SSD7500/ 6200 /7000 Series& Motherboard Dell PowerEdge R820

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 R820

2. Compatibility Status:

Compatible (Boot & Data RAID)

3. Description:

Dell PowerEdge R820 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 R820 utilize the Intel C600 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 R820 supports PCIe Gen3, and provides two PCIe 3.0 x16 (x16 electrical) slots. Support full height.

The following PCI Express Generation 3 expansion cards are supported.

Riser	PCIe Slot	Processor Connection	Height	Length	Link Width	Slot Width
1	1	Processor 2	Full Height	Half Length	x16	x16
1	2	Processor 2	Full Height	Half Length	x8	x16
2	3	Processor 1	Low Profile	Half Length	x8	x16
2	4	Processor 2	Low Profile	Half Length	x8	x16
2	5	Processor 2	Low Profile	Half Length	x8	x16
3	6	Processor 1	Full Height	Half Length	x16	x16
3	7	Processor 1	Full Height	Half Length	x8	x8

NOTE: To use the PCIe slots 1 ,2, 4, and 5 on the risers, processors 1 and 2 must be installed.

NOTE: The expansion-card slots are not hot-swappable.

Reference: Dell PowerEdge R820 Owner's Manual (page63)

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

Dell PowerEdge R820 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 R820 Owner's Manual (page23)

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 R820 | Overview | Dell US

b. User Guide:

Dell PowerEdge R820 Owner's Manual

Microsoft Word - Dell-PowerEdge-R820Technical Guide .docx

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

List:

Table 2. Comparing the PowerEdge R810 to PowerEdge R820

Feature	PowerEdge R810	PowerEdge R820
Chassis	2U rack	2U rack
Processors	Intel Xeonprocessors 6500, 7500, E7-2800, E7-4800 and E7-8800 series	Intel Xeon processor E5-4600 product family
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory[1]	32 x DDR3 RDIMM and UDIMM Up to 1TB	48 x DDR3 RDIMM, UDIMM and LRDIMM Up to 1.5TB
Hard drive bays (hot-plug)	6 x 2.5"	16 x2.5"
RAID controller	PERC H200, H700, H800	PERC H310, H710, H710P, H810 Dual PERC option

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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