

HighPoint RS6542AW Compatibility List

2025/11/11

This document was designed to serve as general reference for compatibility between the HighPoint RS6542AW and specific motherboards /SSDs described herein.

The motherboards included in this document are recommended for HighPoint RS6542AW x16 PCIE 4.0 configurations. Specific motherboards may have special requirements or restrictions. Please refer to the motherboards PCIe Expansion slot settings.

Note: *Bifurcation is not required. HighPoint RocketStor series NVMe RAID Enclosures can be used with “Non-Bifurcation” motherboards.*

Motherboard Compatibility List

Notes:

The recommended PCIe slot we filled in are based on the description of the motherboard manual.

RS6542AW does not support Lenovo ThinkStation P620.

PCIe error may occur when using the product on certain Dell motherboards. The error do not affect product functionality. To resolve this, obtain the BSW firmware from us for an update. After updating, certain features (such as UEFI Utility, HII Utility, and BootRAID) will become unavailable.

Manufacture	Product Name	Chipset	Recommended PCIe slot #	Data RAID support	Boot RAID support	Remark
ASUS	WS X299 SAGE	Intel X299	PCIEX16_1, PCIEX16_3 PCIEX16_5, PCIEX16_7	✓	✓	Micron 7400 U.3 NVMe SSDs are not compatible with the RS6542AW on the Intel X299 chipset motherboard.
ASUS	PRO WS TRX50-SAGE WIFI	AMD TRX50	PCIEX16(G5)_1, PCIEX16(G5)_2 PCIEX16(G4)_2	✓	✓	
ASUS	Pro WS W790E-SAGE SE	Intel W790	PCIEX16	✓	✓	
ASUS	PRIME X870-P WIFI	AMD X870	PCIEX16(G5)	✓	✓	
ASUS	PRO WS WRX90E-SAGE SE	AMD WRX90E	PCIEX16, PCIEX16_1, PCIEX16_2, PCIEX16_3, PCIEX16_4, PCIEX16_5, PCIEX16_6, PCIEX16_7	✓	✓	
ASUS	Pro WS WRX80E-SAGE SE WIFI	AMD WRX80	PCIEX16_1 PCIEX16_2 PCIEX16_3 PCIEX16_4 PCIEX16_5 PCIEX16_6 PCIEX16_7	✓	✓	
ASUS	PRIME TRX40-PRO	AMD TRX40	PCIEX16_1 PCIEX16_2 PCIEX16_3	✓	✓	
ASUS	PROART X670E	AMD X670	PCIEX16_1	✓	✓	
ASUS	PRIME Z890-P WIFI	Intel Z890	PCIEX16(G5)	✓	✓	
ASUS	MAXIMUS Z790 DARK HERO	Intel Z790	PCIEX16(G5)_1	✓	✓	
ASUS	MAXIMUS Z690 HERO	Intel Z690	PCIEX16 (G5)_1	✓	✓	
ASRock	ROMED8-2T	AMD EPYC 7002/7003 Series	PCIEX16, PCIEX16_1, PCIEX16_2, PCIEX16_3, PCIEX16_4, PCIEX16_5, PCIEX16_6, PCIEX16_7	✓	✓	
ASRock	WRX90 WS EVO	AMD WRX90E	PCIEX16	✓	✓	
ASRock	Z790 PG Lightning	Intel Z790	PCIEX16	✓	✓	
GIGABYTE	Z890M AORUS ELITE WIFI7	Intel Z890	PCIEX16	✓	✓	
GIGABYTE	Z790M AORUS ELITE AX	Intel Z790	PCIEX16	✓	✓	
Supermicro	SYS-741GE-TNRT	Intel C741	Slot2 PCIe5.0x16 Slot4 PCIe5.0x16 Slot5 PCIe5.0x16 Slot7 PCIe5.0x16 Slot9 PCIe5.0x16 Slot10 PCIe5.0x16 Slot11 PCIe5.0x16	✓	✓	
Supermicro	X13SEI-TF	Intel C741	PCIEX16	✓	✓	
Supermicro	X14SBI-F	Intel® Xeon® 6511P	Slot1 PCIe 5.0x16 Slot3 PCIe 5.0x16 Slot6 PCIe 5.0x16	✓	✓	
Supermicro	SYS-2025HS-TNR	AMD EPYC 9004	Slot3, Slot7	✓	✓	
Supermicro	X11DPH-T	Intel C622	CPU2 SLOT2 PCI-E 3.0x16 CPU2 SLOT4 PCI-E 3.0x16 CPU2 SLOT5 PCI-E 3.0x16	✓	✓	
Supermicro	X11DPI-NT	Intel C622	CPU1 Slot2 PCI-E 3.0x16 CPU2 Slot4 PCI-E 3.0x16 CPU2 Slot5 PCI-E 3.0x16	✓	✓	

