AMD

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HIP-Supported CUDA API Reference Guide

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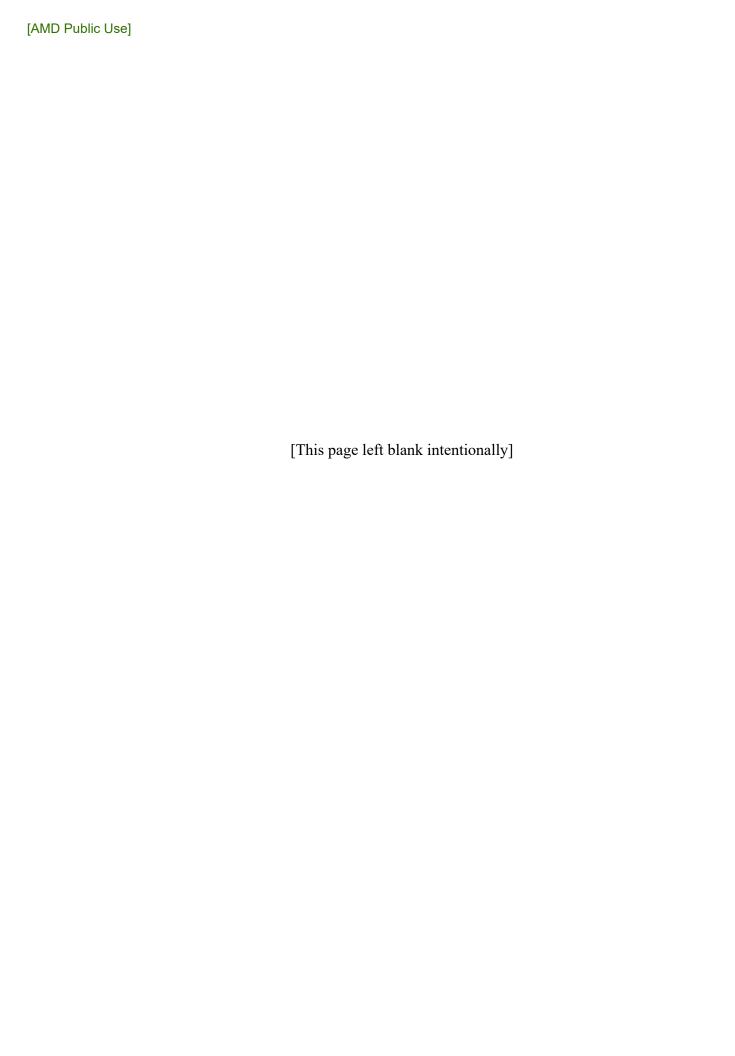
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Chapter 1 HIP-Supported CUDA API

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_4.2.pdf

1.1 CUDA Runtime API Supported by HIP

1.1.1 Device Management

CUDA	Deprecated	HIP	Deprecated
cudaChooseDevice		hipChooseDevice	
cudaDeviceGetAttribute		hipDeviceGetAttribute	
cudaDeviceGetByPCIBusId		hipDeviceGetByPCIBusId	
cudaDeviceGetCacheConfig		hipDeviceGetCacheConfig	
cudaDeviceGetLimit		hipDeviceGetLimit	
cudaDeviceGetP2PAttribute		hipDeviceGetP2PAttribute	
cudaDeviceGetPCIBusId		hipDeviceGetPCIBusId	
cudaDeviceGetSharedMemConfig		hipDeviceGetSharedMemConfig	
cudaDeviceGetStreamPriorityRange		hipDeviceGetStreamPriorityRange	
cudaDeviceReset		hipDeviceReset	
cudaDeviceSetCacheConfig		hipDeviceSetCacheConfig	
cudaDeviceSetSharedMemConfig		hipDeviceSetSharedMemConfig	
cudaDeviceSynchronize		hipDeviceSynchronize	
cudaGetDevice		hipGetDevice	
cudaGetDeviceCount		hipGetDeviceCount	
cudaGetDeviceFlags		hipGetDeviceFlags	
cudaGetDeviceProperties		hipGetDeviceProperties	
cudaIpcCloseMemHandle		hipIpcCloseMemHandle	
cudaIpcGetEventHandle		hipIpcGetEventHandle	
cudaIpcGetMemHandle		hipIpcGetMemHandle	
cudaIpcOpenEventHandle		hipIpcOpenEventHandle	
cudaIpcOpenMemHandle		hipIpcOpenMemHandle	
cudaSetDevice		hipSetDevice	
cudaSetDeviceFlags		hipSetDeviceFlags	

1.1.2   Thread Management [Deprecated]

CUDA	Deprecated	HIP	Deprecated
cudaThreadExit	✓	hipDeviceReset	
cudaThreadGetCacheConfig	✓	hipDeviceGetCacheConfig	
cudaThreadSetCacheConfig	✓	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	
cudaStreamAttachMemAsync		hipStreamAttachMemAsync	
cudaStreamCreate		hipStreamCreate	
cudaStreamCreateWithFlags		hipStreamCreateWithFlags	
cudaStreamCreateWithPriority		hipStreamCreateWithPriority	
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	
cudaEventCreateWithFlags		hipEventCreateWithFlags	
cudaEventDestroy		hipEventDestroy	
cudaEventElapsedTime		hipEventElapsedTime	
cudaEventQuery		hipEventQuery	
cudaEventRecord		hipEventRecord	
cudaEventSynchronize		hipEventSynchronize	

1.1.6   Execution Control

CUDA	Deprecated	HIP	Deprecated
cudaFuncGetAttributes		hipFuncGetAttributes	
cudaFuncSetAttribute		hipFuncSetAttribute	
cudaFuncSetCacheConfig		hipFuncSetCacheConfig	
cudaFuncSetSharedMemConfig		hipFuncSetSharedMemConfig	
cudaLaunchCooperativeKernel		hipLaunchCooperativeKernel	
cudaLaunchCooperativeKernelMultiDevice		hipLaunchCooperativeKernelMultiDevice	
cudaLaunchKernel		hipLaunchKernel	

1.1.7   Occupancy

CUDA	Deprecated	HIP	Deprecated
cudaOccupancyMaxActiveBlocksPerMultiprocessor		hipOccupancyMaxActiveBlocksPerMultiprocessor	
cudaOccupancyMaxActiveBlocksPerMultiprocessorWithFlags		hipOccupancyMaxActiveBlocksPerMultiprocessorWithFlags	
cudaOccupancyMaxPotentialBlockSize		hipOccupancyMaxPotentialBlockSize	
cudaOccupancyMaxPotentialBlockSizeWithFlags		hipOccupancyMaxPotentialBlockSizeWithFlags	

1.1.8   Memory Management

CUDA	Deprecated	HIP	Deprecated
cudaFree		hipFree	
cudaFreeArray		hipFreeArray	
cudaFreeHost		hipHostFree	
cudaFreeMipmappedArray		hipFreeMipmappedArray	
cudaGetMipmappedArrayLevel		hipGetMipmappedArrayLevel	
cudaGetSymbolAddress		hipGetSymbolAddress	
cudaGetSymbolSize		hipGetSymbolSize	
cudaHostAlloc		hipHostMalloc	
cudaHostGetDevicePointer		hipHostGetDevicePointer	
cudaHostGetFlags		hipHostGetFlags	
cudaHostRegister		hipHostRegister	
cudaHostUnregister		hipHostUnregister	
cudaMalloc		hipMalloc	
cudaMalloc3D		hipMalloc3D	
cudaMalloc3DArray		hipMalloc3DArray	
cudaMallocArray		hipMallocArray	
cudaMallocHost		hipHostMalloc	
cudaMallocManaged		hipMallocManaged	
cudaMallocMipmappedArray		hipMallocMipmappedArray	
cudaMallocPitch		hipMallocPitch	
cudaMemAdvise		hipMemAdvise	
cudaMemGetInfo		hipMemGetInfo	
cudaMemPrefetchAsync		hipMemPrefetchAsync	
cudaMemRangeGetAttribute		hipMemRangeGetAttribute	
cudaMemRangeGetAttributes		hipMemRangeGetAttributes	
cudaMemcpy		hipMemcpy	
cudaMemcpy2D		hipMemcpy2D	

cudaMemcpy2DAsync		hipMemcpy2DAsync	
cudaMemcpy2DFromArray		hipMemcpy2DFromArray	
cudaMemcpy2DFromArrayAsync		hipMemcpy2DFromArrayAsync	
cudaMemcpy2DToArray		hipMemcpy2DToArray	
cudaMemcpy3D		hipMemcpy3D	
cudaMemcpy3DAsync		hipMemcpy3DAsync	
cudaMemcpyAsync		hipMemcpyAsync	
cudaMemcpyFromSymbol		hipMemcpyFromSymbol	
cudaMemcpyFromSymbolAsync		hipMemcpyFromSymbolAsync	
cudaMemcpyPeer		hipMemcpyPeer	
cudaMemcpyPeerAsync		hipMemcpyPeerAsync	
cudaMemcpyToSymbol		hipMemcpyToSymbol	
cudaMemcpyToSymbolAsync		hipMemcpyToSymbolAsync	
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
cudaDeviceCanAccessPeer		hipDeviceCanAccessPeer	
cudaDeviceDisablePeerAccess		hipDeviceDisablePeerAccess	
cudaDeviceEnablePeerAccess		hipDeviceEnablePeerAccess	

1.1.12   Texture Reference Management [Deprecated]

CUDA	Deprecated	HIP	Deprecated
cudaBindTexture	✓	hipBindTexture	✓
cudaBindTexture2D	✓	hipBindTexture2D	✓
cudaBindTextureToArray	✓	hipBindTextureToArray	✓
cudaBindTextureToMipmappedArray	✓	hipBindTextureToMipmappedArray	
cudaCreateChannelDesc		hipCreateChannelDesc	
cudaGetChannelDesc		hipGetChannelDesc	
cudaGetTextureAlignmentOffset	✓	hipGetTextureAlignmentOffset	✓

CUDA	Deprecated	HIP	Deprecated
cudaGetTextureReference	✓	hipGetTextureReference	
cudaUnbindTexture	✓	hipUnbindTexture	✓

1.1.13   Texture Object Management

CUDA	Deprecated	HIP	Deprecated
cuTexObjectGetTextureDesc		hipGetTextureObjectTextureDesc	
cudaCreateTextureObject		hipCreateTextureObject	
cudaDestroyTextureObject		hipDestroyTextureObject	
cudaGetTextureObjectResourceDesc		hipGetTextureObjectResourceDesc	
cudaGetTextureObjectResourceViewDesc		hipGetTextureObjectResourceViewDesc	

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	

1.1.16   Profiler Control

CUDA	Deprecated	HIP	Deprecated
cudaProfilerStart		hipProfilerStart	✓
cudaProfilerStop		hipProfilerStop	✓

1.1.17   Data types used by CUDA Runtime

CUDA	Deprecated	HIP	Deprecated
CUDA_IPC_HANDLE_SIZE		HIP_IPC_HANDLE_SIZE	
CUevent_st		ihipEvent_t	
CUstream_st		ihipStream_t	
cudaAddressModeBorder		hipAddressModeBorder	
cudaAddressModeClamp		hipAddressModeClamp	
cudaAddressModeMirror		hipAddressModeMirror	
cudaAddressModeWrap		hipAddressModeWrap	
cudaArray		hipArray	
cudaArrayCubemap		hipArrayCubemap	
cudaArrayDefault		hipArrayDefault	
cudaArrayLayered		hipArrayLayered	
cudaArraySurfaceLoadStore		hipArraySurfaceLoadStore	
cudaArrayTextureGather		hipArrayTextureGather	
cudaArray_const_t		hipArray_const_t	
cudaArray_t		hipArray_t	
cudaBoundaryModeClamp		hipBoundaryModeClamp	

CUDA	Deprecated	HIP	Deprecated
cudaBoundaryModeTrap		hipBoundaryModeTrap	
cudaBoundaryModeZero		hipBoundaryModeZero	
cudaChannelFormatDesc		hipChannelFormatDesc	
cudaChannelFormatKind		hipChannelFormatKind	
cudaChannelFormatKindFloat		hipChannelFormatKindFloat	
cudaChannelFormatKindNone		hipChannelFormatKindNone	
cudaChannelFormatKindSigned		hipChannelFormatKindSigned	
cudaChannelFormatKindUnsigned		hipChannelFormatKindUnsigned	
cudaComputeMode		hipComputeMode	
cudaComputeModeDefault		hipComputeModeDefault	
cudaComputeModeExclusive		hipComputeModeExclusive	
cudaComputeModeExclusiveProcess		hipComputeModeExclusiveProcess	
cudaComputeModeProhibited		hipComputeModeProhibited	
cudaCooperativeLaunchMultiDeviceNoPostSync		hipCooperativeLaunchMultiDeviceNoPostSync	
cudaCooperativeLaunchMultiDeviceNoPreSync		hipCooperativeLaunchMultiDeviceNoPreSync	
cudaCpuDeviceId		hipCpuDeviceId	
cudaDevAttrCanMapHostMemory		hipDeviceAttributeCanMapHostMemory	
cudaDevAttrClockRate		hipDeviceAttributeClockRate	
cudaDevAttrComputeCapabilityMajor		hipDeviceAttributeComputeCapabilityMajor	
cudaDevAttrComputeCapabilityMinor		hipDeviceAttributeComputeCapabilityMinor	
cudaDevAttrComputeMode		hipDeviceAttributeComputeMode	
cudaDevAttrConcurrentKernels		hipDeviceAttributeConcurrentKernels	
cudaDevAttrConcurrentManagedAccess		hipDeviceAttributeConcurrentManagedAccess	
cudaDevAttrCooperativeLaunch		hipDeviceAttributeCooperativeLaunch	
cudaDevAttrCooperativeMultiDeviceLaunch		hipDeviceAttributeCooperativeMultiDeviceLaunch	
cudaDevAttrDirectManagedMemAccessFromHost		hipDeviceAttributeDirectManagedMemAccessFromHost	
cudaDevAttrEccEnabled		hipDeviceAttributeEccEnabled	
cudaDevAttrGlobalMemoryBusWidth		hipDeviceAttributeMemoryBusWidth	
cudaDevAttrIntegrated		hipDeviceAttributeIntegrated	
cudaDevAttrIsMultiGpuBoard		hipDeviceAttributeIsMultiGpuBoard	
cudaDevAttrKernelExecTimeout		hipDeviceAttributeKernelExecTimeout	
cudaDevAttrL2CacheSize		hipDeviceAttributeL2CacheSize	
cudaDevAttrManagedMemory		hipDeviceAttributeManagedMemory	
cudaDevAttrMaxBlockDimX		hipDeviceAttributeMaxBlockDimX	
cudaDevAttrMaxBlockDimY		hipDeviceAttributeMaxBlockDimY	
cudaDevAttrMaxBlockDimZ		hipDeviceAttributeMaxBlockDimZ	
cudaDevAttrMaxGridDimX		hipDeviceAttributeMaxGridDimX	
cudaDevAttrMaxGridDimY		hipDeviceAttributeMaxGridDimY	
cudaDevAttrMaxGridDimZ		hipDeviceAttributeMaxGridDimZ	
cudaDevAttrMaxPitch		hipDeviceAttributeMaxPitch	
cudaDevAttrMaxRegistersPerBlock		hipDeviceAttributeMaxRegistersPerBlock	
cudaDevAttrMaxSharedMemoryPerBlock		hipDeviceAttributeMaxSharedMemoryPerBlock	

CUDA	Deprecated	HIP	Deprecated
cudaDevAttrMaxSharedMemoryPerMultiprocessor		hipDeviceAttributeMaxSharedMemoryPerMultiprocessor	
cudaDevAttrMaxTexture1DWidth		hipDeviceAttributeMaxTexture1DWidth	
cudaDevAttrMaxTexture2DHeight		hipDeviceAttributeMaxTexture2DHeight	
cudaDevAttrMaxTexture2DWidth		hipDeviceAttributeMaxTexture2DWidth	
cudaDevAttrMaxTexture3DDepth		hipDeviceAttributeMaxTexture3DDepth	
cudaDevAttrMaxTexture3DHeight		hipDeviceAttributeMaxTexture3DHeight	
cudaDevAttrMaxTexture3DWidth		hipDeviceAttributeMaxTexture3DWidth	
cudaDevAttrMaxThreadsPerBlock		hipDeviceAttributeMaxThreadsPerBlock	
cudaDevAttrMaxThreadsPerMultiProcessor		hipDeviceAttributeMaxThreadsPerMultiProcessor	
cudaDevAttrMemoryClockRate		hipDeviceAttributeMemoryClockRate	
cudaDevAttrMultiProcessorCount		hipDeviceAttributeMultiprocessorCount	
cudaDevAttrPageableMemoryAccess		hipDeviceAttributePageableMemoryAccess	
cudaDevAttrPageableMemoryAccessUsesHostPageTables		hipDeviceAttributePageableMemoryAccessUsesHostPageTables	
cudaDevAttrPciBusId		hipDeviceAttributePciBusId	
cudaDevAttrPciDeviceId		hipDeviceAttributePciDeviceId	
cudaDevAttrTextureAlignment		hipDeviceAttributeTextureAlignment	
cudaDevAttrTotalConstantMemory		hipDeviceAttributeTotalConstantMemory	
cudaDevAttrWarpSize		hipDeviceAttributeWarpSize	
cudaDevP2PAttrAccessSupported		hipDevP2PAttrAccessSupported	
cudaDevP2PAttrCudaArrayAccessSupported		hipDevP2PAttrHipArrayAccessSupported	
cudaDevP2PAttrNativeAtomicSupported		hipDevP2PAttrNativeAtomicSupported	
cudaDevP2PAttrPerformanceRank		hipDevP2PAttrPerformanceRank	
cudaDeviceAttr		hipDeviceAttribute_t	
cudaDeviceBlockingSync		hipDeviceScheduleBlockingSync	
cudaDeviceLmemResizeToMax		hipDeviceLmemResizeToMax	
cudaDeviceMapHost		hipDeviceMapHost	
cudaDeviceP2PAttr		hipDeviceP2PAttr	
cudaDeviceProp		hipDeviceProp_t	
cudaDeviceScheduleAuto		hipDeviceScheduleAuto	
cudaDeviceScheduleBlockingSync		hipDeviceScheduleBlockingSync	
cudaDeviceScheduleMask		hipDeviceScheduleMask	
cudaDeviceScheduleSpin		hipDeviceScheduleSpin	
cudaDeviceScheduleYield		hipDeviceScheduleYield	
cudaError		hipError_t	
cudaErrorAlreadyAcquired		hipErrorAlreadyAcquired	
cudaErrorAlreadyMapped		hipErrorAlreadyMapped	
cudaErrorArrayIsMapped		hipErrorArrayIsMapped	
cudaErrorAssert		hipErrorAssert	
cudaErrorCooperativeLaunchTooLarge		hipErrorCooperativeLaunchTooLarge	
cudaErrorCudartUnloading		hipErrorDeinitialized	
cudaErrorDeviceAlreadyInUse		hipErrorContextAlreadyInUse	
cudaErrorDeviceUninitialized		hipErrorInvalidContext	
cudaErrorDeviceUninitilialized		hipErrorInvalidContext	
cudaErrorECCUncorrectable		hipErrorECCNotCorrectable	
cudaErrorFileNotFound		hipErrorFileNotFound	
cudaErrorHostMemoryAlreadyRegistered		hipErrorHostMemoryAlreadyRegistered	

