

AMD ROCmTM

HIP-Supported CUDA API Reference Guide

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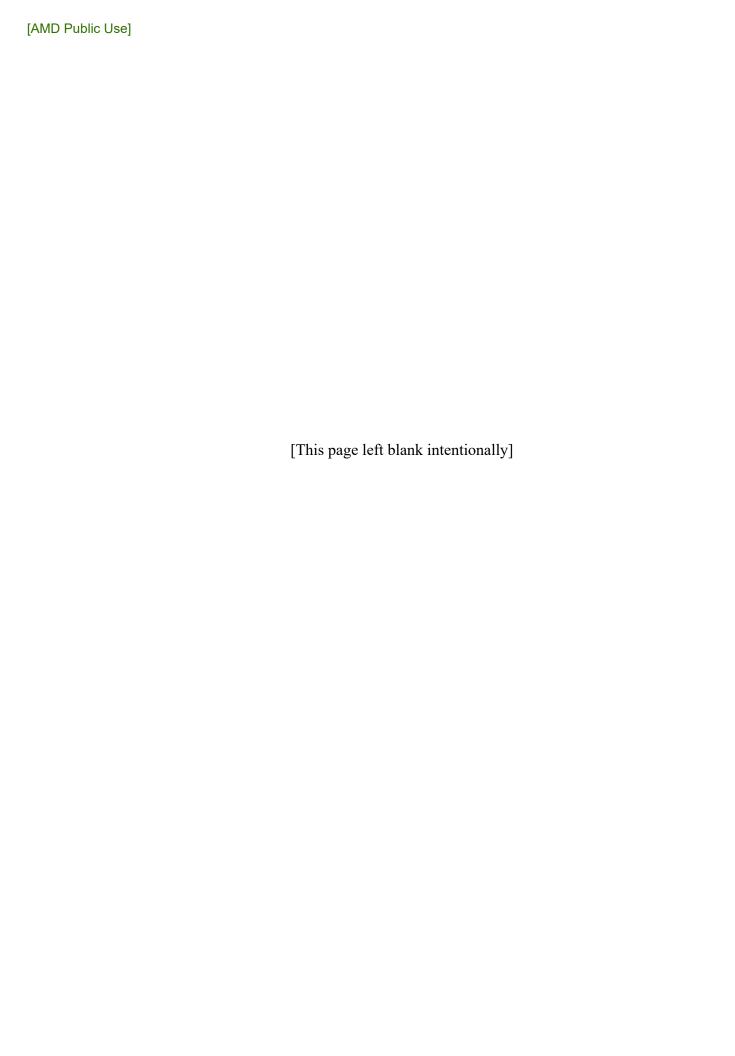
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Chapter 1 HIP-Supported CUDA API

This reference guide consists of CUDA APIs supported in HIP and covers the Driver API, Runtime API, cuComplex API, Device API, and APIs for the following supported libraries:

- cuBLAS
- cuRAND
- cuFFT
- cuSPARSE
- cuDNN

Note, deprecated APIs are identified and marked in the Deprecated column.

For details about HIP APIs, see the HIP API Guide at

https://github.com/RadeonOpenCompute/ROCm/blob/master/AMD_HIP_API_Guide_v4.1.pdf

1.1 CUDA Runtime API Supported by HIP

1.1.1 Device Management

CUDA	Deprecated	HIP	Deprecated
cudaChooseDevice		hipChooseDevice	
cudaDeviceGetAttribute		hipDeviceGetAttribute	
cudaDeviceGetByPCIBusI		hipDeviceGetByPCIBusId	
d			
cudaDeviceGetCacheConf		hipDeviceGetCacheConfig	
ig			
cudaDeviceGetLimit		hipDeviceGetLimit	
cudaDeviceGetP2PAttribu		hipDeviceGetP2PAttribute	
te			
cudaDeviceGetPCIBusId		hipDeviceGetPCIBusId	
cudaDeviceGetSharedMe		hipDeviceGetSharedMem	
mConfig		Config	
cudaDeviceGetStreamPrio		hipDeviceGetStreamPriori	
rityRange		tyRange	
cudaDeviceReset		hipDeviceReset	
cudaDeviceSetCacheConfi		hipDeviceSetCacheConfig	
g			
cudaDeviceSetSharedMem		hipDeviceSetSharedMem	
Config		Config	
cudaDeviceSynchronize		hipDeviceSynchronize	
cudaGetDevice		hipGetDevice	
cudaGetDeviceCount		hipGetDeviceCount	
cudaGetDeviceFlags		hipGetDeviceFlags	
cudaGetDeviceProperties		hipGetDeviceProperties	
cudaIpcCloseMemHandle		hipIpcCloseMemHandle	
cudaIpcGetEventHandle		hipIpcGetEventHandle	
cudaIpcGetMemHandle		hipIpcGetMemHandle	

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cudaIpcOpenEventHandle	hipIpcOpenEventHandle	
cudaIpcOpenMemHandle	hipIpcOpenMemHandle	
cudaSetDevice	hipSetDevice	
cudaSetDeviceFlags	hipSetDeviceFlags	

1.1.2 Thread Management [Deprecated]

CUDA	Deprecated	HIP	Deprecated
cudaThreadExit	✓	hipDeviceReset	
cudaThreadGetCacheConf ig	✓	hipDeviceGetCacheConfig	
cudaThreadSetCacheConfi	✓	hipDeviceSetCacheConfig	
cudaThreadSynchronize	✓	hipDeviceSynchronize	

1.1.3 Error Handling

CUDA	Deprecated	HIP	Deprecated
cudaGetErrorName		hipGetErrorName	
cudaGetErrorString		hipGetErrorString	
cudaGetLastError		hipGetLastError	
cudaPeekAtLastError		hipPeekAtLastError	

1.1.4 Stream Management

CUDA	Deprecated	HIP	Deprecated
cudaStreamAddCallback		hipStreamAddCallback	
cudaStreamAttachMemAs		hipStreamAttachMemAsy	
ync		nc	
cudaStreamCreate		hipStreamCreate	
cudaStreamCreateWithFla		hipStreamCreateWithFlag	
gs		S	
cudaStreamCreateWithPri		hipStreamCreateWithPrior	
ority		ity	
cudaStreamDestroy		hipStreamDestroy	
cudaStreamGetFlags		hipStreamGetFlags	
cudaStreamGetPriority		hipStreamGetPriority	
cudaStreamQuery		hipStreamQuery	
cudaStreamSynchronize		hipStreamSynchronize	
cudaStreamWaitEvent		hipStreamWaitEvent	
cudaStreamAddCallback		hipStreamAddCallback	

1.1.5 Event Management

CUDA	Deprecated	HIP	Deprecated
cudaEventCreate		hipEventCreate	
cudaEventCreateWithFlag		hipEventCreateWithFlags	
S			
cudaEventDestroy		hipEventDestroy	
cudaEventElapsedTime		hipEventElapsedTime	
cudaEventQuery		hipEventQuery	
cudaEventRecord		hipEventRecord	

CUDA	Deprecated	HIP	Deprecated
cudaEventSynchronize		hipEventSynchronize	

1.1.6 Execution Control

CUDA	Deprecated	HIP	Deprecated
cudaFuncGetAttributes		hipFuncGetAttributes	
cudaFuncSetAttribute		hipFuncSetAttribute	
cudaFuncSetCacheConfig		hipFuncSetCacheConfig	
cudaFuncSetSharedMemC		hipFuncSetSharedMemCo	
onfig		nfig	
cudaLaunchCooperativeK		hipLaunchCooperativeKer	
ernel		nel	
cudaLaunchCooperativeK		hipLaunchCooperativeKer	
ernelMultiDevice		nelMultiDevice	
cudaLaunchKernel		hipLaunchKernel	

1.1.7 Occupancy

CUDA	Deprecated	HIP	Deprecated
cudaOccupancyMaxActiv		hipOccupancyMaxActive	
eBlocksPerMultiprocessor		BlocksPerMultiprocessor	
cudaOccupancyMaxActiv		hipOccupancyMaxActive	
eBlocksPerMultiprocessor		BlocksPerMultiprocessor	
WithFlags		WithFlags	
cudaOccupancyMaxPotent		hipOccupancyMaxPotenti	
ialBlockSize		alBlockSize	
cudaOccupancyMaxPotent		hipOccupancyMaxPotenti	
ialBlockSizeWithFlags		alBlockSizeWithFlags	

1.1.8 Memory Management

CUDA	Deprecated	HIP	Deprecated
cudaFree		hipFree	
cudaFreeArray		hipFreeArray	
cudaFreeHost		hipHostFree	
cudaFreeMipmappedArray		hipFreeMipmappedArray	
cudaGetMipmappedArray		hipGetMipmappedArrayL	
Level		evel	
cudaGetSymbolAddress		hipGetSymbolAddress	
cudaGetSymbolSize		hipGetSymbolSize	
cudaHostAlloc		hipHostMalloc	
cudaHostGetDevicePointe		hipHostGetDevicePointer	
r			
cudaHostGetFlags		hipHostGetFlags	
cudaHostRegister		hipHostRegister	
cudaHostUnregister		hipHostUnregister	
cudaMalloc		hipMalloc	
cudaMalloc3D		hipMalloc3D	
cudaMalloc3DArray		hipMalloc3DArray	
cudaMallocArray		hipMallocArray	
cudaMallocHost		hipHostMalloc	

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CUDA	Deprecated	HIP	Deprecated
cudaMallocManaged		hipMallocManaged	
cudaMallocMipmappedAr		hipMallocMipmappedArra	
ray		у	
cudaMallocPitch		hipMallocPitch	
cudaMemAdvise		hipMemAdvise	
cudaMemGetInfo		hipMemGetInfo	
cudaMemPrefetchAsync		hipMemPrefetchAsync	
cudaMemRangeGetAttrib		hipMemRangeGetAttribut	
ute		e	
cudaMemRangeGetAttrib		hipMemRangeGetAttribut	
utes		es	
cudaMemcpy		hipMemcpy	
cudaMemcpy2D		hipMemcpy2D	
cudaMemcpy2DAsync		hipMemcpy2DAsync	
cudaMemcpy2DFromArra		hipMemcpy2DFromArray	
у		1 13	
cudaMemcpy2DFromArra		hipMemcpy2DFromArray	
yAsync		Async	
cudaMemcpy2DToArray		hipMemcpy2DToArray	
cudaMemcpy3D		hipMemcpy3D	
cudaMemcpy3DAsync		hipMemcpy3DAsync	
cudaMemcpyAsync		hipMemcpyAsync	
cudaMemcpyFromSymbol		hipMemcpyFromSymbol	
cudaMemcpyFromSymbol		hipMemcpyFromSymbolA	
Async		sync	
cudaMemcpyPeer		hipMemcpyPeer	
cudaMemcpyPeerAsync		hipMemcpyPeerAsync	
cudaMemcpyToSymbol		hipMemcpyToSymbol	
cudaMemcpyToSymbolAs		hipMemcpyToSymbolAsy	
ync		nc	
cudaMemset		hipMemset	
cudaMemset2D		hipMemset2D	
cudaMemset2DAsync		hipMemset2DAsync	
cudaMemset3D		hipMemset3D	
cudaMemset3DAsync		hipMemset3DAsync	
cudaMemsetAsync		hipMemsetAsync	
make cudaExtent		make hipExtent	
make cudaPitchedPtr		make hipPitchedPtr	
make cudaPos		make hipPos	

1.1.9 Memory Management [Deprecated]

CUDA	Deprecated	HIP	Deprecated
cudaMemcpyFromArray	✓	hipMemcpyFromArray	✓
cudaMemcpyToArray	✓	hipMemcpyToArray	✓

1.1.10 Unified Addressing

CUDA	Deprecated	HIP	Deprecated
cudaPointerGetAttributes		hipPointerGetAttributes	

1.1.11 Peer Device Memory Access

CUDA	Deprecated	HIP	Deprecated
cudaDeviceCanAccessPee		hipDeviceCanAccessPeer	
r			
cudaDeviceDisablePeerAc		hipDeviceDisablePeerAcc	
cess		ess	
cudaDeviceEnablePeerAc		hipDeviceEnablePeerAcce	
cess		SS	

1.1.12 Texture Reference Management [Deprecated]

CUDA	Deprecated	HIP	Deprecated
cudaBindTexture	✓	hipBindTexture	\checkmark
cudaBindTexture2D	✓	hipBindTexture2D	\checkmark
cudaBindTextureToArray	✓	hipBindTextureToArray	✓
cudaBindTextureToMipm	✓	hipBindTextureToMipmap	
appedArray		pedArray	
cudaCreateChannelDesc		hipCreateChannelDesc	
cudaGetChannelDesc		hipGetChannelDesc	
cudaGetTextureAlignment	✓	hipGetTextureAlignmentO	\checkmark
Offset		ffset	
cudaGetTextureReference	✓	hipGetTextureReference	
cudaUnbindTexture	✓	hipUnbindTexture	\checkmark

1.1.13 Texture Object Management

CUDA	Deprecated	HIP	Deprecated
cuTexObjectGetTextureD		hipGetTextureObjectTextu	
esc		reDesc	
cudaCreateTextureObject		hipCreateTextureObject	
cudaDestroyTextureObject		hipDestroyTextureObject	
cudaGetTextureObjectRes		hipGetTextureObjectReso	
ourceDesc		urceDesc	
cudaGetTextureObjectRes		hipGetTextureObjectReso	
ourceViewDesc		urceViewDesc	

1.1.14 Surface Object Management

CUDA	Deprecated	HIP	Deprecated
cudaCreateSurfaceObject		hipCreateSurfaceObject	
cudaDestroySurfaceObject		hipDestroySurfaceObject	

1.1.15 Version Management

CUDA	Deprecated	HIP	Deprecated
cudaDriverGetVersion		hipDriverGetVersion	
cudaRuntimeGetVersion		hipRuntimeGetVersion	

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1.1.16 Profiler Control

CUDA	Deprecated	HIP	Deprecated
cudaProfilerStart		hipProfilerStart	\checkmark
cudaProfilerStop		hipProfilerStop	✓

1.1.17 Data types used by CUDA Runtime

CUDA	Deprecated	HIP	Deprecated
CUDA IPC HANDLE S		HIP IPC HANDLE SIZ	
IZE		E	
CUevent st		ihipEvent t	
CUstream st		ihipStream t	
cudaAddressModeBorder		hipAddressModeBorder	
cudaAddressModeClamp		hipAddressModeClamp	
cudaAddressModeMirror		hipAddressModeMirror	
cudaAddressModeWrap		hipAddressModeWrap	
cudaArray		hipArray	
cudaArrayCubemap		hipArrayCubemap	
cudaArrayDefault		hipArrayDefault	
cudaArrayLayered		hipArrayLayered	
cudaArraySurfaceLoadSto		hipArraySurfaceLoadStore	
re		1 3	
cudaArrayTextureGather		hipArrayTextureGather	
cudaArray const t		hipArray const t	
cudaArray t		hipArray t	
cudaBoundaryModeClamp		hipBoundaryModeClamp	
cudaBoundaryModeTrap		hipBoundaryModeTrap	
cudaBoundaryModeZero		hipBoundaryModeZero	
cudaChannelFormatDesc		hipChannelFormatDesc	
cudaChannelFormatKind		hipChannelFormatKind	
cudaChannelFormatKindF		hipChannelFormatKindFlo	
loat		at	
cudaChannelFormatKindN		hipChannelFormatKindNo	
one		ne	
cudaChannelFormatKindS		hipChannelFormatKindSig	
igned		ned	
cudaChannelFormatKindU		hipChannelFormatKindUn	
nsigned		signed	
cudaComputeMode		hipComputeMode	
cudaComputeModeDefaul		hipComputeModeDefault	
t			
cudaComputeModeExclus		hipComputeModeExclusiv	
ive		e	
cudaComputeModeExclus		hipComputeModeExclusiv	
iveProcess		eProcess	
cudaComputeModeProhibi		hipComputeModeProhibit	
ted		ed	
cudaCooperativeLaunchM		hipCooperativeLaunchMul	
ultiDeviceNoPostSync		tiDeviceNoPostSync	
cudaCooperativeLaunchM		hipCooperativeLaunchMul	
ultiDeviceNoPreSync		tiDeviceNoPreSync	

CUDA	Deprecated	HIP	Deprecated
cudaCpuDeviceId		hipCpuDeviceId	
cudaDevAttrCanMapHost Memory		hipDeviceAttributeCanMa pHostMemory	
cudaDevAttrClockRate		hipDeviceAttributeClockR	
1 D - A # C - + C		ate	
cudaDevAttrComputeCap abilityMajor		hipDeviceAttributeCompu teCapabilityMajor	
cudaDevAttrComputeCap		hipDeviceAttributeCompu	
abilityMinor		teCapabilityMinor	
cudaDevAttrComputeMod		hipDeviceAttributeCompu	
e		teMode	
cudaDevAttrConcurrentKe rnels		hipDeviceAttributeConcur rentKernels	
cudaDevAttrConcurrentM		hipDeviceAttributeConcur	
anagedAccess		rentManagedAccess	
cudaDevAttrCooperativeL		hipDeviceAttributeCooper	
aunch		ativeLaunch	
cudaDevAttrCooperative MultiDeviceLaunch		hipDeviceAttributeCooper ativeMultiDeviceLaunch	
cudaDevAttrDirectManag		hipDeviceAttributeDirect	
edMemAccessFromHost		ManagedMemAccessFrom	
		Host	
cudaDevAttrEccEnabled		hipDeviceAttributeEccEna	
		bled	
cudaDevAttrGlobalMemor yBusWidth		hipDeviceAttributeMemor yBusWidth	
cudaDevAttrIntegrated		hipDeviceAttributeIntegrat ed	
cudaDevAttrIsMultiGpuB oard		hipDeviceAttributeIsMulti GpuBoard	
cudaDevAttrKernelExecTi		hipDeviceAttributeKernel	
meout		ExecTimeout	
cudaDevAttrL2CacheSize		hipDeviceAttributeL2Cac	
		heSize	
cudaDevAttrManagedMe		hipDeviceAttributeManag	
mory		edMemory	
cudaDevAttrMaxBlockDi mX		hipDeviceAttributeMaxBl ockDimX	
cudaDevAttrMaxBlockDi mY		hipDeviceAttributeMaxBl ockDimY	
cudaDevAttrMaxBlockDi mZ		hipDeviceAttributeMaxBl ockDimZ	
cudaDevAttrMaxGridDim		hipDeviceAttributeMaxGr	
X		idDimX	
cudaDevAttrMaxGridDim Y		hipDeviceAttributeMaxGr idDimY	
cudaDevAttrMaxGridDim Z		hipDeviceAttributeMaxGr idDimZ	
cudaDevAttrMaxPitch		hipDeviceAttributeMaxPit ch	
cudaDevAttrMaxRegisters PerBlock		hipDeviceAttributeMaxRe gistersPerBlock	
cudaDevAttrMaxSharedM		hipDeviceAttributeMaxSh	
emoryPerBlock		aredMemoryPerBlock	

CUDA	Deprecated	HIP	Deprecated
cudaDevAttrMaxSharedM		hipDeviceAttributeMaxSh	
emoryPerMultiprocessor		aredMemoryPerMultiproc	
		essor	
cudaDevAttrMaxTexture1		hipDeviceAttributeMaxTe	
DWidth		xture1DWidth	
cudaDevAttrMaxTexture2		hipDeviceAttributeMaxTe	
DHeight		xture2DHeight	
cudaDevAttrMaxTexture2		hipDeviceAttributeMaxTe	
DWidth		xture2DWidth	
cudaDevAttrMaxTexture3		hipDeviceAttributeMaxTe	
DDepth cudaDevAttrMaxTexture3		xture3DDepth hipDeviceAttributeMaxTe	
DHeight		xture3DHeight	
cudaDevAttrMaxTexture3		hipDeviceAttributeMaxTe	
DWidth		xture3DWidth	
cudaDevAttrMaxThreadsP		hipDeviceAttributeMaxTh	
erBlock		readsPerBlock	
cudaDevAttrMaxThreadsP		hipDeviceAttributeMaxTh	
erMultiProcessor		readsPerMultiProcessor	
cudaDevAttrMemoryCloc		hipDeviceAttributeMemor	
kRate		yClockRate	
cudaDevAttrMultiProcess		hipDeviceAttributeMultipr	
orCount		ocessorCount	
cudaDevAttrPageableMe		hipDeviceAttributePageab	
moryAccess		leMemoryAccess	
cudaDevAttrPageableMe		hipDeviceAttributePageab	
moryAccessUsesHostPage		leMemoryAccessUsesHost	
Tables		PageTables	
cudaDevAttrPciBusId		hipDeviceAttributePciBus Id	
cudaDevAttrPciDeviceId		hipDeviceAttributePciDev	
cudaDevAttiFciDeviceid		iceId	
cudaDevAttrTextureAlign		hipDeviceAttributeTexture	
ment		Alignment	
cudaDevAttrTotalConstant		hipDeviceAttributeTotalC	
Memory		onstantMemory	
cudaDevAttrWarpSize		hipDeviceAttributeWarpSi	
		ze	
cudaDevP2PAttrAccessSu		hipDevP2PAttrAccessSup	
pported		ported	
cudaDevP2PAttrCudaArra		hipDevP2PAttrHipArrayA	
yAccessSupported		ccessSupported	
cudaDevP2PAttrNativeAt		hipDevP2PAttrNativeAto	
omicSupported		micSupported	
cudaDevP2PAttrPerforma		hipDevP2PAttrPerformanc	
nceRank cudaDeviceAttr		eRank	
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cudaErrorAlreadyMapped		hipErrorAlreadyMapped	
cudaErrorArrayIsMapped		hipErrorArrayIsMapped	
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cudaErrorDeviceAlreadyI		hipErrorContextAlreadyIn Use	
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cudaMemRangeAttribute		hipMemRangeAttributeAc	
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cudaPitchedPtr		hipPitchedPtr	
cudaPointerAttributes		hipPointerAttribute_t	
cudaPos		hipPos	
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cudaResViewFormatHalf4		hipResViewFormatHalf4	
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nedShort2 edShort2	nedShort2	edShort2	
cudaResViewFormatUnsign hipResViewFormatUnsign	cudaResViewFormatUnsig	hipResViewFormatUnsign	
nedShort4 edShort4			
cudaResourceDesc hipResourceDesc	1 D D	hipResourceDesc	
cudaResourceType hipResourceType	cudaResourceDesc		

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CUDA	Deprecated	HIP	Deprecated
cudaResourceTypeArray		hipResourceTypeArray	
cudaResourceTypeLinear		hipResourceTypeLinear	
cudaResourceTypeMipma		hipResourceTypeMipmap	
ppedArray		pedArray	
cudaResourceTypePitch2		hipResourceTypePitch2D	
D			
cudaResourceViewDesc		hipResourceViewDesc	
cudaResourceViewFormat		hipResourceViewFormat	
cudaSharedMemBankSize		hipSharedMemBankSizeD	
Default		efault	
cudaSharedMemBankSize		hipSharedMemBankSizeE	
EightByte		ightByte	
cudaSharedMemBankSize		hipSharedMemBankSizeF	
FourByte		ourByte	
cudaSharedMemConfig		hipSharedMemConfig	
cudaStreamCallback_t		hipStreamCallback_t	
cudaStreamDefault		hipStreamDefault	
cudaStreamNonBlocking		hipStreamNonBlocking	
cudaStream_t		hipStream_t	
cudaSuccess		hipSuccess	
cudaSurfaceBoundaryMod		hipSurfaceBoundaryMode	
e			
cudaSurfaceObject_t		hipSurfaceObject_t	
cudaTextureAddressMode		hipTextureAddressMode	
cudaTextureDesc		hipTextureDesc	
cudaTextureFilterMode		hipTextureFilterMode	
cudaTextureObject_t		hipTextureObject_t	
cudaTextureReadMode		hipTextureReadMode	
cudaTextureType1D		hipTextureType1D	
cudaTextureType1DLayer		hipTextureType1DLayere	
ed		d	
cudaTextureType2D		hipTextureType2D	
cudaTextureType2DLayer		hipTextureType2DLayere	
ed		d	
cudaTextureType3D		hipTextureType3D	
cudaTextureTypeCubema		hipTextureTypeCubemap	
р			
cudaTextureTypeCubema		hipTextureTypeCubemap	
pLayered		Layered	
surfaceReference		surfaceReference	

1.1.18 Execution Control [Removed]

CUDA	Deprecated	HIP	Deprecated
cudaConfigureCall		hipConfigureCall	
cudaLaunch		hipLaunchByPtr	
cudaSetupArgument		hipSetupArgument	

1.1.19 Unsupported APIs

API	Unsupported	Deprecated
Graph Management	✓	
C++ API Routines	✓	
Interactions with the CUDA Driver	✓	
API		
Profiler Control	✓	✓
Surface Reference Management	✓	✓
OpenGL Interoperability	✓	
External Resource Interoperability	✓	
OpenGL Interoperability	✓	✓
Direct3D 9 Interoperability	✓	
Direct3D 9 Interoperability	✓	✓
Direct3D 10 Interoperability	✓	
Direct3D 10 Interoperability	✓	✓
Direct3D 11 Interoperability	✓	
Direct3D 11 Interoperability	✓	✓
VDPAU Interoperability	✓	
EGL Interoperability	✓	
Graphics Interoperability	✓	
Stream Ordered Memory Allocator	✓	

1.2 CUDA Driver API Supported by HIP

1.2.1 CUDA Driver Data Types

CUDA	Deprecated	HIP	Deprecated
CUDA_ARRAY3D_CUB		hipArrayCubemap	
EMAP			
CUDA_ARRAY3D_DES		HIP_ARRAY3D_DESCR	
CRIPTOR		IPTOR	
CUDA_ARRAY3D_DES		HIP_ARRAY3D_DESCR	
CRIPTOR_st		IPTOR	
CUDA_ARRAY3D_LAY		hipArrayLayered	
ERED			
CUDA_ARRAY3D_SUR		hipArraySurfaceLoadStore	
FACE_LDST			
CUDA_ARRAY3D_TEX		hipArrayTextureGather	
TURE_GATHER			
CUDA_ARRAY_DESCR		HIP_ARRAY_DESCRIPT	
IPTOR		OR	
CUDA ARRAY DESCR		HIP_ARRAY_DESCRIPT	
IPTOR_st		OR	
CUDA_ARRAY_DESCR		HIP_ARRAY_DESCRIPT	
IPTOR_v1		OR	
CUDA_ARRAY_DESCR		HIP_ARRAY_DESCRIPT	
IPTOR_v1_st		OR	
CUDA_COOPERATIVE_		hipCooperativeLaunchMul	
LAUNCH_MULTI_DEVI		tiDeviceNoPostSync	

