference

CUDA	A	D	C	R	HIP	A
cusparseAxpby	11.0	12.8	12.0		hipsparsAxpby	4.1.0
cusparseBlockedEllGet	11.2				hipsparsBlockedEllGet	4.5.0
cusparseBsrSetStridedBatch	12.1					
cusparseConstBlockedEllGet	12.0				hipsparsConstBlockedEllGet	6.0.0
cusparseConstCooGet	12.0				hipsparsConstCooGet	6.0.0
cusparseConstCscGet	12.0				hipsparsConstCscGet	6.2.0
cusparseConstCsrGet	12.0				hipsparsConstCsrGet	6.0.0
cusparseConstDnMatGet	12.0				hipsparsConstDnMatGet	6.0.0
cusparseConstDnMatGetValues	12.0				hipsparsConstDnMatGetValues	6.0.0

Table 16 – continued from previous page

CUDA	A	D	C	R	HIP	A
cusparseConstDnVecGet	12.0				hipsparseConstDnVecGet	6.0.0
cusparseConstDnVecGetValues	12.0				hipsparseConstDnVecGetValues	6.0.0
cusparseConstSpMatGetValues	12.0				hipsparseConstSpMatGetValues	6.0.0
cusparseConstSpVecGet	12.0				hipsparseConstSpVecGet	6.0.0
cusparseConstSpVecGetValues	12.0				hipsparseConstSpVecGetValues	6.0.0
cusparseConstrainedGeMM	10.2	11.2		12.0		
cusparseConstrainedGeMM_bufferSize	10.2	11.2		12.0		
cusparseCooAoSGet	10.2	11.2		12.0	hipsparseCooAoSGet	4.1.0
cusparseCooGet	10.1				hipsparseCooGet	4.1.0
cusparseCooSetPointers	11.1				hipsparseCooSetPointers	4.2.0
cusparseCooSetStridedBatch	11.0				hipsparseCooSetStridedBatch	5.2.0
cusparseCreateBlockedEll	11.2				hipsparseCreateBlockedEll	4.5.0
cusparseCreateBsr	12.1					
cusparseCreateConstBlockedEll	12.0				hipsparseCreateConstBlockedEll	6.0.0
cusparseCreateConstBsr	12.1					
cusparseCreateConstCoo	12.0				hipsparseCreateConstCoo	6.0.0
cusparseCreateConstCsc	12.0				hipsparseCreateConstCsc	6.0.0
cusparseCreateConstCsr	12.0				hipsparseCreateConstCsr	6.0.0
cusparseCreateConstDnMat	12.0				hipsparseCreateConstDnMat	6.0.0
cusparseCreateConstDnVec	12.0				hipsparseCreateConstDnVec	6.0.0
cusparseCreateConstSlicedEll	12.1					
cusparseCreateConstSpVec	12.0				hipsparseCreateConstSpVec	6.0.0
cusparseCreateCoo	10.1				hipsparseCreateCoo	4.1.0
cusparseCreateCooAoS	10.2	11.2		12.0	hipsparseCreateCooAoS	4.1.0
cusparseCreateCsc	11.1				hipsparseCreateCsc	4.2.0
cusparseCreateCsr	10.2				hipsparseCreateCsr	4.1.0
cusparseCreateDnMat	10.1				hipsparseCreateDnMat	4.2.0
cusparseCreateDnVec	10.2				hipsparseCreateDnVec	4.1.0
cusparseCreateSlicedEll	12.1					
cusparseCreateSpVec	10.2				hipsparseCreateSpVec	4.1.0
cusparseCscGet	11.7				hipsparseCscGet	6.2.0
cusparseCscSetPointers	11.1				hipsparseCscSetPointers	4.2.0
cusparseCsrGet	10.2				hipsparseCsrGet	4.1.0
cusparseCsrSetPointers	11.0				hipsparseCsrSetPointers	4.1.0
cusparseCsrSetStridedBatch	11.0				hipsparseCsrSetStridedBatch	5.2.0
cusparseDenseToSparse_analysis	11.1		12.0		hipsparseDenseToSparse_analysis	4.2.0
cusparseDenseToSparse_bufferSize	11.1		12.0		hipsparseDenseToSparse_bufferSize	4.2.0
cusparseDenseToSparse_convert	11.1		12.0		hipsparseDenseToSparse_convert	4.2.0
cusparseDestroyDnMat	10.1		12.0		hipsparseDestroyDnMat	4.2.0
cusparseDestroyDnVec	10.2		12.0		hipsparseDestroyDnVec	4.1.0
cusparseDestroySpMat	10.1		12.0		hipsparseDestroySpMat	4.1.0
cusparseDestroySpVec	10.2		12.0		hipsparseDestroySpVec	4.1.0
cusparseDnMatGet	10.1				hipsparseDnMatGet	4.2.0
cusparseDnMatGetStridedBatch	10.1		12.0		hipsparseDnMatGetStridedBatch	5.2.0
cusparseDnMatGetValues	10.2				hipsparseDnMatGetValues	4.2.0
cusparseDnMatSetStridedBatch	10.1				hipsparseDnMatSetStridedBatch	5.2.0
cusparseDnMatSetValues	10.2				hipsparseDnMatSetValues	4.2.0
cusparseDnVecGet	10.2				hipsparseDnVecGet	4.1.0
cusparseDnVecGetValues	10.2				hipsparseDnVecGetValues	4.1.0
cusparseDnVecSetValues	10.2				hipsparseDnVecSetValues	4.1.0