CUDA	Deprecated	HIP	Deprecated
cudaErrorHostMemoryNotRegistered		hipErrorHostMemoryNotRegistered	
cudaErrorIllegalAddress		hipErrorIllegalAddress	
cudaErrorInitializationError		hipErrorNotInitialized	
cudaErrorInsufficientDriver		hipErrorInsufficientDriver	
cudaErrorInvalidConfiguration		hipErrorInvalidConfiguration	
cudaErrorInvalidDevice		hipErrorInvalidDevice	
cudaErrorInvalidDeviceFunction		hipErrorInvalidDeviceFunction	
cudaErrorInvalidDevicePointer	✓	hipErrorInvalidDevicePointer	
cudaErrorInvalidGraphicsContext		hipErrorInvalidGraphicsContext	
cudaErrorInvalidKernelImage		hipErrorInvalidImage	
cudaErrorInvalidMemcpyDirection		hipErrorInvalidMemcpyDirection	
cudaErrorInvalidPtx		hipErrorInvalidKernelFile	
cudaErrorInvalidResourceHandle		hipErrorInvalidHandle	
cudaErrorInvalidSource		hipErrorInvalidSource	
cudaErrorInvalidSymbol		hipErrorInvalidSymbol	
cudaErrorInvalidValue		hipErrorInvalidValue	
cudaErrorLaunchFailure		hipErrorLaunchFailure	
cudaErrorLaunchOutOfResources		hipErrorLaunchOutOfResources	
cudaErrorLaunchTimeout		hipErrorLaunchTimeOut	
cudaErrorMapBufferObjectFailed		hipErrorMapFailed	
cudaErrorMemoryAllocation		hipErrorOutOfMemory	
cudaErrorMissingConfiguration		hipErrorMissingConfiguration	
cudaErrorNoDevice		hipErrorNoDevice	
cudaErrorNoKernelImageForDevice		hipErrorNoBinaryForGpu	
cudaErrorNotMapped		hipErrorNotMapped	
cudaErrorNotMappedAsArray		hipErrorNotMappedAsArray	
cudaErrorNotMappedAsPointer		hipErrorNotMappedAsPointer	
cudaErrorNotReady		hipErrorNotReady	
cudaErrorNotSupported		hipErrorNotSupported	
cudaErrorOperatingSystem		hipErrorOperatingSystem	
cudaErrorPeerAccessAlreadyEnabled		hipErrorPeerAccessAlreadyEnabled	
cudaErrorPeerAccessNotEnabled		hipErrorPeerAccessNotEnabled	
cudaErrorPeerAccessUnsupported		hipErrorPeerAccessUnsupported	
cudaErrorPriorLaunchFailure	✓	hipErrorPriorLaunchFailure	
cudaErrorProfilerAlreadyStarted	✓	hipErrorProfilerAlreadyStarted	
cudaErrorProfilerAlreadyStopped	✓	hipErrorProfilerAlreadyStopped	
cudaErrorProfilerDisabled		hipErrorProfilerDisabled	
cudaErrorProfilerNotInitialized	✓	hipErrorProfilerNotInitialized	
cudaErrorSetOnActiveProcess		hipErrorSetOnActiveProcess	
cudaErrorSharedObjectInitFailed		hipErrorSharedObjectInitFailed	
cudaErrorSharedObjectSymbolNotFound		hipErrorSharedObjectSymbolNotFound	
cudaErrorSymbolNotFound		hipErrorNotFound	
cudaErrorUnknown		hipErrorUnknown	
cudaErrorUnmapBufferObjectFailed		hipErrorUnmapFailed	
cudaErrorUnsupportedLimit		hipErrorUnsupportedLimit	
cudaError_t		hipError_t	
cudaEventBlockingSync		hipEventBlockingSync	
cudaEventDefault		hipEventDefault	
cudaEventDisableTiming		hipEventDisableTiming	
cudaEventInterprocess		hipEventInterprocess	
cudaEvent_t		hipEvent_t	

CUDA	Deprecated	HIP	Deprecated
cudaExtent		hipExtent	
cudaFilterModeLinear		hipFilterModeLinear	
cudaFilterModePoint		hipFilterModePoint	
cudaFuncAttribute		hipFuncAttribute	
cudaFuncAttributeMax		hipFuncAttributeMax	
cudaFuncAttributeMaxDynamicSharedMemorySize		hipFuncAttributeMaxDynamicSharedMemorySize	
cudaFuncAttributePreferredSharedMemoryCarveout		hipFuncAttributePreferredSharedMemoryCarveout	
cudaFuncAttributes		hipFuncAttributes	
cudaFuncCache		hipFuncCache_t	
cudaFuncCachePreferEqual		hipFuncCachePreferEqual	
cudaFuncCachePreferL1		hipFuncCachePreferL1	
cudaFuncCachePreferNone		hipFuncCachePreferNone	
cudaFuncCachePreferShared		hipFuncCachePreferShared	
cudaHostAllocDefault		hipHostMallocDefault	
cudaHostAllocMapped		hipHostMallocMapped	
cudaHostAllocPortable		hipHostMallocPortable	
cudaHostAllocWriteCombined		hipHostMallocWriteCombined	
cudaHostRegisterDefault		hipHostRegisterDefault	
cudaHostRegisterIoMemory		hipHostRegisterIoMemory	
cudaHostRegisterMapped		hipHostRegisterMapped	
cudaHostRegisterPortable		hipHostRegisterPortable	
cudaInvalidDeviceId		hipInvalidDeviceId	
cudaIpcEventHandle_st		hipIpcEventHandle_st	
cudaIpcEventHandle_t		hipIpcEventHandle_t	
cudaIpcMemHandle_st		hipIpcMemHandle_st	
cudaIpcMemHandle_t		hipIpcMemHandle_t	
cudaIpcMemLazyEnablePeerAccess		hipIpcMemLazyEnablePeerAccess	
cudaLaunchParams		hipLaunchParams	
cudaLimit		hipLimit_t	
cudaLimitMallocHeapSize		hipLimitMallocHeapSize	
cudaMemAdviseSetAccessedBy		hipMemAdviseSetAccessedBy	
cudaMemAdviseSetPreferredLocation		hipMemAdviseSetPreferredLocation	
cudaMemAdviseSetReadMostly		hipMemAdviseSetReadMostly	
cudaMemAdviseUnsetAccessedBy		hipMemAdviseUnsetAccessedBy	
cudaMemAdviseUnsetPreferredLocation		hipMemAdviseUnsetPreferredLocation	
cudaMemAdviseUnsetReadMostly		hipMemAdviseUnsetReadMostly	
cudaMemAttachGlobal		hipMemAttachGlobal	
cudaMemAttachHost		hipMemAttachHost	
cudaMemAttachSingle		hipMemAttachSingle	
cudaMemRangeAttribute		hipMemRangeAttribute	
cudaMemRangeAttributeAccessedBy		hipMemRangeAttributeAccessedBy	
cudaMemRangeAttributeLastPrefetchLocation		hipMemRangeAttributeLastPrefetchLocation	
cudaMemRangeAttributePreferredLocation		hipMemRangeAttributePreferredLocation	
cudaMemRangeAttributeReadMostly		hipMemRangeAttributeReadMostly	
cudaMemcpy3DParms		hipMemcpy3DParms	
cudaMemcpyDefault		hipMemcpyDefault	
cudaMemcpyDeviceToDevice		hipMemcpyDeviceToDevice	
cudaMemcpyDeviceToHost		hipMemcpyDeviceToHost	
cudaMemcpyHostToDevice		hipMemcpyHostToDevice	

CUDA	Deprecated	HIP	Deprecated
cudaMemcpyHostToHost		hipMemcpyHostToHost	
cudaMemcpyKind		hipMemcpyKind	
cudaMemoryAdvise		hipMemoryAdvise	
cudaMipmappedArray		hipMipmappedArray	
cudaMipmappedArray_const_t		hipMipmappedArray_const_t	
cudaMipmappedArray_t		hipMipmappedArray_t	
cudaOccupancyDefault		hipOccupancyDefault	
cudaPitchedPtr		hipPitchedPtr	
cudaPointerAttributes		hipPointerAttribute_t	
cudaPos		hipPos	
cudaReadModeElementType		hipReadModeElementType	
cudaReadModeNormalizedFloat		hipReadModeNormalizedFloat	
cudaResViewFormatFloat1		hipResViewFormatFloat1	
cudaResViewFormatFloat2		hipResViewFormatFloat2	
cudaResViewFormatFloat4		hipResViewFormatFloat4	
cudaResViewFormatHalf1		hipResViewFormatHalf1	
cudaResViewFormatHalf2		hipResViewFormatHalf2	
cudaResViewFormatHalf4		hipResViewFormatHalf4	
cudaResViewFormatNone		hipResViewFormatNone	
cudaResViewFormatSignedBlockCompressed4		hipResViewFormatSignedBlockCompressed4	
cudaResViewFormatSignedBlockCompressed5		hipResViewFormatSignedBlockCompressed5	
cudaResViewFormatSignedBlockCompressed6H		hipResViewFormatSignedBlockCompressed6H	
cudaResViewFormatSignedChar1		hipResViewFormatSignedChar1	
cudaResViewFormatSignedChar2		hipResViewFormatSignedChar2	
cudaResViewFormatSignedChar4		hipResViewFormatSignedChar4	
cudaResViewFormatSignedInt1		hipResViewFormatSignedInt1	
cudaResViewFormatSignedInt2		hipResViewFormatSignedInt2	
cudaResViewFormatSignedInt4		hipResViewFormatSignedInt4	
cudaResViewFormatSignedShort1		hipResViewFormatSignedShort1	
cudaResViewFormatSignedShort2		hipResViewFormatSignedShort2	
cudaResViewFormatSignedShort4		hipResViewFormatSignedShort4	
cudaResViewFormatUnsignedBlockCompressed1		hipResViewFormatUnsignedBlockCompressed1	
cudaResViewFormatUnsignedBlockCompressed2		hipResViewFormatUnsignedBlockCompressed2	
cudaResViewFormatUnsignedBlockCompressed3		hipResViewFormatUnsignedBlockCompressed3	
cudaResViewFormatUnsignedBlockCompressed4		hipResViewFormatUnsignedBlockCompressed4	
cudaResViewFormatUnsignedBlockCompressed5		hipResViewFormatUnsignedBlockCompressed5	
cudaResViewFormatUnsignedBlockCompressed6H		hipResViewFormatUnsignedBlockCompressed6H	
cudaResViewFormatUnsignedBlockCompressed7		hipResViewFormatUnsignedBlockCompressed7	
cudaResViewFormatUnsignedChar1		hipResViewFormatUnsignedChar1	
cudaResViewFormatUnsignedChar2		hipResViewFormatUnsignedChar2	
cudaResViewFormatUnsignedChar4		hipResViewFormatUnsignedChar4	
cudaResViewFormatUnsignedInt1		hipResViewFormatUnsignedInt1	

CUDA	Deprecated	HIP	Deprecated
cudaResViewFormatUnsignedInt2		hipResViewFormatUnsignedInt2	
cudaResViewFormatUnsignedInt4		hipResViewFormatUnsignedInt4	
cudaResViewFormatUnsignedShort1		hipResViewFormatUnsignedShort1	
cudaResViewFormatUnsignedShort2		hipResViewFormatUnsignedShort2	
cudaResViewFormatUnsignedShort4		hipResViewFormatUnsignedShort4	
cudaResourceDesc		hipResourceDesc	
cudaResourceType		hipResourceType	
cudaResourceTypeArray		hipResourceTypeArray	
cudaResourceTypeLinear		hipResourceTypeLinear	
cudaResourceTypeMipmappedArray		hipResourceTypeMipmappedArray	
cudaResourceTypePitch2D		hipResourceTypePitch2D	
cudaResourceViewDesc		hipResourceViewDesc	
cudaResourceViewFormat		hipResourceViewFormat	
cudaSharedMemBankSizeDefault		hipSharedMemBankSizeDefault	
cudaSharedMemBankSizeEightByte		hipSharedMemBankSizeEightByte	
cudaSharedMemBankSizeFourByte		hipSharedMemBankSizeFourByte	
cudaSharedMemConfig		hipSharedMemConfig	
cudaStreamCallback_t		hipStreamCallback_t	
cudaStreamDefault		hipStreamDefault	
cudaStreamNonBlocking		hipStreamNonBlocking	
cudaStream_t		hipStream_t	
cudaSuccess		hipSuccess	
cudaSurfaceBoundaryMode		hipSurfaceBoundaryMode	
cudaSurfaceObject_t		hipSurfaceObject_t	
cudaTextureAddressMode		hipTextureAddressMode	
cudaTextureDesc		hipTextureDesc	
cudaTextureFilterMode		hipTextureFilterMode	
cudaTextureObject_t		hipTextureObject_t	
cudaTextureReadMode		hipTextureReadMode	
cudaTextureType1D		hipTextureType1D	
cudaTextureType1DLayered		hipTextureType1DLayered	
cudaTextureType2D		hipTextureType2D	
cudaTextureType2DLayered		hipTextureType2DLayered	
cudaTextureType3D		hipTextureType3D	
cudaTextureTypeCubemap		hipTextureTypeCubemap	
cudaTextureTypeCubemapLayered		hipTextureTypeCubemapLayered	
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_CUBEMAP		hipArrayCubemap	
CUDA_ARRAY3D_DESCRIPTOR		HIP_ARRAY3D_DESCRIPTOR	
CUDA_ARRAY3D_DESCRIPTOR_st		HIP_ARRAY3D_DESCRIPTOR	
CUDA_ARRAY3D_LAYERED		hipArrayLayered	
CUDA_ARRAY3D_SURFACE_LDST		hipArraySurfaceLoadStore	
CUDA_ARRAY3D_TEXTURE_GATHER		hipArrayTextureGather	
CUDA_ARRAY_DESCRIPTOR		HIP_ARRAY_DESCRIPTOR	
CUDA_ARRAY_DESCRIPTOR_st		HIP_ARRAY_DESCRIPTOR	
CUDA_ARRAY_DESCRIPTOR_v1		HIP_ARRAY_DESCRIPTOR	
CUDA_ARRAY_DESCRIPTOR_v1_st		HIP_ARRAY_DESCRIPTOR	
CUDA_COOPERATIVE_LAUNCH_MULTI_DEVICE_NO_POST_LAUNCH_SYNC		hipCooperativeLaunchMultiDeviceNoPostSync	
CUDA_COOPERATIVE_LAUNCH_MULTI_DEVICE_NO_PRE_LAUNCH_SYNC		hipCooperativeLaunchMultiDeviceNoPreSync	
CUDA_ERROR_ALREADY_ACQUIRED		hipErrorAlreadyAcquired	
CUDA_ERROR_ALREADY_MAPPED		hipErrorAlreadyMapped	
CUDA_ERROR_ARRAY_IS_MAPPED		hipErrorArrayIsMapped	
CUDA_ERROR_ASSERT		hipErrorAssert	

CUDA	Deprecated	HIP	Deprecated
CUDA_ERROR_CONTEXT_ALREADY_CURRENT	✓	hipErrorContextAlreadyCurrent	
CUDA_ERROR_CONTEXT_ALREADY_IN_USE		hipErrorContextAlreadyInUse	
CUDA_ERROR_COOPERATIVE_LAUNCH_TOO_LARGE		hipErrorCooperativeLaunchTooLarge	
CUDA_ERROR_DEINITIALIZED		hipErrorDeinitialized	
CUDA_ERROR_ECC_UNCORRECTABLE		hipErrorECCNotCorrectable	
CUDA_ERROR_FILE_NOT_FOUND		hipErrorFileNotFound	
CUDA_ERROR_HOST_MEMORY_ALREADY_REGISTERED		hipErrorHostMemoryAlreadyRegistered	
CUDA_ERROR_HOST_MEMORY_NOT_REGISTERED		hipErrorHostMemoryNotRegistered	
CUDA_ERROR_ILLEGAL_ADDRESS		hipErrorIllegalAddress	
CUDA_ERROR_INVALID_CONTEXT		hipErrorInvalidContext	
CUDA_ERROR_INVALID_DEVICE		hipErrorInvalidDevice	
CUDA_ERROR_INVALID_GRAPHICS_CONTEXT		hipErrorInvalidGraphicsContext	
CUDA_ERROR_INVALID_HANDLE		hipErrorInvalidHandle	
CUDA_ERROR_INVALID_IMAGE		hipErrorInvalidImage	
CUDA_ERROR_INVALID_PTX		hipErrorInvalidKernelFile	
CUDA_ERROR_INVALID_SOURCE		hipErrorInvalidSource	
CUDA_ERROR_INVALID_VALUE		hipErrorInvalidValue	
CUDA_ERROR_LAUNCH_FAILED		hipErrorLaunchFailure	
CUDA_ERROR_LAUNCH_OUT_OF_RESOURCES		hipErrorLaunchOutOfResources	
CUDA_ERROR_LAUNCH_TIMEOUT		hipErrorLaunchTimeOut	
CUDA_ERROR_MAP_FAILED		hipErrorMapFailed	
CUDA_ERROR_NOT_FOUND		hipErrorNotFound	
CUDA_ERROR_NOT_INITIALIZED		hipErrorNotInitialized	
CUDA_ERROR_NOT_MAPPED		hipErrorNotMapped	
CUDA_ERROR_NOT_MAPPED_AS_ARRAY		hipErrorNotMappedAsArray	
CUDA_ERROR_NOT_MAPPED_AS_POINTER		hipErrorNotMappedAsPointer	
CUDA_ERROR_NOT_READY		hipErrorNotReady	
CUDA_ERROR_NOT_SUPPORTED		hipErrorNotSupported	
CUDA_ERROR_NO_BINARY_FOR_GPU		hipErrorNoBinaryForGpu	
CUDA_ERROR_NO_DEVICE		hipErrorNoDevice	
CUDA_ERROR_OPERATING_SYSTEM		hipErrorOperatingSystem	
CUDA_ERROR_OUT_OF_MEMORY		hipErrorOutOfMemory	
CUDA_ERROR_PEER_ACCESS_ALREADY_ENABLED		hipErrorPeerAccessAlreadyEnabled	
CUDA_ERROR_PEER_ACCESS_NOT_ENABLED		hipErrorPeerAccessNotEnabled	
CUDA_ERROR_PEER_ACCESS_UNSUPPORTED		hipErrorPeerAccessUnsupported	
CUDA_ERROR_PRIMARY_CONTEXT_ACTIVE		hipErrorSetOnActiveProcess	

