



Support Matrix For cuDNN

Support Guide

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Chapter 1. Hardware Requirements

The following sections highlight the compatibility of cuDNN versions with the various supported CUDA, CUDA driver, and NVIDIA™ hardware versions.

1.1. cuDNN 8.0.0 Preview Release

Refer to the following table to view the list of supported NVIDIA hardware, CUDA, and CUDA driver versions for the cuDNN 8.0.0 Preview Release.

Table 1. Supported NVIDIA hardware, CUDA, and CUDA driver

Supported NVIDIA Hardware	CUDA Version	CUDA Compute Capability	CUDA Driver Version
<ul style="list-style-type: none">▶ NVIDIA Ampere architecture-based A100/GA100 GPU▶ Turing▶ Volta▶ Xavier▶ Pascal▶ Maxwell▶ Kepler	CUDA 11.0 RC	SM 3.5 and later	r450
<ul style="list-style-type: none">▶ Turing▶ Volta▶ Xavier▶ Pascal▶ Maxwell▶ Kepler	CUDA 10.2	SM 3.0 and later	r440

1.2. cuDNN 7.6.4 - 7.6.5

Refer to the following table to view the list of supported NVIDIA hardware, CUDA, and CUDA driver versions for cuDNN versions 7.6.4 and v7.6.5.

Table 2. Supported NVIDIA hardware, CUDA, and CUDA driver versions for cuDNN versions 7.6.4 and 7.6.5

Supported NVIDIA Hardware (Compute Capability)	CUDA Version	CUDA Driver Version
<ul style="list-style-type: none"> ▶ Turing (7.5) ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 10.2	r440
<ul style="list-style-type: none"> ▶ Turing (7.5) ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 10.1.243	r418.39
<ul style="list-style-type: none"> ▶ Turing (7.5) ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 10.0.x	r410.48
<ul style="list-style-type: none"> ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 9.2.148	r396.26
	CUDA 9.1.85 (Not Supported)	

Supported NVIDIA Hardware (Compute Capability)	CUDA Version	CUDA Driver Version
<ul style="list-style-type: none"> ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 9.0.176	r384.111
	CUDA 8.0.61 (Not Supported)	

1.3. cuDNN 7.6.3

Refer to the following table to view the list of supported NVIDIA hardware, CUDA, and CUDA driver versions for cuDNN version 7.6.3.

Table 3. Supported NVIDIA hardware, CUDA, and CUDA driver versions for cuDNN version 7.6.3

Supported NVIDIA Hardware (Compute Capability)	CUDA Version	CUDA Driver Version
<ul style="list-style-type: none"> ▶ Turing (7.5) ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 10.1.243	r418.39
<ul style="list-style-type: none"> ▶ Turing (7.5) ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 10.0.x	r410.48
<ul style="list-style-type: none"> ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) 	CUDA 9.2.148	r396.26

Supported NVIDIA Hardware (Compute Capability)	CUDA Version	CUDA Driver Version
▶ Kepler (3.x)		
	CUDA 9.1.85 (Not Supported)	
<ul style="list-style-type: none"> ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 9.0.176	r384.111
	CUDA 8.0.61 (Not Supported)	

1.4. cuDNN 7.5.1 - 7.6.2

Refer to the following table to view the list of supported NVIDIA hardware, CUDA, and CUDA driver versions for cuDNN versions 7.5.1 - 7.6.2.