Table 16 – continued from previous page

CUDA	A	D	C	R	HIP	A
cusparseGather	11.0		12.0		hipsparseGather	4.1.0
cusparseRot	11.0	12.2			hipsparseRot	4.1.0
cusparseSDDMM	11.2		12.0		hipsparseSDDMM	4.3.0
cusparseSDDMM_bufferSize	11.2		12.0		hipsparseSDDMM_bufferSize	4.3.0
cusparseSDDMM_preprocess	11.2		12.0		hipsparseSDDMM_preprocess	4.3.0
cusparseScatter	11.0		12.0		hipsparseScatter	4.1.0
cusparseSpGEMM_compute	11.0		12.0		hipsparseSpGEMM_compute	4.1.0
cusparseSpGEMM_copy	11.0		12.0		hipsparseSpGEMM_copy	4.1.0
cusparseSpGEMM_createDescr	11.0				hipsparseSpGEMM_createDescr	4.1.0
cusparseSpGEMM_destroyDescr	11.0				hipsparseSpGEMM_destroyDescr	4.1.0
cusparseSpGEMM_estimateMemory	12.0					
cusparseSpGEMM_getNumProducts	12.0					
cusparseSpGEMM_workEstimation	11.0		12.0		hipsparseSpGEMM_workEstimation	4.1.0
cusparseSpGEMMreuse_compute	11.3		12.0		hipsparseSpGEMMreuse_compute	5.1.0
cusparseSpGEMMreuse_copy	11.3		12.0		hipsparseSpGEMMreuse_copy	5.1.0
cusparseSpGEMMreuse_nnz	11.3		12.0		hipsparseSpGEMMreuse_nnz	5.1.0
cusparseSpGEMMreuse_workEstimation	11.3		12.0		hipsparseSpGEMMreuse_workEstimation	5.1.0
cusparseSpMM	10.1		12.0		hipsparseSpMM	4.2.0
cusparseSpMMOp	11.5					
cusparseSpMMOp_createPlan	11.5					
cusparseSpMMOp_destroyPlan	11.5					
cusparseSpMM_bufferSize	10.1		12.0		hipsparseSpMM_bufferSize	4.2.0
cusparseSpMM_preprocess	11.2		12.0		hipsparseSpMM_preprocess	4.5.0
cusparseSpMV	10.1		12.0		hipsparseSpMV	4.1.0
cusparseSpMV_bufferSize	10.1		12.0		hipsparseSpMV_bufferSize	4.1.0
cusparseSpMV_preprocess	12.4				hipsparseSpMV_preprocess	5.2.0
cusparseSpMatGetAttribute	11.3		12.0		hipsparseSpMatGetAttribute	4.5.0
cusparseSpMatGetFormat	10.1		12.0		hipsparseSpMatGetFormat	4.1.0
cusparseSpMatGetIndexBase	10.1		12.0		hipsparseSpMatGetIndexBase	4.1.0
cusparseSpMatGetNumBatches	10.1			10.2		
cusparseSpMatGetSize	11.0		12.0		hipsparseSpMatGetSize	4.1.0
cusparseSpMatGetStridedBatch	10.2		12.0		hipsparseSpMatGetStridedBatch	5.2.0
cusparseSpMatGetValues	10.2				hipsparseSpMatGetValues	4.1.0
cusparseSpMatSetAttribute	11.3				hipsparseSpMatSetAttribute	4.5.0
cusparseSpMatSetNumBatches	10.1			10.2		
cusparseSpMatSetStridedBatch	10.2			12.0	hipsparseSpMatSetStridedBatch	5.2.0
cusparseSpMatSetValues	10.2				hipsparseSpMatSetValues	4.1.0
cusparseSpSM_analysis	11.3		12.0		hipsparseSpSM_analysis	4.5.0
cusparseSpSM_bufferSize	11.3		12.0		hipsparseSpSM_bufferSize	4.5.0
cusparseSpSM_createDescr	11.3				hipsparseSpSM_createDescr	4.5.0
cusparseSpSM_destroyDescr	11.3				hipsparseSpSM_destroyDescr	4.5.0
cusparseSpSM_solve	11.3		12.0		hipsparseSpSM_solve	4.5.0
cusparseSpSM_updateMatrix	12.4					
cusparseSpSV_analysis	11.3		12.0		hipsparseSpSV_analysis	4.5.0
cusparseSpSV_bufferSize	11.3		12.0		hipsparseSpSV_bufferSize	4.5.0
cusparseSpSV_createDescr	11.3				hipsparseSpSV_createDescr	4.5.0
cusparseSpSV_destroyDescr	11.3				hipsparseSpSV_destroyDescr	4.5.0
cusparseSpSV_solve	11.3		12.0		hipsparseSpSV_solve	4.5.0
cusparseSpSV_updateMatrix	12.1					
cusparseSpVV	10.1	12.8	12.0		hipsparseSpVV	4.1.0