CUDA	Deprecated	HIP	Deprecated
CUDA_ERROR_PROFILER_ALREADY_STARTED	✓	hipErrorProfilerAlreadyStarted	
CUDA_ERROR_PROFILER_ALREADY_STOPPED	✓	hipErrorProfilerAlreadyStopped	
CUDA_ERROR_PROFILER_DISABLED		hipErrorProfilerDisabled	
CUDA_ERROR_PROFILER_NOT_INITIALIZED	✓	hipErrorProfilerNotInitialized	
CUDA_ERROR_SHARED_OBJECT_INIT_FAILED		hipErrorSharedObjectInitFailed	
CUDA_ERROR_SHARED_OBJECT_SYMBOL_NOT_FOUND		hipErrorSharedObjectSymbolNotFound	
CUDA_ERROR_UNKNOWN		hipErrorUnknown	
CUDA_ERROR_UNMAP_FAILED		hipErrorUnmapFailed	
CUDA_ERROR_UNSUPPORTED_LIMIT		hipErrorUnsupportedLimit	
CUDA_LAUNCH_PARAMS		hipLaunchParams	
CUDA_LAUNCH_PARAMS_st		hipLaunchParams	
CUDA_MEMCPY2D		hip_Memcpy2D	
CUDA_MEMCPY2D_st		hip_Memcpy2D	
CUDA_MEMCPY2D_v1		hip_Memcpy2D	
CUDA_MEMCPY2D_v1_st		hip_Memcpy2D	
CUDA_MEMCPY3D		HIP_MEMCPY3D	
CUDA_MEMCPY3D_st		HIP_MEMCPY3D	
CUDA_MEMCPY3D_v1		HIP_MEMCPY3D	
CUDA_MEMCPY3D_v1_st		HIP_MEMCPY3D	
CUDA_RESOURCE_DESC		HIP_RESOURCE_DESC	
CUDA_RESOURCE_DESC_st		HIP_RESOURCE_DESC_st	
CUDA_RESOURCE_VIEW_DESC		HIP_RESOURCE_VIEW_DESC	
CUDA_RESOURCE_VIEW_DESC_st		HIP_RESOURCE_VIEW_DESC_st	
CUDA_SUCCESS		hipSuccess	
CUDA_TEXTURE_DESC		HIP_TEXTURE_DESC	
CUDA_TEXTURE_DESC_st		HIP_TEXTURE_DESC_st	
CU_AD_FORMAT_FLOAT		HIP_AD_FORMAT_FLOAT	
CU_AD_FORMAT_HALF		HIP_AD_FORMAT_HALF	
CU_AD_FORMAT_SIGNED_INT16		HIP_AD_FORMAT_SIGNED_INT16	
CU_AD_FORMAT_SIGNED_INT32		HIP_AD_FORMAT_SIGNED_INT32	
CU_AD_FORMAT_SIGNED_INT8		HIP_AD_FORMAT_SIGNED_INT8	
CU_AD_FORMAT_UNSIGNED_INT16		HIP_AD_FORMAT_UNSIGNED_INT16	
CU_AD_FORMAT_UNSIGNED_INT32		HIP_AD_FORMAT_UNSIGNED_INT32	
CU_AD_FORMAT_UNSIGNED_INT8		HIP_AD_FORMAT_UNSIGNED_INT8	
CU_COMPUTEMODE_DEFAULT		hipComputeModeDefault	
CU_COMPUTEMODE_EXCLUSIVE		hipComputeModeExclusive	
CU_COMPUTEMODE_EXCLUSIVE_PROCESS		hipComputeModeExclusiveProcess	
CU_COMPUTEMODE_PROHIBITED		hipComputeModeProhibited	
CU_CTX_BLOCKING_SYNC	✓	hipDeviceScheduleBlockingSync	
CU_CTX_LMEM_RESIZE_TO_MAX		hipDeviceLmemResizeToMax	
CU_CTX_MAP_HOST		hipDeviceMapHost	
CU_CTX_SCHED_AUTO		hipDeviceScheduleAuto	

CUDA	Deprecated	HIP	Deprecated
CU_CTX_SCHED_BLOCKING_SYNC		hipDeviceScheduleBlockingSync	
CU_CTX_SCHED_MASK		hipDeviceScheduleMask	
CU_CTX_SCHED_SPIN		hipDeviceScheduleSpin	
CU_CTX_SCHED_YIELD		hipDeviceScheduleYield	
CU_DEVICE_ATTRIBUTE_CAN_MAP_HOST_MEMORY		hipDeviceAttributeCanMapHostMemory	
CU_DEVICE_ATTRIBUTE_CLOCK_RATE		hipDeviceAttributeClockRate	
CU_DEVICE_ATTRIBUTE_COMPUTE_CAPABILITY_MAJOR		hipDeviceAttributeComputeCapabilityMajor	
CU_DEVICE_ATTRIBUTE_COMPUTE_CAPABILITY_MINOR		hipDeviceAttributeComputeCapabilityMinor	
CU_DEVICE_ATTRIBUTE_COMPUTE_MODE		hipDeviceAttributeComputeMode	
CU_DEVICE_ATTRIBUTE_CONCURRENT_KERNELS		hipDeviceAttributeConcurrentKernels	
CU_DEVICE_ATTRIBUTE_CONCURRENT_MANAGED_ACCESS		hipDeviceAttributeConcurrentManagedAccess	
CU_DEVICE_ATTRIBUTE_COOPERATIVE_LAUNCH		hipDeviceAttributeCooperativeLaunch	
CU_DEVICE_ATTRIBUTE_COOPERATIVE_MULTI_DEVICE_LAUNCH		hipDeviceAttributeCooperativeMultiDeviceLaunch	
CU_DEVICE_ATTRIBUTE_DIRECT_MANAGED_MEM_ACCESS_FROM_HOST		hipDeviceAttributeDirectManagedMemAccessFromHost	
CU_DEVICE_ATTRIBUTE_ECC_ENABLED		hipDeviceAttributeEccEnabled	
CU_DEVICE_ATTRIBUTE_GLOBAL_MEMORY_BUS_WIDTH		hipDeviceAttributeMemoryBusWidth	
CU_DEVICE_ATTRIBUTE_INTEGRATED		hipDeviceAttributeIntegrated	
CU_DEVICE_ATTRIBUTE_KERNEL_EXEC_TIMEOUT		hipDeviceAttributeKernelExecTimeout	
CU_DEVICE_ATTRIBUTE_L2_CACHE_SIZE		hipDeviceAttributeL2CacheSize	
CU_DEVICE_ATTRIBUTE_MANAGED_MEMORY		hipDeviceAttributeManagedMemory	
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE1D_WIDTH		hipDeviceAttributeMaxTexture1DWidth	
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_HEIGHT		hipDeviceAttributeMaxTexture2DHeight	
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE2D_WIDTH		hipDeviceAttributeMaxTexture2DWidth	
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE3D_DEPTH		hipDeviceAttributeMaxTexture3DDepth	
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE3D_HEIGHT		hipDeviceAttributeMaxTexture3DHeight	
CU_DEVICE_ATTRIBUTE_MAXIMUM_TEXTURE3D_WIDTH		hipDeviceAttributeMaxTexture3DWidth	
CU_DEVICE_ATTRIBUTE_MAX_BLOCK_DIM_X		hipDeviceAttributeMaxBlockDimX	
CU_DEVICE_ATTRIBUTE_MAX_BLOCK_DIM_Y		hipDeviceAttributeMaxBlockDimY	

CUDA	Deprecated	HIP	Deprecated
CU_DEVICE_ATTRIBUTE_MAX_BLOCK_DIM_Z		hipDeviceAttributeMaxBlockDimZ	
CU_DEVICE_ATTRIBUTE_MAX_GRID_DIM_X		hipDeviceAttributeMaxGridDimX	
CU_DEVICE_ATTRIBUTE_MAX_GRID_DIM_Y		hipDeviceAttributeMaxGridDimY	
CU_DEVICE_ATTRIBUTE_MAX_GRID_DIM_Z		hipDeviceAttributeMaxGridDimZ	
CU_DEVICE_ATTRIBUTE_MAX_PITCH		hipDeviceAttributeMaxPitch	
CU_DEVICE_ATTRIBUTE_MAX_REGISTERS_PER_BLOCK		hipDeviceAttributeMaxRegistersPerBlock	
CU_DEVICE_ATTRIBUTE_MAX_SHARED_MEMORY_PER_BLOCK		hipDeviceAttributeMaxSharedMemoryPerBlock	
CU_DEVICE_ATTRIBUTE_MAX_SHARED_MEMORY_PER_MULTIPROCESSOR		hipDeviceAttributeMaxSharedMemoryPerMultiprocessor	
CU_DEVICE_ATTRIBUTE_MAX_THREADS_PER_BLOCK		hipDeviceAttributeMaxThreadsPerBlock	
CU_DEVICE_ATTRIBUTE_MAX_THREADS_PER_MULTIPROCESSOR		hipDeviceAttributeMaxThreadsPerMultiProcessor	
CU_DEVICE_ATTRIBUTE_MEMORY_CLOCK_RATE		hipDeviceAttributeMemoryClockRate	
CU_DEVICE_ATTRIBUTE_MULTIPROCESSOR_COUNT		hipDeviceAttributeMultiprocessorCount	
CU_DEVICE_ATTRIBUTE_MULTI_GPU_BOARD		hipDeviceAttributeIsMultiGpuBoard	
CU_DEVICE_ATTRIBUTE_PAGEABLE_MEMORY_ACCESS		hipDeviceAttributePageableMemoryAccess	
CU_DEVICE_ATTRIBUTE_PAGEABLE_MEMORY_ACCESS_USES_HOST_PAGE_TABLES		hipDeviceAttributePageableMemoryAccessUsesHostPageTables	
CU_DEVICE_ATTRIBUTE_PCI_BUS_ID		hipDeviceAttributePciBusId	
CU_DEVICE_ATTRIBUTE_PCI_DEVICE_ID		hipDeviceAttributePciDeviceId	
CU_DEVICE_ATTRIBUTE_REGISTERS_PER_BLOCK	✓	hipDeviceAttributeMaxRegistersPerBlock	
CU_DEVICE_ATTRIBUTE_SHARED_MEMORY_PER_BLOCK	✓	hipDeviceAttributeMaxSharedMemoryPerBlock	
CU_DEVICE_ATTRIBUTE_TEXTURE_ALIGNMENT		hipDeviceAttributeTextureAlignment	
CU_DEVICE_ATTRIBUTE_TOTAL_CONSTANT_MEMORY		hipDeviceAttributeTotalConstantMemory	
CU_DEVICE_ATTRIBUTE_WARP_SIZE		hipDeviceAttributeWarpSize	
CU_DEVICE_CPU		hipCpuDeviceId	
CU_DEVICE_INVALID		hipInvalidDeviceId	
CU_DEVICE_P2P_ATTRIBUTE_ACCESS_ACCESS_SUPPORTED	✓	hipDevP2PAttrHipArrayAccessSupported	
CU_DEVICE_P2P_ATTRIBUTE_ACCESS_SUPPORTED		hipDevP2PAttrAccessSupported	

CUDA	Deprecated	HIP	Deprecated
CU_DEVICE_P2P_ATTRIBUTE_ARRAY_ACCESS_ACCESS_SUPPORTED	✓	hipDevP2PAttrHipArrayAccessSupported	
CU_DEVICE_P2P_ATTRIBUTE_CUDA_ARRAY_ACCESS_SUPPORTED		hipDevP2PAttrHipArrayAccessSupported	
CU_DEVICE_P2P_ATTRIBUTE_NATIVE_ATOMIC_SUPPORTED		hipDevP2PAttrNativeAtomicSupported	
CU_DEVICE_P2P_ATTRIBUTE_PERFORMANCE_RANK		hipDevP2PAttrPerformanceRank	
CU_EVENT_BLOCKING_SYNC		hipEventBlockingSync	
CU_EVENT_DEFAULT		hipEventDefault	
CU_EVENT_DISABLE_TIMING		hipEventDisableTiming	
CU_EVENT_INTERPROCESS		hipEventInterprocess	
CU_FUNC_ATTRIBUTE_BINARY_VERSION		HIP_FUNC_ATTRIBUTE_BINARY_VERSION	
CU_FUNC_ATTRIBUTE_CACHE_MODE_CA		HIP_FUNC_ATTRIBUTE_CACHE_MODE_CA	
CU_FUNC_ATTRIBUTE_CONST_SIZE_BYTES		HIP_FUNC_ATTRIBUTE_CONST_SIZE_BYTES	
CU_FUNC_ATTRIBUTE_LOCAL_SIZE_BYTES		HIP_FUNC_ATTRIBUTE_LOCAL_SIZE_BYTES	
CU_FUNC_ATTRIBUTE_MAX		HIP_FUNC_ATTRIBUTE_MAX	
CU_FUNC_ATTRIBUTE_MAX_DYNAMIC_SHARED_SIZE_BYTES		HIP_FUNC_ATTRIBUTE_MAX_DYNAMIC_SHARED_SIZE_BYTES	
CU_FUNC_ATTRIBUTE_MAX_THREADS_PER_BLOCK		HIP_FUNC_ATTRIBUTE_MAX_THREADS_PER_BLOCK	
CU_FUNC_ATTRIBUTE_NUM_REGS		HIP_FUNC_ATTRIBUTE_NUM_REGS	
CU_FUNC_ATTRIBUTE_PREFERRED_SHARED_MEMORY_CARVEOUT		HIP_FUNC_ATTRIBUTE_PREFERRED_SHARED_MEMORY_CARVEOUT	
CU_FUNC_ATTRIBUTE_PTX_VERSION		HIP_FUNC_ATTRIBUTE_PTX_VERSION	
CU_FUNC_ATTRIBUTE_SHARED_SIZE_BYTES		HIP_FUNC_ATTRIBUTE_SHARED_SIZE_BYTES	
CU_FUNC_CACHE_PREFER_EQUAL		hipFuncCachePreferEqual	
CU_FUNC_CACHE_PREFER_L1		hipFuncCachePreferL1	
CU_FUNC_CACHE_PREFER_NONE		hipFuncCachePreferNone	
CU_FUNC_CACHE_PREFER_SHARED		hipFuncCachePreferShared	
CU_IPC_HANDLE_SIZE		HIP_IPC_HANDLE_SIZE	
CU_IPC_MEM_LAZY_ENABLE_PEER_ACCESS		hipIpcMemLazyEnablePeerAccess	
CU_JIT_CACHE_MODE		hipJitOptionCacheMode	
CU_JIT_ERROR_LOG_BUFFER		hipJitOptionErrorLogBuffer	
CU_JIT_ERROR_LOG_BUFFER_SIZE_BYTES		hipJitOptionErrorLogBufferSizeBytes	
CU_JIT_FALLBACK_STRATEGY		hipJitOptionFallbackStrategy	
CU_JIT_FAST_COMPILE		hipJitOptionFastCompile	
CU_JIT_GENERATE_DEBUG_INFO		hipJitOptionGenerateDebugInfo	
CU_JIT_GENERATE_LINE_INFO		hipJitOptionGenerateLineInfo	
CU_JIT_INFO_LOG_BUFFER		hipJitOptionInfoLogBuffer	
CU_JIT_INFO_LOG_BUFFER_SIZE_BYTES		hipJitOptionInfoLogBufferSizeBytes	
CU_JIT_LOG_VERBOSE		hipJitOptionLogVerbose	
CU_JIT_MAX_REGISTERS		hipJitOptionMaxRegisters	

CUDA	Deprecated	HIP	Deprecated
CU_JIT_NEW_SM3X_OPT		hipJitOptionSm3xOpt	
CU_JIT_NUM_OPTIONS		hipJitOptionNumOptions	
CU_JIT_OPTIMIZATION_LEVEL		hipJitOptionOptimizationLevel	
CU_JIT_TARGET		hipJitOptionTarget	
CU_JIT_TARGET_FROM_CUCONTEXT		hipJitOptionTargetFromContext	
CU_JIT_THREADS_PER_BLOCK		hipJitOptionThreadsPerBlock	
CU_JIT_WALL_TIME		hipJitOptionWallTime	
CU_LAUNCH_PARAM_BUFFER_POINTER		HIP_LAUNCH_PARAM_BUFFER_POINTER	
CU_LAUNCH_PARAM_BUFFER_SIZE		HIP_LAUNCH_PARAM_BUFFER_SIZE	
CU_LAUNCH_PARAM_END		HIP_LAUNCH_PARAM_END	
CU_LIMIT_MALLOC_HEAP_SIZE		hipLimitMallocHeapSize	
CU_MEMHOSTALLOC_DEVICEMAP		hipHostMallocMapped	
CU_MEMHOSTALLOC_PORTABLE		hipHostMallocPortable	
CU_MEMHOSTALLOC_WRITECOMBINED		hipHostMallocWriteCombined	
CU_MEMHOSTREGISTER_DEVICEMAP		hipHostRegisterMapped	
CU_MEMHOSTREGISTER_IOMEMORY		hipHostRegisterIoMemory	
CU_MEMHOSTREGISTER_PORTABLE		hipHostRegisterPortable	
CU_MEMORYTYPE_ARRAY		hipMemoryTypeArray	
CU_MEMORYTYPE_DEVICE		hipMemoryTypeDevice	
CU_MEMORYTYPE_HOST		hipMemoryTypeHost	
CU_MEMORYTYPE_UNIFIED		hipMemoryTypeUnified	
CU_MEM_ADVISE_SET_ACCESSED_BY		hipMemAdviseSetAccessedBy	
CU_MEM_ADVISE_SET_PREFERRED_LOCATION		hipMemAdviseSetPreferredLocation	
CU_MEM_ADVISE_SET_READ_MOSTLY		hipMemAdviseSetReadMostly	
CU_MEM_ADVISE_UNSET_ACCESSED_BY		hipMemAdviseUnsetAccessedBy	
CU_MEM_ADVISE_UNSET_PREFERRED_LOCATION		hipMemAdviseUnsetPreferredLocation	
CU_MEM_ADVISE_UNSET_READ_MOSTLY		hipMemAdviseUnsetReadMostly	
CU_MEM_ATTACH_GLOBAL		hipMemAttachGlobal	
CU_MEM_ATTACH_HOST		hipMemAttachHost	
CU_MEM_ATTACH_SINGLE		hipMemAttachSingle	
CU_MEM_RANGE_ATTRIBUTE_ACCESSED_BY		hipMemRangeAttributeAccessedBy	
CU_MEM_RANGE_ATTRIBUTE_LAST_PREFETCH_LOCATION		hipMemRangeAttributeLastPrefetchLocation	
CU_MEM_RANGE_ATTRIBUTE_PREFERRED_LOCATION		hipMemRangeAttributePreferredLocation	
CU_MEM_RANGE_ATTRIBUTE_READ_MOSTLY		hipMemRangeAttributeReadMostly	
CU_OCCUPANCY_DEFAULT		hipOccupancyDefault	

