

**SSD7500/ 6200 /7000 Series& Motherboard Dell PowerEdge  
R520**

**Compatibility Report**

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## Contents

1. Hardware:.....	3
a. HighPoint Product:.....	3
b. Target Device:.....	3
2. Compatibility Status:.....	3
3. Description:.....	3
4. Compatibility Details:.....	4
a. PCIe Host Interface:.....	4
b. Boot RAID Support (NVMe arrays used to boot a system):.....	4
c. Data RAID Support (NVMe arrays used for data storage):.....	5
5. Manufacturer Reference Material.....	5
a. Product Website:.....	5
b. User Guide:.....	5

## **1. Hardware:**

### **a. HighPoint Product:**

SSD7500/SSD6200/SSD7000 Series

This motherboard only supports PCIe3.0x16 half-height products and PCIe 3.0x8 full-height products

### **b. Host Platform or External Device:**

Dell PowerEdge R520

## **2. Compatibility Status:**

**Compatible (Boot & Data RAID)**

## **3. Description:**

Dell PowerEdge R520 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't get the maximum performance, only the performance of PCIe3.0.

The current motherboards used by Dell PowerEdge R520 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 R520 supports PCIe Gen3. When using a single processor, it provides one PCIe 3.0 x8 slot and two 3.0x4 slots, support half-height. When using two processors, it provides three PCIe 3.0 x8 slots, support full height.

Expansion card risers are configured differently for single and dual processors. The expansion-card risers listed in the following table are not interchangeable between single- and dual-processor systems.

Bus type	PCI Express Generation 2 and Generation 3
<b>Expansion slots using riser card for a one processor system:</b>	
Riser 1	(Slot 1) One half-height, half-length x4 link with x8 slot
Riser 2	(Slot 2) One full-height, full-length x8 link with x16 slot (Slot 3) One full-height, half-length x4 link with x8 slot (Slot 4) One full-height, half-length x4 link with x8 slot
<b>Expansion slots using riser card for a two processor system:</b>	
Riser 1	(Slot 1) One half-height, half-length x16 link with x16 slot
Riser 2	(Slot 2) One full-height, full-length x8 link with x16 slot (Slot 3) One full-height, half-length x8 link with x16 slot (Slot 4) One full-height, half-length x8 link with x16 slot

- PCI Express Generation 2 and Generation 3 expansion cards.
- Different expansion-card risers for single- and dual-processor configurations. 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 Slots	
	Riser 1	Riser 2
One	PCIE_G2_X4	PCIE_G3_X8
	iDRAC Ports Card	PCIE_G3_X4
		PCIE_G3_X4
Two	PCIE_G3_X16	PCIE_G3_X8
	iDRAC Ports Card	PCIE_G3_X8
		PCIE_G3_X8

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

**Reference:** [Dell PowerEdge R520 Owner's Manual](#) (page106)

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

Dell PowerEdge R520 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 R520 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 R520 | Overview | Dell US](#)

### b. User Guide:

[Dell PowerEdge R520 Owner's Manual](#)

[Dell PowerEdge R520 Technical Guide](#)

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

List:

RAID controller	Internal controllers:	External HBAs (RAID):
	PERC S110 (SW RAID)	PERC H810
	PERC H310	<b>External HBAs (non-RAID):</b>
	PERC H710	6Gbps SAS HBA
	PERC H710P	

[Dell PowerEdge R520 Technical Guide](#) (page8)

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](#)