



ThinkSystem and ThinkAgile GPU Summary

Reference Information

Lenovo ThinkSystem servers support GPU technology to accelerate different computing workloads, maximize performance for graphic design, virtualization, artificial intelligence and high performance computing applications in Lenovo servers. This document summarizes the features of the GPUs available for supported ThinkSystem servers and ThinkAgile HX, VX and MX systems.



Figure 1. ThinkSystem NVIDIA A100 PCIe 4.0 Passive GPU

The following table shows GPUs families and the target workloads

Table 1. GPU families and workloads

Form factor	NVIDIA AI and Virtualization	Intel AI and Virtualization	AMD AI and Virtualization	Qualcomm AI and Virtualization	NVIDIA 3D Graphics
SXM	H100 SXM5 A100 SXM	Max Series 1550			
Dual slot	H100 & H100 NVL H800 & H800 NVL L40S L40 A100 A800 A30 A16		Instinct MI210		A40 RTX A6000 RTX A4500 RTX A2000
Single slot	L4 A10 A2 Tesla T4			Cloud AI 100	Quadro RTX T1000 Quadro RTX T400

ThinkSystem server support

The following tables list the ThinkSystem servers that are compatible.

Table 2. ThinkSystem server support (Part 1 of 3)

Part Number	Description	Edge				1S Intel V2			AMD V3				Intel V3						
		SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	ST50 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	SR675 V3 (7D9Q / 7D9R)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)	SR950 V3 (7DC5 / 7DC4)
BL18	ThinkSystem Intel Data Center GPU Max 1550 128GB 600W 4-GPU OAM Board	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A89325	ThinkSystem NVIDIA H100 NVL 94GB PCIe Gen5 Passive GPU	N	N	N	N	N	N	N	N	N	N	8	N	N	N	N	N	N	N
4X67A82257	ThinkSystem NVIDIA H100 80GB PCIe Gen5 Passive GPU	N	N	N	N	N	N	N	3	N	3	8	N	N	3	2	4	N	N
BQQV	ThinkSystem NVIDIA H100 SXM5 700W 80G HBM3 GPU Board	N	N	N	N	N	N	N	N	N	N	1	N	N	N	N	N	N	N
BUBB	ThinkSystem NVIDIA H100 SXM5 700W 94G HBM2e GPU Board	N	N	N	N	N	N	N	N	N	N	1	N	N	N	N	N	N	N
4X67A89326	ThinkSystem NVIDIA H800 NVL 94GB PCIe Gen5 Passive GPU	N	N	N	N	N	N	N	N	N	N	8	N	N	N	N	N	N	N
4X67A86451	ThinkSystem NVIDIA H800 80GB PCIe Gen5 Passive GPU	N	N	N	N	N	N	N	N	N	N	8	N	N	3	2	4	N	N
4X67A90669	ThinkSystem NVIDIA L40S 48GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	N	N	N	N	8	N	N	N	N	N	N	N
4X67A84823	ThinkSystem NVIDIA L40 48GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	N	N	N	N	8	N	N	3	2	4	N	N
4X67A84824	ThinkSystem NVIDIA L4 24GB PCIe Gen4 Passive GPU	1	N	N	4	N	N	N	N	N	N	N	8	3	8	4	8	N	N
4X67A76715	ThinkSystem NVIDIA A100 80GB PCIe Gen4 Passive GPU w/o CEC	N	N	N	N	N	N	N	3	N	3	8	N	N	3	2	4	N	N
4X67A86324	ThinkSystem NVIDIA A800 80GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	N	N	N	N	8	N	N	3	2	4	N	N
BCSL	ThinkSystem NVIDIA HGX A100 40GB 400W 4-GPU Board	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
BHT3	ThinkSystem NVIDIA HGX A100 80GB 500W 4-GPU Board	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A72593	ThinkSystem NVIDIA A40 48GB PCIe Gen4 Passive GPU w/o CEC	N	N	N	2 ¹	N	N	N	3	N	3	8	N	N	3	N	N	N	N
4X67A76581	ThinkSystem NVIDIA A30 24GB PCIe Gen4 Passive GPU w/o CEC	N	N	N	2 ¹	N	N	N	3	N	3	8	N	N	3	N	N	N	N