CUDA	Deprecated	HIP	Deprecated
CU_RESOURCE_TYPE_ARRAY		HIP_RESOURCE_TYPE_ARRAY	
CU_RESOURCE_TYPE_LINEAR		HIP_RESOURCE_TYPE_LINEAR	
CU_RESOURCE_TYPE_MIPMAPPED_ARRAY		HIP_RESOURCE_TYPE_MIPMAPPED_ARRAY	
CU_RESOURCE_TYPE_PITCH2D		HIP_RESOURCE_TYPE_PITCH2D	
CU_RES_VIEW_FORMAT_FLOAT_1X16		HIP_RES_VIEW_FORMAT_FLOAT_1X16	
CU_RES_VIEW_FORMAT_FLOAT_1X32		HIP_RES_VIEW_FORMAT_FLOAT_1X32	
CU_RES_VIEW_FORMAT_FLOAT_2X16		HIP_RES_VIEW_FORMAT_FLOAT_2X16	
CU_RES_VIEW_FORMAT_FLOAT_2X32		HIP_RES_VIEW_FORMAT_FLOAT_2X32	
CU_RES_VIEW_FORMAT_FLOAT_4X16		HIP_RES_VIEW_FORMAT_FLOAT_4X16	
CU_RES_VIEW_FORMAT_FLOAT_4X32		HIP_RES_VIEW_FORMAT_FLOAT_4X32	
CU_RES_VIEW_FORMAT_NONE		HIP_RES_VIEW_FORMAT_NONE	
CU_RES_VIEW_FORMAT_SIGNED_BC4		HIP_RES_VIEW_FORMAT_SIGNED_BC4	
CU_RES_VIEW_FORMAT_SIGNED_BC5		HIP_RES_VIEW_FORMAT_SIGNED_BC5	
CU_RES_VIEW_FORMAT_SIGNED_BC6H		HIP_RES_VIEW_FORMAT_SIGNED_BC6H	
CU_RES_VIEW_FORMAT_SINT_1X16		HIP_RES_VIEW_FORMAT_SINT_1X16	
CU_RES_VIEW_FORMAT_SINT_1X32		HIP_RES_VIEW_FORMAT_SINT_1X32	
CU_RES_VIEW_FORMAT_SINT_1X8		HIP_RES_VIEW_FORMAT_SINT_1X8	
CU_RES_VIEW_FORMAT_SINT_2X16		HIP_RES_VIEW_FORMAT_SINT_2X16	
CU_RES_VIEW_FORMAT_SINT_2X32		HIP_RES_VIEW_FORMAT_SINT_2X32	
CU_RES_VIEW_FORMAT_SINT_2X8		HIP_RES_VIEW_FORMAT_SINT_2X8	
CU_RES_VIEW_FORMAT_SINT_4X16		HIP_RES_VIEW_FORMAT_SINT_4X16	
CU_RES_VIEW_FORMAT_SINT_4X32		HIP_RES_VIEW_FORMAT_SINT_4X32	
CU_RES_VIEW_FORMAT_SINT_4X8		HIP_RES_VIEW_FORMAT_SINT_4X8	
CU_RES_VIEW_FORMAT_UINT_1X16		HIP_RES_VIEW_FORMAT_UINT_1X16	
CU_RES_VIEW_FORMAT_UINT_1X32		HIP_RES_VIEW_FORMAT_UINT_1X32	
CU_RES_VIEW_FORMAT_UINT_1X8		HIP_RES_VIEW_FORMAT_UINT_1X8	
CU_RES_VIEW_FORMAT_UINT_2X16		HIP_RES_VIEW_FORMAT_UINT_2X16	
CU_RES_VIEW_FORMAT_UINT_2X32		HIP_RES_VIEW_FORMAT_UINT_2X32	
CU_RES_VIEW_FORMAT_UINT_2X8		HIP_RES_VIEW_FORMAT_UINT_2X8	
CU_RES_VIEW_FORMAT_UINT_4X16		HIP_RES_VIEW_FORMAT_UINT_4X16	

CUDA	Deprecated	HIP	Deprecated
CU_RES_VIEW_FORMAT_UINT_4X32		HIP_RES_VIEW_FORMAT_UINT_4X32	
CU_RES_VIEW_FORMAT_UINT_4X8		HIP_RES_VIEW_FORMAT_UINT_4X8	
CU_RES_VIEW_FORMAT_UNSIGNED_BC1		HIP_RES_VIEW_FORMAT_UNSIGNED_BC1	
CU_RES_VIEW_FORMAT_UNSIGNED_BC2		HIP_RES_VIEW_FORMAT_UNSIGNED_BC2	
CU_RES_VIEW_FORMAT_UNSIGNED_BC3		HIP_RES_VIEW_FORMAT_UNSIGNED_BC3	
CU_RES_VIEW_FORMAT_UNSIGNED_BC4		HIP_RES_VIEW_FORMAT_UNSIGNED_BC4	
CU_RES_VIEW_FORMAT_UNSIGNED_BC5		HIP_RES_VIEW_FORMAT_UNSIGNED_BC5	
CU_RES_VIEW_FORMAT_UNSIGNED_BC6H		HIP_RES_VIEW_FORMAT_UNSIGNED_BC6H	
CU_RES_VIEW_FORMAT_UNSIGNED_BC7		HIP_RES_VIEW_FORMAT_UNSIGNED_BC7	
CU_SHARED_MEM_CONFIG_DEFAULT_BANK_SIZE		hipSharedMemBankSizeDefault	
CU_SHARED_MEM_CONFIG_EIGHT_BYTE_BANK_SIZE		hipSharedMemBankSizeEightByte	
CU_SHARED_MEM_CONFIG_FOUR_BYTE_BANK_SIZE		hipSharedMemBankSizeFourByte	
CU_STREAM_DEFAULT		hipStreamDefault	
CU_STREAM_NON_BLOCKING		hipStreamNonBlocking	
CU_STREAM_WAIT_VALUE_AND		hipStreamWaitValueAnd	
CU_STREAM_WAIT_VALUE_EQ		hipStreamWaitValueEq	
CU_STREAM_WAIT_VALUE_GEQ		hipStreamWaitValueGte	
CU_STREAM_WAIT_VALUE_NOR		hipStreamWaitValueNor	
CU_TRSA_OVERRIDE_FORMAT		HIP_TRSA_OVERRIDE_FORMAT	
CU_TRSF_NORMALIZED_COORDINATES		HIP_TRSF_NORMALIZED_COORDINATES	
CU_TRSF_READ_AS_INTEGER		HIP_TRSF_READ_AS_INTEGER	
CU_TRSF_SRGB		HIP_TRSF_SRGB	
CU_TR_ADDRESS_MODE_BORDER		HIP_TR_ADDRESS_MODE_BORDER	
CU_TR_ADDRESS_MODE_CLAMP		HIP_TR_ADDRESS_MODE_CLAMP	
CU_TR_ADDRESS_MODE_MIRROR		HIP_TR_ADDRESS_MODE_MIRROR	
CU_TR_ADDRESS_MODE_WRAP		HIP_TR_ADDRESS_MODE_WRAP	
CU_TR_FILTER_MODE_LINEAR		HIP_TR_FILTER_MODE_LINEAR	
CU_TR_FILTER_MODE_POINT		HIP_TR_FILTER_MODE_POINT	
CUaddress_mode		HIPaddress_mode	
CUaddress_mode_enum		HIPaddress_mode_enum	
CUarray		hipArray*	
CUarray_format		hipArray_Format	
CUarray_format_enum		hipArray_Format	
CUarray_st		hipArray	
CUcomputemode		hipComputeMode	

CUDA	Deprecated	HIP	Deprecated
CUcomputemode_enum		hipComputeMode	
CUcontext		hipCtx_t	
CUctx_st		ihipCtx_t	
CUdevice		hipDevice_t	
CUdevice_P2PAttribute		hipDeviceP2PAttr	
CUdevice_P2PAttribute_enum		hipDeviceP2PAttr	
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_enum		hipFunction_attribute	
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_enum		hipMemRangeAttribute	
CUmemorytype		hipMemoryType	
CUmemorytype_enum		hipMemoryType	
CUmipmappedArray		hipMipmappedArray_t	
CUmipmappedArray_st		hipMipmappedArray	
CUmod_st		ihipModule_t	
CUmodule		hipModule_t	
CUresourceViewFormat		HIPresourceViewFormat	
CUresourceViewFormat_enum		HIPresourceViewFormat_enum	
CUresourcetype		HIPresourcetype	
CUresourcetype_enum		HIPresourcetype_enum	
CUresult		hipError_t	
CUsharedconfig		hipSharedMemConfig	
CUsharedconfig_enum		hipSharedMemConfig	
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
cuDeviceComputeCapability	✓	hipDeviceComputeCapability	

1.2.6   Primary Context Management

CUDA	Deprecated	HIP	Deprecated
cuDevicePrimaryCtxGetState		hipDevicePrimaryCtxGetState	
cuDevicePrimaryCtxRelease		hipDevicePrimaryCtxRelease	
cuDevicePrimaryCtxRelease_v2		hipDevicePrimaryCtxRelease	
cuDevicePrimaryCtxReset		hipDevicePrimaryCtxReset	
cuDevicePrimaryCtxReset_v2		hipDevicePrimaryCtxReset	
cuDevicePrimaryCtxRetain		hipDevicePrimaryCtxRetain	
cuDevicePrimaryCtxSetFlags		hipDevicePrimaryCtxSetFlags	
cuDevicePrimaryCtxSetFlags_v2		hipDevicePrimaryCtxSetFlags	

1.2.7   Context Management

CUDA	Deprecated	HIP	Deprecated
cuCtxCreate		hipCtxCreate	✓
cuCtxCreate_v2		hipCtxCreate	✓
cuCtxDestroy		hipCtxDestroy	✓
cuCtxDestroy_v2		hipCtxDestroy	✓
cuCtxGetApiVersion		hipCtxGetApiVersion	✓
cuCtxGetCacheConfig		hipCtxGetCacheConfig	✓
cuCtxGetCurrent		hipCtxGetCurrent	✓
cuCtxGetDevice		hipCtxGetDevice	✓
cuCtxGetFlags		hipCtxGetFlags	✓

CUDA	Deprecated	HIP	Deprecated
cuCtxGetLimit		hipDeviceGetLimit	
cuCtxGetSharedMemConfig		hipCtxGetSharedMemConfig	✓
cuCtxGetStreamPriorityRange		hipDeviceGetStreamPriorityRange	
cuCtxPopCurrent		hipCtxPopCurrent	✓
cuCtxPopCurrent_v2		hipCtxPopCurrent	✓
cuCtxPushCurrent		hipCtxPushCurrent	✓
cuCtxPushCurrent_v2		hipCtxPushCurrent	✓
cuCtxSetCacheConfig		hipCtxSetCacheConfig	✓
cuCtxSetCurrent		hipCtxSetCurrent	✓
cuCtxSetSharedMemConfig		hipCtxSetSharedMemConfig	✓
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	

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	

CUDA	Deprecated	HIP	Deprecated
cuMemGetAddressRange_v2		hipMemGetAddressRange	
cuMemGetInfo		hipMemGetInfo	
cuMemGetInfo_v2		hipMemGetInfo	
cuMemHostAlloc		hipHostMalloc	
cuMemHostGetDevicePointer		hipHostGetDevicePointer	
cuMemHostGetDevicePointer_v2		hipHostGetDevicePointer	
cuMemHostGetFlags		hipHostGetFlags	
cuMemHostRegister		hipHostRegister	
cuMemHostRegister_v2		hipHostRegister	
cuMemHostUnregister		hipHostUnregister	
cuMemcpy2D		hipMemcpyParam2D	
cuMemcpy2DAsync		hipMemcpyParam2DAsync	
cuMemcpy2DAsync_v2		hipMemcpyParam2DAsync	
cuMemcpy2D_v2		hipMemcpyParam2D	
cuMemcpy3D		hipDrvMemcpy3D	
cuMemcpy3DAsync		hipDrvMemcpy3DAsync	
cuMemcpy3DAsync_v2		hipDrvMemcpy3DAsync	
cuMemcpy3D_v2		hipDrvMemcpy3D	
cuMemcpyAtoH		hipMemcpyAtoH	
cuMemcpyAtoH_v2		hipMemcpyAtoH	
cuMemcpyDtoD		hipMemcpyDtoD	
cuMemcpyDtoDAsync		hipMemcpyDtoDAsync	
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		hipMipmappedArrayCreate	
cuMipmappedArrayDestroy		hipMipmappedArrayDestroy	
cuMipmappedArrayGetLevel		hipMipmappedArrayGetLevel	

1.2.10   Unified Addressing

CUDA	Deprecated	HIP	Deprecated
cuMemAdvise		hipMemAdvise	
cuMemRangeGetAttribute		hipMemRangeGetAttribute	
cuMemRangeGetAttributes		hipMemRangeGetAttributes	

1.2.11   Stream Management

CUDA	Deprecated	HIP	Deprecated
cuStreamAddCallback		hipStreamAddCallback	
cuStreamAttachMemAsync		hipStreamAttachMemAsync	
cuStreamCreate		hipStreamCreateWithFlags	
cuStreamCreateWithPriority		hipStreamCreateWithPriority	
cuStreamDestroy		hipStreamDestroy	
cuStreamDestroy_v2		hipStreamDestroy	
cuStreamGetFlags		hipStreamGetFlags	
cuStreamGetPriority		hipStreamGetPriority	
cuStreamQuery		hipStreamQuery	
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   Stream Memory Operations

CUDA	Deprecated	HIP	Deprecated
cuStreamWaitValue32		hipStreamWaitValue32*	
cuStreamWaitValue64		hipStreamWaitValue64*	
cuStreamWriteValue32		hipStreamWriteValue32*	
cuStreamWriteValue64		hipStreamWriteValue64*	

* Possible data loss in 3 argument

1.2.14   Execution Control

CUDA	Deprecated	HIP	Deprecated
cuFuncGetAttribute		hipFuncGetAttribute	
cuLaunchKernel		hipModuleLaunchKernel	

1.2.15   Occupancy

CUDA	Deprecated	HIP	Deprecated
cuOccupancyMaxActiveBlocksPerMulti processor		hipModuleOccupancyMaxActiveBlocksP erMultiprocessor	
cuOccupancyMaxActiveBlocksPerMulti processorWithFlags		hipModuleOccupancyMaxActiveBlocksP erMultiprocessorWithFlags	
cuOccupancyMaxPotentialBlockSize		hipModuleOccupancyMaxPotentialBlock Size	
cuOccupancyMaxPotentialBlockSizeWit hFlags		hipModuleOccupancyMaxPotentialBlock SizeWithFlags	

1.2.16   Texture Reference Management [Deprecated]

CUDA	Deprecated	HIP	Deprecated
cuTexRefGetAddress	✓	hipTexRefGetAddress	
cuTexRefGetAddressMode	✓	hipTexRefGetAddressMode	
cuTexRefGetAddress_v2	✓	hipTexRefGetAddress	
cuTexRefGetArray	✓	hipTexRefGetArray	
cuTexRefGetFilterMode	✓	hipTexRefGetFilterMode	
cuTexRefGetFlags	✓	hipTexRefGetFlags	
cuTexRefGetFormat	✓	hipTexRefGetFormat	
cuTexRefGetMaxAnisotropy	✓	hipTexRefGetMaxAnisotropy	
cuTexRefGetMipmapFilterMode	✓	hipTexRefGetMipmapFilterMode	
cuTexRefGetMipmapLevelBias	✓	hipTexRefGetMipmapLevelBias	
cuTexRefGetMipmapLevelClamp	✓	hipTexRefGetMipmapLevelClamp	
cuTexRefGetMipmappedArray	✓	hipTexRefGetMipMappedArray	
cuTexRefSetAddress	✓	hipTexRefSetAddress	
cuTexRefSetAddress2D	✓	hipTexRefSetAddress2D	
cuTexRefSetAddress2D_v2		hipTexRefSetAddress2D	
cuTexRefSetAddress2D_v3		hipTexRefSetAddress2D	
cuTexRefSetAddressMode	✓	hipTexRefSetAddressMode	
cuTexRefSetAddress_v2	✓	hipTexRefSetAddress	
cuTexRefSetArray	✓	hipTexRefSetArray	
cuTexRefSetBorderColor	✓	hipTexRefSetBorderColor	
cuTexRefSetFilterMode	✓	hipTexRefSetFilterMode	
cuTexRefSetFlags	✓	hipTexRefSetFlags	
cuTexRefSetFormat	✓	hipTexRefSetFormat	
cuTexRefSetMaxAnisotropy	✓	hipTexRefSetMaxAnisotropy	
cuTexRefSetMipmapFilterMode	✓	hipTexRefSetMipmapFilterMode	
cuTexRefSetMipmapLevelBias	✓	hipTexRefSetMipmapLevelBias	
cuTexRefSetMipmapLevelClamp	✓	hipTexRefSetMipmapLevelClamp	
cuTexRefSetMipmappedArray	✓	hipTexRefSetMipmappedArray	