CUDA	Deprecated	HIP	Deprecated
CE NO POST LAUNCH	·		
SYNC			
CUDA COOPERATIVE		hipCooperativeLaunchMul	
LAUNCH MULTI DEVI		tiDeviceNoPreSync	
CE NO PRE LAUNCH		•	
SYNC			
CUDA ERROR ALREA		hipErrorAlreadyAcquired	
DY ACQUIRED			
CUDA ERROR ALREA		hipErrorAlreadyMapped	
DY MAPPED		J 11	
CUDA ERROR ARRAY		hipErrorArrayIsMapped	
IS MAPPED		J 11	
CUDA_ERROR_ASSER		hipErrorAssert	
T		1	
CUDA ERROR CONTE	✓	hipErrorContextAlreadyC	
XT ALREADY CURRE	•	urrent	
NT			
CUDA ERROR CONTE		hipErrorContextAlreadyIn	
XT ALREADY IN USE		Use	
CUDA ERROR COOPE		hipErrorCooperativeLaunc	
RATIVE LAUNCH TO		hTooLarge	
O LARGE		5	
CUDA_ERROR_DEINITI		hipErrorDeinitialized	
ALIZED		1	
CUDA ERROR ECC U		hipErrorECCNotCorrectab	
NCORRECTABLE		le	
CUDA_ERROR_FILE_N		hipErrorFileNotFound	
OT FOUND		1	
CUDA ERROR HOST		hipErrorHostMemoryAlre	
MEMORY ALREADY		adyRegistered	
REGISTERED			
CUDA ERROR HOST		hipErrorHostMemoryNot	
MEMORY_NOT_REGIS		Registered	
TERED			
CUDA ERROR ILLEGA		hipErrorIllegalAddress	
L ADDRESS			
CUDA ERROR INVALI		hipErrorInvalidContext	
D CONTEXT		1	
CUDA ERROR INVALI		hipErrorInvalidDevice	
D DEVICE		•	
CUDA ERROR INVALI		hipErrorInvalidGraphicsC	
D GRAPHICS CONTEX		ontext	
T = =			
CUDA ERROR INVALI		hipErrorInvalidHandle	
D_HANDLE _		_	
CUDA_ERROR_INVALI		hipErrorInvalidImage	
D_IMAGE			
CUDA ERROR INVALI		hipErrorInvalidKernelFile	
D_PTX		_	
CUDA_ERROR_INVALI		hipErrorInvalidSource	
D SOURCE		_	
CUDA ERROR INVALI		hipErrorInvalidValue	
D VALUE		_	
			

CUDA	Deprecated	HIP	Deprecated
CUDA_ERROR_LAUNC		hipErrorLaunchFailure	
H_FAILED			
CUDA_ERROR_LAUNC		hipErrorLaunchOutOfRes	
H_OUT_OF_RESOURCE		ources	
S			
CUDA_ERROR_LAUNC		hipErrorLaunchTimeOut	
H_TIMEOUT			
CUDA_ERROR_MAP_F		hipErrorMapFailed	
AILED		1' D N D	
CUDA_ERROR_NOT_F		hipErrorNotFound	
OUND		1 ' E N 41 '4' 1'- 1	
CUDA_ERROR_NOT_IN		hipErrorNotInitialized	
ITIALIZED		1 · E N M 1	
CUDA_ERROR_NOT_M APPED		hipErrorNotMapped	
		1.:	
CUDA_ERROR_NOT_M APPED AS ARRAY		hipErrorNotMappedAsArr	
CUDA ERROR NOT M		ay hipErrorNotMappedAsPoi	
APPED AS POINTER		nter	
CUDA ERROR NOT R		hipErrorNotReady	
EADY		IIIpEITorNoticeady	
CUDA_ERROR_NOT_S		hipErrorNotSupported	
UPPORTED		mpErrorreorsupported	
CUDA ERROR NO BIN		hipErrorNoBinaryForGpu	
ARY FOR GPU		inperior vobinary roropu	
CUDA_ERROR_NO_DE		hipErrorNoDevice	
VICE		inperior (obevice	
CUDA ERROR OPERA		hipErrorOperatingSystem	
TING_SYSTEM			
CUDA_ERROR_OUT_O		hipErrorOutOfMemory	
F MEMORY		,	
CUDA ERROR PEER A		hipErrorPeerAccessAlread	
CCESS ALREADY EN		yEnabled	
ABLED			
CUDA_ERROR_PEER_A		hipErrorPeerAccessNotEn	
CCESS NOT ENABLED		abled	
CUDA_ERROR_PEER_A		hipErrorPeerAccessUnsup	
CCESS_UNSUPPORTED		ported	
CUDA_ERROR_PRIMA		hipErrorSetOnActiveProce	
RY_CONTEXT_ACTIVE		SS	
CUDA_ERROR_PROFIL	\checkmark	hipErrorProfilerAlreadySt	
ER_ALREADY_STARTE		arted	
D			
CUDA_ERROR_PROFIL	\checkmark	hipErrorProfilerAlreadySt	
ER_ALREADY_STOPPE		opped	
D CHIDA EDDOD DDOEH		1' F P " F' 11 1	
CUDA_ERROR_PROFIL		hipErrorProfilerDisabled	
ER_DISABLED	,	1' F D C 1 N 1 1 1 1 1 1	
CUDA_ERROR_PROFIL	\checkmark	hipErrorProfilerNotInitiali	
ER NOT INITIALIZED		zed	
CUDA_ERROR_SHARE		hipErrorSharedObjectInitF	
D_OBJECT_INIT_FAILE D		ailed	
ע			

CUDA	Deprecated	HIP	Deprecated
CUDA ERROR SHARE		hipErrorSharedObjectSym	
D_OBJECT_SYMBOL_N		bolNotFound	
OT_FOUND			
CUDA_ERROR_UNKNO		hipErrorUnknown	
WN			
CUDA_ERROR_UNMAP		hipErrorUnmapFailed	
_FAILED			
CUDA_ERROR_UNSUP		hipErrorUnsupportedLimit	
PORTED_LIMIT			
CUDA_LAUNCH_PARA		hipLaunchParams	
MS			
CUDA_LAUNCH_PARA		hipLaunchParams	
MS_st		11 25	
CUDA_MEMCPY2D		hip_Memcpy2D	
CUDA_MEMCPY2D_st		hip_Memcpy2D	
CUDA_MEMCPY2D_v1		hip_Memcpy2D	
CUDA_MEMCPY2D_v1		hip_Memcpy2D	
st SUDA MENGRYAD		THE TANK COMPAN	
CUDA_MEMCPY3D		HIP_MEMCPY3D	
CUDA_MEMCPY3D_st		HIP_MEMCPY3D	
CUDA_MEMCPY3D_v1		HIP_MEMCPY3D	
CUDA_MEMCPY3D_v1		HIP_MEMCPY3D	
st		HID DECOLIDED DECC	
CUDA_RESOURCE_DE SC		HIP_RESOURCE_DESC	
		HID DESCHIPCE DESC	
CUDA_RESOURCE_DE SC_st		HIP_RESOURCE_DESC st	
CUDA_RESOURCE_VIE		HIP_RESOURCE_VIEW	
W DESC		DESC DESC	
CUDA RESOURCE VIE		HIP RESOURCE VIEW	
W DESC st		DESC st	
CUDA SUCCESS		hipSuccess	
CUDA_TEXTURE_DES		HIP_TEXTURE_DESC	
C		1111 _ 12111 0 102_2 20 0	
CUDA_TEXTURE_DES		HIP_TEXTURE_DESC_s	
C st		-	
CU AD FORMAT FLO		HIP AD FORMAT FLO	
AT		AT	
CU_AD_FORMAT_HAL		HIP_AD_FORMAT_HAL	
F		F	
CU_AD_FORMAT_SIGN		HIP_AD_FORMAT_SIG	
ED_INT16		NED_INT16	
CU_AD_FORMAT_SIGN		HIP_AD_FORMAT_SIG	
ED_INT32		NED_INT32	
CU_AD_FORMAT_SIGN		HIP_AD_FORMAT_SIG	
ED_INT8		NED_INT8	
CU_AD_FORMAT_UNSI		HIP_AD_FORMAT_UNS	
GNED_INT16		IGNED_INT16	
CU_AD_FORMAT_UNSI		HIP_AD_FORMAT_UNS	
GNED_INT32		IGNED_INT32	
CU_AD_FORMAT_UNSI		HIP_AD_FORMAT_UNS	
GNED_INT8		IGNED_INT8	

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TE_COMPUTE_CAPABI LITY MINOR CU_DEVICE_ATTRIBU TE_COMPUTE_MODE CU_DEVICE_ATTRIBU TE_CONCURRENT_KE RNELS CU_DEVICE_ATTRIBU TE_CONCURRENT_MA NAGED_ACCESS CU_DEVICE_ATTRIBU TE_COOPERATIVE_LA UNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_ATTRIBU TE_COOPERATIVE MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M HOST CU_DEVICE_ATTRIBU hipDeviceAttributeCooper ativeMultiDeviceLaunch hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna			hipDeviceAttributeCompu	
LITY MINOR CU_DEVICE ATTRIBU TE_COMPUTE_MODE CU_DEVICE_ATTRIBU TE_CONCURRENT_KE RNELS CU_DEVICE_ATTRIBU TE_CONCURRENT_MA NAGED_ACCESS CU_DEVICE_ATTRIBU TE_COOPERATIVE_LA UNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M HOST CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M Host hipDeviceAttributeCooper ativeMultiDeviceLaunch hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna				
CU_DEVICE_ATTRIBU TE_COMPUTE_MODE CU_DEVICE_ATTRIBU TE_CONCURRENT_KE RNELS CU_DEVICE_ATTRIBU TE_CONCURRENT_MA NAGED_ACCESS CU_DEVICE_ATTRIBU TE_COOPERATIVE_LA UNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M HOST CU_DEVICE_ATTRIBU hipDeviceAttributeCooper ativeMultiDeviceLaunch hipDeviceAttributeDirect ManagedMemAccessFrom Host host			1 7	
TE_COMPUTE_MODE CU_DEVICE_ATTRIBU TE_CONCURRENT_KE RNELS CU_DEVICE_ATTRIBU TE_CONCURRENT_MA NAGED_ACCESS CU_DEVICE_ATTRIBU TE_COOPERATIVE_LA UNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M HOST CU_DEVICE_ATTRIBU hipDeviceAttributeCooper ativeMultiDeviceLaunch hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna			hipDeviceAttributeCompu	
CU_DEVICE_ATTRIBU TE_CONCURRENT_KE RNELS CU_DEVICE_ATTRIBU TE_CONCURRENT_MA NAGED_ACCESS CU_DEVICE_ATTRIBU TE_COOPERATIVE_LA UNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M HOST CU_DEVICE_ATTRIBU hipDeviceAttributeCooper ativeMultiDeviceLaunch hipDeviceAttributeCooper ativeMultiDeviceLaunch hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna				
TE_CONCURRENT_KE RNELS CU_DEVICE_ATTRIBU TE_CONCURRENT_MA NAGED_ACCESS CU_DEVICE_ATTRIBU TE_COOPERATIVE_LA UNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M HOST CU_DEVICE_ATTRIBU hipDeviceAttributeCooper ativeMultiDeviceLaunch hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna			hipDeviceAttributeConcur	
RNELS CU_DEVICE_ATTRIBU TE_CONCURRENT_MA NAGED ACCESS CU_DEVICE_ATTRIBU TE_COOPERATIVE_LA UNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M HOST CU_DEVICE_ATTRIBU TE_DIRECT_MATRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M HOST CU_DEVICE_ATTRIBU hipDeviceAttributeCooper ativeMultiDeviceLaunch hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna			1	
TE_CONCURRENT_MA NAGED_ACCESS CU_DEVICE_ATTRIBU TE_COOPERATIVE_LA UNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M_HOST CU_DEVICE_ATTRIBU hipDeviceAttributeCooper ativeMultiDeviceLaunch hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna				
TE_CONCURRENT_MA NAGED_ACCESS CU_DEVICE_ATTRIBU TE_COOPERATIVE_LA UNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M_HOST CU_DEVICE_ATTRIBU hipDeviceAttributeCooper ativeMultiDeviceLaunch hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna	CU DEVICE ATTRIBU		hipDeviceAttributeConcur	
NAGED ACCESS CU_DEVICE_ATTRIBU TE_COOPERATIVE_LA UNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M HOST CU_DEVICE_ATTRIBU hipDeviceAttributeCooper ativeMultiDeviceLaunch hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna				
TE_COOPERATIVE_LA UNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M HOST CU_DEVICE_ATTRIBU hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna	NAGED_ACCESS		_	
UNCH CU_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M HOST CU_DEVICE_ATTRIBU hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna	CU DEVICE ATTRIBU		hipDeviceAttributeCooper	
CU_DEVICE_ATTRIBU TE_COOPERATIVE_MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M HOST CU_DEVICE_ATTRIBU hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna	TE COOPERATIVE LA		ativeLaunch	
TE_COOPERATIVE_MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M_HOST CU_DEVICE_ATTRIBU hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna	UNCH			
TE_COOPERATIVE_MU LTI_DEVICE_LAUNCH CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO M_HOST CU_DEVICE_ATTRIBU hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna	CU_DEVICE_ATTRIBU		hipDeviceAttributeCooper	
CU_DEVICE_ATTRIBU TE_DIRECT_MANAGE D_MEM_ACCESS_FRO HOST CU_DEVICE_ATTRIBU hipDeviceAttributeDirect ManagedMemAccessFrom Host hipDeviceAttributeEccEna			ativeMultiDeviceLaunch	
TE_DIRECT_MANAGE D_MEM_ACCESS_FRO HOST CU_DEVICE_ATTRIBU ManagedMemAccessFrom Host hipDeviceAttributeEccEna	LTI_DEVICE_LAUNCH			
TE_DIRECT_MANAGE D_MEM_ACCESS_FRO HOST CU_DEVICE_ATTRIBU ManagedMemAccessFrom Host hipDeviceAttributeEccEna	CU_DEVICE_ATTRIBU		hipDeviceAttributeDirect	
M HOST CU_DEVICE_ATTRIBU hipDeviceAttributeEccEna			ManagedMemAccessFrom	
CU_DEVICE_ATTRIBU hipDeviceAttributeEccEna			Host	
	M_HOST			
TE_ECC_ENABLED bled				
	TE_ECC_ENABLED		bled	

CUDA	Deprecated	HIP	Deprecated
CU_DEVICE_ATTRIBU		hipDeviceAttributeMemor	
TE_GLOBAL_MEMORY		yBusWidth	
_BUS_WIDTH			
CU_DEVICE_ATTRIBU		hipDeviceAttributeIntegrat	
TE_INTEGRATED		ed	
CU_DEVICE_ATTRIBU		hipDeviceAttributeKernel	
TE_KERNEL_EXEC_TI		ExecTimeout	
MEOUT			
CU_DEVICE_ATTRIBU		hipDeviceAttributeL2Cac	
TE_L2_CACHE_SIZE		heSize	
CU_DEVICE_ATTRIBU		hipDeviceAttributeManag	
TE_MANAGED_MEMO		edMemory	
CU DEVICE ATTRIBU		Lin Dani - A Mailant - ManaTa	
CU_DEVICE_ATTRIBU		hipDeviceAttributeMaxTe xture1DWidth	
TE_MAXIMUM_TEXTU RE1D WIDTH		xture1Dwiath	
CU DEVICE ATTRIBU		hipDeviceAttributeMaxTe	
TE MAXIMUM TEXTU		xture2DHeight	
RE2D HEIGHT		Attite2DHeight	
CU DEVICE ATTRIBU		hipDeviceAttributeMaxTe	
TE_MAXIMUM_TEXTU		xture2DWidth	
RE2D WIDTH		Attarozo Wiatri	
CU DEVICE ATTRIBU		hipDeviceAttributeMaxTe	
TE MAXIMUM TEXTU		xture3DDepth	
RE3D DEPTH		- 1	
CU DEVICE ATTRIBU		hipDeviceAttributeMaxTe	
TE_MAXIMUM_TEXTU		xture3DHeight	
RE3D_HEIGHT			
CU_DEVICE_ATTRIBU		hipDeviceAttributeMaxTe	
TE_MAXIMUM_TEXTU		xture3DWidth	
RE3D_WIDTH			
CU_DEVICE_ATTRIBU		hipDeviceAttributeMaxBl	
TE_MAX_BLOCK_DIM		ockDimX	
X		1:5:4:1.16	
CU_DEVICE_ATTRIBU		hipDeviceAttributeMaxBl	
TE_MAX_BLOCK_DIM Y		ockDimY	
CU DEVICE ATTRIBU		hipDeviceAttributeMaxBl	
TE MAX BLOCK DIM		ockDimZ	
Z		OCKDINIZ	
CU DEVICE ATTRIBU		hipDeviceAttributeMaxGr	
TE MAX GRID DIM X		idDimX	
CU DEVICE ATTRIBU		hipDeviceAttributeMaxGr	
TE_MAX_GRID_DIM_Y		idDimY	
CU DEVICE ATTRIBU		hipDeviceAttributeMaxGr	
TE MAX GRID DIM Z		idDimZ	
CU DEVICE ATTRIBU		hipDeviceAttributeMaxPit	
TE MAX PITCH		ch	
CU_DEVICE_ATTRIBU		hipDeviceAttributeMaxRe	
TE_MAX_REGISTERS_		gistersPerBlock	
PER_BLOCK			

CUDA	Deprecated	HIP	Deprecated
CU DEVICE ATTRIBU		hipDeviceAttributeMaxSh	
TE MAX SHARED ME		aredMemoryPerBlock	
MORY PER BLOCK		,	
CU DEVICE ATTRIBU		hipDeviceAttributeMaxSh	
TE MAX SHARED ME		aredMemoryPerMultiproc	
MORY PER MULTIPR		essor	
OCESSOR			
CU DEVICE ATTRIBU		hipDeviceAttributeMaxTh	
TE MAX THREADS PE		readsPerBlock	
R BLOCK			
CU DEVICE ATTRIBU		hipDeviceAttributeMaxTh	
TE MAX THREADS PE		readsPerMultiProcessor	
R MULTIPROCESSOR			
CU DEVICE ATTRIBU		hipDeviceAttributeMemor	
TE MEMORY CLOCK		yClockRate	
RATE		,	
CU DEVICE ATTRIBU		hipDeviceAttributeMultipr	
TE MULTIPROCESSOR		ocessorCount	
COUNT			
CU DEVICE ATTRIBU		hipDeviceAttributeIsMulti	
TE_MULTI_GPU_BOAR		GpuBoard	
D		op a B c ar a	
CU_DEVICE_ATTRIBU		hipDeviceAttributePageab	
TE_PAGEABLE_MEMO		leMemoryAccess	
RY ACCESS		101/10111011/1100000	
CU DEVICE ATTRIBU		hipDeviceAttributePageab	
TE PAGEABLE MEMO		leMemoryAccessUsesHost	
RY ACCESS USES HO		PageTables	
ST PAGE TABLES			
CU DEVICE ATTRIBU		hipDeviceAttributePciBus	
TE PCI BUS ID		Id	
CU DEVICE ATTRIBU		hipDeviceAttributePciDev	
TE PCI DEVICE ID		iceId	
CU DEVICE ATTRIBU	√	hipDeviceAttributeMaxRe	
TE REGISTERS PER B	•	gistersPerBlock	
LOCK			
CU DEVICE ATTRIBU	✓	hipDeviceAttributeMaxSh	
TE SHARED MEMORY	•	aredMemoryPerBlock	
PER BLOCK		,	
CU DEVICE ATTRIBU		hipDeviceAttributeTexture	
TE TEXTURE ALIGNM		Alignment	
ENT			
CU DEVICE ATTRIBU		hipDeviceAttributeTotalC	
TE TOTAL CONSTANT		onstantMemory	
MEMORY		,	
CU DEVICE ATTRIBU		hipDeviceAttributeWarpSi	
TE WARP SIZE		ze	
CU DEVICE CPU		hipCpuDeviceId	
CU DEVICE INVALID		hipInvalidDeviceId	
CU DEVICE P2P ATTR	√	hipDevP2PAttrHipArrayA	
IBUTE ACCESS ACCE		ccessSupported	
SS SUPPORTED		1.1	

CUDA	Deprecated	HIP	Deprecated
CU DEVICE P2P ATTR		hipDevP2PAttrAccessSup	·
IBUTE ACCESS SUPPO		ported	
RTED			
CU_DEVICE_P2P_ATTR	✓	hipDevP2PAttrHipArrayA	
IBUTE_ARRAY_ACCES		ccessSupported	
S_ACCESS_SUPPORTE			
D			
CU_DEVICE_P2P_ATTR		hipDevP2PAttrHipArrayA	
IBUTE_CUDA_ARRAY_		ccessSupported	
ACCESS_SUPPORTED			
CU_DEVICE_P2P_ATTR		hipDevP2PAttrNativeAto	
IBUTE_NATIVE_ATOM		micSupported	
IC_SUPPORTED			
CU_DEVICE_P2P_ATTR		hipDevP2PAttrPerformanc	
IBUTE_PERFORMANCE		eRank	
_RANK			
CU_EVENT_BLOCKING		hipEventBlockingSync	
SYNC		1:5 5 6 1	
CU_EVENT_DEFAULT		hipEventDefault	
CU_EVENT_DISABLE_		hipEventDisableTiming	
TIMING		1. E. 41.4	
CU_EVENT_INTERPRO CESS		hipEventInterprocess	
CU FUNC ATTRIBUTE		HIP FUNC ATTRIBUTE	
BINARY VERSION		BINARY VERSION	
CU FUNC ATTRIBUTE		HIP FUNC ATTRIBUTE	
CACHE MODE CA		CACHE MODE CA	
CU FUNC ATTRIBUTE		HIP FUNC ATTRIBUTE	
CONST SIZE BYTES		CONST SIZE BYTES	
CU FUNC ATTRIBUTE		HIP_FUNC_ATTRIBUTE	
LOCAL SIZE BYTES		LOCAL SIZE BYTES	
CU FUNC ATTRIBUTE		HIP FUNC ATTRIBUTE	
MAX		MAX	
CU FUNC ATTRIBUTE		HIP FUNC ATTRIBUTE	
MAX DYNAMIC SHA		MAX DYNAMIC SHA	
RED SIZE BYTES		RED SIZE BYTES	
CU FUNC ATTRIBUTE		HIP FUNC ATTRIBUTE	
_MAX_THREADS_PER_		_MAX_THREADS_PER_	
BLOCK		BLOCK	
CU_FUNC_ATTRIBUTE		HIP_FUNC_ATTRIBUTE	
_NUM_REGS		_NUM_REGS	
CU_FUNC_ATTRIBUTE		HIP_FUNC_ATTRIBUTE	
_PREFERRED_SHARED		_PREFERRED_SHARED	
_MEMORY_CARVEOU		_MEMORY_CARVEOU	
T		T	
CU_FUNC_ATTRIBUTE		HIP_FUNC_ATTRIBUTE	
_PTX_VERSION		_PTX_VERSION	
CU_FUNC_ATTRIBUTE		HIP_FUNC_ATTRIBUTE	
SHARED SIZE BYTES		SHARED_SIZE_BYTES	
CU_FUNC_CACHE_PRE		hipFuncCachePreferEqual	
FER_EQUAL		1' F C 1 D C 11	
CU_FUNC_CACHE_PRE		hipFuncCachePreferL1	
FER_L1			

CUDA	Deprecated	HIP	Deprecated
CU FUNC CACHE PRE	1	hipFuncCachePreferNone	
FER NONE		1	
CU_FUNC_CACHE_PRE		hipFuncCachePreferShare	
FER SHARED		d	
CU IPC HANDLE SIZE		HIP_IPC_HANDLE_SIZ	
		E	
CU IPC MEM LAZY E		hipIpcMemLazyEnablePe	
NABLE PEER ACCESS		erAccess	
CU JIT CACHE MODE		hipJitOptionCacheMode	
CU JIT ERROR LOG B		hipJitOptionErrorLogBuff	
UFFER		er	
CU JIT ERROR LOG B		hipJitOptionErrorLogBuff	
UFFER_SIZE_BYTES		erSizeBytes	
CU JIT FALLBACK ST		hipJitOptionFallbackStrate	
RATEGY		gy	
CU_JIT_FAST_COMPIL		hipJitOptionFastCompile	
E			
CU_JIT_GENERATE_DE		hipJitOptionGenerateDebu	
BUG INFO		gInfo	
CU_JIT_GENERATE_LI		hipJitOptionGenerateLineI	
NE_INFO		nfo	
CU_JIT_INFO_LOG_BU		hipJitOptionInfoLogBuffe	
FFER		r	
CU_JIT_INFO_LOG_BU		hipJitOptionInfoLogBuffe	
FFER_SIZE_BYTES		rSizeBytes	
CU_JIT_LOG_VERBOSE		hipJitOptionLogVerbose	
CU_JIT_MAX_REGISTE		hipJitOptionMaxRegisters	
RS			
CU_JIT_NEW_SM3X_O		hipJitOptionSm3xOpt	
PT			
CU_JIT_NUM_OPTIONS		hipJitOptionNumOptions	
CU_JIT_OPTIMIZATIO		hipJitOptionOptimization	
N_LEVEL		Level	
CU_JIT_TARGET		hipJitOptionTarget	
CU_JIT_TARGET_FRO		hipJitOptionTargetFromC	
M_CUCONTEXT		ontext	
CU_JIT_THREADS_PER		hipJitOptionThreadsPerBl	
BLOCK		ock	
CU_JIT_WALL_TIME		hipJitOptionWallTime	
CU_LAUNCH_PARAM_		HIP_LAUNCH_PARAM_	
BUFFER_POINTER		BUFFER_POINTER	
CU_LAUNCH_PARAM_		HIP_LAUNCH_PARAM_	
BUFFER_SIZE		BUFFER_SIZE	
CU_LAUNCH_PARAM_		HIP_LAUNCH_PARAM_	
END		END	
CU_LIMIT_MALLOC_H		hipLimitMallocHeapSize	
EAP_SIZE		1' 11 (36.11.35.1	
CU_MEMHOSTALLOC_		hipHostMallocMapped	
DEVICEMAP		1' II (M.C.11 D 1.1	
CU_MEMHOSTALLOC_		hipHostMallocPortable	
PORTABLE		1' 11 04 11 37' 6	
CU_MEMHOSTALLOC_		hipHostMallocWriteComb	
WRITECOMBINED		ined	