Table 16 – continued from previous page

CUDA	A	D	C	R	HIP	A
cusparseSpVV_bufferSize	10.1	12.8	12.0		hipsparseSpVV_bufferSize	4.1.0
cusparseSpVecGet	10.2				hipsparseSpVecGet	4.1.0
cusparseSpVecGetIndexBase	10.2		12.0		hipsparseSpVecGetIndexBase	4.1.0
cusparseSpVecGetValues	10.2				hipsparseSpVecGetValues	4.1.0
cusparseSpVecSetValues	10.2				hipsparseSpVecSetValues	4.1.0
cusparseSparseToDense	11.1		12.0		hipsparseSparseToDense	4.2.0
cusparseSparseToDense_bufferSize	11.1		12.0		hipsparseSparseToDense_bufferSize	4.2.0

11.3 CURAND API supported by

Note: In the tables that follow the columns marked A, D, C, R, U, and E mean the following: **A** - Added; **D** - Deprecated; **C** - Changed; **R** - Removed; **U** - Unsupported for CUDA version(s); **E** - Experimental

11.3.1 1. CURAND Data types

CUDA	A	D	C	R	HIP
CURAND_3RD					
CURAND_BINARY_SEARCH					
CURAND_CHOOSE_BEST					
CURAND_DEFINITION					
CURAND_DEVICE_API					
CURAND_DIRECTION_VECTORS_32_JOEKU06					HIPRAND_DIRECTION_VECTORS_32_JOEKU06
CURAND_DIRECTION_VECTORS_64_JOEKU06					HIPRAND_DIRECTION_VECTORS_64_JOEKU06
CURAND_DISCRETE_GAUSS					
CURAND_FAST_REJECTION					
CURAND_HITR					
CURAND_ITR					
CURAND_KNUTH					
CURAND_M1					
CURAND_M2					
CURAND_ORDERING_PSEUDO_BEST					HIPRAND_ORDERING_PSEUDO_BEST
CURAND_ORDERING_PSEUDO_DEFAULT					HIPRAND_ORDERING_PSEUDO_DEFAULT
CURAND_ORDERING_PSEUDO_DYNAMIC			11.5		HIPRAND_ORDERING_PSEUDO_DYNAMIC
CURAND_ORDERING_PSEUDO_LEGACY			11.0		HIPRAND_ORDERING_PSEUDO_LEGACY
CURAND_ORDERING_PSEUDO_SEEDED					HIPRAND_ORDERING_PSEUDO_SEEDED
CURAND_ORDERING_QUASI_DEFAULT					HIPRAND_ORDERING_QUASI_DEFAULT
CURAND_POISSON					
CURAND_REJECTION					
CURAND_RNG_PSEUDO_DEFAULT					HIPRAND_RNG_PSEUDO_DEFAULT
CURAND_RNG_PSEUDO_MRG32K3A					HIPRAND_RNG_PSEUDO_MRG32K3A
CURAND_RNG_PSEUDO_MT19937					HIPRAND_RNG_PSEUDO_MT19937
CURAND_RNG_PSEUDO_MTG32					HIPRAND_RNG_PSEUDO_MTG32
CURAND_RNG_PSEUDO_PHILOX4_32_10					HIPRAND_RNG_PSEUDO_PHILOX4_32_10
CURAND_RNG_PSEUDO_XORWOW					HIPRAND_RNG_PSEUDO_XORWOW
CURAND_RNG_QUASI_DEFAULT					HIPRAND_RNG_QUASI_DEFAULT
CURAND_RNG_QUASI_SCRAMBLED_SOBOL32					HIPRAND_RNG_QUASI_SCRAMBLED_SOBOL32
CURAND_RNG_QUASI_SCRAMBLED_SOBOL64					HIPRAND_RNG_QUASI_SCRAMBLED_SOBOL64
CURAND_RNG_QUASI_SOBOL32					HIPRAND_RNG_QUASI_SOBOL32