1.2.17 Texture Object Management

CUDA	Deprecated	HIP	Deprecated
cuTexObjectCreate		hipTexObjectCreate	
cuTexObjectDestroy		hipTexObjectDestroy	
cuTexObjectGetResourceDesc		hipTexObjectGetResourceDesc	
cuTexObjectGetResourceViewDesc		hipTexObjectGetResourceViewDesc	
cuTexObjectGetTextureDesc		hipTexObjectGetTextureDesc	

1.2.18 Peer Context Memory Access

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

1.2.19 Profiler Control

CUDA	Deprecated	HIP	Deprecated
cuProfilerStart		hipProfilerStart	✓
cuProfilerStop		hipProfilerStop	✓

1.2.20 Unsupported APIs

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

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	
cuCmulf		hipCmulf	
cuComplexDoubleToFloat		hipComplexDoubleToFloat	
cuComplexFloatToDouble		hipComplexFloatToDouble	
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	

CUDA	Deprecated	HIP	Deprecated
__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	
__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	

CUDA	Deprecated	HIP	Deprecated
__float2ll_rz		__float2ll_rz	
__float2uint_rd		__float2uint_rd	
__float2uint_rn		__float2uint_rn	
__float2uint_ru		__float2uint_ru	
__float2uint_rz		__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	
__frcp_rd		__frcp_rd	
__frcp_rn		__frcp_rn	
__frcp_ru		__frcp_ru	
__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	

CUDA	Deprecated	HIP	Deprecated
__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	
__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	

CUDA	Deprecated	HIP	Deprecated
__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	
__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	

CUDA	Deprecated	HIP	Deprecated
__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	
__popcll		__popcll	
__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_ru	
__short2half_rz		__short2half_rz	
__short_as_half		__short_as_half	
__sincosf		__sincosf	
__sinf		__sinf	
__syncthreads		__syncthreads	
__syncthreads_and		__syncthreads_and	
__syncthreads_count		__syncthreads_count	
__syncthreads_or		__syncthreads_or	
__tanf		__tanf	
__threadfence		__threadfence	
__threadfence_block		__threadfence_block	
__threadfence_system		__threadfence_system	
__uhadd		__uhadd	
__uint2double_rn		__uint2double_rn	
__uint2float_rd		__uint2float_rd	
__uint2float_rn		__uint2float_rn	
__uint2float_ru		__uint2float_ru	
__uint2float_rz		__uint2float_rz	
__uint2half_rd		__uint2half_rd	
__uint2half_rn		__uint2half_rn	
__uint2half_ru		__uint2half_ru	
__uint2half_rz		__uint2half_rz	
__uint_as_float		__uint_as_float	
__ull2double_rd		__ull2double_rd	
__ull2double_rn		__ull2double_rn	
__ull2double_ru		__ull2double_ru	
__ull2double_rz		__ull2double_rz	
__ull2float_rd		__ull2float_rd	

CUDA	Deprecated	HIP	Deprecated
__ull2float_rn		__ull2float_rn	
__ull2float_ru		__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		__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	
asin		asin	
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	

CUDA	Deprecated	HIP	Deprecated
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_i1f		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	
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	
h2exp2		h2exp2	
h2floor		h2floor	
h2log		h2log	
h2log10		h2log10	

CUDA	Deprecated	HIP	Deprecated
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		hrsqrt	
hsin		hsin	
hsqrt		hsqrt	
htrunc		htrunc	
hypot		hypot	
hypotf		hypotf	
ilogb		ilogb	
ilogbf		ilogbf	
isfinite		isfinite	
isinf		isinf	
isnan		isnan	
j0		j0	
j0f		j0f	
j1		j1	
j1f		j1f	
jn		jn	
jnf		jnf	
labs		labs	
ldexp		ldexp	
ldexpf		ldexpf	
lgamma		lgamma	
lgammaf		lgammaf	
llabs		llabs	
llrint		llrint	
llrintf		llrintf	
llround		llround	
llroundf		llroundf	
log		log	
log10		log10	
log10f		log10f	
log1p		log1p	
log1pf		log1pf	
log2		log2	
log2f		log2f	

CUDA	Deprecated	HIP	Deprecated
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	
normcdff		normcdff	
normcdfinv		normcdfinv	
normcdfinvf		normcdfinvf	
normf		normf	
pow		pow	
powf		powf	
rcbrt		rcbrt	
rcbrtf		rcbrtf	
remainder		remainder	
remainderf		remainderf	
remquo		remquo	
remquof		remquof	
rhypot		rhypot	
rhypotf		rhypotf	
rint		rint	
rintf		rintf	
rnorm		rnorm	
rnorm3d		rnorm3d	
rnorm3df		rnorm3df	
rnorm4d		rnorm4d	
rnorm4df		rnorm4df	
rnormf		rnormf	
round		round	
roundf		roundf	
rsqrt		rsqrt	
rsqrtf		rsqrtf	
scalbln		scalbln	
scalblnf		scalblnf	
scalbn		scalbn	

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

1.5   CUBLAS API Supported by HIP

1.5.1   CUBLAS Data Types

CUDA	Deprecated	HIP	Deprecated
CUBLAS_ATOMICS_ALLOWED		HIPBLAS_ATOMICS_ALLOWED	
CUBLAS_ATOMICS_NOT_ALLOWED		HIPBLAS_ATOMICS_NOT_ALLOWED	
CUBLAS_DIAG_NON_UNIT		HIPBLAS_DIAG_NON_UNIT	
CUBLAS_DIAG_UNIT		HIPBLAS_DIAG_UNIT	
CUBLAS_FILL_MODE_FULL		HIPBLAS_FILL_MODE_FULL	
CUBLAS_FILL_MODE_LOWER		HIPBLAS_FILL_MODE_LOWER	
CUBLAS_FILL_MODE_UPPER		HIPBLAS_FILL_MODE_UPPER	
CUBLAS_GEMM_DEFAULT		HIPBLAS_GEMM_DEFAULT	
CUBLAS_GEMM_DFALT		HIPBLAS_GEMM_DEFAULT	
CUBLAS_OP_C		HIPBLAS_OP_C	
CUBLAS_OP_HERMITAN		HIPBLAS_OP_C	
CUBLAS_OP_N		HIPBLAS_OP_N	
CUBLAS_OP_T		HIPBLAS_OP_T	
CUBLAS_POINTER_MODE_DEVICE		HIPBLAS_POINTER_MODE_DEVICE	

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	
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	

CUDA	Deprecated	HIP	Deprecated
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	
cublasDrotmg		hipblasDrotmg	
cublasDrotmg_v2		hipblasDrotmg	
cublasDscal		hipblasDscal	
cublasDscal_v2		hipblasDscal	
cublasDswap		hipblasDswap	
cublasDswap_v2		hipblasDswap	
cublasDzasum		hipblasDzasum	
cublasDzasum_v2		hipblasDzasum	
cublasDznrm2		hipblasDznrm2	
cublasDznrm2_v2		hipblasDznrm2	
cublasIcamax		hipblasIcamax	
cublasIcamax_v2		hipblasIcamax	
cublasIcamin		hipblasIcamin	
cublasIcamin_v2		hipblasIcamin	
cublasIdamax		hipblasIdamax	
cublasIdamax_v2		hipblasIdamax	
cublasIdamin		hipblasIdamin	
cublasIdamin_v2		hipblasIdamin	
cublasIsamax		hipblasIsamax	
cublasIsamax_v2		hipblasIsamax	
cublasIsamin		hipblasIsamin	
cublasIsamin_v2		hipblasIsamin	
cublasIzamax		hipblasIzamax	
cublasIzamax_v2		hipblasIzamax	
cublasIzamin		hipblasIzamin	
cublasIzamin_v2		hipblasIzamin	
cublasSasum		hipblasSasum	
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	

CUDA	Deprecated	HIP	Deprecated
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	
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	
cublasChbmv		hipblasChbmv	
cublasChbmv_v2		hipblasChbmv	
cublasChemv		hipblasChemv	
cublasChemv_v2		hipblasChemv	
cublasCher		hipblasCher	

[AMD Public Use]

CUDA	Deprecated	HIP	Deprecated
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	
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	

CUDA	Deprecated	HIP	Deprecated
cublasDtpmv_v2		hipblasDtpmv	
cublasDtpsv		hipblasDtpsv	
cublasDtpsv_v2		hipblasDtpsv	
cublasDtrmv		hipblasDtrmv	
cublasDtrmv_v2		hipblasDtrmv	
cublasDtrsv		hipblasDtrsv	
cublasDtrsv_v2		hipblasDtrsv	
cublasSgbmv		hipblasSgbmv	
cublasSgbmv_v2		hipblasSgbmv	
cublasSgemv		hipblasSgemv	
cublasSgemv_v2		hipblasSgemv	
cublasSger		hipblasSger	
cublasSger_v2		hipblasSger	
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		hipblasStpsv	
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	

CUDA	Deprecated	HIP	Deprecated
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	
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	
cublasCgemmStridedBatched		hipblasCgemmStridedBatched	
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	

CUDA	Deprecated	HIP	D
cublasCtrmm_v2		hipblasCtrmm	
cublasCtrsm		hipblasCtrsm	
cublasCtrsm_v2		hipblasCtrsm	
cublasDgemm		hipblasDgemm	
cublasDgemmBatched		hipblasDgemmBatched	
cublasDgemmStridedBatched		hipblasDgemmStridedBatched	
cublasDgemm_v2		hipblasDgemm	
cublasDsymm		hipblasDsymm	
cublasDsymm_v2		hipblasDsymm	
cublasDsyr2k		hipblasDsyr2k	
cublasDsyr2k_v2		hipblasDsyr2k	
cublasDsyrk		hipblasDsyrk	
cublasDsyrk_v2		hipblasDsyrk	
cublasDsyrkx		hipblasDsyrkx	
cublasDtrmm		hipblasDtrmm	
cublasDtrmm_v2		hipblasDtrmm	
cublasDtrsm		hipblasDtrsm	
cublasDtrsm_v2		hipblasDtrsm	
cublasHgemm		hipblasHgemm	
cublasHgemmBatched		hipblasHgemmBatched	
cublasHgemmStridedBatched		hipblasHgemmStridedBatched	
cublasSgemm		hipblasSgemm	
cublasSgemmBatched		hipblasSgemmBatched	
cublasSgemmStridedBatched		hipblasSgemmStridedBatched	
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	
cublasZgemmStridedBatched		hipblasZgemmStridedBatched	
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	

CUDA	Deprecated	HIP	D
cublasZsyrk_v2		hipblasZsyrk	
cublasZsyrkx		hipblasZsyrkx	
cublasZtrmm		hipblasZtrmm	
cublasZtrmm_v2		hipblasZtrmm	
cublasZtrsm		hipblasZtrsm	
cublasZtrsm_v2		hipblasZtrsm	

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	
cublasGemmStridedBatchedEx		hipblasGemmStridedBatchedEx	
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_PSEUDO_DEFAULT		HIPRAND_RNG_PSEUDO_DEFAULT	
CURAND_RNG_PSEUDO_MRG32K3A		HIPRAND_RNG_PSEUDO_MRG32K3A	
CURAND_RNG_PSEUDO_MT19937		HIPRAND_RNG_PSEUDO_MT19937	
CURAND_RNG_PSEUDO_MTGP32		HIPRAND_RNG_PSEUDO_MTGP32	
CURAND_RNG_PSEUDO_PHILOX4_32_10		HIPRAND_RNG_PSEUDO_PHILOX4_32_10	
CURAND_RNG_PSEUDO_XORWOW		HIPRAND_RNG_PSEUDO_XORWOW	
CURAND_RNG_QUASI_DEFAULT		HIPRAND_RNG_QUASI_DEFAULT	
CURAND_RNG_QUASI_SCRAMBLED_SOBOL32		HIPRAND_RNG_QUASI_SCRAMBLED_SOBOL32	
CURAND_RNG_QUASI_SCRAMBLED_SOBOL64		HIPRAND_RNG_QUASI_SCRAMBLED_SOBOL64	
CURAND_RNG_QUASI_SOBOL32		HIPRAND_RNG_QUASI_SOBOL32	
CURAND_RNG_QUASI_SOBOL64		HIPRAND_RNG_QUASI_SOBOL64	
CURAND_RNG_TEST		HIPRAND_RNG_TEST	
CURAND_STATUS_ALLOCATION_FAILED		HIPRAND_STATUS_ALLOCATION_FAILED	
CURAND_STATUS_ARCH_MISMATCH		HIPRAND_STATUS_ARCH_MISMATCH	
CURAND_STATUS_DOUBLE_PRECISION_REQUIRED		HIPRAND_STATUS_DOUBLE_PRECISION_REQUIRED	
CURAND_STATUS_INITIALIZATION_FAILED		HIPRAND_STATUS_INITIALIZATION_FAILED	
CURAND_STATUS_INTERNAL_ERROR		HIPRAND_STATUS_INTERNAL_ERROR	
CURAND_STATUS_LAUNCH_FAILURE		HIPRAND_STATUS_LAUNCH_FAILURE	
CURAND_STATUS_LENGTH_NOT_MULTIPLE		HIPRAND_STATUS_LENGTH_NOT_MULTIPLE	
CURAND_STATUS_NOT_INITIALIZED		HIPRAND_STATUS_NOT_INITIALIZED	
CURAND_STATUS_OUT_OF_RANGE		HIPRAND_STATUS_OUT_OF_RANGE	
CURAND_STATUS_PREEXISTING_FAILURE		HIPRAND_STATUS_PREEXISTING_FAILURE	
CURAND_STATUS_SUCCESS		HIPRAND_STATUS_SUCCESS	
CURAND_STATUS_TYPE_ERROR		HIPRAND_STATUS_TYPE_ERROR	
CURAND_STATUS_VERSION_MISMATCH		HIPRAND_STATUS_VERSION_MISMATCH	
CURAND_VERSION		HIPRAND_VERSION	
curandDirectionVectors32_t		hiprandDirectionVectors32_t	
curandDiscreteDistribution_st		hiprandDiscreteDistribution_st	
curandDiscreteDistribution_t		hiprandDiscreteDistribution_t	
curandGenerator_st		hiprandGenerator_st	
curandGenerator_t		hiprandGenerator_t	
curandRngType		hiprandRngType_t	

CUDA	Deprecated	HIP	Deprecated
curandRngType_t		hiprandRngType_t	
curandState		hiprandState	
curandStateMRG32k3a		hiprandStateMRG32k3a	
curandStateMRG32k3a_t		hiprandStateMRG32k3a_t	
curandStateMtgp32		hiprandStateMtgp32	
curandStateMtgp32_t		hiprandStateMtgp32_t	
curandStatePhilox4_32_10		hiprandStatePhilox4_32_10	
curandStatePhilox4_32_10_t		hiprandStatePhilox4_32_10_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	
curandCreateGeneratorHost		hiprandCreateGeneratorHost	
curandCreatePoissonDistribution		hiprandCreatePoissonDistribution	
curandDestroyDistribution		hiprandDestroyDistribution	
curandDestroyGenerator		hiprandDestroyGenerator	
curandGenerate		hiprandGenerate	
curandGenerateLogNormal		hiprandGenerateLogNormal	
curandGenerateLogNormalDouble		hiprandGenerateLogNormalDouble	
curandGenerateNormal		hiprandGenerateNormal	
curandGenerateNormalDouble		hiprandGenerateNormalDouble	
curandGeneratePoisson		hiprandGeneratePoisson	
curandGenerateSeeds		hiprandGenerateSeeds	
curandGenerateUniform		hiprandGenerateUniform	
curandGenerateUniformDouble		hiprandGenerateUniformDouble	
curandGetVersion		hiprandGetVersion	
curandMakeMTGP32Constants		hiprandMakeMTGP32Constants	
curandMakeMTGP32KernelState		hiprandMakeMTGP32KernelState	
curandSetGeneratorOffset		hiprandSetGeneratorOffset	
curandSetPseudoRandomGeneratorSeed		hiprandSetPseudoRandomGeneratorSeed	
curandSetQuasiRandomGeneratorDimensions		hiprandSetQuasiRandomGeneratorDimensions	
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_double		hiprand_log_normal2_double	

CUDA	Deprecated	HIP	Deprecated
curand_log_normal4		hiprand_log_normal4	
curand_log_normal4_double		hiprand_log_normal4_double	
curand_log_normal_double		hiprand_log_normal_double	
curand_normal		hiprand_normal	
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_FAILED		HIPFFT_ALLOC_FAILED	
CUFFT_C2C		HIPFFT_C2C	
CUFFT_C2R		HIPFFT_C2R	
CUFFT_D2Z		HIPFFT_D2Z	
CUFFT_EXEC_FAILED		HIPFFT_EXEC_FAILED	
CUFFT_FORWARD		HIPFFT_FORWARD	
CUFFT_INCOMPLETE_PARAMETER _LIST		HIPFFT_INCOMPLETE_PARAMETER _LIST	
CUFFT_INTERNAL_ERROR		HIPFFT_INTERNAL_ERROR	
CUFFT_INVALID_DEVICE		HIPFFT_INVALID_DEVICE	
CUFFT_INVALID_PLAN		HIPFFT_INVALID_PLAN	
CUFFT_INVALID_SIZE		HIPFFT_INVALID_SIZE	
CUFFT_INVALID_TYPE		HIPFFT_INVALID_TYPE	
CUFFT_INVALID_VALUE		HIPFFT_INVALID_VALUE	
CUFFT_INVERSE		HIPFFT_BACKWARD	
CUFFT_NOT_IMPLEMENTED		HIPFFT_NOT_IMPLEMENTED	
CUFFT_NOT_SUPPORTED		HIPFFT_NOT_SUPPORTED	
CUFFT_NO_WORKSPACE		HIPFFT_NO_WORKSPACE	
CUFFT_PARSE_ERROR		HIPFFT_PARSE_ERROR	
CUFFT_R2C		HIPFFT_R2C	
CUFFT_SETUP_FAILED		HIPFFT_SETUP_FAILED	
CUFFT_SUCCESS		HIPFFT_SUCCESS	
CUFFT_UNALIGNED_DATA		HIPFFT_UNALIGNED_DATA	
CUFFT_Z2D		HIPFFT_Z2D	
CUFFT_Z2Z		HIPFFT_Z2Z	
cufftComplex		hipfftComplex	
cufftDoubleComplex		hipfftDoubleComplex	