CUDA	Deprecated	HIP	Deprecated
CU_MEMHOSTREGIST		hipHostRegisterMapped	·
ER_DEVICEMAP			
CU_MEMHOSTREGIST		hipHostRegisterIoMemory	
ER_IOMEMORY			
CU_MEMHOSTREGIST		hipHostRegisterPortable	
ER_PORTABLE			
CU_MEMORYTYPE_AR		hipMemoryTypeArray	
RAY			
CU_MEMORYTYPE_DE		hipMemoryTypeDevice	
VICE			
CU_MEMORYTYPE_HO		hipMemoryTypeHost	
ST			
CU_MEMORYTYPE_UN		hipMemoryTypeUnified	
IFIED			
CU_MEM_ADVISE_SET		hipMemAdviseSetAccesse	
_ACCESSED_BY		dBy	
CU_MEM_ADVISE_SET		hipMemAdviseSetPreferre	
_PREFERRED_LOCATI		dLocation	
ON			
CU_MEM_ADVISE_SET		hipMemAdviseSetReadM	
_READ_MOSTLY		ostly	
CU_MEM_ADVISE_UN		hipMemAdviseUnsetAcce	
SET_ACCESSED_BY		ssedBy	
CU_MEM_ADVISE_UN		hipMemAdviseUnsetPrefe	
SET_PREFERRED_LOC		rredLocation	
ATION			
CU_MEM_ADVISE_UN		hipMemAdviseUnsetRead	
SET_READ_MOSTLY		Mostly	
CU_MEM_ATTACH_GL		hipMemAttachGlobal	
OBAL			
CU_MEM_ATTACH_HO		hipMemAttachHost	
ST			
CU_MEM_ATTACH_SI		hipMemAttachSingle	
NGLE			
CU_MEM_RANGE_ATT		hipMemRangeAttributeAc	
RIBUTE_ACCESSED_B		cessedBy	
Y			
CU_MEM_RANGE_ATT		hipMemRangeAttributeLa	
RIBUTE_LAST_PREFET		stPrefetchLocation	
CH_LOCATION		1: 16 B	
CU_MEM_RANGE_ATT		hipMemRangeAttributePr	
RIBUTE_PREFERRED_ LOCATION		eferredLocation	
		him Mana Danga - Attuitust. D	
CU_MEM_RANGE_ATT		hipMemRangeAttributeRe	
RIBUTE_READ_MOSTL		adMostly	
CLI OCCUDANCY DEE		him Oo oumon or Defeed	
CU_OCCUPANCY_DEF		hipOccupancyDefault	
AULT		HID DECOLIDED TYPE	
CU_RESOURCE_TYPE_ ARRAY		HIP_RESOURCE_TYPE_ ARRAY	
CU_RESOURCE_TYPE_		HIP_RESOURCE_TYPE_	
LINEAR		LINEAR	

CUDA	Deprecated	HIP	Deprecated
CU RESOURCE TYPE	1	HIP RESOURCE TYPE	
MIPMAPPED ARRAY		MIPMAPPED ARRAY	
CU RESOURCE TYPE		HIP RESOURCE TYPE	
PITCH2D		PITCH2D	
CU RES VIEW FORM		HIP RES VIEW FORM	
AT FLOAT 1X16		AT FLOAT 1X16	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_FLOAT_1X32		AT_FLOAT_1X32	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_FLOAT_2X16		AT_FLOAT_2X16	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_FLOAT_2X32		AT_FLOAT_2X32	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_FLOAT_4X16		AT_FLOAT_4X16	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_FLOAT_4X32		AT_FLOAT_4X32	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_NONE		AT_NONE	
CU RES VIEW FORM		HIP RES VIEW FORM	
AT SIGNED BC4		AT SIGNED BC4	
CU RES VIEW FORM		HIP RES VIEW FORM	
AT SIGNED BC5		AT SIGNED BC5	
CU RES VIEW FORM		HIP RES VIEW FORM	
AT SIGNED BC6H		AT_SIGNED_BC6H	
CU RES VIEW FORM		HIP RES VIEW FORM	
AT SINT 1X16		AT SINT 1X16	
CU RES VIEW FORM		HIP RES VIEW FORM	
AT SINT 1X32		AT SINT 1X32	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_SINT_1X8		AT_SINT_1X8	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_SINT_2X16		AT_SINT_2X16	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_SINT_2X32		AT_SINT_2X32	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_SINT_2X8		AT_SINT_2X8	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_SINT_4X16		AT_SINT_4X16	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_SINT_4X32		AT_SINT_4X32	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT SINT 4X8		AT SINT 4X8	
CU RES VIEW FORM		HIP RES VIEW FORM	
AT UINT 1X16		AT UINT 1X16	
CU RES VIEW FORM		HIP RES VIEW FORM	
AT UINT 1X32		AT UINT 1X32	
CU RES VIEW FORM		HIP RES VIEW FORM	
AT UINT 1X8		AT UINT 1X8	
CU RES VIEW FORM		HIP RES VIEW FORM	
AT UINT 2X16		AT UINT 2X16	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_UINT_2X32		AT_UINT_2X32	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_UINT_2X8		AT_UINT_2X8	

CUDA	Deprecated	HIP	Deprecated
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_UINT_4X16		AT_UINT_4X16	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_UINT_4X32		AT_UINT_4X32	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_UINT_4X8		AT_UINT_4X8	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_UNSIGNED_BC1		AT_UNSIGNED_BC1	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_UNSIGNED_BC2		AT_UNSIGNED_BC2	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_UNSIGNED_BC3		AT_UNSIGNED_BC3	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_UNSIGNED_BC4		AT_UNSIGNED_BC4	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_UNSIGNED_BC5		AT_UNSIGNED_BC5	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_UNSIGNED_BC6H		AT_UNSIGNED_BC6H	
CU_RES_VIEW_FORM		HIP_RES_VIEW_FORM	
AT_UNSIGNED_BC7		AT_UNSIGNED_BC7	
CU_SHARED_MEM_CO		hipSharedMemBankSizeD	
NFIG_DEFAULT_BANK		efault	
_SIZE			
CU_SHARED_MEM_CO		hipSharedMemBankSizeE	
NFIG_EIGHT_BYTE_BA		ightByte	
NK_SIZE			
CU_SHARED_MEM_CO		hipSharedMemBankSizeF	
NFIG_FOUR_BYTE_BA		ourByte	
NK_SIZE		11.0	
CU_STREAM_DEFAUL		hipStreamDefault	
T CH CERTAIN NOV. DI		1: 0: 1:	
CU_STREAM_NON_BL		hipStreamNonBlocking	
OCKING		HID TOCA OVERDIDE	
CU_TRSA_OVERRIDE_		HIP_TRSA_OVERRIDE_	
FORMAT		FORMAT	
CU_TRSF_NORMALIZE		HIP_TRSF_NORMALIZ	
D_COORDINATES		ED_COORDINATES	
CU_TRSF_READ_AS_IN		HIP_TRSF_READ_AS_I	
TEGER		NTEGER	
CU_TRSF_SRGB		HIP TRSF SRGB	
CU_TR_ADDRESS_MO		HIP_TR_ADDRESS_MO DE BORDER	
DE_BORDER		_	
CU_TR_ADDRESS_MO DE_CLAMP		HIP_TR_ADDRESS_MO DE CLAMP	
		_	
CU_TR_ADDRESS_MO DE MIRROR		HIP_TR_ADDRESS_MO DE MIRROR	
CU_TR_ADDRESS_MO		HIP TR ADDRESS MO	
DE WRAP		DE WRAP	
_		_	
CU_TR_FILTER_MODE LINEAR		HIP_TR_FILTER_MODE LINEAR	
CU TR FILTER MODE		HIP TR FILTER MODE	
POINT		POINT	
CUaddress mode		HIPaddress mode	
Coaddiess_mode		1111 add1C55_IIIOUE	

CUDA Deprecated	HIP	Deprecated
CUaddress_mode_enum	HIPaddress_mode_enum	
CUarray	hipArray*	
CUarray format	hipArray Format	
CUarray_format_enum	hipArray_Format	
CUarray st	hipArray	
CUcomputemode	hipComputeMode	
CUcomputemode enum	hipComputeMode	
CUcontext	hipCtx_t	
CUctx_st	ihipCtx_t	
CUdevice	hipDevice_t	
CUdevice_P2PAttribute	hipDeviceP2PAttr	
CUdevice_P2PAttribute_e	hipDeviceP2PAttr	
num		
CUdevice attribute	hipDeviceAttribute_t	
CUdevice attribute enum	hipDeviceAttribute_t	
CUdeviceptr	hipDeviceptr_t	
CUdeviceptr_v1	hipDeviceptr_t	
CUevent	hipEvent t	
CUevent_st	ihipEvent_t	
CUfilter_mode	HIPfilter_mode	
CUfilter_mode_enum	HIPfilter_mode_enum	
CUfunc cache	hipFuncCache_t	
CUfunc cache enum	hipFuncCache_t	
CUfunc st	ihipModuleSymbol t	
CUfunction	hipFunction t	
CUfunction attribute	hipFunction attribute	
CUfunction attribute enu	hipFunction attribute	
m	_	
CUipcEventHandle	hipIpcEventHandle_t	
CUipcEventHandle_st	hipIpcEventHandle_st	
CUipcMemHandle	hipIpcMemHandle_t	
CUipcMemHandle_st	hipIpcMemHandle_st	
CUjit_option	hipJitOption	
CUjit_option_enum	hipJitOption	
CUlimit	hipLimit_t	
CUlimit_enum	hipLimit_t	
CUmem_advise	hipMemoryAdvise	
CUmem_advise_enum	hipMemoryAdvise	
CUmem_range_attribute	hipMemRangeAttribute	
CUmem_range_attribute_	hipMemRangeAttribute	
enum		
CUmemorytype	hipMemoryType	
CUmemorytype_enum	hipMemoryType	
CUmipmappedArray	hipMipmappedArray_t	
CUmipmappedArray_st	hipMipmappedArray	
CUmod_st	ihipModule_t	
CUmodule	hipModule_t	
CUresourceViewFormat	HIPresourceViewFormat	
CUresourceViewFormat_e	HIPresourceViewFormat_	
num	enum	
CUresourcetype	HIPresourcetype	
CUresourcetype_enum	HIPresourcetype_enum	
CUresult	hipError_t	

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CUDA	Deprecated	HIP	Deprecated	
CUsharedconfig		hipSharedMemCon	fig	
CUsharedconfig enum		hipSharedMemCon	fig	
CUstream		hipStream_t		
CUstreamCallback		hipStreamCallback	t	
CUstream st		ihipStream_t		
CUtexObject		hipTextureObject_t		
CUtexref st		textureReference		
CUDACC		HIPCC		
cudaError enum		hipError t		

1.2.2 Initialization

CUDA	Deprecated	HIP	Deprecated
cuInit		hipInit	

1.2.3 Version Management

CUDA	Deprecated	HIP	Deprecated
cuDriverGetVersion		hipDriverGetVersion	

1.2.4 Device Management

CUDA	Deprecated	HIP	Deprecated
cuDeviceGet		hipDeviceGet	
cuDeviceGetAttribute		hipDeviceGetAttribute	
cuDeviceGetCount		hipGetDeviceCount	
cuDeviceGetName		hipDeviceGetName	
cuDeviceTotalMem		hipDeviceTotalMem	
cuDeviceTotalMem_v2		hipDeviceTotalMem	

1.2.5 Device Management [Deprecated]

CUDA	Deprecated	HIP	Deprecated
cuDeviceComputeCapabili	✓	hipDeviceComputeCapabi	
ty		lity	

1.2.6 Primary Context Management

CUDA	Deprecated	HIP	Deprecated
cuDevicePrimaryCtxGetSt		hipDevicePrimaryCtxGetS	
ate		tate	
cuDevicePrimaryCtxRelea		hipDevicePrimaryCtxRele	
se		ase	
cuDevicePrimaryCtxRelea		hipDevicePrimaryCtxRele	
se_v2		ase	
cuDevicePrimaryCtxReset		hipDevicePrimaryCtxRese	
		t	
cuDevicePrimaryCtxReset		hipDevicePrimaryCtxRese	
_v2		t	

CUDA	Deprecated	HIP	Deprecated
cuDevicePrimaryCtxRetai		hipDevicePrimaryCtxReta	
n		in	
cuDevicePrimaryCtxSetFl		hipDevicePrimaryCtxSetF	
ags		lags	
cuDevicePrimaryCtxSetFl		hipDevicePrimaryCtxSetF	
ags_v2		lags	

1.2.7 Context Management

CUDA	Deprecated	HIP	Deprecated
cuCtxCreate		hipCtxCreate	✓
cuCtxCreate_v2		hipCtxCreate	\checkmark
cuCtxDestroy		hipCtxDestroy	✓
cuCtxDestroy_v2		hipCtxDestroy	✓
cuCtxGetApiVersion		hipCtxGetApiVersion	✓
cuCtxGetCacheConfig		hipCtxGetCacheConfig	✓
cuCtxGetCurrent		hipCtxGetCurrent	✓
cuCtxGetDevice		hipCtxGetDevice	✓
cuCtxGetFlags		hipCtxGetFlags	✓
cuCtxGetLimit		hipDeviceGetLimit	
cuCtxGetSharedMemConf ig		hipCtxGetSharedMemCon fig	√
cuCtxGetStreamPriorityRa		hipDeviceGetStreamPriori tyRange	
cuCtxPopCurrent		hipCtxPopCurrent	√
cuCtxPopCurrent_v2		hipCtxPopCurrent	√
cuCtxPushCurrent		hipCtxPushCurrent	✓
cuCtxPushCurrent_v2		hipCtxPushCurrent	✓
cuCtxSetCacheConfig		hipCtxSetCacheConfig	✓
cuCtxSetCurrent		hipCtxSetCurrent	✓
cuCtxSetSharedMemConfi		hipCtxSetSharedMemCon fig	✓
cuCtxSynchronize		hipCtxSynchronize	✓

1.2.8 Module Management

CUDA	Deprecated	HIP	Deprecated
cuModuleGetFunction		hipModuleGetFunction	
cuModuleGetGlobal		hipModuleGetGlobal	
cuModuleGetGlobal_v2		hipModuleGetGlobal	
cuModuleGetTexRef		hipModuleGetTexRef	
cuModuleLoad		hipModuleLoad	
cuModuleLoadData		hipModuleLoadData	
cuModuleLoadDataEx		hipModuleLoadDataEx	
cuModuleUnload		hipModuleUnload	

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1.2.9 Memory Management

CUDA	Deprecated	HIP	Deprecated
cuArray3DCreate		hipArray3DCreate	
cuArray3DCreate v2		hipArray3DCreate	
cuArrayCreate		hipArrayCreate	
cuArrayCreate_v2		hipArrayCreate	
cuDeviceGetByPCIBusId		hipDeviceGetByPCIBusId	
cuDeviceGetPCIBusId		hipDeviceGetPCIBusId	
cuIpcCloseMemHandle		hipIpcCloseMemHandle	
cuIpcGetEventHandle		hipIpcGetEventHandle	
cuIpcGetMemHandle		hipIpcGetMemHandle	
cuIpcOpenEventHandle		hipIpcOpenEventHandle	
cuIpcOpenMemHandle		hipIpcOpenMemHandle	
cuMemAlloc		hipMalloc	
cuMemAllocHost		hipHostMalloc	
cuMemAllocHost_v2		hipHostMalloc	
cuMemAllocManaged		hipMallocManaged	
cuMemAllocPitch		hipMemAllocPitch	
cuMemAllocPitch_v2		hipMemAllocPitch	
cuMemAlloc_v2		hipMalloc	
cuMemFree		hipFree	
cuMemFreeHost		hipHostFree	
cuMemFree_v2		hipFree	
cuMemGetAddressRange		hipMemGetAddressRange	
cuMemGetAddressRange_		hipMemGetAddressRange	
v2			
cuMemGetInfo		hipMemGetInfo	
cuMemGetInfo_v2		hipMemGetInfo	
cuMemHostAlloc		hipHostMalloc	
cuMemHostGetDevicePoi		hipHostGetDevicePointer	
nter			
cuMemHostGetDevicePoi		hipHostGetDevicePointer	
nter_v2		Li W. G. FI	
cuMemHostGetFlags		hipHostGetFlags	
cuMemHostRegister		hipHostRegister	
cuMemHostRegister_v2		hipHostRegister	
cuMemHostUnregister		hipHostUnregister	
cuMemcpy2D		hipMemcpyParam2D	
cuMemcpy2DAsync		hipMemcpyParam2DAsyn	
M ODA O		C D ODA	
cuMemcpy2DAsync_v2		hipMemcpyParam2DAsyn	
M2D2		C Lin Manager Danier 2D	
cuMemcpy2D_v2		hipMemcpyParam2D	
cuMemcpy3D		hipDrvMemcpy3D	
cuMemcpy3DAsync		hipDrvMemcpy3DAsync	
cuMemcpy3DAsync_v2		hipDrvMemcpy3DAsync	
cuMemcpy3D_v2		hipDrvMemcpy3D	
cuMemcpyAtoH		hipMemcpyAtoH	
cuMemcpyAtoH_v2		hipMemcpyAtoH	
cuMemcpyDtoD		hipMemcpyDtoD	
cuMemcpyDtoDAsync	I .	hipMemcpyDtoDAsync	

CUDA	Deprecated	HIP	Deprecated
cuMemcpyDtoDAsync_v2		hipMemcpyDtoDAsync	
cuMemcpyDtoD_v2		hipMemcpyDtoD	
cuMemcpyDtoH		hipMemcpyDtoH	
cuMemcpyDtoHAsync		hipMemcpyDtoHAsync	
cuMemcpyDtoHAsync_v2		hipMemcpyDtoHAsync	
cuMemcpyDtoH_v2		hipMemcpyDtoH	
cuMemcpyHtoA		hipMemcpyHtoA	
cuMemcpyHtoA_v2		hipMemcpyHtoA	
cuMemcpyHtoD		hipMemcpyHtoD	
cuMemcpyHtoDAsync		hipMemcpyHtoDAsync	
cuMemcpyHtoDAsync_v2		hipMemcpyHtoDAsync	
cuMemcpyHtoD_v2		hipMemcpyHtoD	
cuMemsetD16		hipMemsetD16	
cuMemsetD16Async		hipMemsetD16Async	
cuMemsetD16_v2		hipMemsetD16	
cuMemsetD32		hipMemsetD32	
cuMemsetD32Async		hipMemsetD32Async	
cuMemsetD32_v2		hipMemsetD32	
cuMemsetD8		hipMemsetD8	
cuMemsetD8Async		hipMemsetD8Async	
cuMemsetD8_v2		hipMemsetD8	
cuMipmappedArrayCreate		hipMipmappedArrayCreat	
		e	
cuMipmappedArrayDestro		hipMipmappedArrayDestr	
у		oy	
cuMipmappedArrayGetLe		hipMipmappedArrayGetL	
vel		evel	

1.2.10 Unified Addressing

CUDA	Deprecated	HIP	Deprecated
cuMemAdvise		hipMemAdvise	
cuMemRangeGetAttribute		hipMemRangeGetAttribut	
		e	
cuMemRangeGetAttribute		hipMemRangeGetAttribut	
S		es	

1.2.11 Stream Management

CUDA	Deprecated	HIP	Deprecated
cuStreamAddCallback		hipStreamAddCallback	
cuStreamAttachMemAsyn		hipStreamAttachMemAsy	
c		nc	
cuStreamCreate		hipStreamCreateWithFlag	
		S	
cuStreamCreateWithPriori		hipStreamCreateWithPrior	
ty		ity	
cuStreamDestroy		hipStreamDestroy	
cuStreamDestroy_v2		hipStreamDestroy	
cuStreamGetFlags		hipStreamGetFlags	
cuStreamGetPriority		hipStreamGetPriority	
cuStreamQuery		hipStreamQuery	

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CUDA	Deprecated	HIP	Deprecated
cuStreamSynchronize		hipStreamSynchronize	
cuStreamWaitEvent		hipStreamWaitEvent	

1.2.12 Event Management

CUDA	Deprecated	HIP	Deprecated
cuEventCreate		hipEventCreateWithFlags	
cuEventDestroy		hipEventDestroy	
cuEventDestroy_v2		hipEventDestroy	
cuEventElapsedTime		hipEventElapsedTime	
cuEventQuery		hipEventQuery	
cuEventRecord		hipEventRecord	
cuEventSynchronize		hipEventSynchronize	

1.2.13 Execution Control

CUDA	Deprecated	HIP	Deprecated
cuFuncGetAttribute		hipFuncGetAttribute	
cuLaunchKernel		hipModuleLaunchKernel	

1.2.14 Occupancy

CUDA	Deprecated	HIP	Deprecated
cuOccupancyMaxActiveB		hipModuleOccupancyMax	
locksPerMultiprocessor		ActiveBlocksPerMultiproc	
		essor	
cuOccupancyMaxActiveB		hipModuleOccupancyMax	
locksPerMultiprocessorWi		ActiveBlocksPerMultiproc	
thFlags		essorWithFlags	
cuOccupancyMaxPotential		hipModuleOccupancyMax	
BlockSize		PotentialBlockSize	
cuOccupancyMaxPotential		hipModuleOccupancyMax	
BlockSizeWithFlags		PotentialBlockSizeWithFl	
		ags	

1.2.15 Texture Reference Management [Deprecated]

CUDA	Deprecated	HIP	Deprecated
cuTexRefGetAddress	✓	hipTexRefGetAddress	
cuTexRefGetAddressMod	✓	hipTexRefGetAddressMo	
e		de	
cuTexRefGetAddress_v2	✓	hipTexRefGetAddress	
cuTexRefGetArray	✓	hipTexRefGetArray	
cuTexRefGetFilterMode	✓	hipTexRefGetFilterMode	
cuTexRefGetFlags	✓	hipTexRefGetFlags	
cuTexRefGetFormat	✓	hipTexRefGetFormat	
cuTexRefGetMaxAnisotro	✓	hipTexRefGetMaxAnisotr	
py		opy	
cuTexRefGetMipmapFilte	✓	hipTexRefGetMipmapFilt	
rMode		erMode	

CUDA	Deprecated	HIP	Deprecated
cuTexRefGetMipmapLeve lBias	√	hipTexRefGetMipmapLev elBias	
cuTexRefGetMipmapLeve lClamp	√	hipTexRefGetMipmapLev elClamp	
cuTexRefGetMipmapped Array	✓	hipTexRefGetMipMapped Array	
cuTexRefSetAddress	\checkmark	hipTexRefSetAddress	
cuTexRefSetAddress2D	\checkmark	hipTexRefSetAddress2D	
cuTexRefSetAddress2D_v 2		hipTexRefSetAddress2D	
cuTexRefSetAddress2D_v 3		hipTexRefSetAddress2D	
cuTexRefSetAddressMode	√	hipTexRefSetAddressMod e	
cuTexRefSetAddress_v2	✓	hipTexRefSetAddress	
cuTexRefSetArray	\checkmark	hipTexRefSetArray	
cuTexRefSetBorderColor	✓	hipTexRefSetBorderColor	
cuTexRefSetFilterMode	✓	hipTexRefSetFilterMode	
cuTexRefSetFlags	✓	hipTexRefSetFlags	
cuTexRefSetFormat	✓	hipTexRefSetFormat	
cuTexRefSetMaxAnisotro py	✓	hipTexRefSetMaxAnisotr opy	
cuTexRefSetMipmapFilter Mode	√	hipTexRefSetMipmapFilte rMode	
cuTexRefSetMipmapLeve lBias	√	hipTexRefSetMipmapLev elBias	
cuTexRefSetMipmapLeve lClamp	✓	hipTexRefSetMipmapLev elClamp	
cuTexRefSetMipmappedA	\checkmark	hipTexRefSetMipmapped Array	
rray		Allay	

1.2.16 Texture Object Management

CUDA	Deprecated	HIP	Deprecated
cuTexObjectCreate		hipTexObjectCreate	
cuTexObjectDestroy		hipTexObjectDestroy	
cuTexObjectGetResource		hipTexObjectGetResource	
Desc		Desc	
cuTexObjectGetResource		hipTexObjectGetResource	
ViewDesc		ViewDesc	
cuTexObjectGetTextureD		hipTexObjectGetTextureD	
esc		esc	

1.2.17 Peer Context Memory Access

CUDA	Deprecated	HIP	Deprecated
cuCtxDisablePeerAccess		hipCtxDisablePeerAccess	✓
cuCtxEnablePeerAccess		hipCtxEnablePeerAccess	✓
cuDeviceCanAccessPeer		hipDeviceCanAccessPeer	
cuDeviceGetP2PAttribute		hipDeviceGetP2PAttribute	

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1.2.18 Profiler Control

CUDA	Deprecated	HIP	Deprecated
cuProfilerStart		hipProfilerStart	✓
cuProfilerStop		hipProfilerStop	✓

1.2.19 Unsupported APIs

API	Unsupported	Deprecated
Error Handling	✓	
Context Management	✓	\checkmark
Virtual Memory Management	✓	
Stream Ordered Memory Allocator	✓	
External Resource Interoperability	✓	
Stream Memory Operations	✓	
Execution Control	✓	\checkmark
Graph Management	✓	
Surface Reference Management	✓	\checkmark
Surface Object Management	✓	
Graphics Interoperability	✓	
Profiler Control	✓	\checkmark
OpenGL Interoperability	✓	
VDPAU Interoperability	✓	
EGL Interoperability	✓	
Direct3D 9 Interoperability	\checkmark	
Direct3D 10 Interoperability	\checkmark	
Direct3D 11 Interoperability	\checkmark	

1.3 CUCOMPLEX API Supported by HIP

1.3.1 cuComplex Data Types

CUDA	Deprecated	HIP	Deprecated
cuComplex		hipComplex	
cuDoubleComplex		hipDoubleComplex	
cuFloatComplex		hipFloatComplex	

1.3.2 cuComplex API Functions

CUDA	Deprecated	HIP	Deprecated
cuCabs		hipCabs	
cuCabsf		hipCabsf	
cuCadd		hipCadd	
cuCaddf		hipCaddf	
cuCdiv		hipCdiv	
cuCdivf		hipCdivf	
cuCfma		hipCfma	
cuCfmaf		hipCfmaf	
cuCimag		hipCimag	
cuCimagf		hipCimagf	
cuCmul		hipCmul	

CUDA	Deprecated	HIP	Deprecated
cuCmulf		hipCmulf	
cuComplexDoubleToFloat		hipComplexDoubleToFloa	
		t	
cuComplexFloatToDouble		hipComplexFloatToDoubl	
		e	
cuConj		hipConj	
cuConjf		hipConjf	
cuCreal		hipCreal	
cuCrealf		hipCrealf	
cuCsub		hipCsub	
cuCsubf		hipCsubf	
make_cuComplex		make_hipComplex	
make cuDoubleComplex		make hipDoubleComplex	
make_cuFloatComplex		make_hipFloatComplex	

1.4 CUDA DEVICE API Supported by HIP

1.4.1 Device Functions

CUDA	Deprecated	HIP	Deprecated
all		_all	
any		any	
assert_fail		assert_fail	
assertfail		assertfail	
ballot		ballot	
brev		brev	
brevll		brevll	
byte_perm		byte perm	
clz		clz	
clzll		clzll	
cosf		cosf	
double2float rd		double2float rd	
double2float rn		double2float rn	
double2float ru		double2float ru	
double2float rz		double2float rz	
double2hiint		double2hiint	
double2int rd		double2int_rd	
double2int rn		double2int rn	
double2int_ru		double2int ru	
double2int rz		double2int rz	
double2ll rd		double2ll_rd	
double2ll_rn		double2ll_rn	
double2ll_ru		double2ll_ru	
double2ll_rz		double2ll_rz	
double2loint		double2loint	
double2uint rd		double2uint rd	
double2uint rn		double2uint_rn	
double2uint_ru		double2uint_ru	
double2uint rz		double2uint rz	
double2ull_rd		double2ull_rd	
double2ull_rn		double2ull_rn	
double2ull_ru		double2ull_ru	