Part Number	Description	Edge				1S Intel V2			AMD V3				Intel V3						
		SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	ST50 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	SR675 V3 (7D9Q / 7D9R)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)	SR950 V3 (7DC5 / 7DC4)
4X67A76727	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU	N	N	N	N	N	N	N	N	3	N	3	N	N	N	3	N	N	N
4X67A71311	ThinkSystem NVIDIA A10 24GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A81547	ThinkSystem NVIDIA A2 16GB PCIe Gen4 Passive GPU w/o CEC	1	N	2	4	N	N	N	4	8	4	8	N	8	3	8	4	8	N
4X67A84009	ThinkSystem Qualcomm Cloud AI 100	1	N	N	4	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A14926	ThinkSystem NVIDIA T4 16GB PCIe Passive GPU	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A81102	ThinkSystem AMD Instinct MI210 PCIe Gen4 Passive Accelerator	N	N	N	N	N	N	N	N	3	N	3	8	N	N	3	2	4	N
4X67A71310	ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU	N	N	N	N	N	N	N	N	3	N	3	N	4	N	3	2	4	N
4X67A76726	ThinkSystem NVIDIA RTX A4500 20GB PCIe Active GPU	N	N	N	N	N	N	N	N	3	N	3	N	4	N	3	2	4	N
4X67A76720	ThinkSystem NVIDIA RTX A2000 12GB PCIe Active GPU	N	N	N	N	N	N	N	N	3	N	3	N	4	N	3	N	N	N
4X67A79777	ThinkSystem NVIDIA T1000 8GB PCIe Active GPU	N	N	N	N	1	1	1	N	N	N	N	N	N	N	8	N	N	N
4X67A79778	ThinkSystem NVIDIA T400 4GB PCIe Active GPU	N	N	N	N	N	1	1	N	N	N	N	N	N	N	8	N	N	N

1. Double-wide GPUs are only supported in the SE450 with the 360mm chassis; not supported in the 300mm chassis

Table 3. ThinkSystem server support (Part 2 of 3)

Part Number	Description	Dense V3				2S Intel V2				AMD V1				Dense V2			4S V2	8S	
		SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)	SR650 V2 (7Z72 / 7Z73)	SR670 V2 (7Z22 / 7Z23)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)

Part Number	Description	Dense V3				2S Intel V2				AMD V1				Dense V2				4S V2	8S			
		SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)	SR650 V2 (7Z72 / 7Z73)	SR670 V2 (7Z22 / 7Z23)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7Z59 / 7Z60)	SR950 (7X11 / 7X12)	
BL18	ThinkSystem Intel Data Center GPU Max 1550 128GB 600W 4-GPU OAM Board	N	N	N	1 ¹	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A89325	ThinkSystem NVIDIA H100 NVL 94GB PCIe Gen5 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A82257	ThinkSystem NVIDIA H100 80GB PCIe Gen5 Passive GPU	N	N	N	N	N	N	3	8	N	N	N	N	3	N	N	N	N	N	N	N	N
BQQV	ThinkSystem NVIDIA H100 SXM5 700W 80G HBM3 GPU Board	N	1 ¹	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
BUBB	ThinkSystem NVIDIA H100 SXM5 700W 94G HBM2e GPU Board	N	1 ¹	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A89326	ThinkSystem NVIDIA H800 NVL 94GB PCIe Gen5 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A86451	ThinkSystem NVIDIA H800 80GB PCIe Gen5 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A90669	ThinkSystem NVIDIA L40S 48GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A84823	ThinkSystem NVIDIA L40 48GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	3	8	N	N	N	N	3	N	N	N	N	N	N	N	N
4X67A84824	ThinkSystem NVIDIA L4 24GB PCIe Gen4 Passive GPU	N	N	N	N	8	3	8	8	N	N	N	N	8	N	N	N	N	N	N	N	N
4X67A76715	ThinkSystem NVIDIA A100 80GB PCIe Gen4 Passive GPU w/o CEC	N	N	N	N	N	N	3	8	N	2	N	N	3	N	N	N	N	N	N	4	N
4X67A86324	ThinkSystem NVIDIA A800 80GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	3	8	N	N	N	N	3	N	N	N	N	N	N	4	N
BCSL	ThinkSystem NVIDIA HGX A100 40GB 400W 4-GPU Board	N	N	N	N	N	N	N	1 ¹	N	N	N	N	N	N	N	1 ¹	N	N	N	N	N