CUDA	A	D	C	R	HIP
CURAND_RNG_QUASI_SOBOL64					HIPRAND_RNG_QUASI_SOBOL64
CURAND_RNG_TEST					HIPRAND_RNG_TEST
CURAND_SCRAMBLED_DIRECTION_VECTORS_32_JOEKU06					HIPRAND_SCRAMBLED_DIRECTION_VECTORS_32
CURAND_SCRAMBLED_DIRECTION_VECTORS_64_JOEKU06					HIPRAND_SCRAMBLED_DIRECTION_VECTORS_64
CURAND_STATUS_ALLOCATION_FAILED					HIPRAND_STATUS_ALLOCATION_FAILED
CURAND_STATUS_ARCH_MISMATCH					HIPRAND_STATUS_ARCH_MISMATCH
CURAND_STATUS_DOUBLE_PRECISION_REQUIRED					HIPRAND_STATUS_DOUBLE_PRECISION_REQUIRED
CURAND_STATUS_INITIALIZATION_FAILED					HIPRAND_STATUS_INITIALIZATION_FAILED
CURAND_STATUS_INTERNAL_ERROR					HIPRAND_STATUS_INTERNAL_ERROR
CURAND_STATUS_LAUNCH_FAILURE					HIPRAND_STATUS_LAUNCH_FAILURE
CURAND_STATUS_LENGTH_NOT_MULTIPLE					HIPRAND_STATUS_LENGTH_NOT_MULTIPLE
CURAND_STATUS_NOT_INITIALIZED					HIPRAND_STATUS_NOT_INITIALIZED
CURAND_STATUS_OUT_OF_RANGE					HIPRAND_STATUS_OUT_OF_RANGE
CURAND_STATUS_PREEXISTING_FAILURE					HIPRAND_STATUS_PREEXISTING_FAILURE
CURAND_STATUS_SUCCESS					HIPRAND_STATUS_SUCCESS
CURAND_STATUS_TYPE_ERROR					HIPRAND_STATUS_TYPE_ERROR
CURAND_STATUS_VERSION_MISMATCH					HIPRAND_STATUS_VERSION_MISMATCH
curandDirectionVectorSet					hiprandDirectionVectorSet_t
curandDirectionVectorSet_t					hiprandDirectionVectorSet_t
curandDirectionVectors32_t					hiprandDirectionVectors32_t
curandDirectionVectors64_t					hiprandDirectionVectors64_t
curandDiscreteDistribution_st					hiprandDiscreteDistribution_st
curandDiscreteDistribution_t					hiprandDiscreteDistribution_t
curandDistributionM2Shift_st					
curandDistributionM2Shift_t					
curandDistributionShift_st					
curandDistributionShift_t					
curandDistribution_st					
curandDistribution_t					
curandGenerator_st					hiprandGenerator_st
curandGenerator_t					hiprandGenerator_t
curandHistogramM2K_st					
curandHistogramM2K_t					
curandHistogramM2V_st					
curandHistogramM2V_t					
curandHistogramM2_st					
curandHistogramM2_t					
curandMethod					
curandMethod_t					
curandOrdering					hiprandOrdering
curandOrdering_t					hiprandOrdering_t
curandRngType					hiprandRngType_t
curandRngType_t					hiprandRngType_t
curandState					hiprandState
curandStateMRG32k3a					hiprandStateMRG32k3a
curandStateMRG32k3a_t					hiprandStateMRG32k3a_t
curandStateMtg32					hiprandStateMtg32
curandStateMtg32_t					hiprandStateMtg32_t
curandStatePhilox4_32_10					hiprandStatePhilox4_32_10
curandStatePhilox4_32_10_t					hiprandStatePhilox4_32_10_t