CUDA D	Deprecated	HIP	Deprecated
double2ull_rz		double2ull rz	
double as longlong		double as longlong	
exp10f		exp10f	
expf		expf	
fadd rd		fadd rd	
fadd rn		fadd rn	
fadd ru		fadd ru	
fadd rz		fadd rz	
fdiv rd		fdiv rd	
fdiv rn		fdiv rn	
fdiv ru		fdiv ru	
fdiv rz		fdiv rz	
fdividef		fdividef	
ffs		ffs	
ffsll		ffsll	
float22half2 rn		float22half2 rn	
float2half		float2half	
float2half2 rn		float2half2 rn	
float2half rd		float2half rd	
float2half rn		float2half rn	
float2half ru		float2half ru	
float2half rz		float2half rz	
float2int rd		float2int rd	
float2int rn		float2int rn	
float2int ru		float2int ru	
float2int rz		float2int rz	
float2ll rd		float2ll rd	
float2ll rn		float2ll rn	
float2ll ru		float2ll ru	
float2ll rz		float2ll rz	
float2uint rd		float2uint rd	
float2uint_rd		float2uint_rd	
float2uint ru float2uint rz		float2uint_ru float2uint_rz	
float2ull_rd		float2ull_rd float2ull_rn	
float2ull rn			
float2ull_ru		float2ull_ru	
float2ull_rz		float2ull_rz	
float_as_int		float_as_int	
float_as_uint		float_as_uint	
floats2half2_rn		floats2half2_rn	
fmaf_rd		fmaf_rd	
fmaf_rn		fmaf_rn	
fmaf_ru		fmaf_ru	
fmaf_rz		fmaf_rz	
fmul_rd		fmul_rd	
fmul_rn		fmul_rn	
fmul_ru		fmul_ru	
fmul_rz		fmul_rz	
frep_rd		frcp_rd	
frcp_rn		frcp_rn	
frcp_ru		frcp_ru	

CUDA	Deprecated	HIP	Deprecated
frcp_rz		frcp_rz	
frsqrt rn		frsqrt rn	
fsqrt rd		fsqrt rd	
fsqrt rn		fsqrt rn	
fsqrt ru		fsqrt ru	
fsqrt rz		fsqrt rz	
fsub rd		fsub rd	
fsub rn		fsub rn	
fsub ru		fsub ru	
fsub rz		fsub rz	
h2div		h2div	
habs		habs	
habs2		habs2	
hadd		hadd	
hadd2		hadd2	
hadd2 sat		hadd2 sat	
hadd sat		hadd sat	
half22float2		half22float2	
half2float		half2float	
half2half2		half2half2	
half2int rd		half2int rd	
half2int rn		half2int rn	
half2int ru		half2int_ru	
half2int rz		half2int rz	
half2ll rd		half2ll rd	
half2ll rn		half2ll rn	
half2ll ru		half2ll_ru	
half2ll rz		half2ll rz	
half2short rd		half2short rd	
half2short rn		half2short rn	
half2short ru		half2short ru	
half2short rz		half2short rz	
half2uint rd		half2uint rd	
half2uint rn		half2uint rn	
half2uint_ru		half2uint_ru	
half2uint_rz		half2uint_rz	
half2ull_rd		half2ull_rd	
half2ull_rn		half2ull_rn	
half2ull_ru		half2ull_ru	
half2ull_rz		half2ull_rz	
half2ushort_rd		half2ushort_rd	
half2ushort_rn		half2ushort_rn	
half2ushort_ru		half2ushort_ru	
half2ushort_rz		half2ushort_rz	
half_as_short		half_as_short	
half_as_ushort		half_as_ushort	
halves2half2		halves2half2	
hbeq2		hbeq2	
_hbequ2		hbequ2	
hbge2		hbge2	
hbgeu2		_hbgeu2	
_hbgt2		_hbgt2	

CUDA	Deprecated	HIP	Deprecated
hbgtu2		hbgtu2	
hble2		hble2	
hbleu2		hbleu2	
hblt2		hblt2	
hbltu2		hbltu2	
hbne2		hbne2	
hbneu2		hbneu2	
hdiv		hdiv	
heq		heq	
heq2		heq2	
hequ		hequ	
hequ2		hequ2	
hfma		hfma	
hfma2		hfma2	
hfma2 sat		hfma2 sat	
hfma sat		hfma sat	
hge		hge	
hge2		hge2	
hgeu		hgeu	
hgeu2			
		hgeu2	
hgt		hgt	
hgt2		hgt2	
hgtu		hgtu	
hgtu2		hgtu2	
high2float		high2float	
high2half		high2half	
high2half2		high2half2	
highs2half2		highs2half2	
hiloint2double		_hiloint2double	
hisinf		hisinf	
hisnan		hisnan	
hisnan2		hisnan2	
hle		hle	
hle2		hle2	
hleu		hleu	
hleu2		hleu2	
hlt		hlt	
hlt2		hlt2	
hltu		hltu	
hltu2		hltu2	
hmul		hmul	
hmul2		hmul2	
hmul2_sat		hmul2_sat	
hmul_sat		hmul_sat	
hne		hne	
hne2		hne2	
hneg		hneg	
hneg2		hneg2	
hneu		hneu	
hneu2		hneu2	
hsub		hsub	
_hsub2		_hsub2	

CUDA	Deprecated	HIP	Deprecated
hsub2 sat		hsub2_sat	
hsub sat		hsub sat	
int2double rn		int2double rn	
int2float rd		int2float rd	
int2float rn		int2float rn	
int2float ru		int2float ru	
int2float rz		int2float rz	
int2half rd		int2half rd	
int2half rn		int2half rn	
int2half ru		int2half ru	
int2half rz		int2half rz	
int as float		int as float	
ldca		ldca	
ldcg		ldcg	
ldcs		ldcs	
ldg		ldg	
ll2double rd		ll2double rd	
ll2double rn		ll2double rn	
ll2double ru		ll2double ru	
ll2double rz		ll2double rz	
ll2float rd		ll2float rd	
ll2float rn		ll2float rn	
ll2float ru		ll2float ru	
ll2float rz		ll2float rz	
ll2half rd		ll2half rd	
ll2half rn		ll2half rn	
ll2half ru		ll2half ru	
ll2half rz		ll2half rz	
log10f		log10f	
log2f		log2f	
logf		logf	
longlong_as_double		longlong as_double	
low2float		low2float	
low2half		low2half	
low2half2		low2half2	
lowhigh2highlow		lowhigh2highlow	
lows2half2		lows2half2	
mul24		mul24	
mul64hi		mul64hi	
mulhi		mulhi	
popc		popc	
popell		popell	
powf		powf	
rhadd		rhadd	
sad		sad	
saturatef		saturatef	
shfl	√	shfl	
shfl down		shfl down	
	√		
shfl_up	✓	shfl_up	
shfl_xor	✓	shfl_xor	
short2half_rd		short2half_rd	
short2half_rn		short2half_rn	

short2half ru short2half rz short as half sincosf sincosf sincosf sinf sinf syncthreads syncthreads syncthreads and syncthreads and syncthreads or tanf threadfence threadfence threadfence block threadfence block threadfence system uhadd uint2hoat ru uint2hoat ru uint2hoat ru uint2half ru uint2hoat ru uint2half ru uint2half ru uint2half ru uint2hoat ru uint2half ru uint2half ru uint2half ru uint2hoat ru uint2half ru ui	CUDA	Deprecated	HIP	Deprecated
short as half sincosf sincosf sinf sinf sinf sinf syncthreads syncthreads and syncthreads count syncthreads count syncthreads count syncthreads count syncthreads count syncthreads count syncthreads or tanf threadfence block threadfence block threadfence block threadfence system uhadd uint2double rn uint2float rd uint2float rd uint2float ra uint2float ra uint2half rd uint2half ru uilt2double ru uilt	short2half_ru	·	short2half_ru	
sincosf sinf syncthreads syncthreads and syncthreads count syncthreads or tanf threadfence threadfence threadfence block threadfence system threadfence system threadfence system thadd uint2double m uint2double m uint2float rd uint2float rd uint2float rd uint2float rr uint2float rr uint2float rr uint2float rr uint2half rd uint2half rd uint2half rd uint2half ru uint2half ru uint2half rx uint	short2half rz		short2half rz	
sinf syncthreads syncthreads and syncthreads and syncthreads count syncthreads count syncthreads or tanf threadfence threadfence block threadfence block threadfence block threadfence system uhadd uint2double m uint2float rd uint2float rr uint2float rr uint2float rr uint2float rr uint2half rd uint2half rd uint2half ru uilt2double ru uilt2double ru uilt2double ru uilt2double ru uilt2double ru uilt2hoat ru uilt2hoat ru uilt2hoat ru uilt2hoat ru uilt2hoat ru uilt2half ru u	short as half		short as half	
synethreads on synethreads and synethreads and synethreads count synethreads count synethreads or tanf tanf threadfence threadfence threadfence block threadfence system threadfence threadfence system unitable threadfence threadfe	sincosf		sincosf	
synethreads and synethreads count synethreads count synethreads or tanf tanf threadfence threadfence threadfence threadfence block threadfence block threadfence system uhadd unint2double m unit2double m unit2float rd unit2float rd unit2float ru unit2float rz unit2half rd unit2half ru unit2h	sinf		sinf	
synethreads and synethreads count synethreads count synethreads or tanf tanf threadfence threadfence threadfence threadfence block threadfence block threadfence system uhadd unint2double m unit2double m unit2float rd unit2float rd unit2float ru unit2float rz unit2half rd unit2half ru unit2h	syncthreads		syncthreads	
synethreads count synethreads or tanf threadfence threadfence threadfence block threadfence block threadfence system whadd win12double rn win12float rd win12float rd win12float ru win12float rz win12half rd win12half ru win12half ru win12half ru win12balf rd wil12double rd wil12double rd win12half ru wil12half ru wi				
syncthreads or tanf tanf threadfence threadfence block threadfence block threadfence system uhadd uintzdouble rn uintzdouble rn uintzfloat rd uintzfloat rd uintzfloat ru uintzfloat ru uintzfloat ru uintzfloat rz uintzhalf rd uintzhalf ru uiltzdouble ru uiltzd				
tanf threadfence threadfence threadfence block threadfence system uhadd uint2double m uint2float rd uint2float ru uint2float ru uint2float rz uint2half ru uint2half ru uint2half ru uint2half ru uint2half rz uilt2double rd ult2double rd ult2double rd ult2double ru ult2double rz ult2hoat rd ult2hoat rd ult2hoat rd ult2hoat ru ult2hoat ru ult2hoat ru ult2hoat ru ult2half ru ult2half rd ult2half rd ult2half ru unt64hi unmul64hi unmu				
threadfence block threadfence block threadfence system uhadd uint2double rn uint2float rd uint2float ru uint2half rd uint2half ru uint2half rz uint2half ru uint2half ru uint2half rz uint2half rz uint as float ull2double rd ull2double rd ull2double ru ull2double ru ull2double ru ull2double ru ull2float rd ull2float rd ull2float ru ull2float ru ull2float ru ull2float ru ull2float ru ull2float rr ull2float rr ull2float rr ull2half ru ull2half rd ull2half rd ull2half rd ull2half rr				
threadfence block threadfence system uhadd uint2double m uint2float rd uint2float ru uint2half rd uint2half rd uint2half ru uilt2double rd ull2double rd ull2double ru ull2double ru ull2double ru ull2double ru ull2float rd ull2float rd ull2float rd ull2float ru ull2				
threadfence system uhadd uint2double m uint2float rd uint2float rd uint2float ru uint2float rz uint2float rz uint2float rz uint2float rr uint2half rd uint2half ru uint2double rd uilt2double rd uilt2double ru uilt2double ru uilt2double ru uilt2double ru uilt2double ru uilt2double ru uilt2float rd uilt2float rd uilt2float rru uilt2float ru uilt2half rd uilt2half rd uilt2half rd uilt2half rru uuhd4hi umuhlhi umuhlhi umuhlhi umuhlhi umuhlhi umuhlhi undhi				
uhadd uint2double m uint2float rd uint2float rd uint2float rd uint2float ru uint2float rz uint2float rz uint2float rz uint2half rd uint2half rd uint2half ru uilt2double rd ull2double re ull2double ru ull2double ru ull2double ru ull2double ru ull2double ru ull2float rd ull2float rd ull2float rd ull2float ru ull2float ru ull2float ru ull2float ru ull2float ru ull2float ru ull2half rd ull2half rd ull2half rd ull2half rru				
uint2double rn uint2float rd uint2float rd uint2float ru uint2float ru uint2float ru uint2float ru uint2float ru uint2float rz uint2float rz uint2float rz uint2half rd uint2half rd uint2half ru uint2half ru uint2half ru uint2half rz uint2half rz uint2half rz uint2half rz uint as float uint2half rz uint as float uilt2double rd uilt2double rd uilt2double ru uilt2double ru uilt2double ru uilt2double ru uilt2double rz uilt2double rz uilt2double rz uilt2float rd uilt2float rd uilt2float rd uilt2float rd uilt2float rr uilt2float ru uilt2half rd uilt2half ru uilt2half rd uilt2half ru uilt				
uint2float rd uint2float ru uint2float ru uint2float ru uint2float ru uint2float ru uint2float ru uint2float rz uint2half rd uint2half rd uint2half ru uint2half ru uint2half ru uint2half ru uint2half ru uint2half rz uint as float uilt2double rd uilt2double rd uilt2double ru uilt2double ru uilt2double ru uilt2double ru uilt2double ru uilt2double ru uilt2float rd uilt2float rd uilt2float ru uilt2half rd uilt2half ru uilt2ha				
uint2float ru uint2float ru uint2float ru uint2float rz uint2half rd uint2half rd uint2half ru uint2half rz uint2half rz uint2half rz uint as float ullt2double rd ullt2double rd ullt2double ru ullt2double ru ullt2double ru ullt2double rz ullt2float rd ullt2float rd ullt2float rd ullt2float ru ullt2float ru ullt2float ru ullt2float ru ullt2float ru ullt2float ru ullt2float rz ullt2half rd ullt2half rd ullt2half rd ulltalfr ru ulltalfalf ru ulltalfr ru u				
uint2float ru uint2float rz uint2float rz uint2float rz uint2half rd uint2half ru uint2half rz uint2half rz uint2half rz uint as float ull2double rd ull2double rd ull2double rm ull2double ru ull2double ru ull2double ru ull2float rd ull2float rd ull2float ru ull2float ru ull2float ru ull2float ru ull2float ru ull2float rz ull2float rz ull2half rd ull2half rd ull2half rd ull2half rr ull2half ru ull2half rr				
uint2float rz uint2half rd uint2half rd uint2half ru uint2half ru uint2half ru uint2half ru uint2half rz uint as float uint2half rz uint as float uilt2double rd ull2double ru ull2double rz ull2double rz ull2float rd ull2float rd ull2float ru ull2float rz ull2half rd ull2half rd ull2half rd ull2half ru ull2half rz umul24 umul64hi				
uint2half rd uint2half m uint2half ru uint2half ru uint2half ru uint2half ru uint2half rz uint as float ull2double rd ull2double rd ull2double ru ull2double ru ull2double ru ull2double rz ull2float rd ull2float rd ull2float rd ull2float ru ull2half rd ull2half rd ull2half ru unul64hi unul64hi unul64hi unul64hi unul64hi unul64hi unul64hi unul64hi unul64hi usad usad usad usad usad usad usad usahort2half ru ushort2half rz ushort as half abs acos acos acos acos acos acos acos aco				
uint2half ru uint2half ru uint2half ru uint2half rz uint as float ull2double rd ull2double rn ull2double ru ull2double rv ull2double rv ull2double rv ull2float rd ull2float ru ull2half rd ull2half rd ull2half ru unnu64hi unmulhi urhadd usad usad usad usad ushort2half rd ushort2half rd ushort2half rr				
uint2half ru uint2half rz uint as float uilt2double rd ull2double rn ull2double ru ull2double ru ull2double rz ull2float rd ull2float rd ull2float ru ull2half rd ull2half rd ull2half ru ull2half ru ull2half ru ull2half ru ull2half ru ull2half rz umul24 umul64hi umul64hi umul64hi umulhi urhadd usad usad usad ushort2half rd ushort2half ru				
uint2half rz uint as float ull2double rd ull2double rd ull2double ru ull2double ru ull2double ru ull2double ru ull2double ru ull2double ru ull2double rz ull2float rd ull2float rd ull2float rn ull2float ru ull2float rr ull2float rr ull2float rz ull2float rz ull2float rz ull2float rr ull2float rz ull2float rz ull2half rd ull2half rd ull2half rm ull2half ru unul64hi umul64hi umul64hi umulhi urhadd usad usad ushort2half rd ushort2half rd ushort2half rr ushort2half rrz ushort as half abs acos acos acos acosf acosh acosh				
uint as float ull2double rd ull2double rd ull2double rm ull2double ru ull2double ru ull2double ru ull2double rz ull2float rd ull2float rd ull2float rm ull2float ru ull2float ru ull2float ru ull2float rz ull2float rz ull2float rz ull2float rz ull2float rz ull2half rd ull2half rm ull2half rm ull2half ru ull2half ru ull2half rz umul24 umul64hi umulhi umulhi urhadd usad usad ushort2half rd ushort2half ru				
ull2double rd ull2double ru ull2double ru ull2double ru ull2double rz ull2float rd ull2float rd ull2float rd ull2float ru ull2float ru ull2float ru ull2float rz ull2float rz ull2float rz ull2float rz ull2float rz ull2half rd ull2half rd ull2half rn ull2half rn ull2half rr ull2half ru ull2half rr ull2half rz ull2half rz ull2half rz unul24 umul64hi umul64hi umul6hi umulhi urhadd usad usad usad ushort2half rd ushort2half ru ushort2half rrz ushort as half abs acos acos acos acos acosf acosh acosh acosh				
ull2double ru ull2double ru ull2double ru ull2double rz ull2float rd ull2float rd ull2float ru ull2float ru ull2float ru ull2float ru ull2float ru ull2float rz ull2float rz ull2half rd ull2half rd ull2half rd ull2half rr umul64hi u				
ull2double ru ull2double rz ull2float rd ull2float rd ull2float ru ull2float rz ull2float rz ull2float rz ull2haff rd ull2haff rd ull2haff ru ull2haff ru ull2haff ru ull2haff ru ull2haff rz umul24 umul64hi umul64hi umulhi urhadd usad usad ushort2haff rd ushort2haff ru ushort2haff rz ushort as half abs acos acos acos acos acos acos acos aco				
ull2double rz ull2float rd ull2float rn ull2float rn ull2float ru ull2float ru ull2float rz ull2float rz ull2alf rd ull2float rz ull2half rd ull2half rd ull2half rn ull2half rn ull2half ru ull2half ru ull2half rz ull2half rz umul24 umul24 umul64hi umul64hi umulhi umhdd usad usad ushort2half rd ushort2half rd ushort2half rn ushort2half rn ushort2half ru ushort2half rz ushort as half ushort as half abs acos acosf acosf acosh acosf acosh acosh				
ull2float rd ull2float rn ull2float ru ull2float ru ull2float rz ull2half rd ull2half rd ull2half rn ull2half ru ull2half rz umul24 umul64hi umul64hi umulhi urhadd usad usad ushort2half rd ushort2half ru ushort2half ru ushort2half ru ushort2half ru ushort2half ru ushort2half ru ushort2half rz ushort as half abs acos acos acos acosf acosh acosh acosh acosh acosh				
ull2float rn ull2float ru ull2float rz ull2float rz ull2half rd ull2half rd ull2half rn ull2half rn ull2half ru ull2half ru ull2half rz ull2half rz umul24 umul24 umul64hi umul64hi umulhi umulhi urhadd usad ushort2half rd ushort2half rd ushort2half rn ushort2half rn ushort2half rz ushort2half rz ushort2half rz ushort2half rz ushort2half rz ushort2half rz ushort as half ushort as half abs abs acos acos acosf acosf acosh acosh				
ull2float ru ull2float rz ull2float rz ull2float rz ull2half rd ull2half rd ull2half rn ull2half rn ull2half ru ull2half ru ull2half rz ull2half rz umul24 umul64hi umul64hi umulhi urhadd usad usad ushort2half rd ushort2half ru ushort2half ru ushort2half rz ushort2half rz ushort2half rz ushort2half rz ushort2half rz ushort2half rz ushort2half ra ushort2half rz ushort2half ra				
ull2float rz ull2float rz ull2half rd ull2half rd ull2half rn ull2half rn ull2half ru ull2half ru ull2half rz ull2half rz umul24 umul24 umul64hi umul64hi umulhi umulhi urhadd urhadd usad usad ushort2half rd ushort2half rd ushort2half rn ushort2half rn ushort2half ru ushort2half ru ushort2half rz ushort2half rz ushort as half ushort as half abs abs acos acos acosf acosf acosh acosh acoshf acoshf				
ull2half rd ull2half rn ull2half ru ull2half ru ull2half ru ull2half rz ull2half rz ull2half rz umul24 umul64hi umul64hi umulhi urhadd usad usad ushort2half rd ushort2half ru ushort2half ru ushort2half ru ushort2half rz ushort as half abs acos acosf acosh acosh acosh acosh				
ull2half rn ull2half ru ull2half rz ull2half rz umul24 umul24 umul64hi umul64hi umulhi umulhi urhadd urhadd usad usad ushort2half rd ushort2half rd ushort2half rn ushort2half rn ushort2half ru ushort2half ru ushort2half rz ushort2half rz ushort as half abs acos acos acosf acosf acosh acosh acoshf acoshf				
ull2half ru ull2half rz umul24 umul24 umul64hi umul64hi umulhi umulhi urhadd urhadd usad usad ushort2half_rd ushort2half_rd ushort2half_rn ushort2half_rn ushort2half_ru ushort2half_ru ushort2half_rz ushort2half_rz ushort as_half ushort as_half abs abs acos acos acosf acosf acosh acosh acosh acosh acosh acosh				
ull2half rz ull2half rz umul24 umul24 umul64hi umulhi umulhi umulhi usad usad ushort2half rd ushort2half rd ushort2half rn ushort2half rn ushort2half ru ushort2half ru ushort2half rz ushort2half rz ushort as half ushort as half abs abs acos acos acosf acosf acosh acosh acosh acosh				
umul24umul64hiumul64hiumul64hiumulhiumulhiurhaddurhaddusadusadushort2half rdushort2half rdushort2half rnushort2half rnushort2half ruushort2half ruushort2half rzushort2half rzushort as halfushort as halfabsabsacosacosacosfacosfacoshacoshacoshacosh				
umul64hi umul64hi umulhi umulhi urhadd urhadd usad usad ushort2half rd ushort2half rd ushort2half rn ushort2half rn ushort2half ru ushort2half ru ushort2half rz ushort2half rz ushort as half ushort as half abs abs acos acos acosf acosf acosh acosh acoshf acoshf				
umulhi umulhi urhadd urhadd usad usad ushort2half rd ushort2half rd ushort2half rn ushort2half rn ushort2half ru ushort2half ru ushort2half rz ushort2half rz ushort as half ushort as half abs abs acos acos acosf acosf acosh acosh acoshf acoshf				
urhadd usad usad ushort2half_rd ushort2half_rn ushort2half_ru ushort2half_rz ushort2half_rz ushort as half abs acos acos acosf acosh				
usad ushort2half rd ushort2half rd ushort2half rd ushort2half rn ushort2half rn ushort2half ru ushort2half ru ushort2half rz ushort2half rz ushort as half ushort as half abs abs acos acos acosf acosf acosh acosh acoshf acoshf				
ushort2half_rd ushort2half_rd ushort2half_rn ushort2half_rn ushort2half_ru ushort2half_ru ushort2half_rz ushort2half_rz ushort_as_half ushort_as_half abs abs acos acos acosf acosf acosh acosh acoshf acoshf				
ushort2half rn ushort2half rn ushort2half ru ushort2half ru ushort2half rz ushort2half rz ushort as half ushort as half abs abs acos acos acosf acosf acosh acosh acoshf acoshf				
ushort2half ru ushort2half ru ushort2half rz ushort2half rz ushort as half ushort as half abs abs acos acos acosf acosf acosh acosh acoshf acoshf				
ushort2half_rz ushort2half_rz ushort as half ushort as half abs abs acos acos acosf acosf acosh acosh acoshf acoshf				
ushort as halfushort as halfabsabsacosacosacosfacosfacoshacoshacoshfacoshf				
abs acos acos acosf acosh acosh acosh acoshf acoshf				
acosacosacosfacosfacoshacoshacoshfacoshf	ushort_as_half		ushort_as_half	
acosfacosfacoshacoshacoshfacoshf	abs		abs	
acoshacoshacoshfacoshf				
acoshf acoshf	acosf		acosf	
			I .	
asin asin	acoshf		acoshf	
	asin		asin	

CUDA	Deprecated	HIP	Deprecated
asinf		asinf	
asinh		asinh	
asinhf		asinhf	
atan		atan	
atan2		atan2	
atan2f		atan2f	
atanf		atanf	
atanh		atanh	
atanhf		atanhf	
atomicAdd		atomicAdd	
atomicAnd		atomicAnd	
atomicCAS		atomicCAS	
atomicDec		atomicDec	
atomicExch		atomicExch	
atomicInc		atomicInc	
atomicMax		atomicMax	
atomicMin		atomicMin	
atomicOr		atomicOr	
atomicSub		atomicSub	
atomicXor		atomicXor	
cbrt		cbrt	
cbrtf		cbrtf	
ceil		ceil	
ceilf		ceilf	
clock		clock	
clock64		clock64	
copysign		copysign	
copysignf		copysignf	
cos		cos	
cosf		cosf	
cosh		cosh	
coshf		coshf	
cospi		cospi	
cospif		cospif	
cyl_bessel_i0		cyl_bessel_i0	
cyl_bessel_i0f		cyl_bessel_i0f	
cyl_bessel_i1		cyl_bessel_i1	
cyl_bessel_ilf		cyl_bessel_i1f	
erf		erf	
erfc		erfc	
erfcf		erfcf	
erfcinv		erfcinv	
erfcinvf		erfcinvf	
erfcx		erfcx	
erfcxf		erfcxf	
erff		erff	
erfinv		erfinv	
erfinvf		erfinvf	
exp		exp	
exp10		exp10	
exp10f		exp10f	
exp2		exp2	
p-2	1		

