SSD7500/ 6200 /7000 Series& Motherboard Dell PowerEdge R420

Compatibility Report

Last Update:3/23/22

Version: v1.00

Contents

1. Hardware:

a. HighPoint Product:

SSD7500/ 6200 /7000 Series

b. Host Platform or External Device:

Dell PowerEdge R420

2. Compatibility Status:
Compatible (Boot & Data RAID)

3. Description:

Dell PowerEdge R420 workstation platforms are capable of supporting HighPoint SSD7500/ 6200 /7000 NVMe RAID controllers. SSD7000/6200 series can run out of full performance，but the SSD7500 series can only get half the performance.

The current motherboards used by Dell PowerEdge R420 utilize the Intel C602 Chipset.

The motherboard's BIOS includes UEFI support, and provides option ROM settings for UEFI and legacy devices.

4. Compatibility Details:

a. PCIe Host Interface:

Dell PowerEdge R420 supports PCIe Gen3, and provides five PCIe 3.0 x16 (x16 electrical) slots. Support full height.

Expansion Card Installation Guidelines

Your system supports PCI Express Generation 2 and Generation 3 expansion cards.

NOTE: If you install a second processor, you must upgrade expansion card riser 1 to optimize PCIe slot 1 speed.

The following table provides the riser configurations for single- and dual-processor systems:

Table 3. Riser Configuration for Single- and Dual-Processor Systems

Number of Processors	Expansion Card Connector	
	Riser 1	Riser 2
One	PCIE_G2_X4 iDRAC_Enterprise	PCIE_G3_X16
Two	PCIE_G3_X16 iDRAC_Enterprise	PCIE_G3_X16

NOTE: The expansion-card risers listed in the above table cannot be interchanged between single- and dual-processor systems.

Reference: Dell PowerEdge R420 Systems Owner's Manual (page66)

b. Boot RAID Support (NVMe arrays used to boot a system):

Dell PowerEdge R420 can support bootable NVMe arrays. The BIOS appears to provide UEFI option ROM support.

Slot Disablement	Allows you to enable or disable available PCIe slots on your system. The **Slot Disablement** feature controls the configuration of PCIe cards installed in the specified slot.
	⚠ CAUTION: Slot disablement must be used only when the installed peripheral card is preventing booting into the Operating System or causing delays in system startup. If the slot is disabled, both the Option ROM and UEFI driver are disabled.

Dell PowerEdge R420 Systems Owner's Manual (page27)

c. Data RAID Support (NVMe arrays used for data storage):
There are no apparent restrictions for data-only storage configurations.

5. Manufacturer Reference Material

a. Product Website:
Support for PowerEdge R420 | Overview | Dell US

b. User Guide:
|

Dell PowerEdge R420 Technical Guide

6. List of PowerEdge RAID Controller (PERC) types for Dell EMC systems
List:

Feature	PowerEdge R410	PowerEdge R420
Chassis	1U rack	1U rack
Processors	Intel Xeon processors 5500 and 5600 series	Intel Xeon processor E5-2400 and E5-2400 v2 product families
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory^1	8 x DDR3 RDIMM and UDIMM Up to 128GB	12 x DDR3 RDIMM and UDIMM Up to 384GB
Hard drive bays (hot-plug)	Up to 4 x 3.5" cabled or hot-plug	Up to 4 x 3.5" cabled or hot-plug Up to 8 x 2.5" hot-plug
RAID controller	PERC H200, H700, H800	PERC H310, H710, H710P, H810, S110
PCI slots	1 PCIe 2.0 slot	2 PCIe 3.0 slots

Dell PowerEdge R420 Technical Guide (page7)

Example：SSD7204: 7.68" (W) x 4.38" (H) x 0.73" (D)

H710P Adapter：Dell PowerEdge RAID Controller (PERC) H310, H710, H710P, and H810 User's Guide