

## HighPoint RS6541AW Compatibility List

2026/2/4

This document was designed to serve as general reference for compatibility between the HighPoint RS6541AW and specific motherboards /SSDs described herein.

The motherboards included in this document are recommended for HighPoint RS6541AW 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 6541AW NVMe RAID Enclosures can be used with "Non-Bifurcation" motherboards.*

**Motherboard Compatibility List**

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

**Note: RS6541AW does not support Lenovo ThinkStation P620.**

Manufacture	Product Name	Chipset	Recommended PCIe slot #	Data RAID support	Boot RAID support	Remark
ASUS	ASUS ProArt X670E-CREATOR WIFI	AMD X670	PXIEX16_1 PCIEX16_2 PCIEX16_3	✓	✓	
ASRock	ROMED8-2T	AMD EPYC 7002/7003 Series	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	Pro WS WRX80E-SAGE SE WIFI	AMD WRX80	PCIEX16_1 PCIEX16_2 PCIEX16_3 PCIEX16_4 PCIEX16_5 PCIEX16_6 PCIEX16_7	✓	✓	
ASUS	ASUS PRO WS TRX50-SAGE WIFI	AMD TRX50	PCIEX16(G5)_1 PCIEX16(G5)_2 PCIEX16(G4)_2	✓	✓	
ASUS	ASUS PRIME X870-P WIFI	AMD X870	PCIEX16(G5)	✓	✓	
ASUS	ASUS Pro WS WRX90E-SAGE SE	AMD WRX90	PCIEX16(G5)_1 PCIEX16(G5)_2 PCIEX16(G5)_3 PCIEX16(G5)_4 PCIEX16(G5)_5 PCIEX16(G5)_7	✓	✓	
ASUS	ASUS PRIME Z890-P WIFI	Intel Z890	PCIEX16(G5)	✓	✓	
HP	Z6 G5 A	AMD Pro 695	Slot1 PCIe Gen5 x16 Slot2 PCIe Gen5 x16 Slot4 PCIe Gen5 x16 Slot5 PCIe Gen5 x16 Slot6 PCIe Gen4 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	✓	✓	
Supermicro	H12SSL-NT	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	✓	✓	
Supermicro	H12SSL-C	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	✓	✓	
Supermicro	H12SSL-CT	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	✓	✓	
Supermicro	SYS-2025HS-TNR	AMD EPYC 9004 Series	Slot1 PCIe 5.0X16 Slot3 PCIe 5.0X16 Slot5 PCIe 5.0X16 Slot7 PCIe 5.0X16 Slot8 PCIe 5.0X16	✓	✓	
Supermicro	H13DSH	AMD EPYC 9004 Series	2X PCIe5.0 X16 via Riser slot	✓	✓	
Supermicro	SYS-741GE-TNRT	Intel C741	Slot2 PCIe 5.0X16 Slot4 PCIe 5.0X16 Slot5 PCIe 5.0X16	✓	✓	

			Slot7 PCIe 5.0X16 Slot9 PCIe 5.0X16 Slot10 PCIe 5.0X16 Slot11 PCIe 5.0X16			
Supermicro	X13SEI-TF	Intel C741	Slot4 PCIe 5.0X16 Slot6 PCIe 5.0X16	✓	✓	
Supermicro	X14SBI-F	Intel® Xeon® 6511P	Slot1 PCIe 5.0X16 Slot3 PCIe 5.0X16 Slot6 PCIe 5.0X16	✓	✓	

**U.2 NVMe SSD Compatibility List**

Manufacture	Model/Series	Form Factor	Capacity	Remark
<b>PCIe Gen3</b>				
Samsung	983 DCT	U.2	960GB, 1920GB	
Intel	Optane P4800X	U.2	375GB, 750GB, 1.5TB	
KIOXIA	CM5-R Series	U.2	960GB, 1.92TB, 3.84TB, 7.68TB, 15.36TB	
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	
<b>PCIe Gen4</b>				
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	7450 PRO	U.3	960GB, 1.92TB, 3.84TB, 7.68TB, 15.36TB	
Micron	7400 PRO	U.3	960GB, 1.92TB, 3.84TB, 7.68TB	
Western Digital	Ultrastar DC SN650	U.3	7.68TB, 15.36TB	
<b>PCIe Gen5</b>				
KIOXIA	CM7-R	U.3	1920GB, 3840GB, 7680GB, 15360GB, 30720GB	
KIOXIA	CD8P-R	U.2	1920GB, 3840GB, 7680GB, 15360GB, 30720GB	
KIOXIA	CM7-V	U.3	12800GB, 6400GB, 3200GB, 1600GB	

**U.2 NVMe SSD SED Compatibility List**

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

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

If you have any questions about NVMe compatibility, please contact us at [Sales@highpoint-tech.com](mailto:Sales@highpoint-tech.com)