CUDA	Deprecated	HIP	Deprecated
exp2f		exp2f	
expf		expf	
expm1		expm1	
expm1f		expm1f	
fabs		fabs	
fabsf		fabsf	
fdim		fdim	
fdimf		fdimf	
fdividef		fdividef	
floor		floor	
floorf		floorf	
fma		fma	
fmaf		fmaf	
fmax		fmax	
fmaxf		fmaxf	
fmin		fmin	
fminf		fminf	
fmod		fmod	
fmodf		fmodf	
frexp		frexp	
frexpf		frexpf	
h2ceil		h2ceil	
h2cos		h2cos	
h2exp		h2exp	
h2exp10		h2exp10	
h2exp10		h2exp2	
h2floor		h2floor	
h2log		h2log	
h2log10		h2log10	
h2log2		h2log2	
h2rcp		h2rcp	
h2rint		h2rint	
h2rsqrt		h2rsqrt	
h2sin		h2sin	
h2sqrt		h2sqrt	
h2trunc		h2trunc	
hceil		hceil	
hcos		hcos	
hexp		hexp	
hexp10		hexp10	
hexp2		hexp2	
hfloor		hfloor	
hlog		hlog	
hlog10		hlog10	
hlog2		hlog2	
hrcp		hrcp	
hrint		hrint	
hrsqrt hsin		hrsqrt hsin	
hsqrt		hsqrt	
htrunc		htrunc	
hypot		hypot	

hypotf hypotf ilogb	
ilogb	
ilogbf	
isfinite isfinite	
isinf isinf	
isnan isnan	
j0 j0	
j0f j0f	
j1f j1f	
jn jn	
jnf jnf	
labs labs	
ldexpf ldexpf	
lgamma lgamma	
lgammaf lgammaf	
llabs llabs	
llrint llrint	
llrintf llrintf	
llround llround	
llroundf llroundf	
log	
log10 log10	
$\log 10 f$ $\log 10 f$	
log1p log1p	
log1pf log1pf	
$\log 2$	
log2f log2f	
logb logb	
logbf logbf	
logf logf	
lrint lrint	
lrintf lrintf	
lround lround	
lroundf lroundf	
max max	
min min	
modf modf	
modff modff	
nan nan	
nanf nanf	
nearbyint nearbyint	
nearbyintf nearbyintf	
nextafter nextafter	
nextafterf nextafterf	
norm norm	
norm3d norm3d	
norm3df norm3df	
norm4d norm4d	
norm4df norm4df	
normcdf normcdf	

CUDA	Deprecated	HIP	Deprecated
normcdff		normcdff	
normedfinv		normcdfinv	
normcdfinvf		normcdfinvf	
normf		normf	
pow		pow	
powf		powf	
rebrt		rebrt	
rebrtf		rebrtf	
remainder		remainder	
remainderf		remainderf	
remquo		remquo	
remquof		remquof	
rhypot		rhypot	
rhypotf		rhypotf	
rint		rint	
rintf		rintf	
rnorm		rnorm	
rnorm3d		rnorm3d	
rnorm3df		rnorm3df	
rnorm4d		rnorm4d	
rnorm4d rnorm4df		rnorm4d rnorm4df	
rnormf		rnormf	
round		round	
roundf		roundf	
rsqrt		rsqrt	
rsqrtf		rsqrtf	
scalbln		scalbln	
scalblnf		scalblnf	
scalbn		scalbn	
scalbnf		scalbnf	
signbit		signbit	
sin		sin	
sincos		sincos	
sincosf		sincosf	
sincospi		sincospi	
sincospif		sincospif	
sinf		sinf	
sinh		sinh	
sinhf		sinhf	
sinpi		sinpi	
sinpif		sinpif	
sqrt		sqrt	
sqrtf		sqrtf	
tan		tan	
tanf		tanf	
tanh		tanh	
tanhf		tanhf	
tgamma		tgamma	
tgammaf		tgammaf	
trunc		trunc	
truncf		truncf	
y0		y0	
J *	I.	J ~	

CUDA	Deprecated	HIP	Deprecated
y0f		y0f	
y1		y1	
y1f		ylf	
yn		yn	
ynf		ynf	

1.5 CUBLAS API Supported by HIP

1.5.1 CUBLAS Data Types

CUDA	Deprecated	HIP	Deprecated
CUBLAS ATOMICS AL		HIPBLAS ATOMICS A	
LOWED		LLOWED	
CUBLAS ATOMICS N		HIPBLAS ATOMICS N	
OT_ALLOWED		OT_ALLOWED	
CUBLAS DIAG NON U		HIPBLAS_DIAG_NON_	
NIT		UNIT	
CUBLAS_DIAG_UNIT		HIPBLAS_DIAG_UNIT	
CUBLAS_FILL_MODE_		HIPBLAS_FILL_MODE_	
FULL		FULL	
CUBLAS_FILL_MODE_		HIPBLAS_FILL_MODE_	
LOWER		LOWER	
CUBLAS_FILL_MODE_		HIPBLAS_FILL_MODE_	
UPPER		UPPER	
CUBLAS_GEMM_DEFA		HIPBLAS_GEMM_DEF	
ULT		AULT	
CUBLAS_GEMM_DFAL		HIPBLAS_GEMM_DEF	
T		AULT	
CUBLAS_OP_C		HIPBLAS_OP_C	
CUBLAS_OP_HERMITA		HIPBLAS_OP_C	
N			
CUBLAS_OP_N		HIPBLAS_OP_N	
CUBLAS_OP_T		HIPBLAS_OP_T	
CUBLAS_POINTER_MO		HIPBLAS_POINTER_M	
DE_DEVICE		ODE_DEVICE	
CUBLAS_POINTER_MO		HIPBLAS_POINTER_M	
DE_HOST		ODE_HOST	
CUBLAS_SIDE_LEFT		HIPBLAS_SIDE_LEFT	
CUBLAS_SIDE_RIGHT		HIPBLAS_SIDE_RIGHT	
CUBLAS_STATUS_ALL		HIPBLAS_STATUS_AL	
OC_FAILED		LOC_FAILED	
CUBLAS_STATUS_ARC		HIPBLAS_STATUS_AR	
H_MISMATCH		CH_MISMATCH	
CUBLAS_STATUS_EXE		HIPBLAS_STATUS_EX	
CUTION_FAILED		ECUTION_FAILED	
CUBLAS_STATUS_INT		HIPBLAS_STATUS_INT	
ERNAL_ERROR		ERNAL_ERROR	
CUBLAS_STATUS_INV		HIPBLAS_STATUS_INV	
ALID_VALUE		ALID_VALUE	
CUBLAS_STATUS_MA		HIPBLAS_STATUS_MA	
PPING_ERROR		PPING_ERROR	

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CUDA	Deprecated	HIP	Deprecated
CUBLAS_STATUS_NOT		HIPBLAS_STATUS_NO	
_INITIALIZED		T_INITIALIZED	
CUBLAS_STATUS_NOT		HIPBLAS_STATUS_NO	
_SUPPORTED		T_SUPPORTED	
CUBLAS_STATUS_SUC		HIPBLAS_STATUS_SU	
CESS		CCESS	
cublasAtomicsMode_t		hipblasAtomicsMode_t	
cublasDataType_t		hipblasDatatype_t	
cublasDiagType_t		hipblasDiagType_t	
cublasFillMode_t		hipblasFillMode_t	
cublasGemmAlgo_t		hipblasGemmAlgo_t	
cublasHandle t		hipblasHandle t	
cublasOperation_t		hipblasOperation_t	
cublasPointerMode_t		hipblasPointerMode_t	
cublasSideMode_t		hipblasSideMode_t	
cublasStatus		hipblasStatus_t	
cublasStatus_t		hipblasStatus_t	

1.5.2 CUDA Data Types Reference

CUDA	Deprecated	HIP	Deprecated
CUDA_C_16F		HIPBLAS_C_16F	
CUDA_C_32F		HIPBLAS C 32F	
CUDA_C_32I		HIPBLAS_C 32I	
CUDA_C_32U		HIPBLAS C 32U	
CUDA_C_64F		HIPBLAS_C_64F	
CUDA_C_8I		HIPBLAS C 8I	
CUDA_C_8U		HIPBLAS_C_8U	
CUDA_R_16F		HIPBLAS R_16F	
CUDA R 32F		HIPBLAS R 32F	
CUDA R 32I		HIPBLAS R 32I	
CUDA R 32U		HIPBLAS R 32U	
CUDA R 64F		HIPBLAS R 64F	
CUDA R 8I		HIPBLAS R 8I	
CUDA R 8U		HIPBLAS R 8U	
cudaDataType		hipblasDatatype_t	
cudaDataType_t		hipblasDatatype_t	

1.5.3 CUBLAS Helper Function Reference

CUDA	Deprecated	HIP	Deprecated
cublasCreate		hipblasCreate	
cublasCreate_v2		hipblasCreate	
cublasDestroy		hipblasDestroy	
cublasDestroy_v2		hipblasDestroy	
cublasGetAtomicsMode		hipblasGetAtomicsMode	
cublasGetMatrix		hipblasGetMatrix	
cublasGetMatrixAsync		hipblasGetMatrixAsync	
cublasGetPointerMode		hipblasGetPointerMode	
cublasGetPointerMode_v2		hipblasGetPointerMode	
cublasGetStream		hipblasGetStream	

CUDA	Deprecated	HIP	Deprecated
cublasGetStream_v2		hipblasGetStream	
cublasGetVector		hipblasGetVector	
cublasGetVectorAsync		hipblasGetVectorAsync	
cublasSetAtomicsMode		hipblasSetAtomicsMode	
cublasSetMatrix		hipblasSetMatrix	
cublasSetMatrixAsync		hipblasSetMatrixAsync	
cublasSetPointerMode		hipblasSetPointerMode	
cublasSetPointerMode_v2		hipblasSetPointerMode	
cublasSetStream		hipblasSetStream	
cublasSetStream_v2		hipblasSetStream	
cublasSetVector		hipblasSetVector	
cublasSetVectorAsync		hipblasSetVectorAsync	

1.5.4 CUBLAS Level-1 Function Reference

CUDA	Deprecated	HIP	Deprecated
cublasCaxpy		hipblasCaxpy	
cublasCaxpy_v2		hipblasCaxpy	
cublasCcopy		hipblasCcopy	
cublasCcopy_v2		hipblasCcopy	
cublasCdotc		hipblasCdotc	
cublasCdotc_v2		hipblasCdotc	
cublasCdotu		hipblasCdotu	
cublasCdotu_v2		hipblasCdotu	
cublasCrot		hipblasCrot	
cublasCrot_v2		hipblasCrot	
cublasCrotg		hipblasCrotg	
cublasCrotg_v2		hipblasCrotg	
cublasCscal		hipblasCscal	
cublasCscal_v2		hipblasCscal	
cublasCsrot		hipblasCsrot	
cublasCsrot_v2		hipblasCsrot	
cublasCsscal		hipblasCsscal	
cublasCsscal_v2		hipblasCsscal	
cublasCswap		hipblasCswap	
cublasCswap_v2		hipblasCswap	
cublasDasum		hipblasDasum	
cublasDasum_v2		hipblasDasum	
cublasDaxpy		hipblasDaxpy	
cublasDaxpy_v2		hipblasDaxpy	
cublasDcopy		hipblasDcopy	
cublasDcopy_v2		hipblasDcopy	
cublasDdot		hipblasDdot	
cublasDdot_v2		hipblasDdot	
cublasDnrm2		hipblasDnrm2	
cublasDnrm2_v2		hipblasDnrm2	
cublasDrot		hipblasDrot	
cublasDrot_v2		hipblasDrot	
cublasDrotg		hipblasDrotg	
cublasDrotg_v2		hipblasDrotg	
cublasDrotm		hipblasDrotm	
cublasDrotm_v2		hipblasDrotm	

cublasDrotmghipblasDrotmgcublasDrotmg v2hipblasDrotmgcublasDscalhipblasDscalcublasDscal v2hipblasDscalcublasDswaphipblasDswapcublasDswap v2hipblasDswapcublasDzasumhipblasDzasumcublasDzasum v2hipblasDzasumcublasDznrm2hipblasDznrm2cublasDznrm2 v2hipblasDznrm2cublasIcamaxhipblasIcamaxcublasIcamax v2hipblasIcamaxcublasIcaminhipblasIcamincublasIcamin v2hipblasIcamincublasIdamaxhipblasIdamaxcublasIdamax v2hipblasIdamaxcublasIdaminhipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamin
cublasDscalhipblasDscalcublasDswaphipblasDswapcublasDswap v2hipblasDswapcublasDzasumhipblasDzasumcublasDzasum v2hipblasDzasumcublasDznrm2hipblasDznrm2cublasDznrm2 v2hipblasDznrm2cublasIcamaxhipblasIcamaxcublasIcamax v2hipblasIcamaxcublasIcaminhipblasIcamincublasIcamin v2hipblasIcamincublasIdamaxhipblasIdamaxcublasIdamax v2hipblasIdamaxcublasIdamaxhipblasIdamaxcublasIdamax v2hipblasIdamaxcublasIdaminhipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIsamaxhipblasIsamax
cublasDscalhipblasDscalcublasDswaphipblasDswapcublasDswap v2hipblasDswapcublasDzasumhipblasDzasumcublasDzasum v2hipblasDzasumcublasDznrm2hipblasDznrm2cublasDznrm2 v2hipblasDznrm2cublasIcamaxhipblasIcamaxcublasIcamax v2hipblasIcamaxcublasIcaminhipblasIcamincublasIcamin v2hipblasIcamincublasIdamaxhipblasIdamaxcublasIdamax v2hipblasIdamaxcublasIdamaxhipblasIdamaxcublasIdamax v2hipblasIdamaxcublasIdaminhipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIsamaxhipblasIsamax
cublasDswaphipblasDswapcublasDswap v2hipblasDswapcublasDzasumhipblasDzasumcublasDzasum v2hipblasDzasumcublasDznrm2hipblasDznrm2cublasDznrm2 v2hipblasDznrm2cublasIcamaxhipblasIcamaxcublasIcamax v2hipblasIcamaxcublasIcaminhipblasIcamincublasIcamin v2hipblasIcamincublasIdamaxhipblasIdamaxcublasIdamax v2hipblasIdamaxcublasIdaminhipblasIdamincublasIdaminhipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIsamaxhipblasIdamincublasIsamaxhipblasIsamax
cublasDswaphipblasDswapcublasDswap v2hipblasDswapcublasDzasumhipblasDzasumcublasDzasum v2hipblasDzasumcublasDznrm2hipblasDznrm2cublasDznrm2 v2hipblasDznrm2cublasIcamaxhipblasIcamaxcublasIcamax v2hipblasIcamaxcublasIcaminhipblasIcamincublasIcamin v2hipblasIcamincublasIdamaxhipblasIdamaxcublasIdamax v2hipblasIdamaxcublasIdaminhipblasIdamincublasIdaminhipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIsamaxhipblasIdamincublasIsamaxhipblasIsamax
cublasDswap v2 cublasDzasum hipblasDzasum cublasDzasum v2 hipblasDzasum cublasDznrm2 hipblasDznrm2 cublasDznrm2 v2 hipblasDznrm2 cublasIcamax hipblasIcamax cublasIcamin v2 hipblasIcamin cublasIcamin v2 hipblasIcamin cublasIdamax hipblasIdamax cublasIdamin v2 hipblasIdamin cublasIdamin v2 hipblasIdamin cublasIdamin v2 hipblasIdamin cublasIsamax hipblasIsamax
cublasDzasumhipblasDzasumcublasDzasum v2hipblasDzasumcublasDznrm2hipblasDznrm2cublasDznrm2 v2hipblasDznrm2cublasIcamaxhipblasIcamaxcublasIcamax v2hipblasIcamaxcublasIcaminhipblasIcamincublasIcamin v2hipblasIcamincublasIdamaxhipblasIdamaxcublasIdamax v2hipblasIdamaxcublasIdaminhipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIdamin v2hipblasIdamincublasIsamaxhipblasIsamax
cublasDzasum v2 hipblasDzasum cublasDznrm2 hipblasDznrm2 cublasDznrm2 v2 hipblasDznrm2 cublasIcamax hipblasIcamax cublasIcamax v2 hipblasIcamix cublasIcamin hipblasIcamin cublasIcamin v2 hipblasIcamin cublasIdamax hipblasIdamax cublasIdamin hipblasIdamin cublasIdamin v2 hipblasIdamin cublasIsamax hipblasIdamin cublasIsamax hipblasIsamax
cublasDznrm2 hipblasDznrm2 cublasIcamax hipblasIcamax cublasIcamax v2 hipblasIcamax cublasIcamin hipblasIcamin cublasIcamin v2 hipblasIcamin cublasIdamax hipblasIdamax cublasIdamax v2 hipblasIdamax cublasIdamin hipblasIdamin cublasIdamin v2 hipblasIdamin cublasIdamin v2 hipblasIdamin cublasIsamax hipblasIsamax
cublasIcamax hipblasIcamax hipblasIcamax cublasIcamin hipblasIcamin hipblasIcamin cublasIdamax hipblasIdamax hipblasIdamax cublasIdamax hipblasIdamax hipblasIdamax cublasIdamax hipblasIdamax hipblasIdamax hipblasIdamin cublasIdamin hipblasIdamin hipblasIdamin cublasIdamin hipblasIdamin hipblasIdamin hipblasIdamin hipblasIdamin hipblasIdamin hipblasIdamin hipblasIdamin hipblasIsamax
cublasIcamax hipblasIcamax cublasIcamax v2 hipblasIcamax cublasIcamin hipblasIcamin cublasIcamin v2 hipblasIcamin cublasIdamax hipblasIdamax cublasIdamax v2 hipblasIdamax cublasIdamin hipblasIdamin cublasIdamin v2 hipblasIdamin cublasIsamax hipblasIsamax
cublasIcamax hipblasIcamax cublasIcamin hipblasIcamin cublasIcamin v2 hipblasIcamin cublasIdamax hipblasIdamax cublasIdamax v2 hipblasIdamax cublasIdamin hipblasIdamin cublasIdamin v2 hipblasIdamin cublasIsamax hipblasIsamax
cublasIcamin hipblasIcamin cublasIcamin v2 hipblasIcamin cublasIdamax hipblasIdamax cublasIdamax v2 hipblasIdamax cublasIdamin hipblasIdamin cublasIdamin v2 hipblasIdamin cublasIsamax hipblasIsamax
cublasIcamin v2 hipblasIcamin cublasIdamax hipblasIdamax cublasIdamax v2 hipblasIdamax cublasIdamin hipblasIdamin cublasIdamin v2 hipblasIdamin cublasIsamax hipblasIsamax
cublasIdamax hipblasIdamax cublasIdamax v2 hipblasIdamax cublasIdamin hipblasIdamin cublasIdamin v2 hipblasIdamin cublasIsamax hipblasIsamax
cublasIdamax hipblasIdamax cublasIdamin hipblasIdamin cublasIdamin v2 hipblasIdamin cublasIsamax hipblasIsamax
cublasIdaminhipblasIdamincublasIdamin v2hipblasIdamincublasIsamaxhipblasIsamax
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cublasIsamax hipblasIsamax
cublasIsamax v2 hipblasIsamax
cublasIsamin hipblasIsamin
cublasIsamin v2 hipblasIsamin
cublasIzamax hipblasIzamax
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I I
cublasSasum v2 hipblasSasum
cublasSaxpy hipblasSaxpy
cublasSaxpy_v2 hipblasSaxpy
cublasScasum hipblasScasum
cublasScasum v2 hipblasScasum
cublasScnrm2 hipblasScnrm2
cublasScnrm2 v2 hipblasScnrm2
cublasScopy hipblasScopy
cublasScopy_v2 hipblasScopy
cublasSdot hipblasSdot
cublasSdot_v2 hipblasSdot
cublasSnrm2 hipblasSnrm2
cublasSnrm2_v2 hipblasSnrm2
cublasSrot hipblasSrot
cublasSrot_v2 hipblasSrot
cublasSrotg hipblasSrotg
cublasSrotg_v2 hipblasSrotg
cublasSrotm hipblasSrotm
cublasSrotm_v2 hipblasSrotm
cublasSrotmg hipblasSrotmg
cublasSrotmg_v2 hipblasSrotmg
cublasSscal hipblasSscal
cublasSscal_v2 hipblasSscal
cublasSswap hipblasSswap
cublasSswap_v2 hipblasSswap

CUDA	Deprecated	HIP	Deprecated
cublasZaxpy		hipblasZaxpy	
cublasZaxpy_v2		hipblasZaxpy	
cublasZcopy		hipblasZcopy	
cublasZcopy_v2		hipblasZcopy	
cublasZdotc		hipblasZdotc	
cublasZdotc_v2		hipblasZdotc	
cublasZdotu		hipblasZdotu	
cublasZdotu_v2		hipblasZdotu	
cublasZdrot		hipblasZdrot	
cublasZdrot_v2		hipblasZdrot	
cublasZdscal		hipblasZdscal	
cublasZdscal_v2		hipblasZdscal	
cublasZrot		hipblasZrot	
cublasZrot_v2		hipblasZrot	
cublasZrotg		hipblasZrotg	
cublasZrotg v2		hipblasZrotg	
cublasZscal		hipblasZscal	
cublasZscal_v2		hipblasZscal	
cublasZswap		hipblasZswap	
cublasZswap_v2		hipblasZswap	

1.5.5 CUBLAS Level-2 Function Reference

CUDA	Deprecated	HIP	Deprecated
cublasCgbmv		hipblasCgbmv	
cublasCgbmv v2		hipblasCgbmv	
cublasCgemv		hipblasCgemv	
cublasCgemv v2		hipblasCgemv	
cublasCgerc		hipblasCgerc	
cublasCgerc v2		hipblasCgerc	
cublasCgeru		hipblasCgeru	
cublasCgeru v2		hipblasCgeru	
cublasChbmy		hipblasChbmv	
cublasChbmv v2		hipblasChbmv	
cublasChemy		hipblasChemy	
cublasChemy v2		hipblasChemy	
cublasCher		hipblasCher	
cublasCher2		hipblasCher2	
cublasCher2 v2		hipblasCher2	
cublasCher v2		hipblasCher	
cublasChpmv		hipblasChpmv	
cublasChpmv v2		hipblasChpmv	
cublasChpr		hipblasChpr	
cublasChpr2		hipblasChpr2	
cublasChpr2 v2		hipblasChpr2	
cublasChpr v2		hipblasChpr	
cublasCsymv		hipblasCsymv	
cublasCsymv_v2		hipblasCsymv	
cublasCsyr		hipblasCsyr	
cublasCsyr2		hipblasCsyr2	
cublasCsyr2_v2		hipblasCsyr2	

CUDA	Deprecated	HIP	Deprecated
cublasCsyr_v2		hipblasCsyr	
cublasCtbmv		hipblasCtbmv	
cublasCtbmv_v2		hipblasCtbmv	
cublasCtbsv		hipblasCtbsv	
cublasCtbsv v2		hipblasCtbsv	
cublasCtpmv		hipblasCtpmv	
cublasCtpmv v2		hipblasCtpmv	
cublasCtpsv		hipblasCtpsv	
cublasCtpsv v2		hipblasCtpsv	
cublasCtrmv		hipblasCtrmv	
cublasCtrmv v2		hipblasCtrmv	
cublasCtrsv		hipblasCtrsv	
cublasCtrsv v2		hipblasCtrsv	
cublasDgbmv		hipblasDgbmv	
cublasDgbmv v2		hipblasDgbmv	
cublasDgemv		hipblasDgemv	
cublasDgemv v2		hipblasDgemv	
cublasDger		hipblasDger	
cublasDger_v2		hipblasDger	
cublasDsbmv		hipblasDsbmv	
cublasDsbmv_v2		hipblasDsbmv	
cublasDspmv		hipblasDspmv	
cublasDspmv_v2		hipblasDspmv	
cublasDspr		hipblasDspr	
cublasDspr2		hipblasDspr2	
cublasDspr2_v2		hipblasDspr2	
cublasDspr_v2		hipblasDspr	
cublasDsymv		hipblasDsymv	
cublasDsymv_v2		hipblasDsymv	
cublasDsyr		hipblasDsyr	
cublasDsyr2		hipblasDsyr2	
cublasDsyr2 v2		hipblasDsyr2	
cublasDsyr v2		hipblasDsyr	
cublasDtbmv		hipblasDtbmv	
cublasDtbmv v2		hipblasDtbmv	
cublasDtbsv		hipblasDtbsv	
cublasDtbsv v2		hipblasDtbsv	
cublasDtpmv		hipblasDtpmv	
cublasDtpmv_v2		hipblasDtpmv	
cublasDtpsv		hipblasDtpsv	
cublasDtpsv_v2		hipblasDtpsv	
cublasDtrmv		hipblasDtrmv	
cublasDtrmv v2			
cublasDtrsv		hipblasDtrmv	
		hipblasDtrsv	
cublasDtrsv_v2		hipblasDtrsv	
cublasSgbmv		hipblasSgbmv	
cublasSgbmv_v2		hipblasSgbmv	
cublasSgemv		hipblasSgemv	
cublasSgemv_v2		hipblasSgemv	
cublasSger		hipblasSger	
cublasSger_v2		hipblasSger	

CUDA Deprec	ated HIP	Deprecated
cublasSsbmv	hipblasSsbmv	
cublasSsbmv v2	hipblasSsbmv	
cublasSspmv	hipblasSspmv	
cublasSspmv v2	hipblasSspmv	
cublasSspr	hipblasSspr	
cublasSspr2	hipblasSspr2	
cublasSspr2 v2	hipblasSspr2	
cublasSspr v2	hipblasSspr	
cublasSsymv	hipblasSsymv	
cublasSsymv v2	hipblasSsymv	
cublasSsyr	hipblasSsyr	
cublasSsyr2	hipblasSsyr2	
cublasSsyr2 v2	hipblasSsyr2	
cublasSsyr v2	hipblasSsyr	
cublasStbmv	hipblasStbmv	
cublasStbmv v2	hipblasStbmv	
cublasStbsv	hipblasStbsv	
cublasStbsv v2	hipblasStbsv	
cublasStpmv	hipblasStpmv	
cublasStpmv v2	hipblasStpmv	
cublasStpsv	hipblasStpmv	
cublasStpsv v2	hipblasStpsv	
cublasStrmv	hipblasStrmv	
cublasStrmv v2	·	
	hipblasStrmv	
cublasStrsv	hipblasStrsv	
cublasStrsv_v2	hipblasStrsv	
cublasZgbmv	hipblasZgbmv	
cublasZgbmv_v2	hipblasZgbmv	
cublasZgemv	hipblasZgemv	
cublasZgemv_v2	hipblasZgemv	
cublasZgerc	hipblasZgerc	
cublasZgerc v2	hipblasZgerc	
cublasZgeru	hipblasZgeru	
cublasZgeru v2	hipblasZgeru	
cublasZhbmv	hipblasZhbmv	
cublasZhbmv_v2	hipblasZhbmv	
cublasZhemv	hipblasZhemv	
cublasZhemv_v2	hipblasZhemv	
cublasZher	hipblasZher	
cublasZher2	hipblasZher2	
cublasZher2_v2	hipblasZher2	
cublasZher_v2	hipblasZher	
cublasZhpmv	hipblasZhpmv	
cublasZhpmv_v2	hipblasZhpmv	
cublasZhpr	hipblasZhpr	
cublasZhpr2	hipblasZhpr2	
cublasZhpr2_v2	hipblasZhpr2	
cublasZhpr v2	hipblasZhpr	
cublasZsymv	hipblasZsymv	
cublasZsymv v2	hipblasZsymv	
cublasZsyr	hipblasZsyr	
cublasZsyr2	hipblasZsyr2	