			CPU2 Slot6 PCI-E 3.0X16			
Supermicro	X12DPi-N6	Intel C621A	CPU1 SLOT2 PCI-E 4.0 x16 CPU1 SLOT3 PCI-E 4.0 x16 CPU2 SLOT4 PCI-E 4.0 x16 CPU2 SLOT5 PCI-E 4.0 x16	✓	✓	
Supermicro	H11DSi	AMD EPYC 7001/7002 Series	CPU1 SLOT2 PCI-E 3.0 x16 CPU1 SLOT4 PCI-E 3.0 x16	✓	✓	
Supermicro	H12SSL-i	AMD EPYC 7002/7003 Series	CPU SLOT1 PCI-E 4.0 X16 CPU SLOT3 PCI-E 4.0 X16 CPU SLOT5 PCI-E 4.0 X16 CPU SLOT6 PCI-E 4.0 X16 CPU SLOT7 PCI-E 4.0 X16	✓	✓	
Dell	Precision 7960 Tower	Intel W790	SLOT1 PCI-E 5.0 x16 SLOT4 PCI-E 4.0 x16 SLOT5 PCI-E 5.0 x16 SLOT8 PCI-E 4.0 x16	✓	✓	
Dell	PowerEdge R730	Intel C610	CPU2 SLOT4 PCI-E 3.0 x16	✓	✓	
HP	ProLiant DL380 Gen9	Intel C610	CPU2 SLOT4 PCI-E 3.0 x16 CPU2 SLOT5 PCI-E 3.0 x16	✓	✓	
HP	Z6 G5 A	AMD Pro 695	Slot1 PCIe5.0x16 Slot2 PCIe5.0x16 Slot4 PCIe5.0x16 Slot5 PCIe5.0x16 Slot6 PCIe4.0x16	✓	✓	

U.2 NVMe SSD Compatibility List

Manufacture	Model/Series	Form Factor	Capacity	Remark
PCIe Gen3				
Intel	Optane P4800X	U.2	375GB, 750GB, 1.5TB	
Samsung	983 DCT	U.2	960GB,1920GB	
KIOXIA	CM5-R Series	U.2	960GB, 1.92TB, 3.84TB, 7.68TB, 15.36TB	
KIOXIA	XD5 Series	U.2	960GB, 1920GB, 3840GB	
Western Digital	Ultrastar DC SN630	U.2	960GB,1.92TB,3.84TB, 6.4TB	
Western Digital	Ultrastar DC SN640	U.2	800GB,1600GB,3200GB,6400GB	
Micron	9300 PRO	U.2	3.84TB, 7.68TB, 15.36TB	
PCIe Gen4				
KIOXIA	CD7-R Series	U.2	960GB, 1920GB, 3840GB, 7680GB, 15360GB	
KIOXIA	CD8-R Series	U.2	960GB, 1920GB, 3840GB, 7680GB, 15360GB	
Solidigm	D7-P5510	U.2	3.84TB, 7.68TB	
Solidigm	D5-P5430	U.2	3.84TB, 7.68TB, 15.36TB, 30.72TB	
Solidigm	D5-P5336	U.2	7.68TB, 15.36TB, 30.72TB, 61.44TB	
Micron	7450 MAX	U.3	800GB, 1.6TB, 3.2TB, 6.4TB, 12.8TB	
Micron	7400 PRO	U.3	960GB, 1.92TB, 3.84TB, 7.68TB	Micron 7400 U.3 NVMe SSDs are not compatible with the RS6542AW on the Intel X299 chipset motherboard.
Western Digital	Ultrastar DC SN650	U.3	7.68TB, 15.36TB	
PCIe Gen5				
KIOXIA	CD8P-R Series	U.2	30720GB,15360GB,7680GB,3840GB, 1920GB	
KIOXIA	CM7-V Series	U.3	12800GB, 6400GB, 3200GB, 1600GB	
KIOXIA	CM7-R Series	U.3	30720GB,15360GB,7680GB,3840GB,1920GB	

U.2 NVMe SSD SED Compatibility List

The SSD supports SED (Self-Encrypting Drive) function.

Manufacture	Model/Series	Form Factor	Capacity	Remark
PCIe Gen3				
Intel	Optane P4800X	U.2	375GB, 750GB, 1.5TB	
Samsung	983 DCT	U.2	960GB, 1920GB	
PCIe Gen4				
KIOXIA	KCD8DRUG	U.2	960GB, 1920GB, 3840GB, 7680GB, 15360GB	
PCIe Gen5				
KIOXIA	CD8P-R Series	U.2	30720GB	

If you have any questions about NVMe compatibility, please contact us at Sales@highpoint-tech.com