CUDA	Deprecated	HIP	Deprecated
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	

1.8   CUSPARSE API Supported by HIP

1.8.1   CUSPARSE Types References

CUDA	Deprecated	HIP	Deprecated
CUSPARSE_ACTION_NUMERIC		HIPSPARSE_ACTION_NUMERIC	
CUSPARSE_ACTION_SYMBOLIC		HIPSPARSE_ACTION_SYMBOLIC	
CUSPARSE_DIAG_TYPE_NON_UNIT		HIPSPARSE_DIAG_TYPE_NON_UNIT	
CUSPARSE_DIAG_TYPE_UNIT		HIPSPARSE_DIAG_TYPE_UNIT	
CUSPARSE_DIRECTION_COLUMN		HIPSPARSE_DIRECTION_COLUMN	
CUSPARSE_DIRECTION_ROW		HIPSPARSE_DIRECTION_ROW	
CUSPARSE_FILL_MODE_LOWER		HIPSPARSE_FILL_MODE_LOWER	
CUSPARSE_FILL_MODE_UPPER		HIPSPARSE_FILL_MODE_UPPER	
CUSPARSE_HYB_PARTITION_AUTO	✓	HIPSPARSE_HYB_PARTITION_AUTO	
CUSPARSE_HYB_PARTITION_MAX	✓	HIPSPARSE_HYB_PARTITION_MAX	
CUSPARSE_HYB_PARTITION_USER	✓	HIPSPARSE_HYB_PARTITION_USER	
CUSPARSE_INDEX_BASE_ONE		HIPSPARSE_INDEX_BASE_ONE	
CUSPARSE_INDEX_BASE_ZERO		HIPSPARSE_INDEX_BASE_ZERO	
CUSPARSE_MATRIX_TYPE_GENERAL		HIPSPARSE_MATRIX_TYPE_GENERAL	
CUSPARSE_MATRIX_TYPE_HERMITIAN		HIPSPARSE_MATRIX_TYPE_HERMITIAN	
CUSPARSE_MATRIX_TYPE_SYMMETRIC		HIPSPARSE_MATRIX_TYPE_SYMMETRIC	
CUSPARSE_MATRIX_TYPE_TRIANGULAR		HIPSPARSE_MATRIX_TYPE_TRIANGULAR	
CUSPARSE_OPERATION_CONJUGATE_TRANSPOSE		HIPSPARSE_OPERATION_CONJUGATE_TRANSPOSE	
CUSPARSE_OPERATION_NON_TRANSPOSE		HIPSPARSE_OPERATION_NON_TRANSPOSE	
CUSPARSE_OPERATION_TRANSPOSE		HIPSPARSE_OPERATION_TRANSPOSE	
CUSPARSE_POINTER_MODE_DEVICE		HIPSPARSE_POINTER_MODE_DEVICE	
CUSPARSE_POINTER_MODE_HOST		HIPSPARSE_POINTER_MODE_HOST	
CUSPARSE_SOLVE_POLICY_NO_LEVEL		HIPSPARSE_SOLVE_POLICY_NO_LEVEL	
CUSPARSE_SOLVE_POLICY_USE_LEVEL		HIPSPARSE_SOLVE_POLICY_USE_LEVEL	
CUSPARSE_STATUS_ALLOC_FAILED		HIPSPARSE_STATUS_ALLOC_FAILED	
CUSPARSE_STATUS_ARCH_MISMATCH		HIPSPARSE_STATUS_ARCH_MISMATCH	
CUSPARSE_STATUS_EXECUTION_FAILED		HIPSPARSE_STATUS_EXECUTION_FAILED	
CUSPARSE_STATUS_INTERNAL_ERROR		HIPSPARSE_STATUS_INTERNAL_ERROR	
CUSPARSE_STATUS_INVALID_VALUE		HIPSPARSE_STATUS_INVALID_VALUE	

CUDA	Deprecated	HIP	Deprecated
CUSPARSE_STATUS_MAPPING_ER ROR		HIPSPARSE_STATUS_MAPPING_ER ROR	
CUSPARSE_STATUS_MATRIX_TYP E_NOT_SUPPORTED		HIPSPARSE_STATUS_MATRIX_TYP E_NOT_SUPPORTED	
CUSPARSE_STATUS_NOT_INITIALI ZED		HIPSPARSE_STATUS_NOT_INITIALI ZED	
CUSPARSE_STATUS_SUCCESS		HIPSPARSE_STATUS_SUCCESS	
CUSPARSE_STATUS_ZERO_PIVOT		HIPSPARSE_STATUS_ZERO_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	✓	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	

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		hipsparseCreateBsric02Info	
cusparseCreateBsrilu02Info		hipsparseCreateBsrilu02Info	
cusparseCreateBsrsv2Info		hipsparseCreateBsrsv2Info	
cusparseCreateCsrgemm2Info	✓	hipsparseCreateCsrgemm2Info	
cusparseCreateCsric02Info		hipsparseCreateCsric02Info	

CUDA	Deprecated	HIP	Deprecated
cusparseCreateCsrilu02Info		hipsparseCreateCsrilu02Info	
cusparseCreateCsrsm2Info		hipsparseCreateCsrsm2Info	
cusparseCreateCsrsv2Info		hipsparseCreateCsrsv2Info	
cusparseCreateHybMat	✓	hipsparseCreateHybMat	
cusparseCreateMatDescr		hipsparseCreateMatDescr	
cusparseCreatePruneInfo		hipsparseCreatePruneInfo	
cusparseDestroyBsric02Info		hipsparseDestroyBsric02Info	
cusparseDestroyBsrilu02Info		hipsparseDestroyBsrilu02Info	
cusparseDestroyBsrsv2Info		hipsparseDestroyBsrsv2Info	
cusparseDestroyCsrgemm2Info	✓	hipsparseDestroyCsrgemm2Info	
cusparseDestroyCsric02Info		hipsparseDestroyCsric02Info	
cusparseDestroyCsrilu02Info		hipsparseDestroyCsrilu02Info	
cusparseDestroyCsrsm2Info		hipsparseDestroyCsrsm2Info	
cusparseDestroyCsrsv2Info		hipsparseDestroyCsrsv2Info	
cusparseDestroyHybMat	✓	hipsparseDestroyHybMat	
cusparseDestroyMatDescr		hipsparseDestroyMatDescr	
cusparseDestroyPruneInfo		hipsparseDestroyPruneInfo	
cusparseGetMatDiagType		hipsparseGetMatDiagType	
cusparseGetMatFillMode		hipsparseGetMatFillMode	
cusparseGetMatIndexBase		hipsparseGetMatIndexBase	
cusparseGetMatType		hipsparseGetMatType	
cusparseSetMatDiagType		hipsparseSetMatDiagType	
cusparseSetMatFillMode		hipsparseSetMatFillMode	
cusparseSetMatIndexBase		hipsparseSetMatIndexBase	
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	✓	hipsparseDdoti	
cusparseDgthr	✓	hipsparseDgthr	
cusparseDgthrz	✓	hipsparseDgthrz	
cusparseDroti	✓	hipsparseDroti	
cusparseDsctr	✓	hipsparseDsctr	
cusparseSaxpyi	✓	hipsparseSaxpyi	
cusparseSdoti	✓	hipsparseSdoti	
cusparseSgthr	✓	hipsparseSgthr	
cusparseSgthrz	✓	hipsparseSgthrz	
cusparseSroti	✓	hipsparseSroti	
cusparseSsctr	✓	hipsparseSsctr	
cusparseZaxpyi	✓	hipsparseZaxpyi	

CUDA	Deprecated	HIP	Deprecated
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_bufferSize		hipsparseCbsrsv2_bufferSize	
cusparseCbsrsv2_bufferSizeExt		hipsparseCbsrsv2_bufferSizeExt	
cusparseCbsrsv2_solve		hipsparseCbsrsv2_solve	
cusparseCcsrmv	✓	hipsparseCcsrmv	
cusparseCcsrsv2_analysis		hipsparseCcsrsv2_analysis	
cusparseCcsrsv2_bufferSize		hipsparseCcsrsv2_bufferSize	
cusparseCcsrsv2_bufferSizeExt		hipsparseCcsrsv2_bufferSizeExt	
cusparseCcsrsv2_solve		hipsparseCcsrsv2_solve	
cusparseChybmv	✓	hipsparseChybmv	
cusparseDbsrmv		hipsparseDbsrmv	
cusparseDbsrsv2_analysis		hipsparseDbsrsv2_analysis	
cusparseDbsrsv2_bufferSize		hipsparseDbsrsv2_bufferSize	
cusparseDbsrsv2_bufferSizeExt		hipsparseDbsrsv2_bufferSizeExt	
cusparseDbsrsv2_solve		hipsparseDbsrsv2_solve	
cusparseDcsrmv	✓	hipsparseDcsrmv	
cusparseDcsrsv2_analysis		hipsparseDcsrsv2_analysis	
cusparseDcsrsv2_bufferSize		hipsparseDcsrsv2_bufferSize	
cusparseDcsrsv2_bufferSizeExt		hipsparseDcsrsv2_bufferSizeExt	
cusparseDcsrsv2_solve		hipsparseDcsrsv2_solve	
cusparseDhybmv	✓	hipsparseDhybmv	
cusparseSbsrmv		hipsparseSbsrmv	
cusparseSbsrsv2_analysis		hipsparseSbsrsv2_analysis	
cusparseSbsrsv2_bufferSize		hipsparseSbsrsv2_bufferSize	
cusparseSbsrsv2_bufferSizeExt		hipsparseSbsrsv2_bufferSizeExt	
cusparseSbsrsv2_solve		hipsparseSbsrsv2_solve	
cusparseScsrmv	✓	hipsparseScsrmv	
cusparseScsrsv2_analysis		hipsparseScsrsv2_analysis	
cusparseScsrsv2_bufferSize		hipsparseScsrsv2_bufferSize	
cusparseScsrsv2_bufferSizeExt		hipsparseScsrsv2_bufferSizeExt	
cusparseScsrsv2_solve		hipsparseScsrsv2_solve	
cusparseShybmv	✓	hipsparseShybmv	
cusparseXbsrsv2_zeroPivot		hipsparseXbsrsv2_zeroPivot	
cusparseXcsrsv2_zeroPivot		hipsparseXcsrsv2_zeroPivot	
cusparseZbsrmv		hipsparseZbsrmv	
cusparseZbsrsv2_analysis		hipsparseZbsrsv2_analysis	
cusparseZbsrsv2_bufferSize		hipsparseZbsrsv2_bufferSize	
cusparseZbsrsv2_bufferSizeExt		hipsparseZbsrsv2_bufferSizeExt	
cusparseZbsrsv2_solve		hipsparseZbsrsv2_solve	
cusparseZcsrmv	✓	hipsparseZcsrmv	

CUDA	Deprecated	HIP	Deprecated
cusparseZcsrsv2_analysis		hipsparseZcsrsv2_analysis	
cusparseZcsrsv2_bufferSize		hipsparseZcsrsv2_bufferSize	
cusparseZcsrsv2_bufferSizeExt		hipsparseZcsrsv2_bufferSizeExt	
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_analysis	
cusparseCcsrsm2_bufferSizeExt		hipsparseCcsrsm2_bufferSizeExt	
cusparseCcsrsm2_solve		hipsparseCcsrsm2_solve	
cusparseCgemmi	✓	hipsparseCgemmi	
cusparseDbsrmm		hipsparseDbsrmm	
cusparseDcsrmm	✓	hipsparseDcsrmm	
cusparseDcsrmm2	✓	hipsparseDcsrmm2	
cusparseDcsrsm2_analysis		hipsparseDcsrsm2_analysis	
cusparseDcsrsm2_bufferSizeExt		hipsparseDcsrsm2_bufferSizeExt	
cusparseDcsrsm2_solve		hipsparseDcsrsm2_solve	
cusparseDgemmi	✓	hipsparseDgemmi	
cusparseSbsrmm		hipsparseSbsrmm	
cusparseScsrmm	✓	hipsparseScsrmm	
cusparseScsrmm2	✓	hipsparseScsrmm2	
cusparseScsrsm2_analysis		hipsparseScsrsm2_analysis	
cusparseScsrsm2_bufferSizeExt		hipsparseScsrsm2_bufferSizeExt	
cusparseScsrsm2_solve		hipsparseScsrsm2_solve	
cusparseSgemmi	✓	hipsparseSgemmi	
cusparseXcsrsm2_zeroPivot		hipsparseXcsrsm2_zeroPivot	
cusparseZbsrmm		hipsparseZbsrmm	
cusparseZcsrmm	✓	hipsparseZcsrmm	
cusparseZcsrmm2	✓	hipsparseZcsrmm2	
cusparseZcsrsm2_analysis		hipsparseZcsrsm2_analysis	
cusparseZcsrsm2_bufferSizeExt		hipsparseZcsrsm2_bufferSizeExt	
cusparseZcsrsm2_solve		hipsparseZcsrsm2_solve	
cusparseZgemmi	✓	hipsparseZgemmi	

1.8.7   CUSPARSE Extra Function Reference

CUDA	Deprecated	HIP	Deprecated
cusparseCcsrgeam	✓	hipsparseCcsrgeam	
cusparseCcsrgeam2		hipsparseCcsrgeam2	
cusparseCcsrgeam2_bufferSizeExt		hipsparseCcsrgeam2_bufferSizeExt	
cusparseCcsrgemm	✓	hipsparseCcsrgemm	
cusparseCcsrgemm2	✓	hipsparseCcsrgemm2	

CUDA	Deprecated	HIP	Deprecated
cusparseCcsrgemm2_bufferSizeExt	✓	hipsparseCcsrgemm2_bufferSizeExt	
cusparseDcsrgeam	✓	hipsparseDcsrgeam	
cusparseDcsrgeam2		hipsparseDcsrgeam2	
cusparseDcsrgeam2_bufferSizeExt		hipsparseDcsrgeam2_bufferSizeExt	
cusparseDcsrgemm	✓	hipsparseDcsrgemm	
cusparseDcsrgemm2	✓	hipsparseDcsrgemm2	
cusparseDcsrgemm2_bufferSizeExt	✓	hipsparseDcsrgemm2_bufferSizeExt	
cusparseScsrgeam	✓	hipsparseScsrgeam	
cusparseScsrgeam2		hipsparseScsrgeam2	
cusparseScsrgeam2_bufferSizeExt		hipsparseScsrgeam2_bufferSizeExt	
cusparseScsrgemm	✓	hipsparseScsrgemm	
cusparseScsrgemm2	✓	hipsparseScsrgemm2	
cusparseScsrgemm2_bufferSizeExt	✓	hipsparseScsrgemm2_bufferSizeExt	
cusparseXcsrgeam2Nnz		hipsparseXcsrgeam2Nnz	
cusparseXcsrgeamNnz	✓	hipsparseXcsrgeamNnz	
cusparseXcsrgemm2Nnz	✓	hipsparseXcsrgemm2Nnz	
cusparseXcsrgemmNnz	✓	hipsparseXcsrgemmNnz	
cusparseZcsrgeam	✓	hipsparseZcsrgeam	
cusparseZcsrgeam2		hipsparseZcsrgeam2	
cusparseZcsrgeam2_bufferSizeExt		hipsparseZcsrgeam2_bufferSizeExt	
cusparseZcsrgemm	✓	hipsparseZcsrgemm	
cusparseZcsrgemm2	✓	hipsparseZcsrgemm2	
cusparseZcsrgemm2_bufferSizeExt	✓	hipsparseZcsrgemm2_bufferSizeExt	

1.8.8   CUSPARSE Preconditioners Reference

CUDA	Deprecated	HIP	Deprecated
cusparseCbsric02		hipsparseCbsric02	
cusparseCbsric02_analysis		hipsparseCbsric02_analysis	
cusparseCbsric02_bufferSize		hipsparseCbsric02_bufferSize	
cusparseCbsrilu02		hipsparseCbsrilu02	
cusparseCbsrilu02_analysis		hipsparseCbsrilu02_analysis	
cusparseCbsrilu02_bufferSize		hipsparseCbsrilu02_bufferSize	
cusparseCbsrilu02_numericBoost		hipsparseCbsrilu02_numericBoost	
cusparseCcsric02		hipsparseCcsric02	
cusparseCcsric02_analysis		hipsparseCcsric02_analysis	
cusparseCcsric02_bufferSize		hipsparseCcsric02_bufferSize	
cusparseCcsric02_bufferSizeExt		hipsparseCcsric02_bufferSizeExt	
cusparseCcsrilu02		hipsparseCcsrilu02	
cusparseCcsrilu02_analysis		hipsparseCcsrilu02_analysis	
cusparseCcsrilu02_bufferSize		hipsparseCcsrilu02_bufferSize	
cusparseCcsrilu02_bufferSizeExt		hipsparseCcsrilu02_bufferSizeExt	
cusparseCcsrilu02_numericBoost		hipsparseCcsrilu02_numericBoost	
cusparseDbsric02		hipsparseDbsric02	
cusparseDbsric02_analysis		hipsparseDbsric02_analysis	
cusparseDbsric02_bufferSize		hipsparseDbsric02_bufferSize	
cusparseDbsrilu02		hipsparseDbsrilu02	
cusparseDbsrilu02_analysis		hipsparseDbsrilu02_analysis	
cusparseDbsrilu02_bufferSize		hipsparseDbsrilu02_bufferSize	
cusparseDbsrilu02_numericBoost		hipsparseDbsrilu02_numericBoost	