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CUDA	Deprecated	HIP	Deprecated
cublasZsyr2_v2		hipblasZsyr2	
cublasZsyr_v2		hipblasZsyr	
cublasZtbmv		hipblasZtbmv	
cublasZtbmv_v2		hipblasZtbmv	
cublasZtbsv		hipblasZtbsv	
cublasZtbsv_v2		hipblasZtbsv	
cublasZtpmv		hipblasZtpmv	
cublasZtpmv_v2		hipblasZtpmv	
cublasZtpsv		hipblasZtpsv	
cublasZtpsv v2		hipblasZtpsv	
cublasZtrmv		hipblasZtrmv	
cublasZtrmv_v2		hipblasZtrmv	
cublasZtrsv		hipblasZtrsv	
cublasZtrsv_v2		hipblasZtrsv	

1.5.6 CUBLAS Level-3 Function Reference

CUDA	Deprecated	HIP	D
cublasCgemm		hipblasCgemm	
cublasCgemmBatched		hipblasCgemmBatched	
cublasCgemmStridedBatc		hipblasCgemmStridedBatc	
hed		hed	
cublasCgemm_v2		hipblasCgemm	
cublasChemm		hipblasChemm	
cublasChemm v2		hipblasChemm	
cublasCher2k		hipblasCher2k	
cublasCher2k_v2		hipblasCher2k	
cublasCherk		hipblasCherk	
cublasCherk_v2		hipblasCherk	
cublasCherkx		hipblasCherkx	
cublasCsymm		hipblasCsymm	
cublasCsymm_v2		hipblasCsymm	
cublasCsyr2k		hipblasCsyr2k	
cublasCsyr2k_v2		hipblasCsyr2k	
cublasCsyrk		hipblasCsyrk	
cublasCsyrk_v2		hipblasCsyrk	
cublasCsyrkx		hipblasCsyrkx	
cublasCtrmm		hipblasCtrmm	
cublasCtrmm_v2		hipblasCtrmm	
cublasCtrsm		hipblasCtrsm	
cublasCtrsm_v2		hipblasCtrsm	
cublasDgemm		hipblasDgemm	
cublasDgemmBatched		hipblasDgemmBatched	
cublasDgemmStridedBatc		hipblasDgemmStridedBatc	
hed		hed	
cublasDgemm_v2		hipblasDgemm	
cublasDsymm		hipblasDsymm	
cublasDsymm v2		hipblasDsymm	
cublasDsyr2k		hipblasDsyr2k	
cublasDsyr2k_v2		hipblasDsyr2k	
cublasDsyrk		hipblasDsyrk	

CUDA	Deprecated	HIP	D
cublasDsyrk_v2		hipblasDsyrk	
cublasDsyrkx		hipblasDsyrkx	
cublasDtrmm		hipblasDtrmm	
cublasDtrmm v2		hipblasDtrmm	
cublasDtrsm		hipblasDtrsm	
cublasDtrsm v2		hipblasDtrsm	
cublasHgemm		hipblasHgemm	
cublasHgemmBatched		hipblasHgemmBatched	
cublasHgemmStridedBatc		hipblasHgemmStridedBatc	
hed		hed	
cublasSgemm		hipblasSgemm	
cublasSgemmBatched		hipblasSgemmBatched	
cublasSgemmStridedBatch		hipblasSgemmStridedBatc	
ed		hed	
cublasSgemm_v2		hipblasSgemm	
cublasSsymm		hipblasSsymm	
cublasSsymm_v2		hipblasSsymm	
cublasSsyr2k		hipblasSsyr2k	
cublasSsyr2k_v2		hipblasSsyr2k	
cublasSsyrk		hipblasSsyrk	
cublasSsyrk_v2		hipblasSsyrk	
cublasSsyrkx		hipblasSsyrkx	
cublasStrmm		hipblasStrmm	
cublasStrmm_v2		hipblasStrmm	
cublasStrsm		hipblasStrsm	
cublasStrsm_v2		hipblasStrsm	
cublasZgemm		hipblasZgemm	
cublasZgemmBatched		hipblasZgemmBatched	
cublasZgemmStridedBatc		hipblasZgemmStridedBatc	
hed		hed	
cublasZgemm_v2		hipblasZgemm	
cublasZhemm		hipblasZhemm	
cublasZhemm_v2		hipblasZhemm	
cublasZher2k		hipblasZher2k	
cublasZher2k_v2		hipblasZher2k	
cublasZherk		hipblasZherk	
cublasZherk_v2		hipblasZherk	
cublasZherkx		hipblasZherkx	
cublasZsymm		hipblasZsymm	
cublasZsymm_v2		hipblasZsymm	
cublasZsyr2k		hipblasZsyr2k	
cublasZsyr2k_v2		hipblasZsyr2k	
cublasZsyrk		hipblasZsyrk	
cublasZsyrk_v2		hipblasZsyrk	
cublasZsyrkx		hipblasZsyrkx	
cublasZtrmm		hipblasZtrmm	
cublasZtrmm_v2		hipblasZtrmm	
cublasZtrsm		hipblasZtrsm	
cublasZtrsm_v2		hipblasZtrsm	

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1.5.7 BLAS-like Extension

CUDA	Deprecated	HIP	Deprecated
cublasCdgmm		hipblasCdgmm	
cublasCgeam		hipblasCgeam	
cublasCgeqrfBatched		hipblasCgeqrfBatched	
cublasCgetrfBatched		hipblasCgetrfBatched	
cublasCgetriBatched		hipblasCgetriBatched	
cublasCgetrsBatched		hipblasCgetrsBatched	
cublasCtrsmBatched		hipblasCtrsmBatched	
cublasDdgmm		hipblasDdgmm	
cublasDgeam		hipblasDgeam	
cublasDgeqrfBatched		hipblasDgeqrfBatched	
cublasDgetrfBatched		hipblasDgetrfBatched	
cublasDgetriBatched		hipblasDgetriBatched	
cublasDgetrsBatched		hipblasDgetrsBatched	
cublasDtrsmBatched		hipblasDtrsmBatched	
cublasGemmBatchedEx		hipblasGemmBatchedEx	
cublasGemmEx		hipblasGemmEx	
cublasGemmStridedBatch		hipblasGemmStridedBatch	
edEx		edEx	
cublasSdgmm		hipblasSdgmm	
cublasSgeam		hipblasSgeam	
cublasSgeqrfBatched		hipblasSgeqrfBatched	
cublasSgetrfBatched		hipblasSgetrfBatched	
cublasSgetriBatched		hipblasSgetriBatched	
cublasSgetrsBatched		hipblasSgetrsBatched	
cublasStrsmBatched		hipblasStrsmBatched	
cublasZdgmm		hipblasZdgmm	
cublasZgeam		hipblasZgeam	
cublasZgeqrfBatched		hipblasZgeqrfBatched	
cublasZgetrfBatched		hipblasZgetrfBatched	
cublasZgetriBatched		hipblasZgetriBatched	
cublasZgetrsBatched		hipblasZgetrsBatched	
cublasZtrsmBatched		hipblasZtrsmBatched	

1.6 CURAND API Supported by HIP

1.6.1 CURAND Data Types

CUDA	Deprecated	HIP	Deprecated
CURAND RNG PSEUD		HIPRAND RNG PSEUD	
O DEFAULT		O DEFAULT	
CURAND RNG PSEUD		HIPRAND RNG PSEUD	
O MRG32K3A		O MRG32K3A	
CURAND RNG PSEUD		HIPRAND RNG PSEUD	
O MT19937		O MT19937	
CURAND RNG PSEUD		HIPRAND RNG PSEUD	
O MTGP32		O MTGP32	
CURAND RNG PSEUD		HIPRAND RNG PSEUD	
O PHILOX4 32 10		O PHILOX4 32 10	
CURAND RNG PSEUD		HIPRAND RNG PSEUD	
O XORWOW		O XORWOW	
CURAND RNG QUASI		HIPRAND RNG QUASI	
DEFAULT		DEFAULT	
CURAND RNG QUASI		HIPRAND RNG QUASI	
SCRAMBLED SOBOL		SCRAMBLED SOBOL	
$\frac{1}{32}$		$\frac{1}{32}$	
CURAND RNG QUASI		HIPRAND RNG QUASI	
SCRAMBLED SOBOL		SCRAMBLED SOBOL	
64		64	
CURAND RNG QUASI		HIPRAND RNG QUASI	
SOBOL32		SOBOL32	
CURAND RNG QUASI		HIPRAND RNG QUASI	
SOBOL64		SOBOL64	
CURAND RNG TEST		HIPRAND RNG TEST	
CURAND STATUS AL		HIPRAND STATUS AL	
LOCATION FAILED		LOCATION FAILED	
CURAND STATUS AR		HIPRAND STATUS AR	
CH MISMATCH		CH MISMATCH	
CURAND STATUS DO		HIPRAND STATUS DO	
UBLE PRECISION REQ		UBLE PRECISION REQ	
UIRED		UIRED	
CURAND STATUS INI		HIPRAND STATUS INI	
TIALIZATION FAILED		TIALIZATION FAILED	
CURAND STATUS INT		HIPRAND STATUS IN	
ERNAL ERROR		TERNAL ERROR	
CURAND_STATUS_LA		HIPRAND_STATUS_LA	
UNCH_FAILURE		UNCH_FAILURE	
CURAND STATUS LE		HIPRAND STATUS LE	
NGTH_NOT_MULTIPLE		NGTH_NOT_MULTIPLE	
CURAND_STATUS_NO		HIPRAND_STATUS_NO	
T_INITIALIZED		T_INITIALIZED	
CURAND STATUS OU		HIPRAND STATUS OU	
T_OF_RANGE		T_OF_RANGE	
CURAND_STATUS_PRE		HIPRAND_STATUS_PR	
EXISTING_FAILURE		EEXISTING_FAILURE	
CURAND_STATUS_SU		HIPRAND_STATUS_SU	
CCESS		CCESS	

CUDA	Deprecated	HIP	Deprecated
CURAND_STATUS_TY		HIPRAND_STATUS_TY	
PE_ERROR		PE_ERROR	
CURAND_STATUS_VE		HIPRAND_STATUS_VE	
RSION_MISMATCH		RSION_MISMATCH	
CURAND_VERSION		HIPRAND_VERSION	
curandDirectionVectors32		hiprandDirectionVectors3	
_t		2_t	
curandDiscreteDistributio		hiprandDiscreteDistributio	
n_st		n_st	
curandDiscreteDistributio		hiprandDiscreteDistributio	
n_t		n_t	
curandGenerator_st		hiprandGenerator_st	
curandGenerator_t		hiprandGenerator_t	
curandRngType		hiprandRngType_t	
curandRngType_t		hiprandRngType_t	
curandState		hiprandState	
curandStateMRG32k3a		hiprandStateMRG32k3a	
curandStateMRG32k3a_t		hiprandStateMRG32k3a_t	
curandStateMtgp32		hiprandStateMtgp32	
curandStateMtgp32_t		hiprandStateMtgp32_t	
curandStatePhilox4_32_10		hiprandStatePhilox4_32_1	
		0	
curandStatePhilox4_32_10		hiprandStatePhilox4_32_1	
_t		0_t	
curandStateSobol32		hiprandStateSobol32	
curandStateSobol32_t		hiprandStateSobol32_t	
curandStateXORWOW		hiprandStateXORWOW	
curandStateXORWOW_t		hiprandStateXORWOW_t	
curandState_t		hiprandState_t	
curandStatus		hiprandStatus_t	
curandStatus_t		hiprandStatus_t	

1.6.2 Host API Functions

CUDA	Deprecated	HIP	Deprecated
curandCreateGenerator		hiprandCreateGenerator	
curandCreateGeneratorHo		hiprandCreateGeneratorH	
st		ost	
curandCreatePoissonDistri		hiprandCreatePoissonDistr	
bution		ibution	
curandDestroyDistribution		hiprandDestroyDistributio	
		n	
curandDestroyGenerator		hiprandDestroyGenerator	
curandGenerate		hiprandGenerate	
curandGenerateLogNorma		hiprandGenerateLogNorm	
1		al	
curandGenerateLogNorma		hiprandGenerateLogNorm	
lDouble		alDouble	
curandGenerateNormal		hiprandGenerateNormal	
curandGenerateNormalDo		hiprandGenerateNormalD	
uble		ouble	
curandGeneratePoisson		hiprandGeneratePoisson	
curandGenerateSeeds		hiprandGenerateSeeds	
curandGenerateUniform		hiprandGenerateUniform	
curandGenerateUniformD		hiprandGenerateUniformD	
ouble		ouble	
curandGetVersion		hiprandGetVersion	
curandMakeMTGP32Cons		hiprandMakeMTGP32Con	
tants		stants	
curandMakeMTGP32Kern		hiprandMakeMTGP32Ker	
elState		nelState	
curandSetGeneratorOffset		hiprandSetGeneratorOffset	
curandSetPseudoRandom		hiprandSetPseudoRandom	
GeneratorSeed		GeneratorSeed	
curandSetQuasiRandomG		hiprandSetQuasiRandomG	
eneratorDimensions		eneratorDimensions	
curandSetStream		hiprandSetStream	

1.6.3 Device API Functions

CUDA	Deprecated	HIP	Deprecated
curand		hiprand	
curand_discrete		hiprand_discrete	
curand_discrete4		hiprand_discrete4	
curand_init		hiprand_init	
curand_log_normal		hiprand_log_normal	
curand_log_normal2		hiprand_log_normal2	
curand_log_normal2_doub		hiprand_log_normal2_dou	
le		ble	
curand log normal4		hiprand_log_normal4	
curand_log_normal4_doub		hiprand_log_normal4_dou	
le		ble	
curand_log_normal_doubl		hiprand_log_normal_doub	
e		le	
curand_normal		hiprand_normal	

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CUDA	Deprecated	HIP	Deprecated
curand_normal2		hiprand_normal2	
curand_normal2_double		hiprand_normal2_double	
curand normal4		hiprand normal4	
curand normal4 double		hiprand normal4 double	
curand normal double		hiprand normal double	
curand poisson		hiprand_poisson	
curand poisson4		hiprand poisson4	
curand uniform		hiprand uniform	
curand uniform2 double		hiprand uniform2 double	
curand uniform4		hiprand_uniform4	
curand uniform4 double		hiprand uniform4 double	
curand uniform double		hiprand uniform double	

1.7 CUFFT API Supported by HIP

1.7.1 CUFFT Data Types

CUDA	Deprecated	HIP	Deprecated
CUFFT ALLOC FAILE		HIPFFT ALLOC FAILE	·
D		D	
CUFFT_C2C		HIPFFT_C2C	
CUFFT C2R		HIPFFT C2R	
CUFFT D2Z		HIPFFT_D2Z	
CUFFT_EXEC_FAILED		HIPFFT_EXEC_FAILED	
CUFFT_FORWARD		HIPFFT_FORWARD	
CUFFT_INCOMPLETE_		HIPFFT_INCOMPLETE_	
PARAMETER_LIST		PARAMETER_LIST	
CUFFT_INTERNAL_ER		HIPFFT_INTERNAL_ER	
ROR		ROR	
CUFFT_INVALID_DEVI		HIPFFT_INVALID_DEV	
CE		ICE	
CUFFT_INVALID_PLA		HIPFFT_INVALID_PLA	
N		N	
CUFFT_INVALID_SIZE		HIPFFT_INVALID_SIZE	
CUFFT_INVALID_TYPE		HIPFFT_INVALID_TYP	
		E	
CUFFT_INVALID_VAL		HIPFFT_INVALID_VAL	
UE		UE CANALA DE	
CUFFT_INVERSE		HIPFFT_BACKWARD	
CUFFT_NOT_IMPLEME		HIPFFT_NOT_IMPLEM	
NTED		ENTED	
CUFFT_NOT_SUPPORT ED		HIPFFT_NOT_SUPPORT ED	
		HIPFFT NO WORKSPA	
CUFFT_NO_WORKSPA CE		CE CE	
CUFFT PARSE ERROR		HIPFFT PARSE ERROR	
CUFFT R2C		HIPFFT R2C	
CUFFT_R2C CUFFT_SETUP_FAILED		HIPFFT SETUP FAILE	
COTTI_SETOT_TAILED		D	
CUFFT SUCCESS		HIPFFT SUCCESS	
COLL I POCCESS		IIII I I _SUCCESS	

CUDA	Deprecated	HIP	Deprecated
CUFFT_UNALIGNED_D		HIPFFT_UNALIGNED_	
ATA		DATA	
CUFFT_Z2D		HIPFFT_Z2D	
CUFFT_Z2Z		HIPFFT_Z2Z	
cufftComplex		hipfftComplex	
cufftDoubleComplex		hipfftDoubleComplex	
cufftDoubleReal		hipfftDoubleReal	
cufftHandle		hipfftHandle	
cufftReal		hipfftReal	
cufftResult		hipfftResult	
cufftResult_t		hipfftResult_t	
cufftType		hipfftType	
cufftType_t		hipfftType_t	

1.7.2 CUFFT API Functions

CUDA	Deprecated	HIP	Deprecated
cufftCreate		hipfftCreate	
cufftDestroy		hipfftDestroy	
cufftEstimate1d		hipfftEstimate1d	
cufftEstimate2d		hipfftEstimate2d	
cufftEstimate3d		hipfftEstimate3d	
cufftEstimateMany		hipfftEstimateMany	
cufftExecC2C		hipfftExecC2C	
cufftExecC2R		hipfftExecC2R	
cufftExecD2Z		hipfftExecD2Z	
cufftExecR2C		hipfftExecR2C	
cufftExecZ2D		hipfftExecZ2D	
cufftExecZ2Z		hipfftExecZ2Z	
cufftGetProperty		hipfftGetProperty	
cufftGetSize		hipfftGetSize	
cufftGetSize1d		hipfftGetSize1d	
cufftGetSize2d		hipfftGetSize2d	
cufftGetSize3d		hipfftGetSize3d	
cufftGetSizeMany		hipfftGetSizeMany	
cufftGetSizeMany64		hipfftGetSizeMany64	
cufftGetVersion		hipfftGetVersion	
cufftMakePlan1d		hipfftMakePlan1d	
cufftMakePlan2d		hipfftMakePlan2d	
cufftMakePlan3d		hipfftMakePlan3d	
cufftMakePlanMany		hipfftMakePlanMany	
cufftMakePlanMany64		hipfftMakePlanMany64	
cufftPlan1d		hipfftPlan1d	
cufftPlan2d		hipfftPlan2d	
cufftPlan3d		hipfftPlan3d	
cufftPlanMany		hipfftPlanMany	
cufftSetAutoAllocation		hipfftSetAutoAllocation	
cufftSetStream		hipfftSetStream	
cufftSetWorkArea		hipfftSetWorkArea	

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1.8 CUSPARSE API Supported by HIP

1.8.1 CUSPARSE Types References

CUDA	Deprecated	HIP	Deprecated
CUSPARSE ACTION N		HIPSPARSE ACTION N	
UMERIC		UMERIC	
CUSPARSE_ACTION_S		HIPSPARSE_ACTION_S	
YMBOLIC		YMBOLIC	
CUSPARSE_DIAG_TYP		HIPSPARSE_DIAG_TYP	
E_NON_UNIT		E_NON_UNIT	
CUSPARSE_DIAG_TYP		HIPSPARSE_DIAG_TYP	
E_UNIT		E_UNIT	
CUSPARSE_DIRECTIO		HIPSPARSE_DIRECTIO	
N_COLUMN		N_COLUMN	
CUSPARSE_DIRECTIO		HIPSPARSE_DIRECTIO	
N_ROW		N_ROW	
CUSPARSE_FILL_MOD		HIPSPARSE_FILL_MOD	
E_LOWER		E_LOWER	
CUSPARSE_FILL_MOD		HIPSPARSE_FILL_MOD	
E_UPPER	,	E_UPPER	
CUSPARSE_HYB_PART ITION AUTO	\checkmark	HIPSPARSE_HYB_PAR	
	,	TITION_AUTO HIPSPARSE HYB PAR	
CUSPARSE_HYB_PART ITION MAX	✓	TITION MAX	
CUSPARSE HYB PART	√	HIPSPARSE HYB PAR	
ITION USER	V	TITION USER	
CUSPARSE INDEX BA		HIPSPARSE_INDEX_BA	
SE ONE		SE ONE	
CUSPARSE INDEX BA		HIPSPARSE INDEX BA	
SE ZERO		SE ZERO	
CUSPARSE MATRIX T		HIPSPARSE_MATRIX_T	
YPE_GENERAL		YPE GENERAL	
CUSPARSE MATRIX T		HIPSPARSE MATRIX T	
YPE HERMITIAN		YPE HERMITIAN	
CUSPARSE_MATRIX_T		HIPSPARSE_MATRIX_T	
YPE_SYMMETRIC		YPE_SYMMETRIC	
CUSPARSE_MATRIX_T		HIPSPARSE_MATRIX_T	
YPE_TRIANGULAR		YPE_TRIANGULAR	
CUSPARSE_OPERATIO		HIPSPARSE_OPERATIO	
N_CONJUGATE_TRAN		N_CONJUGATE_TRAN	
SPOSE CHER A THO		SPOSE	
CUSPARSE_OPERATIO		HIPSPARSE_OPERATIO	
N_NON_TRANSPOSE		N_NON_TRANSPOSE	
CUSPARSE_OPERATIO		HIPSPARSE_OPERATIO	
N_TRANSPOSE		N_TRANSPOSE	
CUSPARSE_POINTER_ MODE DEVICE		HIPSPARSE_POINTER_ MODE DEVICE	
CUSPARSE POINTER		HIPSPARSE POINTER	
MODE HOST		MODE HOST	
CUSPARSE SOLVE PO		HIPSPARSE SOLVE PO	
LICY NO LEVEL		LICY NO LEVEL	
DIO I_IIO_DE VEE		LICI_NO_DD VDD	

CUDA	Deprecated	HIP	Deprecated
CUSPARSE SOLVE PO		HIPSPARSE SOLVE PO	·
LICY USE LEVEL		LICY USE LEVEL	
CUSPARSE STATUS A		HIPSPARSE STATUS A	
LLOC_FAILED		LLOC_FAILED	
CUSPARSE_STATUS_A		HIPSPARSE_STATUS_A	
RCH_MISMATCH		RCH_MISMATCH	
CUSPARSE_STATUS_E		HIPSPARSE_STATUS_E	
XECUTION_FAILED		XECUTION_FAILED	
CUSPARSE_STATUS_I		HIPSPARSE_STATUS_I	
NTERNAL_ERROR		NTERNAL_ERROR	
CUSPARSE_STATUS_I		HIPSPARSE_STATUS_I	
NVALID_VALUE		NVALID_VALUE	
CUSPARSE_STATUS_M		HIPSPARSE_STATUS_	
APPING ERROR		MAPPING ERROR	
CUSPARSE_STATUS_M ATRIX TYPE NOT SU		HIPSPARSE_STATUS_ MATRIX TYPE NOT S	
PPORTED		UPPORTED	
CUSPARSE STATUS N		HIPSPARSE STATUS N	
OT INITIALIZED		OT INITIALIZED	
CUSPARSE STATUS S		HIPSPARSE STATUS S	
UCCESS		UCCESS	
CUSPARSE STATUS Z		HIPSPARSE STATUS Z	
ERO PIVOT		ERO PIVOT	
bsric02Info t		bsric02Info t	
bsrilu02Info t		bsrilu02Info t	
bsrsv2Info t		bsrsv2Info t	
csrgemm2Info_t		csrgemm2Info t	
csrilu02Info_t		csrilu02Info_t	
csrsm2Info_t		csrsm2Info_t	
csrsv2Info_t		csrsv2Info_t	
cusparseAction_t		hipsparseAction_t	
cusparseDiagType_t		hipsparseDiagType_t	
cusparseDirection_t		hipsparseDirection_t	
_cusparseFillMode_t		hipsparseFillMode_t	
cusparseHandle_t		hipsparseHandle_t	
cusparseHybMat_t	\checkmark	hipsparseHybMat_t	
cusparseHybPartition_t	✓	hipsparseHybPartition_t	
cusparseIndexBase t		hipsparseIndexBase t	
cusparseMatDescr_t		hipsparseMatDescr_t	
cusparseMatrixType t		hipsparseMatrixType_t	
cusparseOperation_t		hipsparseOperation_t	
cusparsePointerMode t		hipsparsePointerMode t	
cusparseSolvePolicy t		hipsparseSolvePolicy t	
cusparseStatus_t		hipsparseStatus_t	
pruneInfo_t		pruneInfo_t	

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1.8.2 CUSPARSE Management Function Reference

CUDA	Deprecated	HIP	Deprecated
cusparseCreate		hipsparseCreate	
cusparseDestroy		hipsparseDestroy	
cusparseGetPointerMode		hipsparseGetPointerMode	
cusparseGetStream		hipsparseGetStream	
cusparseGetVersion		hipsparseGetVersion	
cusparseSetPointerMode		hipsparseSetPointerMode	
cusparseSetStream		hipsparseSetStream	

1.8.3 CUSPARSE Helper Function Reference

CUDA	Deprecated	HIP	Deprecated
cusparseCreateBsric02Info		hipsparseCreateBsric02Inf	
		0	
cusparseCreateBsrilu02Inf		hipsparseCreateBsrilu02In	
0		fo	
cusparseCreateBsrsv2Info		hipsparseCreateBsrsv2Info	
cusparseCreateCsrgemm2I nfo	✓	hipsparseCreateCsrgemm2 Info	
cusparseCreateCsric02Info		hipsparseCreateCsric02Inf o	
cusparseCreateCsrilu02Inf		hipsparseCreateCsrilu02In	
0		fo	
cusparseCreateCsrsm2Info		hipsparseCreateCsrsm2Inf o	
cusparseCreateCsrsv2Info		hipsparseCreateCsrsv2Info	
cusparseCreateHybMat	\checkmark	hipsparseCreateHybMat	
cusparseCreateMatDescr		hipsparseCreateMatDescr	
cusparseCreatePruneInfo		hipsparseCreatePruneInfo	
cusparseDestroyBsric02In fo		hipsparseDestroyBsric02I nfo	
cusparseDestroyBsrilu02I		hipsparseDestroyBsrilu02I	
nfo		nfo	
cusparseDestroyBsrsv2Inf		hipsparseDestroyBsrsv2In	
0		fo	
cusparseDestroyCsrgemm 2Info	✓	hipsparseDestroyCsrgemm 2Info	
cusparseDestroyCsric02In fo		hipsparseDestroyCsric02I nfo	
cusparseDestroyCsrilu02I nfo		hipsparseDestroyCsrilu02I nfo	
cusparseDestroyCsrsm2Inf		hipsparseDestroyCsrsm2In	
o		fo	
cusparseDestroyCsrsv2Inf		hipsparseDestroyCsrsv2In	
0		fo	
cusparseDestroyHybMat	✓	hipsparseDestroyHybMat	
cusparseDestroyMatDescr		hipsparseDestroyMatDesc	
		r	
cusparseDestroyPruneInfo		hipsparseDestroyPruneInf o	

CUDA	Deprecated	HIP	Deprecated
cusparseGetMatDiagType		hipsparseGetMatDiagType	
cusparseGetMatFillMode		hipsparseGetMatFillMode	
cusparseGetMatIndexBase		hipsparseGetMatIndexBas	
		e	
cusparseGetMatType		hipsparseGetMatType	
cusparseSetMatDiagType		hipsparseSetMatDiagType	
cusparseSetMatFillMode		hipsparseSetMatFillMode	
cusparseSetMatIndexBase		hipsparseSetMatIndexBas	
		e	
cusparseSetMatType		hipsparseSetMatType	