Table 17 – continued

CUDA	A	D	C	R	HIP
curandStateScrambledSobol32					hiprandStateScrambledSobol32
curandStateScrambledSobol32_t					hiprandStateScrambledSobol32_t
curandStateScrambledSobol64					hiprandStateScrambledSobol64
curandStateScrambledSobol64_t					hiprandStateScrambledSobol64_t
curandStateSobol32					hiprandStateSobol32
curandStateSobol32_t					hiprandStateSobol32_t
curandStateSobol64					hiprandStateSobol64
curandStateSobol64_t					hiprandStateSobol64_t
curandStateXORWOW					hiprandStateXORWOW
curandStateXORWOW_t					hiprandStateXORWOW_t
curandState_t					hiprandState_t
curandStatus					hiprandStatus
curandStatus_t					hiprandStatus_t

11.3.2 2. Host API Functions

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A	D	C	R	E
curandCre					hiprandCr	1.5.0						rocrand_cr	1.5.0				
curandCre					hiprandCr	1.5.0						rocrand_cr	6.2.0				blocking
curandCre					hiprandCr	1.5.0						rocrand_cr	1.5.0				oution
curandDes					hiprandDe	1.5.0						rocrand_de	1.5.0				tribution
curandDes					hiprandDe	1.5.0						rocrand_de	1.5.0				
curandGen					hiprandGe	1.5.0						rocrand_ge	1.5.0				
curandGen					hiprandGe	1.5.0						rocrand_ge	1.5.0				
curandGen					hiprandGe	1.5.0						rocrand_ge	1.5.0				ouble
curandGen					hiprandGe	5.5.0						rocrand_ge	5.4.0				
curandGen					hiprandGe	1.5.0						rocrand_ge	1.5.0				
curandGen					hiprandGe	1.5.0						rocrand_ge	1.5.0				e
curandGen					hiprandGe	1.5.0						rocrand_ge	1.5.0				
curandGen					hiprandGe	1.5.0						rocrand_in	1.5.0				
curandGen					hiprandGe	1.5.0						rocrand_ge	1.5.0				
curandGen					hiprandGe	1.5.0						rocrand_ge	1.5.0				le
curandGet					hiprandGe	6.0.0						rocrand_ge	6.0.0				32
curandGet					hiprandGe	6.0.0						rocrand_ge	6.0.0				64
curandGet	8.0																
curandGet					hiprandGe	6.0.0						rocrand_ge	6.0.0				32
curandGet					hiprandGe	6.0.0						rocrand_ge	6.0.0				64
curandGet					hiprandGe	1.5.0						rocrand_ge	1.5.0				
curandMak					hiprandMa	1.5.0						rocrand_ma	1.5.0				
curandMak					hiprandMa	1.5.0						rocrand_ma	1.5.0				
curandSet					hiprandSe	1.5.0						rocrand_se	1.5.0				
curandSet					hiprandSe	6.2.0						rocrand_se	5.5.0				
curandSet					hiprandSe	1.5.0						rocrand_se	1.5.0				
curandSet					hiprandSe	1.5.0						rocrand_se	1.5.0				ator_dimension
curandSet					hiprandSe	1.5.0						rocrand_se	1.5.0				

11.3.3 3. Device API Functions

CUDA	A	D	C	R	HIP	A	D	C	R	U	E	ROC	A	D	C	R	E
__curand_	11.5																
curand					hiprand	1.5.0						rocrand	1.5.0				
curand_Ph:																	
curand_di:					hiprand_	1.5.0						rocrand_	1.5.0				
curand_di:					hiprand_	1.5.0						rocrand_	1.5.0				
curand_in:					hiprand_:	1.5.0						rocrand_:	1.5.0				
curand_lo:					hiprand_]	1.5.0						rocrand_]	1.5.0				
curand_lo:					hiprand_]	1.5.0						rocrand_]	1.5.0				
curand_lo:					hiprand_]	1.5.0						rocrand_]	1.5.0				
curand_lo:		13.0			hiprand_]	1.5.0						rocrand_]	1.5.0				
curand_lo:					hiprand_]	1.5.0						rocrand_]	1.5.0				
curand_mt:																	
curand_mt:																	
curand_mt:																	
curand_no:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_no:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_no:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_no:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_no:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_no:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_po:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_po:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_un:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_un:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_un:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_un:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_un:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_un:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				
curand_un:					hiprand_]_	1.5.0						rocrand_]_	1.5.0				

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