CUDA	Deprecated	HIP	Deprecated
cusparseDcsric02		hipsparseDcsric02	
cusparseDcsric02_analysis		hipsparseDcsric02_analysis	
cusparseDcsric02_bufferSize		hipsparseDcsric02_bufferSize	
cusparseDcsric02_bufferSizeExt		hipsparseDcsric02_bufferSizeExt	
cusparseDcsrilu02		hipsparseDcsrilu02	
cusparseDcsrilu02_analysis		hipsparseDcsrilu02_analysis	
cusparseDcsrilu02_bufferSize		hipsparseDcsrilu02_bufferSize	
cusparseDcsrilu02_bufferSizeExt		hipsparseDcsrilu02_bufferSizeExt	
cusparseDcsrilu02_numericBoost		hipsparseDcsrilu02_numericBoost	
cusparseSbsric02		hipsparseSbsric02	
cusparseSbsric02_analysis		hipsparseSbsric02_analysis	
cusparseSbsric02_bufferSize		hipsparseSbsric02_bufferSize	
cusparseSbsrilu02		hipsparseSbsrilu02	
cusparseSbsrilu02_analysis		hipsparseSbsrilu02_analysis	
cusparseSbsrilu02_bufferSize		hipsparseSbsrilu02_bufferSize	
cusparseSbsrilu02_numericBoost		hipsparseSbsrilu02_numericBoost	
cusparseScsric02		hipsparseScsric02	
cusparseScsric02_analysis		hipsparseScsric02_analysis	
cusparseScsric02_bufferSize		hipsparseScsric02_bufferSize	
cusparseScsric02_bufferSizeExt		hipsparseScsric02_bufferSizeExt	
cusparseScsrilu02		hipsparseScsrilu02	
cusparseScsrilu02_analysis		hipsparseScsrilu02_analysis	
cusparseScsrilu02_bufferSize		hipsparseScsrilu02_bufferSize	
cusparseScsrilu02_bufferSizeExt		hipsparseScsrilu02_bufferSizeExt	
cusparseScsrilu02_numericBoost		hipsparseScsrilu02_numericBoost	
cusparseXbsric02_zeroPivot		hipsparseXbsric02_zeroPivot	
cusparseXbsrilu02_zeroPivot		hipsparseXbsrilu02_zeroPivot	
cusparseXcsric02_zeroPivot		hipsparseXcsric02_zeroPivot	
cusparseXcsrilu02_zeroPivot		hipsparseXcsrilu02_zeroPivot	
cusparseZbsric02		hipsparseZbsric02	
cusparseZbsric02_analysis		hipsparseZbsric02_analysis	
cusparseZbsric02_bufferSize		hipsparseZbsric02_bufferSize	
cusparseZbsrilu02		hipsparseZbsrilu02	
cusparseZbsrilu02_analysis		hipsparseZbsrilu02_analysis	
cusparseZbsrilu02_bufferSize		hipsparseZbsrilu02_bufferSize	
cusparseZbsrilu02_numericBoost		hipsparseZbsrilu02_numericBoost	
cusparseZcsric02		hipsparseZcsric02	
cusparseZcsric02_analysis		hipsparseZcsric02_analysis	
cusparseZcsric02_bufferSize		hipsparseZcsric02_bufferSize	
cusparseZcsric02_bufferSizeExt		hipsparseZcsric02_bufferSizeExt	
cusparseZcsrilu02		hipsparseZcsrilu02	
cusparseZcsrilu02_analysis		hipsparseZcsrilu02_analysis	
cusparseZcsrilu02_bufferSize		hipsparseZcsrilu02_bufferSize	
cusparseZcsrilu02_bufferSizeExt		hipsparseZcsrilu02_bufferSizeExt	
cusparseZcsrilu02_numericBoost		hipsparseZcsrilu02_numericBoost	

1.8.9 CUSPARSE Format Conversion Reference

CUDA	Deprecated	HIP	Deprecated
cusparseCbsr2csr		hipsparseCbsr2csr	
cusparseCcsc2dense	✓	hipsparseCcsc2dense	
cusparseCcsr2bsr		hipsparseCcsr2bsr	
cusparseCcsr2csc	✓	hipsparseCcsr2csc	
cusparseCcsr2csr_compress		hipsparseCcsr2csr_compress	
cusparseCcsr2dense	✓	hipsparseCcsr2dense	
cusparseCcsr2hyb	✓	hipsparseCcsr2hyb	
cusparseCdense2csc	✓	hipsparseCdense2csc	
cusparseCdense2csr	✓	hipsparseCdense2csr	
cusparseChyb2csr	✓	hipsparseChyb2csr	
cusparseCnnz		hipsparseCnnz	
cusparseCnnz_compress		hipsparseCnnz_compress	
cusparseCreateIdentityPermutation		hipsparseCreateIdentityPermutation	
cusparseDbsr2csr		hipsparseDbsr2csr	
cusparseDcsc2dense	✓	hipsparseDcsc2dense	
cusparseDcsr2bsr		hipsparseDcsr2bsr	
cusparseDcsr2csc	✓	hipsparseDcsr2csc	
cusparseDcsr2csr_compress		hipsparseDcsr2csr_compress	
cusparseDcsr2dense	✓	hipsparseDcsr2dense	
cusparseDcsr2hyb	✓	hipsparseDcsr2hyb	
cusparseDdense2csc	✓	hipsparseDdense2csc	
cusparseDdense2csr	✓	hipsparseDdense2csr	
cusparseDhyb2csr	✓	hipsparseDhyb2csr	
cusparseDnnz		hipsparseDnnz	
cusparseDnnz_compress		hipsparseDnnz_compress	
cusparseDpruneCsr2csr		hipsparseDpruneCsr2csr	
cusparseDpruneCsr2csrByPercentage		hipsparseDpruneCsr2csrByPercentage	
cusparseDpruneCsr2csrByPercentage_bufferSizeExt		hipsparseDpruneCsr2csrByPercentage_bufferSizeExt	
cusparseDpruneCsr2csrNnz		hipsparseDpruneCsr2csrNnz	
cusparseDpruneCsr2csrNnzByPercentage		hipsparseDpruneCsr2csrNnzByPercentage	
cusparseDpruneCsr2csr_bufferSizeExt		hipsparseDpruneCsr2csr_bufferSizeExt	
cusparseDpruneDense2csr		hipsparseDpruneDense2csr	
cusparseDpruneDense2csrByPercentage		hipsparseDpruneDense2csrByPercentage	
cusparseDpruneDense2csrByPercentage_bufferSizeExt		hipsparseDpruneDense2csrByPercentage_bufferSizeExt	
cusparseDpruneDense2csrNnz		hipsparseDpruneDense2csrNnz	
cusparseDpruneDense2csrNnzByPercentage		hipsparseDpruneDense2csrNnzByPercentage	
cusparseDpruneDense2csr_bufferSizeExt		hipsparseDpruneDense2csr_bufferSizeExt	
cusparseSbsr2csr		hipsparseSbsr2csr	
cusparseScsc2dense	✓	hipsparseScsc2dense	
cusparseScsr2bsr		hipsparseScsr2bsr	
cusparseScsr2csc	✓	hipsparseScsr2csc	
cusparseScsr2csr_compress		hipsparseScsr2csr_compress	
cusparseScsr2dense	✓	hipsparseScsr2dense	

AMD

CUDA	Deprecated	HIP	Deprecated
cusparseScsr2hyb	✓	hipsparseScsr2hyb	
cusparseSdense2csc	✓	hipsparseSdense2csc	
cusparseSdense2csr	✓	hipsparseSdense2csr	
cusparseShyb2csr	✓	hipsparseShyb2csr	
cusparseSnnz		hipsparseSnnz	
cusparseSnnz_compress		hipsparseSnnz_compress	
cusparseSpruneCsr2csr		hipsparseSpruneCsr2csr	
cusparseSpruneCsr2csrByPercentage		hipsparseSpruneCsr2csrByPercentage	
cusparseSpruneCsr2csrByPercentage_buf ferSizeExt		hipsparseSpruneCsr2csrByPercentage_bu fferSizeExt	
cusparseSpruneCsr2csrNnz		hipsparseSpruneCsr2csrNnz	
cusparseSpruneCsr2csrNnzByPercentage		hipsparseSpruneCsr2csrNnzByPercentag e	
cusparseSpruneCsr2csr_bufferSizeExt		hipsparseSpruneCsr2csr_bufferSizeExt	
cusparseSpruneDense2csr		hipsparseSpruneDense2csr	
cusparseSpruneDense2csrByPercentage		hipsparseSpruneDense2csrByPercentage	
cusparseSpruneDense2csrByPercentage_ bufferSizeExt		hipsparseSpruneDense2csrByPercentage _bufferSizeExt	
cusparseSpruneDense2csrNnz		hipsparseSpruneDense2csrNnz	
cusparseSpruneDense2csrNnzByPercenta ge		hipsparseSpruneDense2csrNnzByPercent age	
cusparseSpruneDense2csr_bufferSizeExt		hipsparseSpruneDense2csr_bufferSizeEx t	
cusparseXcoo2csr		hipsparseXcoo2csr	
cusparseXcoosortByColumn		hipsparseXcoosortByColumn	
cusparseXcoosortByRow		hipsparseXcoosortByRow	
cusparseXcoosort_bufferSizeExt		hipsparseXcoosort_bufferSizeExt	
cusparseXcscsort		hipsparseXcscsort	
cusparseXcscsort_bufferSizeExt		hipsparseXcscsort_bufferSizeExt	
cusparseXcsr2bsrNnz		hipsparseXcsr2bsrNnz	
cusparseXcsr2coo		hipsparseXcsr2coo	
cusparseXcsrsort		hipsparseXcsrsort	
cusparseXcsrsort_bufferSizeExt		hipsparseXcsrsort_bufferSizeExt	
cusparseZbsr2csr		hipsparseZbsr2csr	
cusparseZcsc2dense	✓	hipsparseZcsc2dense	
cusparseZcsr2bsr		hipsparseZcsr2bsr	
cusparseZcsr2csc	✓	hipsparseZcsr2csc	
cusparseZcsr2csr_compress		hipsparseZcsr2csr_compress	
cusparseZcsr2dense	✓	hipsparseZcsr2dense	
cusparseZcsr2hyb	✓	hipsparseZcsr2hyb	
cusparseZdense2csc	✓	hipsparseZdense2csc	
cusparseZdense2csr	✓	hipsparseZdense2csr	
cusparseZhyb2csr	✓	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_INDICES		HIPDNN_16BIT_INDICES	
CUDNN_32BIT_INDICES		HIPDNN_32BIT_INDICES	
CUDNN_64BIT_INDICES		HIPDNN_64BIT_INDICES	
CUDNN_8BIT_INDICES		HIPDNN_8BIT_INDICES	
CUDNN_ACTIVATION_CLIPPED_RELU		HIPDNN_ACTIVATION_CLIPPED_RELU	
CUDNN_ACTIVATION_ELU		HIPDNN_ACTIVATION_ELU	
CUDNN_ACTIVATION_IDENTITY		HIPDNN_ACTIVATION_PATHTRU	
CUDNN_ACTIVATION_RELU		HIPDNN_ACTIVATION_RELU	
CUDNN_ACTIVATION_SIGMOID		HIPDNN_ACTIVATION_SIGMOID	
CUDNN_ACTIVATION_TANH		HIPDNN_ACTIVATION_TANH	
CUDNN_BATCHNORM_PER_ACTIVATION		HIPDNN_BATCHNORM_PER_ACTIVATION	
CUDNN_BATCHNORM_SPATIAL		HIPDNN_BATCHNORM_SPATIAL	
CUDNN_BATCHNORM_SPATIAL_PERSISTENT		HIPDNN_BATCHNORM_SPATIAL_PERSISTENT	
CUDNN_BIDIRECTIONAL		HIPDNN_BIDIRECTIONAL	
CUDNN_BN_MIN_EPSILON		HIPDNN_BN_MIN_EPSILON	
CUDNN_CONVOLUTION		HIPDNN_CONVOLUTION	
CUDNN_CONVOLUTION_BWD_DATA_ALGO_0		HIPDNN_CONVOLUTION_BWD_DATA_ALGO_0	
CUDNN_CONVOLUTION_BWD_DATA_ALGO_1		HIPDNN_CONVOLUTION_BWD_DATA_ALGO_1	
CUDNN_CONVOLUTION_BWD_DATA_ALGO_COUNT		HIPDNN_CONVOLUTION_BWD_DATA_ALGO_TRANSPOSE_GEMM	
CUDNN_CONVOLUTION_BWD_DATA_ALGO_FFT		HIPDNN_CONVOLUTION_BWD_DATA_ALGO_FFT	
CUDNN_CONVOLUTION_BWD_DATA_ALGO_FFT_TILING		HIPDNN_CONVOLUTION_BWD_DATA_ALGO_FFT_TILING	
CUDNN_CONVOLUTION_BWD_DATA_ALGO_WINOGRAD		HIPDNN_CONVOLUTION_BWD_DATA_ALGO_WINOGRAD	
CUDNN_CONVOLUTION_BWD_DATA_ALGO_WINOGRAD_NONFUSED		HIPDNN_CONVOLUTION_BWD_DATA_ALGO_WINOGRAD_NONFUSED	
CUDNN_CONVOLUTION_BWD_DATA_NO_WORKSPACE	✓	HIPDNN_CONVOLUTION_BWD_DATA_NO_WORKSPACE	
CUDNN_CONVOLUTION_BWD_DATA_PREFER_FASTEST	✓	HIPDNN_CONVOLUTION_BWD_DATA_PREFER_FASTEST	
CUDNN_CONVOLUTION_BWD_DATA_SPECIFY_WORKSPACE_LIMIT	✓	HIPDNN_CONVOLUTION_BWD_DATA_SPECIFY_WORKSPACE_LIMIT	

CUDA	Deprecated	HIP	Deprecated
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_0		HIPDNN_CONVOLUTION_BWD_FILTER_ALGO_0	
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_1		HIPDNN_CONVOLUTION_BWD_FILTER_ALGO_1	
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_3		HIPDNN_CONVOLUTION_BWD_FILTER_ALGO_3	
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_COUNT		HIPDNN_CONVOLUTION_BWD_FILTER_ALGO_COUNT	
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_FFT		HIPDNN_CONVOLUTION_BWD_FILTER_ALGO_FFT	
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_FFT_TILING		HIPDNN_CONVOLUTION_BWD_FILTER_ALGO_FFT_TILING	
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_WINOGRAD		HIPDNN_CONVOLUTION_BWD_FILTER_ALGO_WINOGRAD	
CUDNN_CONVOLUTION_BWD_FILTER_ALGO_WINOGRAD_NONFUSED		HIPDNN_CONVOLUTION_BWD_FILTER_ALGO_WINOGRAD_NONFUSED	
CUDNN_CONVOLUTION_BWD_FILTER_NO_WORKSPACE	✓	HIPDNN_CONVOLUTION_BWD_FILTER_NO_WORKSPACE	
CUDNN_CONVOLUTION_BWD_FILTER_PREFER_FASTEST	✓	HIPDNN_CONVOLUTION_BWD_FILTER_PREFER_FASTEST	
CUDNN_CONVOLUTION_BWD_FILTER_SPECIFY_WORKSPACE_LIMIT	✓	HIPDNN_CONVOLUTION_BWD_FILTER_SPECIFY_WORKSPACE_LIMIT	
CUDNN_CONVOLUTION_FWD_ALGO_COUNT		HIPDNN_CONVOLUTION_FWD_ALGO_COUNT	
CUDNN_CONVOLUTION_FWD_ALGO_DIRECT		HIPDNN_CONVOLUTION_FWD_ALGO_DIRECT	
CUDNN_CONVOLUTION_FWD_ALGO_FFT		HIPDNN_CONVOLUTION_FWD_ALGO_FFT	
CUDNN_CONVOLUTION_FWD_ALGO_FFT_TILING		HIPDNN_CONVOLUTION_FWD_ALGO_FFT_TILING	
CUDNN_CONVOLUTION_FWD_ALGO_GEMM		HIPDNN_CONVOLUTION_FWD_ALGO_GEMM	
CUDNN_CONVOLUTION_FWD_ALGO_IMPLICIT_GEMM		HIPDNN_CONVOLUTION_FWD_ALGO_IMPLICIT_GEMM	
CUDNN_CONVOLUTION_FWD_ALGO_IMPLICIT_PRECOMP_GEMM		HIPDNN_CONVOLUTION_FWD_ALGO_IMPLICIT_PRECOMP_GEMM	
CUDNN_CONVOLUTION_FWD_ALGO_WINOGRAD		HIPDNN_CONVOLUTION_FWD_ALGO_WINOGRAD	
CUDNN_CONVOLUTION_FWD_ALGO_WINOGRAD_NONFUSED		HIPDNN_CONVOLUTION_FWD_ALGO_WINOGRAD_NONFUSED	
CUDNN_CONVOLUTION_FWD_NO_WORKSPACE	✓	HIPDNN_CONVOLUTION_FWD_NO_WORKSPACE	
CUDNN_CONVOLUTION_FWD_PREFER_FASTEST	✓	HIPDNN_CONVOLUTION_FWD_PREFER_FASTEST	
CUDNN_CONVOLUTION_FWD_SPECIFY_WORKSPACE_LIMIT	✓	HIPDNN_CONVOLUTION_FWD_SPECIFY_WORKSPACE_LIMIT	
CUDNN_CROSS_CORRELATION		HIPDNN_CROSS_CORRELATION	
CUDNN_DATA_DOUBLE		HIPDNN_DATA_DOUBLE	
CUDNN_DATA_FLOAT		HIPDNN_DATA_FLOAT	
CUDNN_DATA_HALF		HIPDNN_DATA_HALF	
CUDNN_DATA_INT32		HIPDNN_DATA_INT32	
CUDNN_DATA_INT8		HIPDNN_DATA_INT8	