1.8.4 CUSPARSE Level 1 Function Reference

CUDA	Deprecated	HIP	Deprecated
cusparseCaxpyi	✓	hipsparseCaxpyi	
cusparseCdotci	✓	hipsparseCdotci	
cusparseCdoti	✓	hipsparseCdoti	
cusparseCgthr	✓	hipsparseCgthr	
cusparseCgthrz	✓	hipsparseCgthrz	
cusparseCsctr	✓	hipsparseCsctr	
cusparseDaxpyi	✓	hipsparseDaxpyi	
cusparseDdoti	\checkmark	hipsparseDdoti	
cusparseDgthr	✓	hipsparseDgthr	
cusparseDgthrz	✓	hipsparseDgthrz	
cusparseDroti	✓	hipsparseDroti	
cusparseDsctr	\checkmark	hipsparseDsctr	
cusparseSaxpyi	✓	hipsparseSaxpyi	
cusparseSdoti	\checkmark	hipsparseSdoti	
cusparseSgthr	✓	hipsparseSgthr	
cusparseSgthrz	✓	hipsparseSgthrz	
cusparseSroti	✓	hipsparseSroti	
cusparseSsctr	\checkmark	hipsparseSsctr	
cusparseZaxpyi	✓	hipsparseZaxpyi	
cusparseZdotci	✓	hipsparseZdotci	
cusparseZdoti	✓	hipsparseZdoti	
cusparseZgthr	✓	hipsparseZgthr	
cusparseZgthrz	✓	hipsparseZgthrz	
cusparseZsctr	✓	hipsparseZsctr	

1.8.5 CUSPARSE Level 2 Function Reference

CUDA	Deprecated	HIP	Deprecated
cusparseCbsrmv		hipsparseCbsrmv	
cusparseCbsrsv2 analysis		hipsparseCbsrsv2 analysis	
cusparseCbsrsv2_bufferSi		hipsparseCbsrsv2_bufferSi	
ze		ze	
cusparseCbsrsv2_bufferSi		hipsparseCbsrsv2_bufferSi	
zeExt		zeExt	
cusparseCbsrsv2_solve		hipsparseCbsrsv2_solve	

CUDA	Deprecated	HIP	Deprecated
cusparseCcsrmv	✓	hipsparseCcsrmv	
cusparseCcsrsv2_analysis		hipsparseCcsrsv2_analysis	
cusparseCcsrsv2 bufferSi		hipsparseCcsrsv2 bufferSi	
ze		ze	
cusparseCcsrsv2 bufferSi		hipsparseCcsrsv2_bufferSi	
zeExt		zeExt	
cusparseCcsrsv2_solve		hipsparseCcsrsv2_solve	
cusparseChybmv	✓	hipsparseChybmv	
cusparseDbsrmv		hipsparseDbsrmv	
cusparseDbsrsv2_analysis		hipsparseDbsrsv2_analysis	
cusparseDbsrsv2 bufferSi		hipsparseDbsrsv2_bufferS	
ze		ize	
cusparseDbsrsv2_bufferSi		hipsparseDbsrsv2 bufferS	
zeExt		izeExt	
cusparseDbsrsv2_solve		hipsparseDbsrsv2_solve	
cusparseDcsrmv	✓	hipsparseDcsrmv	
cusparseDcsrsv2 analysis		hipsparseDcsrsv2_analysis	
cusparseDcsrsv2 bufferSi		hipsparseDcsrsv2 bufferSi	
ze		ze	
cusparseDcsrsv2_bufferSi		hipsparseDcsrsv2_bufferSi	
zeExt		zeExt	
cusparseDcsrsv2 solve		hipsparseDcsrsv2 solve	
cusparseDhybmv	✓	hipsparseDhybmv	
cusparseSbsrmv		hipsparseSbsrmv	
cusparseSbsrsv2_analysis		hipsparseSbsrsv2 analysis	
cusparseSbsrsv2 bufferSiz		hipsparseSbsrsv2 bufferSi	
e		ze	
cusparseSbsrsv2_bufferSiz		hipsparseSbsrsv2_bufferSi	
eExt		zeExt	
cusparseSbsrsv2_solve		hipsparseSbsrsv2_solve	
cusparseScsrmv	✓	hipsparseScsrmv	
cusparseScsrsv2_analysis		hipsparseScsrsv2_analysis	
cusparseScsrsv2_bufferSiz		hipsparseScsrsv2 bufferSi	
e		ze	
cusparseScsrsv2 bufferSiz		hipsparseScsrsv2 bufferSi	
eExt		zeExt	
cusparseScsrsv2_solve		hipsparseScsrsv2_solve	
cusparseShybmv	✓	hipsparseShybmv	
cusparseXbsrsv2_zeroPivo		hipsparseXbsrsv2_zeroPiv	
t		ot _	
cusparseXcsrsv2_zeroPivo		hipsparseXcsrsv2_zeroPiv	
t		ot	
cusparseZbsrmv		hipsparseZbsrmv	
cusparseZbsrsv2_analysis		hipsparseZbsrsv2_analysis	
cusparseZbsrsv2_bufferSi		hipsparseZbsrsv2_bufferSi	
ze		ze	
cusparseZbsrsv2_bufferSi		hipsparseZbsrsv2_bufferSi	
zeExt		zeExt	
cusparseZbsrsv2_solve		hipsparseZbsrsv2_solve	
cusparseZcsrmv	✓	hipsparseZcsrmv	
cusparseZcsrsv2_analysis		hipsparseZcsrsv2_analysis	

CUDA	Deprecated	HIP	Deprecated
cusparseZcsrsv2_bufferSiz		hipsparseZcsrsv2_bufferSi	
e		ze	
cusparseZcsrsv2_bufferSiz		hipsparseZcsrsv2_bufferSi	
eExt		zeExt	
cusparseZcsrsv2_solve		hipsparseZcsrsv2_solve	
cusparseZhybmv	✓	hipsparseZhybmv	

1.8.6 CUSPARSE Level 3 Function Reference

CUDA	Deprecated	HIP	Deprecated
cusparseCbsrmm		hipsparseCbsrmm	
cusparseCcsrmm	✓	hipsparseCcsrmm	
cusparseCcsrmm2	✓	hipsparseCcsrmm2	
cusparseCcsrsm2_analysis		hipsparseCcsrsm2_analysi	
cusparseCcsrsm2_bufferSi zeExt		hipsparseCcsrsm2_bufferS izeExt	
cusparseCcsrsm2_solve		hipsparseCcsrsm2_solve	
cusparseCgemmi	✓	hipsparseCgemmi	
cusparseDbsrmm		hipsparseDbsrmm	
cusparseDcsrmm	✓	hipsparseDcsrmm	
cusparseDcsrmm2	✓	hipsparseDcsrmm2	
cusparseDcsrsm2_analysis		hipsparseDcsrsm2_analysi	
cusparseDcsrsm2_bufferSi zeExt		hipsparseDcsrsm2_bufferS izeExt	
cusparseDcsrsm2 solve		hipsparseDcsrsm2_solve	
cusparseDgemmi	✓	hipsparseDgemmi	
cusparseSbsrmm		hipsparseSbsrmm	
cusparseScsrmm	✓	hipsparseScsrmm	
cusparseScsrmm2	✓	hipsparseScsrmm2	
cusparseScsrsm2_analysis		hipsparseScsrsm2_analysi	
cusparseScsrsm2_bufferSi zeExt		hipsparseScsrsm2_bufferS izeExt	
cusparseScsrsm2 solve		hipsparseScsrsm2 solve	
cusparseSgemmi	✓	hipsparseSgemmi	
cusparseXcsrsm2_zeroPiv ot		hipsparseXcsrsm2_zeroPi	
cusparseZbsrmm		hipsparseZbsrmm	
cusparseZcsrmm	√	hipsparseZcsrmm	
cusparseZcsrmm2	√	hipsparseZcsrmm2	
cusparseZcsrsm2_analysis		hipsparseZcsrsm2_analysi	
cusparseZcsrsm2_bufferSi zeExt		hipsparseZcsrsm2_bufferSizeExt	
cusparseZcsrsm2_solve		hipsparseZcsrsm2_solve	
cusparseZgemmi	✓	hipsparseZgemmi	

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1.8.7 CUSPARSE Extra Function Reference

CUDA	Deprecated	HIP	Deprecated
cusparseCcsrgeam	✓	hipsparseCcsrgeam	
cusparseCcsrgeam2		hipsparseCcsrgeam2	
cusparseCcsrgeam2_buffe rSizeExt		hipsparseCcsrgeam2_buff erSizeExt	
cusparseCcsrgemm	\checkmark	hipsparseCcsrgemm	
cusparseCcsrgemm2	\checkmark	hipsparseCcsrgemm2	
cusparseCcsrgemm2_buff erSizeExt	✓	hipsparseCcsrgemm2_buff erSizeExt	
cusparseDcsrgeam	✓	hipsparseDcsrgeam	
cusparseDcsrgeam2		hipsparseDcsrgeam2	
cusparseDcsrgeam2_buffe rSizeExt		hipsparseDcsrgeam2_buff erSizeExt	
cusparseDcsrgemm	✓	hipsparseDcsrgemm	
cusparseDcsrgemm2	✓	hipsparseDcsrgemm2	
cusparseDcsrgemm2_buff erSizeExt	✓	hipsparseDcsrgemm2_buff erSizeExt	
cusparseScsrgeam	✓	hipsparseScsrgeam	
cusparseScsrgeam2		hipsparseScsrgeam2	
cusparseScsrgeam2_buffer SizeExt		hipsparseScsrgeam2_buffe rSizeExt	
cusparseScsrgemm	✓	hipsparseScsrgemm	
cusparseScsrgemm2	√	hipsparseScsrgemm2	
cusparseScsrgemm2_buffe rSizeExt	✓	hipsparseScsrgemm2_buff erSizeExt	
cusparseXcsrgeam2Nnz		hipsparseXcsrgeam2Nnz	
cusparseXcsrgeamNnz	✓	hipsparseXcsrgeamNnz	
cusparseXcsrgemm2Nnz	✓	hipsparseXcsrgemm2Nnz	
cusparseXcsrgemmNnz	√	hipsparseXcsrgemmNnz	
cusparseZcsrgeam	√	hipsparseZcsrgeam	
cusparseZcsrgeam2		hipsparseZcsrgeam2	
cusparseZcsrgeam2_buffer SizeExt		hipsparseZcsrgeam2_buffe rSizeExt	
cusparseZcsrgemm	✓	hipsparseZcsrgemm	
cusparseZcsrgemm2	✓	hipsparseZcsrgemm2	
cusparseZcsrgemm2_buffe rSizeExt	✓	hipsparseZcsrgemm2_buff erSizeExt	

1.8.8 CUSPARSE Preconditioners Reference

CUDA	Deprecated	HIP	Deprecated
cusparseCbsric02		hipsparseCbsric02	
cusparseCbsric02_analysis		hipsparseCbsric02_analysi	
		S	
cusparseCbsric02_bufferSi		hipsparseCbsric02_buffer	
ze		Size	
cusparseCbsrilu02		hipsparseCbsrilu02	

CUDA	Deprecated	HIP	Deprecated
cusparseCbsrilu02_analysi		hipsparseCbsrilu02_analys	
S		is	
cusparseCbsrilu02_buffer		hipsparseCbsrilu02_buffer	
Size		Size	
cusparseCbsrilu02_numeri		hipsparseCbsrilu02_numer	
cBoost		icBoost	
cusparseCcsric02		hipsparseCcsric02	
cusparseCcsric02_analysis		hipsparseCcsric02_analysi s	
cusparseCcsric02_bufferSi		hipsparseCcsric02_bufferS	
ze		ize	
cusparseCcsric02_bufferSi zeExt		hipsparseCcsric02_bufferS izeExt	
cusparseCcsrilu02		hipsparseCcsrilu02	
cusparseCcsrilu02_analysi		hipsparseCcsrilu02 analys	
S		is	
cusparseCcsrilu02_bufferS ize		hipsparseCcsrilu02_buffer Size	
cusparseCcsrilu02 bufferS		hipsparseCcsrilu02_buffer	
izeExt		SizeExt	
cusparseCcsrilu02_numeri cBoost		hipsparseCcsrilu02_numer icBoost	
cusparseDbsric02		hipsparseDbsric02	
cusparseDbsric02_analysis		hipsparseDbsric02_analysi	
cusparseDbsric02_bufferS		hipsparseDbsric02_buffer	
ize		Size	
cusparseDbsrilu02		hipsparseDbsrilu02	
cusparseDbsrilu02_analysi		hipsparseDbsrilu02_analys is	
cusparseDbsrilu02_buffer Size		hipsparseDbsrilu02_buffer Size	
cusparseDbsrilu02_numeri cBoost		hipsparseDbsrilu02_numer icBoost	
cusparseDcsric02		hipsparseDcsric02	
cusparseDcsric02_analysis		hipsparseDcsric02 analysi	
1 _ 7		S	
cusparseDcsric02_bufferSi ze		hipsparseDcsric02_buffer Size	
cusparseDcsric02_bufferSizeExt		hipsparseDcsric02_buffer SizeExt	
cusparseDcsrilu02		hipsparseDcsrilu02	
cusparseDcsrilu02_analysi		hipsparseDcsrilu02 analys	
S		is	
cusparseDcsrilu02_buffer Size		hipsparseDcsrilu02_buffer Size	
cusparseDcsrilu02_buffer SizeExt		hipsparseDcsrilu02_buffer SizeExt	
cusparseDcsrilu02_numeri		hipsparseDcsrilu02_numer	
cBoost		icBoost	
cusparseSbsric02		hipsparseSbsric02	
cusparseSbsric02_analysis		hipsparseSbsric02 analysi	
,		S	

CUDA	Deprecated	HIP	Deprecated
cusparseSbsric02_bufferSi ze		hipsparseSbsric02_bufferS ize	
cusparseSbsrilu02		hipsparseSbsrilu02	
cusparseSbsrilu02_analysi		hipsparseSbsrilu02_analys is	
cusparseSbsrilu02_bufferS ize		hipsparseSbsrilu02_buffer Size	
cusparseSbsrilu02_numeri cBoost		hipsparseSbsrilu02_numer icBoost	
cusparseScsric02		hipsparseScsric02	
cusparseScsric02_analysis		hipsparseScsric02_analysi	
cusparseScsric02_bufferSi ze		hipsparseScsric02_bufferS ize	
cusparseScsric02_bufferSi zeExt		hipsparseScsric02_bufferS izeExt	
cusparseScsrilu02		hipsparseScsrilu02	
cusparseScsrilu02_analysi		hipsparseScsrilu02_analys is	
cusparseScsrilu02_bufferS ize		hipsparseScsrilu02_buffer Size	
cusparseScsrilu02_bufferS izeExt		hipsparseScsrilu02_buffer SizeExt	
cusparseScsrilu02_numeri cBoost		hipsparseScsrilu02_numer icBoost	
cusparseXbsric02_zeroPiv ot		hipsparseXbsric02_zeroPi vot	
cusparseXbsrilu02_zeroPi vot		hipsparseXbsrilu02_zeroPi vot	
cusparseXcsric02_zeroPiv ot		hipsparseXcsric02_zeroPi	
cusparseXcsrilu02_zeroPi		hipsparseXcsrilu02_zeroPi vot	
cusparseZbsric02		hipsparseZbsric02	
cusparseZbsric02_analysis		hipsparseZbsric02_analysi s	
cusparseZbsric02_bufferSi ze		hipsparseZbsric02_bufferS ize	
cusparseZbsrilu02		hipsparseZbsrilu02	
cusparseZbsrilu02_analysi		hipsparseZbsrilu02_analys is	
cusparseZbsrilu02_bufferS ize		hipsparseZbsrilu02_buffer Size	
cusparseZbsrilu02_numeri cBoost		hipsparseZbsrilu02_numer icBoost	
cusparseZcsric02		hipsparseZcsric02	
cusparseZcsric02_analysis		hipsparseZcsric02_analysi	
cusparseZcsric02_bufferSi ze		hipsparseZcsric02_bufferS ize	
cusparseZcsric02_bufferSi zeExt		hipsparseZcsric02_bufferS izeExt	
cusparseZcsrilu02		hipsparseZcsrilu02	

CUDA	Deprecated	HIP	Deprecated
cusparseZcsrilu02_analysi		hipsparseZcsrilu02_analys	
S		is	
cusparseZcsrilu02_bufferS		hipsparseZcsrilu02_buffer	
ize		Size	
cusparseZcsrilu02 bufferS		hipsparseZcsrilu02 buffer	
izeExt		SizeExt	
cusparseZcsrilu02 numeri		hipsparseZcsrilu02 numer	
cBoost		icBoost	

1.8.9 CUSPARSE Format Conversion Reference

cusparseCbsr2csr cusparseCcsc2dense cusparseCcsr2bsr cusparseCcsr2csc cusparseCcsr2csc cusparseCcsr2csc cusparseCcsr2csc cusparseCcsr2csc cusparseCcsr2csr_compres s cusparseCcsr2dense cusparseCcsr2dense cusparseCcsr2dense cusparseCcsr2hyb cusparseCdense2csc cusparseCdense2csc cusparseCdense2csc cusparseCdense2csr cusparseChyb2csr cusparseChyb2csr cusparseCnnz cusparseCnnz cusparseCnnz cusparseCnnz cusparseCnnz cusparseCrateIdentityPer mutation cusparseDcsc2dense cusparseDcsc2dense cusparseDcsc2dense cusparseCrateIdentityPer mutation cusparseDcsc2dense hipsparseDcsc2dense cusparseDcsc2dense hipsparseDcsc2dense cusparseDcsc2dense hipsparseDcsc2dense	
cusparseCcsr2bsr hipsparseCcsr2bsr cusparseCcsr2csc √ cusparseCcsr2csr_compres hipsparseCcsr2csr_compre s ss cusparseCcsr2dense √ cusparseCcsr2dense √ cusparseCcsr2hyb √ cusparseCdense2csc √ cusparseCdense2csr √ cusparseCdense2csr √ cusparseChyb2csr √ cusparseChyb2csr √ cusparseCnnz hipsparseCnnz cusparseCnnz_compress hipsparseCnnz_compress cusparseCreateIdentityPer hipsparseCreateIdentityPer mutation mutation cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense √	
cusparseCcsr2csc ✓ hipsparseCcsr2csc cusparseCcsr2csr_compres ss cusparseCcsr2dense ✓ hipsparseCcsr2dense cusparseCcsr2hyb ✓ hipsparseCcsr2hyb cusparseCdense2csc ✓ hipsparseCdense2csc cusparseCdense2csr ✓ hipsparseCdense2csr cusparseChyb2csr ✓ hipsparseChyb2csr cusparseCnnz hipsparseCnnz cusparseCnnz compress hipsparseCnnz compress cusparseCreateIdentityPer hipsparseCreateIdentityPer mutation mutation cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense ✓	
cusparseCcsr2csr_compres hipsparseCcsr2csr_compre s ss cusparseCcsr2dense √ cusparseCcsr2hyb √ cusparseCdense2csc √ cusparseCdense2csc √ cusparseCdense2csr √ cusparseChyb2csr √ cusparseChyb2csr √ cusparseCnnz hipsparseCnnz cusparseCnnz_compress hipsparseCnnz_compress cusparseCreateIdentityPer hipsparseCreateIdentityPer mutation mutation cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense √	
ss ss hipsparseCcsr2dense cusparseCcsr2hyb	
cusparseCcsr2dense ✓ hipsparseCcsr2dense cusparseCcsr2hyb ✓ hipsparseCcsr2hyb cusparseCdense2csc ✓ hipsparseCdense2csc cusparseCdense2csr ✓ hipsparseCdense2csr cusparseChyb2csr ✓ hipsparseChyb2csr cusparseCnnz hipsparseCnnz cusparseCnnz_compress hipsparseCnnz_compress cusparseCreateIdentityPer hipsparseCreateIdentityPer mutation mutation cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense ✓	
cusparseCcsr2hyb ✓ hipsparseCcsr2hyb cusparseCdense2csc ✓ hipsparseCdense2csc cusparseCdense2csr ✓ hipsparseCdense2csr cusparseChyb2csr ✓ hipsparseChyb2csr cusparseCnnz hipsparseCnnz cusparseCnnz_compress hipsparseCnnz_compress cusparseCreateIdentityPer hipsparseCreateIdentityPer mutation mutation cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense ✓	
cusparseCdense2csc ✓ hipsparseCdense2csc cusparseCdense2csr ✓ hipsparseCdense2csr cusparseChyb2csr ✓ hipsparseChyb2csr cusparseCnnz hipsparseCnnz cusparseCnnz_compress hipsparseCnnz_compress cusparseCreateIdentityPer hipsparseCreateIdentityPer mutation mutation cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense ✓	
cusparseCdense2csr ✓ hipsparseCdense2csr cusparseChyb2csr ✓ hipsparseChyb2csr cusparseCnnz hipsparseCnnz cusparseCnnz_compress hipsparseCnnz_compress cusparseCreateIdentityPer hipsparseCreateIdentityPer mutation mutation cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense ✓	
cusparseChyb2csr ✓ hipsparseChyb2csr cusparseCnnz hipsparseCnnz cusparseCnnz_compress hipsparseCnnz_compress cusparseCreateIdentityPer hipsparseCreateIdentityPer mutation mutation cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense ✓	
cusparseCnnz hipsparseCnnz cusparseCnnz compress hipsparseCnnz compress cusparseCreateIdentityPer mutation hipsparseCreateIdentityPer mutation cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense ✓	
cusparseCnnz_compress hipsparseCnnz_compress cusparseCreateIdentityPer mutation hipsparseCreateIdentityPer mutation cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense ✓	
cusparseCreateIdentityPer mutation hipsparseCreateIdentityPer mutation cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense ✓ hipsparseDcsc2dense ✓	
mutation mutation cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense ✓ hipsparseDcsc2dense ✓	
cusparseDbsr2csr hipsparseDbsr2csr cusparseDcsc2dense ✓ hipsparseDcsc2dense	
cusparseDcsc2dense / hipsparseDcsc2dense	
cusparseDcsr2bsr hipsparseDcsr2bsr	
cusparseDcsr2csc / hipsparseDcsr2csc	
cusparseDcsr2csr_compre hipsparseDcsr2csr_compre	
SS SS	
cusparseDcsr2dense / hipsparseDcsr2dense	
cusparseDcsr2hyb / hipsparseDcsr2hyb	
cusparseDdense2csc / hipsparseDdense2csc	
cusparseDdense2csr / hipsparseDdense2csr	
cusparseDhyb2csr √ hipsparseDhyb2csr	
cusparseDnnz hipsparseDnnz	
cusparseDnnz_compress hipsparseDnnz_compress	
cusparseDpruneCsr2csr hipsparseDpruneCsr2csr	
cusparseDpruneCsr2csrBy hipsparseDpruneCsr2csrB	
Percentage yPercentage	
cusparseDpruneCsr2csrBy hipsparseDpruneCsr2csrB	
Percentage_bufferSizeExt yPercentage_bufferSizeEx	
cusparseDpruneCsr2csrNn hipsparseDpruneCsr2csrN	
z nz	
cusparseDpruneCsr2csrNn hipsparseDpruneCsr2csrN	
zByPercentage nzByPercentage	

CUDA	Deprecated	HIP	Deprecated
cusparseDpruneCsr2csr_b ufferSizeExt		hipsparseDpruneCsr2csr_b ufferSizeExt	
cusparseDpruneDense2csr		hipsparseDpruneDense2cs	
cusparseDpruneDense2esi		r	
cusparseDpruneDense2csr		hipsparseDpruneDense2cs	
ByPercentage		rByPercentage	
cusparseDpruneDense2csr		hipsparseDpruneDense2cs	
ByPercentage_bufferSizeE		rByPercentage_bufferSize	
xt		Ext	
cusparseDpruneDense2csr Nnz		hipsparseDpruneDense2cs rNnz	
cusparseDpruneDense2csr		hipsparseDpruneDense2cs	
NnzByPercentage		rNnzByPercentage	
cusparseDpruneDense2csr		hipsparseDpruneDense2cs	
_bufferSizeExt		r_bufferSizeExt	
cusparseSbsr2csr		hipsparseSbsr2csr	
cusparseScsc2dense	\checkmark	hipsparseScsc2dense	
cusparseScsr2bsr		hipsparseScsr2bsr	
cusparseScsr2csc	√	hipsparseScsr2csc	
cusparseScsr2csr_compres	•	hipsparseScsr2csr compre	
S		SS	
cusparseScsr2dense	\checkmark	hipsparseScsr2dense	
cusparseScsr2hyb	\checkmark	hipsparseScsr2hyb	
cusparseSdense2csc	✓	hipsparseSdense2csc	
cusparseSdense2csr	√	hipsparseSdense2csr	
cusparseShyb2csr	✓	hipsparseShyb2csr	
cusparseSnnz		hipsparseSnnz	
cusparseSnnz compress		hipsparseSnnz_compress	
cusparseSpruneCsr2csr		hipsparseSpruneCsr2csr	
cusparseSpruneCsr2csrBy		hipsparseSpruneCsr2csrBy	
Percentage		Percentage	
cusparseSpruneCsr2csrBy		hipsparseSpruneCsr2csrBy	
Percentage_bufferSizeExt		Percentage_bufferSizeExt	
cusparseSpruneCsr2csrNn		hipsparseSpruneCsr2csrN	
Z		nz	
cusparseSpruneCsr2csrNn		hipsparseSpruneCsr2csrN	
zByPercentage		nzByPercentage	
cusparseSpruneCsr2csr_bu fferSizeExt		hipsparseSpruneCsr2csr_b ufferSizeExt	
cusparseSpruneDense2csr		hipsparseSpruneDense2csr	
cusparseSpruneDense2csr		hipsparseSpruneDense2csr	
ByPercentage		ByPercentage	
cusparseSpruneDense2csr		hipsparseSpruneDense2csr	
ByPercentage_bufferSizeE		ByPercentage_bufferSizeE	
xt C D 2		xt	
cusparseSpruneDense2csr Nnz		hipsparseSpruneDense2csr Nnz	
cusparseSpruneDense2csr		hipsparseSpruneDense2csr	
NnzByPercentage		NnzByPercentage	
cusparseSpruneDense2csr _bufferSizeExt		hipsparseSpruneDense2csr _bufferSizeExt	