Table 4. Supported NVIDIA hardware, CUDA, and CUDA driver versions for cuDNN versions 7.5.1 - 7.6.2

Supported NVIDIA Hardware (Compute Capability)	CUDA Version	CUDA Driver Version
<ul style="list-style-type: none"> ▶ Turing (7.5) ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 10.1.105	r418.39
<ul style="list-style-type: none"> ▶ Turing (7.5) ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 10.0.x	r410.48
<ul style="list-style-type: none"> ▶ Volta (7.x) ▶ Xavier (7.2) 	CUDA 9.2.88	r396.26

Supported NVIDIA Hardware (Compute Capability)	CUDA Version	CUDA Driver Version
<ul style="list-style-type: none"> ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 		
	CUDA 9.1.85 (Not Supported)	
<ul style="list-style-type: none"> ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 9.0.176	r384.111
	CUDA 8.0.61 (Not Supported)	

1.5. cuDNN 7.3.1 - 7.5.0

Refer to the following table to view the list of supported NVIDIA hardware, CUDA, and CUDA driver versions for cuDNN versions 7.3.1 - 7.5.0.

Table 5. Supported NVIDIA hardware, CUDA, and CUDA driver versions for cuDNN versions 7.3.1 - 7.5.0

Supported NVIDIA Hardware (Compute Capability)	CUDA Version	CUDA Driver Version
<ul style="list-style-type: none"> ▶ Turing (7.5) ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 10.0.x	r410.48
<ul style="list-style-type: none"> ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 9.2.88	r396.26
	CUDA 9.1.85 (Not Supported)	
<ul style="list-style-type: none"> ▶ Volta (7.x) 	CUDA 9.0.176	r384.111

Supported NVIDIA Hardware (Compute Capability)	CUDA Version	CUDA Driver Version
<ul style="list-style-type: none"> ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 		
	CUDA 8.0.61 (Not Supported)	

1.6. cuDNN 7.1.4 - 7.2.1

Refer to the following table to view the list of supported NVIDIA hardware, CUDA, and CUDA driver versions for cuDNN versions 7.1.4 - 7.2.1.

Table 6. Supported NVIDIA hardware, CUDA, and CUDA driver versions for cuDNN versions 7.1.4 - 7.2.1

Supported NVIDIA Hardware (Compute Capability)	CUDA Version	CUDA Driver Version
	CUDA 10.0.x (Not Supported)	
<ul style="list-style-type: none"> ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 9.2.88	r396.26
	CUDA 9.1.85 (Not Supported)	
<ul style="list-style-type: none"> ▶ Volta (7.x) ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 9.0.176	r384.111
<ul style="list-style-type: none"> ▶ Xavier (7.2) ▶ Pascal (6.x) ▶ Maxwell (5.x) ▶ Kepler (3.x) 	CUDA 8.0.61	r375.88

Chapter 2. Software Requirements

The following tables highlight the compatibility of cuDNN versions with the various supported OS versions.

2.1. Windows

Refer to the following tables to view the list of supported Windows versions for cuDNN.

Windows versions for cuDNN for CUDA 11.0 RC

OS Name	Support Status (x86_64)					
	Tesla		Quadro		GeForce	
	Legacy	Volta Turing NVIDIA Ampere architecture	Legacy	Volta Turing NVIDIA Ampere architecture	Legacy	Volta Turing NVIDIA Ampere architecture
10	Yes	Yes	Yes	Yes	Yes	Yes
Server 2012	Yes	Yes	Yes	Yes	Yes	Yes

Visual Studio versions based on your version of CUDA

	CUDA 11.0 RC	CUDA 10.2	CUDA 10.0
Visual Studio	2015	2012	

2.2. Linux

Refer to the following table to view the list of supported Linux versions for cuDNN.

Linux versions for cuDNN

Architecture	OS Name	OS Version	Distro Information		
			Kernel	GCC	Glibc
x86_64	Fedora	29	4.16	8.0.1	2.27
	OpenSUSE	15.1	4.12.14	7.3.0	2.26
	Ubuntu	18.04.3 LTS	4.15.0	8.2.0	2.27
		16.04.6 LTS	4.5.0	5.4.0	2.23
ppc64le	Ubuntu	18.04.3 LTS	4.4.0	5.4.0	2.27
	RHEL7_3				
	RHEL8_1				
AArch64 ¹	Ubuntu18_04				
	Android				

¹ Supported in CUDA 10.2 Toolkit only.

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