CUDA	Deprecated	HIP	Deprecated
CUDNN_DATA_INT8x4		HIPDNN_DATA_INT8x4	
CUDNN_DEFAULT_MATH		HIPDNN_DEFAULT_MATH	
CUDNN_GRU		HIPDNN_GRU	
CUDNN_LINEAR_INPUT		HIPDNN_LINEAR_INPUT	
CUDNN_LRN_CROSS_CHANNEL_DIM1		HIPDNN_LRN_CROSS_CHANNEL	
CUDNN_LSTM		HIPDNN_LSTM	
CUDNN_NOT_PROPAGATE_NAN		HIPDNN_NOT_PROPAGATE_NAN	
CUDNN_OP_TENSOR_ADD		HIPDNN_OP_TENSOR_ADD	
CUDNN_OP_TENSOR_MAX		HIPDNN_OP_TENSOR_MAX	
CUDNN_OP_TENSOR_MIN		HIPDNN_OP_TENSOR_MIN	
CUDNN_OP_TENSOR_MUL		HIPDNN_OP_TENSOR_MUL	
CUDNN_OP_TENSOR_SQRT		HIPDNN_OP_TENSOR_SQRT	
CUDNN_POOLING_AVERAGE_COUNT_EXCLUDE_PADDING		HIPDNN_POOLING_AVERAGE_COUNT_EXCLUDE_PADDING	
CUDNN_POOLING_AVERAGE_COUNT_INCLUDE_PADDING		HIPDNN_POOLING_AVERAGE_COUNT_INCLUDE_PADDING	
CUDNN_POOLING_MAX		HIPDNN_POOLING_MAX	
CUDNN_POOLING_MAX_DETERMINISTIC		HIPDNN_POOLING_MAX_DETERMINISTIC	
CUDNN_PROPAGATE_NAN		HIPDNN_PROPAGATE_NAN	
CUDNN_REDUCE_TENSOR_ADD		HIPDNN_REDUCE_TENSOR_ADD	
CUDNN_REDUCE_TENSOR_AMAX		HIPDNN_REDUCE_TENSOR_AMAX	
CUDNN_REDUCE_TENSOR_AVG		HIPDNN_REDUCE_TENSOR_AVG	
CUDNN_REDUCE_TENSOR_FLATTENED_INDICES		HIPDNN_REDUCE_TENSOR_FLATTENED_INDICES	
CUDNN_REDUCE_TENSOR_MAX		HIPDNN_REDUCE_TENSOR_MAX	
CUDNN_REDUCE_TENSOR_MIN		HIPDNN_REDUCE_TENSOR_MIN	
CUDNN_REDUCE_TENSOR_MUL		HIPDNN_REDUCE_TENSOR_MUL	
CUDNN_REDUCE_TENSOR_MUL_NO_ZEROS		HIPDNN_REDUCE_TENSOR_MUL_NO_ZEROS	
CUDNN_REDUCE_TENSOR_NORM1		HIPDNN_REDUCE_TENSOR_NORM1	
CUDNN_REDUCE_TENSOR_NORM2		HIPDNN_REDUCE_TENSOR_NORM2	
CUDNN_REDUCE_TENSOR_NO_INDICES		HIPDNN_REDUCE_TENSOR_NO_INDICES	
CUDNN_RNN_ALGO_PERSIST_DYNAMIC		HIPDNN_RNN_ALGO_PERSIST_DYNAMIC	
CUDNN_RNN_ALGO_PERSIST_STATIC		HIPDNN_RNN_ALGO_PERSIST_STATIC	
CUDNN_RNN_ALGO_PERSIST_STATIC_SMALL_H		HIPDNN_RNN_ALGO_PERSIST_STATIC_SMALL_H	
CUDNN_RNN_ALGO_STANDARD		HIPDNN_RNN_ALGO_STANDARD	
CUDNN_RNN_DOUBLE_BIAS		HIPDNN_RNN_WITH_BIAS	
CUDNN_RNN_NO_BIAS		HIPDNN_RNN_NO_BIAS	
CUDNN_RNN_RELU		HIPDNN_RNN_RELU	
CUDNN_RNN_SINGLE_INP_BIAS		HIPDNN_RNN_WITH_BIAS	
CUDNN_RNN_SINGLE_REC_BIAS		HIPDNN_RNN_WITH_BIAS	
CUDNN_RNN_TANH		HIPDNN_RNN_TANH	
CUDNN_SKIP_INPUT		HIPDNN_SKIP_INPUT	
CUDNN_SOFTMAX_ACCURATE		HIPDNN_SOFTMAX_ACCURATE	
CUDNN_SOFTMAX_FAST		HIPDNN_SOFTMAX_FAST	
CUDNN_SOFTMAX_LOG		HIPDNN_SOFTMAX_LOG	

CUDA	Deprecated	HIP	Deprecated
CUDNN_SOFTMAX_MODE_CHANNEL		HIPDNN_SOFTMAX_MODE_CHANNEL	
CUDNN_SOFTMAX_MODE_INSTANCE		HIPDNN_SOFTMAX_MODE_INSTANCE	
CUDNN_STATUS_ALLOC_FAILED		HIPDNN_STATUS_ALLOC_FAILED	
CUDNN_STATUS_ARCH_MISMATCH		HIPDNN_STATUS_ARCH_MISMATCH	
CUDNN_STATUS_BAD_PARAM		HIPDNN_STATUS_BAD_PARAM	
CUDNN_STATUS_EXECUTION_FAILED		HIPDNN_STATUS_EXECUTION_FAILED	
CUDNN_STATUS_INTERNAL_ERROR		HIPDNN_STATUS_INTERNAL_ERROR	
CUDNN_STATUS_INVALID_VALUE		HIPDNN_STATUS_INVALID_VALUE	
CUDNN_STATUS_LICENSE_ERROR		HIPDNN_STATUS_LICENSE_ERROR	
CUDNN_STATUS_MAPPING_ERROR		HIPDNN_STATUS_MAPPING_ERROR	
CUDNN_STATUS_NOT_INITIALIZED		HIPDNN_STATUS_NOT_INITIALIZED	
CUDNN_STATUS_NOT_SUPPORTED		HIPDNN_STATUS_NOT_SUPPORTED	
CUDNN_STATUS_RUNTIME_PREREQUISITE_MISSING		HIPDNN_STATUS_RUNTIME_PREREQUISITE_MISSING	
CUDNN_STATUS_SUCCESS		HIPDNN_STATUS_SUCCESS	
CUDNN_TENSOR_NCHW		HIPDNN_TENSOR_NCHW	
CUDNN_TENSOR_NCHW_VECT_C		HIPDNN_TENSOR_NCHW_VECT_C	
CUDNN_TENSOR_NHWC		HIPDNN_TENSOR_NHWC	
CUDNN_TENSOR_OP_MATH		HIPDNN_TENSOR_OP_MATH	
CUDNN_UNIDIRECTIONAL		HIPDNN_UNIDIRECTIONAL	
CUDNN_VERSION		HIPDNN_VERSION	
cudnnActivationDescriptor_t		hipdnnActivationDescriptor_t	
cudnnActivationMode_t		hipdnnActivationMode_t	
cudnnBatchNormMode_t		hipdnnBatchNormMode_t	
cudnnConvolutionBwdDataAlgoPerf_t		hipdnnConvolutionBwdDataAlgoPerf_t	
cudnnConvolutionBwdDataAlgo_t		hipdnnConvolutionBwdDataAlgo_t	
cudnnConvolutionBwdDataPreference_t	✓	hipdnnConvolutionBwdDataPreference_t	
cudnnConvolutionBwdFilterAlgoPerf_t		hipdnnConvolutionBwdFilterAlgoPerf_t	
cudnnConvolutionBwdFilterAlgo_t		hipdnnConvolutionBwdFilterAlgo_t	
cudnnConvolutionBwdFilterPreference_t	✓	hipdnnConvolutionBwdFilterPreference_t	
cudnnConvolutionDescriptor_t		hipdnnConvolutionDescriptor_t	
cudnnConvolutionFwdAlgoPerf_t		hipdnnConvolutionFwdAlgoPerf_t	
cudnnConvolutionFwdAlgo_t		hipdnnConvolutionFwdAlgo_t	
cudnnConvolutionFwdPreference_t	✓	hipdnnConvolutionFwdPreference_t	
cudnnConvolutionMode_t		hipdnnConvolutionMode_t	
cudnnDataType_t		hipdnnDataType_t	
cudnnDirectionMode_t		hipdnnDirectionMode_t	
cudnnDropoutDescriptor_t		hipdnnDropoutDescriptor_t	
cudnnFilterDescriptor_t		hipdnnFilterDescriptor_t	
cudnnHandle_t		hipdnnHandle_t	
cudnnIndicesType_t		hipdnnIndicesType_t	
cudnnLRNDescriptor_t		hipdnnLRNDescriptor_t	
cudnnLRNMode_t		hipdnnLRNMode_t	

CUDA	Deprecated	HIP	Deprecated
cudnnMathType_t		hipdnnMathType_t	
cudnnNanPropagation_t		hipdnnNanPropagation_t	
cudnnOpTensorDescriptor_t		hipdnnOpTensorDescriptor_t	
cudnnOpTensorOp_t		hipdnnOpTensorOp_t	
cudnnPersistentRNNPlan_t		hipdnnPersistentRNNPlan_t	
cudnnPoolingDescriptor_t		hipdnnPoolingDescriptor_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	
cudnnReduceTensorDescriptor_t		hipdnnReduceTensorDescriptor_t	
cudnnReduceTensorIndices_t		hipdnnReduceTensorIndices_t	
cudnnReduceTensorOp_t		hipdnnReduceTensorOp_t	
cudnnSoftmaxAlgorithm_t		hipdnnSoftmaxAlgorithm_t	
cudnnSoftmaxMode_t		hipdnnSoftmaxMode_t	
cudnnStatus_t		hipdnnStatus_t	
cudnnTensorDescriptor_t		hipdnnTensorDescriptor_t	
cudnnTensorFormat_t		hipdnnTensorFormat_t	

1.9.2 CUDNN Functions

CUDA	Deprecated	HIP	Deprecated
cudnnActivationBackward		hipdnnActivationBackward	
cudnnActivationForward		hipdnnActivationForward	
cudnnAddTensor		hipdnnAddTensor	
cudnnBatchNormalizationBackward		hipdnnBatchNormalizationBackward	
cudnnBatchNormalizationForwardInference		hipdnnBatchNormalizationForwardInference	
cudnnBatchNormalizationForwardTraining		hipdnnBatchNormalizationForwardTraining	
cudnnConvolutionBackwardBias		hipdnnConvolutionBackwardBias	
cudnnConvolutionBackwardData		hipdnnConvolutionBackwardData	
cudnnConvolutionBackwardFilter		hipdnnConvolutionBackwardFilter	
cudnnConvolutionForward		hipdnnConvolutionForward	
cudnnCreate		hipdnnCreate	
cudnnCreateActivationDescriptor		hipdnnCreateActivationDescriptor	
cudnnCreateConvolutionDescriptor		hipdnnCreateConvolutionDescriptor	
cudnnCreateDropoutDescriptor		hipdnnCreateDropoutDescriptor	
cudnnCreateFilterDescriptor		hipdnnCreateFilterDescriptor	
cudnnCreateLRNDescriptor		hipdnnCreateLRNDescriptor	
cudnnCreateOpTensorDescriptor		hipdnnCreateOpTensorDescriptor	
cudnnCreatePersistentRNNPlan	✓	hipdnnCreatePersistentRNNPlan	
cudnnCreatePoolingDescriptor		hipdnnCreatePoolingDescriptor	
cudnnCreateRNNDescriptor		hipdnnCreateRNNDescriptor	
cudnnCreateReduceTensorDescriptor		hipdnnCreateReduceTensorDescriptor	
cudnnCreateTensorDescriptor		hipdnnCreateTensorDescriptor	
cudnnDeriveBNTensorDescriptor		hipdnnDeriveBNTensorDescriptor	
cudnnDestroy		hipdnnDestroy	
cudnnDestroyActivationDescriptor		hipdnnDestroyActivationDescriptor	
cudnnDestroyConvolutionDescriptor		hipdnnDestroyConvolutionDescriptor	

CUDA	Deprecated	HIP	Deprecated
cudnnDestroyDropoutDescriptor		hipdnnDestroyDropoutDescriptor	
cudnnDestroyFilterDescriptor		hipdnnDestroyFilterDescriptor	
cudnnDestroyLRNDescriptor		hipdnnDestroyLRNDescriptor	
cudnnDestroyOpTensorDescriptor		hipdnnDestroyOpTensorDescriptor	
cudnnDestroyPersistentRNNPlan	✓	hipdnnDestroyPersistentRNNPlan	
cudnnDestroyPoolingDescriptor		hipdnnDestroyPoolingDescriptor	
cudnnDestroyRNNDescriptor		hipdnnDestroyRNNDescriptor	
cudnnDestroyReduceTensorDescriptor		hipdnnDestroyReduceTensorDescriptor	
cudnnDestroyTensorDescriptor		hipdnnDestroyTensorDescriptor	
cudnnDropoutGetStatesSize		hipdnnDropoutGetStatesSize	
cudnnFindConvolutionBackwardDataAlgorithm		hipdnnFindConvolutionBackwardDataAlgorithm	
cudnnFindConvolutionBackwardDataAlgorithmEx		hipdnnFindConvolutionBackwardDataAlgorithmEx	
cudnnFindConvolutionBackwardFilterAlgorithm		hipdnnFindConvolutionBackwardFilterAlgorithm	
cudnnFindConvolutionBackwardFilterAlgorithmEx		hipdnnFindConvolutionBackwardFilterAlgorithmEx	
cudnnFindConvolutionForwardAlgorithm		hipdnnFindConvolutionForwardAlgorithm	
cudnnFindConvolutionForwardAlgorithmEx		hipdnnFindConvolutionForwardAlgorithmEx	
cudnnGetActivationDescriptor		hipdnnGetActivationDescriptor	
cudnnGetConvolution2dDescriptor		hipdnnGetConvolution2dDescriptor	
cudnnGetConvolution2dForwardOutputDim		hipdnnGetConvolution2dForwardOutputDim	
cudnnGetConvolutionBackwardDataAlgorithm	✓	hipdnnGetConvolutionBackwardDataAlgorithm	
cudnnGetConvolutionBackwardDataWorkspaceSize		hipdnnGetConvolutionBackwardDataWorkspaceSize	
cudnnGetConvolutionBackwardFilterAlgorithm	✓	hipdnnGetConvolutionBackwardFilterAlgorithm	
cudnnGetConvolutionBackwardFilterWorkspaceSize		hipdnnGetConvolutionBackwardFilterWorkspaceSize	
cudnnGetConvolutionForwardAlgorithm	✓	hipdnnGetConvolutionForwardAlgorithm	
cudnnGetConvolutionForwardWorkspaceSize		hipdnnGetConvolutionForwardWorkspaceSize	
cudnnGetErrorString		hipdnnGetErrorString	
cudnnGetFilter4dDescriptor		hipdnnGetFilter4dDescriptor	
cudnnGetFilterNdDescriptor		hipdnnGetFilterNdDescriptor	
cudnnGetLRNDescriptor		hipdnnGetLRNDescriptor	
cudnnGetOpTensorDescriptor		hipdnnGetOpTensorDescriptor	
cudnnGetPooling2dDescriptor		hipdnnGetPooling2dDescriptor	
cudnnGetPooling2dForwardOutputDim		hipdnnGetPooling2dForwardOutputDim	
cudnnGetRNNDescriptor	✓	hipdnnGetRNNDescriptor	
cudnnGetRNNLinLayerBiasParams	✓	hipdnnGetRNNLinLayerBiasParams	
cudnnGetRNNLinLayerMatrixParams	✓	hipdnnGetRNNLinLayerMatrixParams	
cudnnGetRNNParamsSize	✓	hipdnnGetRNNParamsSize	
cudnnGetRNNTrainingReserveSize	✓	hipdnnGetRNNTrainingReserveSize	
cudnnGetRNNWorkspaceSize	✓	hipdnnGetRNNWorkspaceSize	

CUDA	Deprecated	HIP	Deprecated
cudnnGetReduceTensorDescriptor		hipdnnGetReduceTensorDescriptor	
cudnnGetReductionWorkspaceSize		hipdnnGetReductionWorkspaceSize	
cudnnGetStream		hipdnnGetStream	
cudnnGetTensor4dDescriptor		hipdnnGetTensor4dDescriptor	
cudnnGetTensorNdDescriptor		hipdnnGetTensorNdDescriptor	
cudnnGetVersion		hipdnnGetVersion	
cudnnLRNCrossChannelBackward		hipdnnLRNCrossChannelBackward	
cudnnLRNCrossChannelForward		hipdnnLRNCrossChannelForward	
cudnnOpTensor		hipdnnOpTensor	
cudnnPoolingBackward		hipdnnPoolingBackward	
cudnnPoolingForward		hipdnnPoolingForward	
cudnnRNNBackwardData	✓	hipdnnRNNBackwardData	
cudnnRNNBackwardWeights	✓	hipdnnRNNBackwardWeights	
cudnnRNNForwardInference	✓	hipdnnRNNForwardInference	
cudnnRNNForwardTraining	✓	hipdnnRNNForwardTraining	
cudnnReduceTensor		hipdnnReduceTensor	
cudnnScaleTensor		hipdnnScaleTensor	
cudnnSetActivationDescriptor		hipdnnSetActivationDescriptor	
cudnnSetConvolution2dDescriptor		hipdnnSetConvolution2dDescriptor	
cudnnSetConvolutionGroupCount		hipdnnSetConvolutionGroupCount	
cudnnSetConvolutionMathType		hipdnnSetConvolutionMathType	
cudnnSetConvolutionNdDescriptor		hipdnnSetConvolutionNdDescriptor	
cudnnSetDropoutDescriptor		hipdnnSetDropoutDescriptor	
cudnnSetFilter4dDescriptor		hipdnnSetFilter4dDescriptor	
cudnnSetFilterNdDescriptor		hipdnnSetFilterNdDescriptor	
cudnnSetLRNDescriptor		hipdnnSetLRNDescriptor	
cudnnSetOpTensorDescriptor		hipdnnSetOpTensorDescriptor	
cudnnSetPersistentRNNPlan	✓	hipdnnSetPersistentRNNPlan	
cudnnSetPooling2dDescriptor		hipdnnSetPooling2dDescriptor	
cudnnSetPoolingNdDescriptor		hipdnnSetPoolingNdDescriptor	
cudnnSetRNNDescriptor	✓	hipdnnSetRNNDescriptor	
cudnnSetRNNDescriptor_v5	✓	hipdnnSetRNNDescriptor_v5	
cudnnSetRNNDescriptor_v6	✓	hipdnnSetRNNDescriptor_v6	
cudnnSetReduceTensorDescriptor		hipdnnSetReduceTensorDescriptor	
cudnnSetStream		hipdnnSetStream	
cudnnSetTensor		hipdnnSetTensor	
cudnnSetTensor4dDescriptor		hipdnnSetTensor4dDescriptor	
cudnnSetTensor4dDescriptorEx		hipdnnSetTensor4dDescriptorEx	
cudnnSetTensorNdDescriptor		hipdnnSetTensorNdDescriptor	
cudnnSoftmaxBackward		hipdnnSoftmaxBackward	
cudnnSoftmaxForward		hipdnnSoftmaxForward	

1.10   Stream Memory Operations

CUDA	Deprecated	HIP	Deprecated
cuStreamBatchMemOp			
cuStreamWaitValue32		hipStreamWaitValue32	
cuStreamWaitValue64		hipStreamWaitValue64	
cuStreamWriteValue32		hipStreamWriteValue32	
cuStreamWriteValue64		hipStreamWriteValue64	