CUDA	Deprecated	HIP	Deprecated
cusparseXcoo2csr		hipsparseXcoo2csr	
cusparseXcoosortByColu		hipsparseXcoosortByColu	
mn		mn	
cusparseXcoosortByRow		hipsparseXcoosortByRow	
cusparseXcoosort_bufferS		hipsparseXcoosort_buffer	
izeExt		SizeExt	
cusparseXcscsort		hipsparseXcscsort	
cusparseXcscsort_bufferSi		hipsparseXcscsort_bufferS	
zeExt		izeExt	
cusparseXcsr2bsrNnz		hipsparseXcsr2bsrNnz	
cusparseXcsr2coo		hipsparseXcsr2coo	
cusparseXcsrsort		hipsparseXcsrsort	
cusparseXcsrsort_bufferSi		hipsparseXcsrsort_bufferS	
zeExt		izeExt	
cusparseZbsr2csr		hipsparseZbsr2csr	
cusparseZcsc2dense	\checkmark	hipsparseZcsc2dense	
cusparseZcsr2bsr		hipsparseZcsr2bsr	
cusparseZcsr2csc	\checkmark	hipsparseZcsr2csc	
cusparseZcsr2csr_compres		hipsparseZcsr2csr_compre	
S		ss	
cusparseZcsr2dense	✓	hipsparseZcsr2dense	
cusparseZcsr2hyb	✓	hipsparseZcsr2hyb	
cusparseZdense2csc	✓	hipsparseZdense2csc	
cusparseZdense2csr	✓	hipsparseZdense2csr	
cusparseZhyb2csr	\checkmark	hipsparseZhyb2csr	
cusparseZnnz		hipsparseZnnz	
cusparseZnnz_compress		hipsparseZnnz_compress	

1.8.10 Unsupported APIs

API	Unsupported	Deprecated
CUSPARSE Reorderings Reference	✓	
CUSPARSE Generic API Reference	✓	

1.9 CUDNN API Supported by HIP

1.9.1 CUDNN Data Types

CUDA	Deprecated	HIP	Deprecated
CUDNN_16BIT_INDICE		HIPDNN_16BIT_INDICE	
S		S	
CUDNN_32BIT_INDICE		HIPDNN_32BIT_INDICE	
S		S	
CUDNN_64BIT_INDICE		HIPDNN_64BIT_INDICE	
S		S	
CUDNN_8BIT_INDICES		HIPDNN_8BIT_INDICES	
CUDNN_ACTIVATION_		HIPDNN_ACTIVATION	
CLIPPED_RELU		_CLIPPED_RELU	

CUDA	Deprecated	HIP	Deprecated
CUDNN ACTIVATION		HIPDNN ACTIVATION	
ELU		ELU	
CUDNN ACTIVATION		HIPDNN ACTIVATION	
IDENTITY		PATHTRU	
CUDNN_ACTIVATION_		HIPDNN ACTIVATION	
RELU		RELU	
CUDNN ACTIVATION		HIPDNN ACTIVATION	
SIGMOID		SIGMOID	
CUDNN_ACTIVATION_		HIPDNN ACTIVATION	
TANH		TANH	
CUDNN BATCHNORM		HIPDNN BATCHNORM	
PER ACTIVATION		PER ACTIVATION	
CUDNN_BATCHNORM		HIPDNN_BATCHNORM	
_SPATIAL		_SPATIAL	
CUDNN_BATCHNORM		HIPDNN_BATCHNORM	
_SPATIAL_PERSISTEN		_SPATIAL_PERSISTEN	
T		T	
CUDNN_BIDIRECTION		HIPDNN_BIDIRECTION	
AL		AL	
CUDNN_BN_MIN_EPSI		HIPDNN_BN_MIN_EPSI	
LON		LON	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N		N	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_BWD_DATA_ALGO_		N_BWD_DATA_ALGO_	
0		0	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_BWD_DATA_ALGO_		N_BWD_DATA_ALGO_	
		1	
CUDNN_CONVOLUTIO		HIPDNN CONVOLUTIO	
N BWD DATA ALGO		N_BWD_DATA_ALGO_	
COUNT		TRANSPOSE GEMM	
CUDNN CONVOLUTIO		HIPDNN CONVOLUTIO	
N BWD DATA ALGO		N BWD DATA ALGO	
FFT		FFT	
CUDNN CONVOLUTIO		HIPDNN CONVOLUTIO	
N BWD DATA ALGO		N BWD DATA ALGO	
FFT TILING		FFT TILING	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N BWD DATA ALGO		N BWD DATA ALGO	
WINOGRAD		WINOGRAD	
CUDNN CONVOLUTIO		HIPDNN CONVOLUTIO	
N BWD DATA ALGO		N BWD DATA ALGO	
WINOGRAD NONFUSE		WINOGRAD NONFUSE	
D The state of the		D	
CUDNN CONVOLUTIO	√	HIPDNN CONVOLUTIO	
N BWD DATA NO W	`	N BWD DATA NO W	
ORKSPACE		ORKSPACE	
CUDNN CONVOLUTIO	/	HIPDNN CONVOLUTIO	
N BWD DATA PREFE	\checkmark	N BWD DATA PREFE	
R FASTEST		R FASTEST	
K_FASIESI		K_PASIESI	

CUDA	Deprecated	HIP	Deprecated
CUDNN CONVOLUTIO	√	HIPDNN CONVOLUTIO	Deprecated
N BWD DATA SPECIF	V	N BWD DATA SPECIF	
Y WORKSPACE LIMIT		Y_WORKSPACE_LIMIT	
CUDNN CONVOLUTIO		HIPDNN CONVOLUTIO	
N BWD FILTER ALGO		N BWD FILTER ALGO	
0		0	
CUDNN CONVOLUTIO		HIPDNN CONVOLUTIO	
N BWD FILTER ALGO		N BWD FILTER ALGO	
1		1	
CUDNN CONVOLUTIO		HIPDNN CONVOLUTIO	
N BWD FILTER ALGO		N BWD FILTER ALGO	
3		3	
		_	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_BWD_FILTER_ALGO		N_BWD_FILTER_ALGO	
CUDNIN CONVOLUTIO		_COUNT	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_BWD_FILTER_ALGO		N_BWD_FILTER_ALGO	
_FFT		_FFT	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_BWD_FILTER_ALGO		N_BWD_FILTER_ALGO	
_FFT_TILING		_FFT_TILING	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_BWD_FILTER_ALGO		N_BWD_FILTER_ALGO	
_WINOGRAD		_WINOGRAD	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_BWD_FILTER_ALGO		N_BWD_FILTER_ALGO	
_WINOGRAD_NONFUS		_WINOGRAD_NONFUS	
ED		ED	
CUDNN_CONVOLUTIO	\checkmark	HIPDNN_CONVOLUTIO	
N_BWD_FILTER_NO_W		N_BWD_FILTER_NO_W	
ORKSPACE		ORKSPACE	
CUDNN_CONVOLUTIO	\checkmark	HIPDNN_CONVOLUTIO	
N_BWD_FILTER_PREF		N_BWD_FILTER_PREF	
ER_FASTEST		ER_FASTEST	
CUDNN_CONVOLUTIO	\checkmark	HIPDNN_CONVOLUTIO	
N_BWD_FILTER_SPECI		N_BWD_FILTER_SPECI	
FY_WORKSPACE_LIMI		FY_WORKSPACE_LIMI	
Т		T	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_FWD_ALGO_COUNT		N_FWD_ALGO_COUNT	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_FWD_ALGO_DIRECT		N_FWD_ALGO_DIRECT	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_FWD_ALGO_FFT		N_FWD_ALGO_FFT	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_FWD_ALGO_FFT_TI		N_FWD_ALGO_FFT_TI	
LING		LING	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_FWD_ALGO_GEMM		N_FWD_ALGO_GEMM	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_FWD_ALGO_IMPLIC		N_FWD_ALGO_IMPLIC	
IT_GEMM		IT_GEMM	

CUDA	Deprecated	HIP	Deprecated
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_FWD_ALGO_IMPLIC		N_FWD_ALGO_IMPLIC	
IT PRECOMP GEMM		IT PRECOMP GEMM	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_FWD_ALGO_WINOG		N_FWD_ALGO_WINOG	
RAD		RAD	
CUDNN_CONVOLUTIO		HIPDNN_CONVOLUTIO	
N_FWD_ALGO_WINOG		N_FWD_ALGO_WINOG	
RAD_NONFUSED		RAD_NONFUSED	
CUDNN_CONVOLUTIO	✓	HIPDNN_CONVOLUTIO	
N_FWD_NO_WORKSPA		N_FWD_NO_WORKSPA	
CE		CE	
CUDNN_CONVOLUTIO	\checkmark	HIPDNN_CONVOLUTIO	
N_FWD_PREFER_FAST		N_FWD_PREFER_FAST	
EST		EST	
CUDNN_CONVOLUTIO	\checkmark	HIPDNN_CONVOLUTIO	
N_FWD_SPECIFY_WOR		N_FWD_SPECIFY_WOR	
KSPACE_LIMIT		KSPACE_LIMIT	
CUDNN_CROSS_CORR		HIPDNN_CROSS_CORR	
ELATION		ELATION	
CUDNN_DATA_DOUBL		HIPDNN_DATA_DOUB	
Е		LE	
CUDNN_DATA_FLOAT		HIPDNN_DATA_FLOAT	
CUDNN_DATA_HALF		HIPDNN_DATA_HALF	
CUDNN_DATA_INT32		HIPDNN_DATA_INT32	
CUDNN_DATA_INT8		HIPDNN_DATA_INT8	
CUDNN_DATA_INT8x4		HIPDNN_DATA_INT8x4	
CUDNN_DEFAULT_MA		HIPDNN_DEFAULT_M	
TH		ATH	
CUDNN_GRU		HIPDNN_GRU	
CUDNN_LINEAR_INPU		HIPDNN_LINEAR_INPU	
T		T	
CUDNN_LRN_CROSS_		HIPDNN_LRN_CROSS_	
CHANNEL_DIM1		CHANNEL	
CUDNN_LSTM		HIPDNN_LSTM	
CUDNN_NOT_PROPAG		HIPDNN_NOT_PROPAG	
ATE_NAN		ATE_NAN	
CUDNN_OP_TENSOR_		HIPDNN_OP_TENSOR_	
ADD		ADD	
CUDNN_OP_TENSOR_		HIPDNN_OP_TENSOR_	
MAX		MAX	
CUDNN_OP_TENSOR_		HIPDNN_OP_TENSOR_	
MIN		MIN	
CUDNN_OP_TENSOR_		HIPDNN_OP_TENSOR_	
MUL CHIDNIN OR TENGOR C		MUL TENGOR	
CUDNN_OP_TENSOR_S		HIPDNN_OP_TENSOR_	
QRT		SQRT	
CUDNN_POOLING_AV		HIPDNN_POOLING_AV	
ERAGE_COUNT_EXCL		ERAGE_COUNT_EXCL	
UDE_PADDING		UDE_PADDING	
CUDNN_POOLING_AV		HIPDNN_POOLING_AV ERAGE COUNT INCLU	
ERAGE_COUNT_INCLU			
DE_PADDING		DE_PADDING	

CUDA	Deprecated	HIP	Deprecated
CUDNN POOLING MA	•	HIPDNN POOLING MA	·
X			
CUDNN POOLING MA		HIPDNN POOLING MA	
X DETERMINISTIC		X DETERMINISTIC	
CUDNN PROPAGATE		HIPDNN PROPAGATE	
NAN – –		NAN – –	
CUDNN REDUCE TEN		HIPDNN REDUCE TEN	
SOR_ADD		SOR_ADD	
CUDNN REDUCE TEN		HIPDNN REDUCE TEN	
SOR_AMAX		SOR_AMAX	
CUDNN REDUCE TEN		HIPDNN REDUCE_TEN	
SOR_AVG		SOR_AVG	
CUDNN_REDUCE_TEN		HIPDNN_REDUCE_TEN	
SOR_FLATTENED_INDI		SOR_FLATTENED_INDI	
CES		CES	
CUDNN_REDUCE_TEN		HIPDNN_REDUCE_TEN	
SOR_MAX		SOR_MAX	
CUDNN_REDUCE_TEN		HIPDNN_REDUCE_TEN	
SOR_MIN		SOR_MIN	
CUDNN_REDUCE_TEN		HIPDNN_REDUCE_TEN	
SOR_MUL		SOR_MUL	
CUDNN_REDUCE_TEN		HIPDNN_REDUCE_TEN	
SOR_MUL_NO_ZEROS		SOR_MUL_NO_ZEROS	
CUDNN_REDUCE_TEN		HIPDNN_REDUCE_TEN	
SOR_NORM1		SOR_NORM1	
CUDNN_REDUCE_TEN		HIPDNN_REDUCE_TEN	
SOR_NORM2		SOR_NORM2	
CUDNN_REDUCE_TEN		HIPDNN_REDUCE_TEN	
SOR_NO_INDICES		SOR_NO_INDICES	
CUDNN_RNN_ALGO_P		HIPDNN_RNN_ALGO_P	
ERSIST_DYNAMIC		ERSIST DYNAMIC	
CUDNN_RNN_ALGO_P		HIPDNN_RNN_ALGO_P	
ERSIST_STATIC		ERSIST STATIC	
CUDNN_RNN_ALGO_P		HIPDNN_RNN_ALGO_P ERSIST_STATIC_SMAL	
ERSIST_STATIC_SMAL L H		L H	
CUDNN_RNN_ALGO_S		HIPDNN RNN ALGO S	
TANDARD		TANDARD	
CUDNN RNN DOUBLE		HIPDNN RNN WITH B	
BIAS		IAS	
CUDNN_RNN_NO_BIA		HIPDNN_RNN_NO_BIA	
S		S	
CUDNN RNN RELU		HIPDNN RNN RELU	
CUDNN RNN SINGLE		HIPDNN RNN WITH B	
INP BIAS		IAS	
CUDNN_RNN_SINGLE_		HIPDNN_RNN_WITH_B	
REC BIAS		IAS	
CUDNN RNN TANH		HIPDNN RNN TANH	
CUDNN SKIP INPUT		HIPDNN SKIP INPUT	
CUDNN SOFTMAX AC		HIPDNN SOFTMAX A	
CURATE		CCURATE	
CUDNN_SOFTMAX_FA		HIPDNN SOFTMAX FA	
ST		ST – –	

CUDA	Deprecated	HIP	Deprecated
CUDNN_SOFTMAX_LO		HIPDNN_SOFTMAX_L	
G		OG	
CUDNN_SOFTMAX_M		HIPDNN_SOFTMAX_M	
ODE_CHANNEL		ODE_CHANNEL	
CUDNN_SOFTMAX_M		HIPDNN_SOFTMAX_M	
ODE_INSTANCE		ODE_INSTANCE	
CUDNN_STATUS_ALL		HIPDNN_STATUS_ALL	
OC_FAILED		OC_FAILED	
CUDNN_STATUS_ARC		HIPDNN_STATUS_ARC	
H_MISMATCH		H_MISMATCH	
CUDNN_STATUS_BAD		HIPDNN_STATUS_BAD	
PARAM		_PARAM	
CUDNN_STATUS_EXE		HIPDNN_STATUS_EXE	
CUTION_FAILED		CUTION_FAILED	
CUDNN_STATUS_INTE		HIPDNN_STATUS_INTE	
RNAL_ERROR		RNAL_ERROR	
CUDNN_STATUS_INVA		HIPDNN_STATUS_INV	
LID_VALUE		ALID_VALUE	
CUDNN_STATUS_LICE		HIPDNN_STATUS_LICE	
NSE_ERROR		NSE_ERROR	
CUDNN_STATUS_MAP		HIPDNN_STATUS_MAP	
PING_ERROR		PING_ERROR	
CUDNN_STATUS_NOT		HIPDNN_STATUS_NOT	
_INITIALIZED		_INITIALIZED	
CUDNN_STATUS_NOT		HIPDNN_STATUS_NOT	
_SUPPORTED		_SUPPORTED	
CUDNN_STATUS_RUN		HIPDNN_STATUS_RUN	
TIME_PREREQUISITE_		TIME_PREREQUISITE_	
MISSING		MISSING	
CUDNN_STATUS_SUC		HIPDNN_STATUS_SUC	
CESS		CESS	
CUDNN_TENSOR_NCH		HIPDNN_TENSOR_NCH	
W		W	
CUDNN_TENSOR_NCH		HIPDNN_TENSOR_NCH	
W_VECT_C		W_VECT_C	
CUDNN_TENSOR_NHW		HIPDNN_TENSOR_NH	
C		WC	
CUDNN_TENSOR_OP_		HIPDNN_TENSOR_OP_	
MATH		MATH	
CUDNN_UNIDIRECTIO		HIPDNN_UNIDIRECTIO	
NAL CHENNI MERCION		NAL HERGION	
CUDNN_VERSION		HIPDNN_VERSION	
cudnnActivationDescripto		hipdnnActivationDescript	
r_t		or_t	
cudnnActivationMode_t		hipdnnActivationMode_t	
cudnnBatchNormMode_t		hipdnnBatchNormMode_t	
cudnnConvolutionBwdDat		hipdnnConvolutionBwdDa	
aAlgoPerf_t		taAlgoPerf_t	
cudnnConvolutionBwdDat		hipdnnConvolutionBwdDa	
aAlgo_t	,	taAlgo_t	
cudnnConvolutionBwdDat	\checkmark	hipdnnConvolutionBwdDa	
aPreference_t		taPreference_t	

CUDA	Deprecated	HIP	Deprecated
cudnnConvolutionBwdFilt		hipdnnConvolutionBwdFil	
erAlgoPerf_t		terAlgoPerf t	
cudnnConvolutionBwdFilt		hipdnnConvolutionBwdFil	
erAlgo t		terAlgo t	
cudnnConvolutionBwdFilt	√	hipdnnConvolutionBwdFil	
erPreference t	•	terPreference t	
cudnnConvolutionDescript		hipdnnConvolutionDescri	
or t		ptor t	
cudnnConvolutionFwdAlg		hipdnnConvolutionFwdAl	
oPerf t		goPerf t	
cudnnConvolutionFwdAlg		hipdnnConvolutionFwdAl	
o t		go t	
cudnnConvolutionFwdPre	✓	hipdnnConvolutionFwdPr	
ference t	V	eference t	
cudnnConvolutionMode t		hipdnnConvolutionMode	
caamiconvolatiomvioac_t		t	
cudnnDataType_t		hipdnnDataType_t	
cudnnDirectionMode t		hipdnnDirectionMode t	
cudnnDropoutDescriptor t		hipdnnDropoutDescriptor	
cuamiDiopoutDescriptor_t		t	
cudnnFilterDescriptor t		hipdnnFilterDescriptor t	
cudnnHandle t		hipdnnHandle t	
cudnnIndicesType t		hipdnnIndicesType t	
cudnnLRNDescriptor_t		hipdnnLRNDescriptor_t	
cudnnLRNMode_t		hipdnnLRNMode_t	
cudnnMathType_t		hipdnnMathType_t	
cudnnNanPropagation_t		hipdnnNanPropagation_t	
cudnnOpTensorDescriptor		hipdnnOpTensorDescripto	
t		r t	
cudnnOpTensorOp_t	1	hipdnnOpTensorOp_t	
cudnnPersistentRNNPlan_		hipdnnPersistentRNNPlan	
t		_t	
cudnnPoolingDescriptor_t		hipdnnPoolingDescriptor_	
1 D 1: 36 1		t	
cudnnPoolingMode_t		hipdnnPoolingMode_t	
cudnnRNNAlgo_t		hipdnnRNNAlgo_t	
cudnnRNNBiasMode_t		hipdnnRNNBiasMode_t	
cudnnRNNDescriptor_t		hipdnnRNNDescriptor_t	
cudnnRNNInputMode_t		hipdnnRNNInputMode_t	
cudnnRNNMode_t		hipdnnRNNMode_t	
cudnnReduceTensorDescri		hipdnnReduceTensorDesc	
ptor_t		riptor_t	
cudnnReduceTensorIndice		hipdnnReduceTensorIndic	
s_t		es_t	
cudnnReduceTensorOp_t		hipdnnReduceTensorOp_t	
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1.9.2 CUDNN Functions

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cudnnActivationForward		hipdnnActivationForwar	
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cudnnAddTensor		hipdnnAddTensor	
cudnnBatchNormalization		hipdnnBatchNormalizati	
Backward		onBackward	
cudnnBatchNormalization		hipdnnBatchNormalizati	
ForwardInference		onForwardInference	
cudnnBatchNormalization		hipdnnBatchNormalizati	
ForwardTraining		onForwardTraining	
cudnnConvolutionBackw		hipdnnConvolutionBack	
ardBias		wardBias	
cudnnConvolutionBackw		hipdnnConvolutionBack	
ardData		wardData	
cudnnConvolutionBackw		hipdnnConvolutionBack	
ardFilter		wardFilter	
cudnnConvolutionForwar		hipdnnConvolutionForw	
d		ard	
cudnnCreate		hipdnnCreate	
cudnnCreateActivationDe		hipdnnCreateActivation	
scriptor		Descriptor	
cudnnCreateConvolution		hipdnnCreateConvolutio	
Descriptor		nDescriptor	
cudnnCreateDropoutDesc		hipdnnCreateDropoutDe	
riptor		scriptor	
cudnnCreateFilterDescrip		hipdnnCreateFilterDescri	
tor		ptor	
cudnnCreateLRNDescript		hipdnnCreateLRNDescri	
or		ptor	
cudnnCreateOpTensorDe		hipdnnCreateOpTensorD	
scriptor		escriptor	
cudnnCreatePersistentRN	\checkmark	hipdnnCreatePersistentR	
NPlan		NNPlan	
cudnnCreatePoolingDescr		hipdnnCreatePoolingDes	
iptor		criptor	
cudnnCreateRNNDescript		hipdnnCreateRNNDescri	
or		ptor	
cudnnCreateReduceTenso		hipdnnCreateReduceTen	
rDescriptor		sorDescriptor	
cudnnCreateTensorDescri		hipdnnCreateTensorDesc	
ptor		riptor	
cudnnDeriveBNTensorDe scriptor		hipdnnDeriveBNTensor	
cudnnDestroy		Descriptor hipdnnDestroy	
		hipdnnDestroy hipdnnDestroyActivation	
cudnnDestroyActivationD escriptor		Descriptor Descriptor	
cudnnDestroyConvolutio		hipdnnDestroyConvoluti	
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cudnnDestroyDropoutDes		hipdnnDestroyDropoutD	
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cudnnDestroyFilterDescri		hipdnnDestroyFilterDesc	
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cudnnDestroyLRNDescri		hipdnnDestroyLRNDesc	
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escriptor		Descriptor	
cudnnDestroyPersistentR	\checkmark	hipdnnDestroyPersistent	
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cudnnDestroyPoolingDes		hipdnnDestroyPoolingD	
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cudnnDestroyReduceTens		hipdnnDestroyReduceTe	
orDescriptor		nsorDescriptor	
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cudnnDropoutGetStatesSi		hipdnnDropoutGetStates	
ze		Size	
cudnnFindConvolutionBa		hipdnnFindConvolution	
ckwardDataAlgorithm		BackwardDataAlgorithm	
cudnnFindConvolutionBa		hipdnnFindConvolution	
ckwardDataAlgorithmEx		BackwardDataAlgorithm	
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cudnnFindConvolutionBa		hipdnnFindConvolution	
ckwardFilterAlgorithm		BackwardFilterAlgorith	
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cudnnFindConvolutionBa		hipdnnFindConvolution	
ckwardFilterAlgorithmEx		BackwardFilterAlgorith	
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rwardAlgorithmEx		orwardAlgorithmEx	
cudnnGetActivationDescr		hipdnnGetActivationDes	
iptor		criptor	
cudnnGetConvolution2d		hipdnnGetConvolution2	
Descriptor		dDescriptor	
cudnnGetConvolution2dF		hipdnnGetConvolution2	
orwardOutputDim		dForwardOutputDim	
cudnnGetConvolutionBac	✓	hipdnnGetConvolutionB	
kwardDataAlgorithm		ackwardDataAlgorithm	
cudnnGetConvolutionBac		hipdnnGetConvolutionB	
kwardDataWorkspaceSiz		ackwardDataWorkspace	
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cudnnGetConvolutionBac	\checkmark	hipdnnGetConvolutionB	
kwardFilterAlgorithm		ackwardFilterAlgorithm	
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wardAlgorithm	<u> </u>	orwardAlgorithm	

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cudnnGetConvolutionFor		hipdnnGetConvolutionF	
wardWorkspaceSize		orwardWorkspaceSize	
cudnnGetErrorString		hipdnnGetErrorString	
cudnnGetFilter4dDescript		hipdnnGetFilter4dDescri	
or		ptor	
cudnnGetFilterNdDescrip		hipdnnGetFilterNdDescr	
tor		iptor	
cudnnGetLRNDescriptor		hipdnnGetLRNDescripto	
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cudnnGetOpTensorDescri		hipdnnGetOpTensorDes	
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iptor		criptor	
cudnnGetPooling2dForwa		hipdnnGetPooling2dFor	
rdOutputDim		wardOutputDim	
cudnnGetRNNDescriptor	✓	hipdnnGetRNNDescript	
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cudnnGetRNNLinLayerB	√	hipdnnGetRNNLinLayer	
iasParams	•	BiasParams	
cudnnGetRNNLinLayer	✓	hipdnnGetRNNLinLayer	
MatrixParams	•	MatrixParams	
cudnnGetRNNParamsSiz	✓	hipdnnGetRNNParamsSi	
e		ze	
cudnnGetRNNTrainingRe	✓	hipdnnGetRNNTraining	
serveSize		ReserveSize	
cudnnGetRNNWorkspace	\checkmark	hipdnnGetRNNWorkspa	
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cudnnGetReduceTensorD		hipdnnGetReduceTensor	
escriptor		Descriptor	
cudnnGetReductionWork		hipdnnGetReductionWor	
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cudnnGetStream cudnnGetTensor4dDescri		hipdnnGetStream hipdnnGetTensor4dDesc	
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cudnnGetTensorNdDescri		hipdnnGetTensorNdDes	
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cudnnGetVersion		hipdnnGetVersion	
cudnnLRNCrossChannel		hipdnnLRNCrossChanne	
Backward		lBackward	
cudnnLRNCrossChannel		hipdnnLRNCrossChanne	
Forward		lForward	
cudnnOpTensor		hipdnnOpTensor	
cudnnPoolingBackward		hipdnnPoolingBackward	
cudnnPoolingForward		hipdnnPoolingForward	
cudnnRNNBackwardData	✓	hipdnnRNNBackwardDa	
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cudnnRNNBackwardWei	\checkmark	hipdnnRNNBackwardW	
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cudnnRNNForwardInfere	\checkmark	hipdnnRNNForwardInfe	
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cudnnReduceTensor		hipdnnReduceTensor	

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cudnnScaleTensor		hipdnnScaleTensor	
cudnnSetActivationDescri		hipdnnSetActivationDes	
ptor		criptor	
cudnnSetConvolution2dD		hipdnnSetConvolution2d	
escriptor		Descriptor	
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Descriptor		dDescriptor	
cudnnSetDropoutDescript		hipdnnSetDropoutDescri	
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cudnnSetFilter4dDescript		hipdnnSetFilter4dDescri	
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cudnnSetFilterNdDescript		hipdnnSetFilterNdDescri	
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cudnnSetLRNDescriptor		hipdnnSetLRNDescripto	
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cudnnSetTensorNdDescri		hipdnnSetTensorNdDesc	
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cudnnSoftmaxBackward		hipdnnSoftmaxBackwar	
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cudnnSoftmaxForward		hipdnnSoftmaxForward	