Part Number	Description	Dense V3				2S Intel V2				AMD V1				Dense V2				4S V2	8S		
		SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)	SR650 V2 (7Z72 / 7Z73)	SR670 V2 (7Z22 / 7Z23)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7Z59 / 7Z60)	SR950 (7X11 / 7X12)
BHT3	ThinkSystem NVIDIA HGX A100 80GB 500W 4-GPU Board	N	N	N	N	N	N	N	1 ¹	N	N	N	N	N	N	1 ¹	N	N	N	N	N
4X67A72593	ThinkSystem NVIDIA A40 48GB PCIe Gen4 Passive GPU w/o CEC	N	N	N	N	N	N	3 ³	8 ³	N	2	N	N	3	N	N	N	N	N	N	N
4X67A76581	ThinkSystem NVIDIA A30 24GB PCIe Gen4 Passive GPU w/o CEC	N	N	N	N	N	N	3	8	N	2	N	N	3	N	N	N	N	N	4	N
4X67A76727	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU	N	N	N	N	N	N	3	N	N	N	N	N	3	N	N	N	N	N	N	N
4X67A71311	ThinkSystem NVIDIA A10 24GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	4	8	N	N	N	N	3	N	N	N	N	N	N	N
4X67A81547	ThinkSystem NVIDIA A2 16GB PCIe Gen4 Passive GPU w/o CEC	N	N	N	N	8	3	8	8	3	6	N	3	8	N	N	N	N	2	8	N
4X67A84009	ThinkSystem Qualcomm Cloud AI 100	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A14926	ThinkSystem NVIDIA T4 16GB PCIe Passive GPU	N	N	N	N	8	3	8	8	3	6	N	3	8	N	N	N	N	2	8	N
4X67A81102	ThinkSystem AMD Instinct MI210 PCIe Gen4 Passive Accelerator	N	N	N	N	N	N	3	8	N	2 ⁵	N	N	3 ⁵	N	N	N	N	N	N	N
4X67A71310	ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU	N	N	N	N	4	N	3	N	N	N	2	N	N	N	N	N	N	N	N	N
4X67A76726	ThinkSystem NVIDIA RTX A4500 20GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	2	N	N	N	N	N	N	N	N	N
4X67A76720	ThinkSystem NVIDIA RTX A2000 12GB PCIe Active GPU	N	N	N	N	4	N	N	N	N	N	2	N	N	N	N	N	N	N	N	N
4X67A79777	ThinkSystem NVIDIA T1000 8GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A79778	ThinkSystem NVIDIA T400 4GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

1. Contains 4 separate GPUs connected via high-speed interconnects
2. For SR665 systems with AMD EPYC 7003 "Milan" processors, the A100 is supported in either factory orders (CTO) or field upgrades. For SR665 systems with AMD EPYC 7002 "Rome" processors, the A100 is only supported under Special Bid conditions and is not supported as a field upgrade. Requires the refreshed system board.
3. DisplayPort ports not supported and are disabled
4. Only available via Lenovo Scalable Infrastructure (LeSI). Select "AI & HPC – LeSI Solutions" in the DCSC configurator. See the [LeSI product guide](#) for details.
5. Supported only with EPYC 7003 "Milan" processors. Not supported with EPYC 7002 "Rome" processors

Table 4. ThinkSystem server support (Part 3 of 3)

Part Number	Description	4S V1			1S Intel V1			2S Intel V1							Dense V1					
		SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST50 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)	ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	SR570 (7Y02 / 7Y03)	SR590 (7X98 / 7X99)	SR630 (7X01 / 7X02)	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
BL18	ThinkSystem Intel Data Center GPU Max 1550 128GB 600W 4-GPU OAM Board	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A89325	ThinkSystem NVIDIA H100 NVL 94GB PCIe Gen5 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A82257	ThinkSystem NVIDIA H100 80GB PCIe Gen5 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
BQQV	ThinkSystem NVIDIA H100 SXM5 700W 80G HBM3 GPU Board	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
BUBB	ThinkSystem NVIDIA H100 SXM5 700W 94G HBM2e GPU Board	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A89326	ThinkSystem NVIDIA H800 NVL 94GB PCIe Gen5 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A86451	ThinkSystem NVIDIA H800 80GB PCIe Gen5 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A90669	ThinkSystem NVIDIA L40S 48GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A84823	ThinkSystem NVIDIA L40 48GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A84824	ThinkSystem NVIDIA L4 24GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A76715	ThinkSystem NVIDIA A100 80GB PCIe Gen4 Passive GPU w/o CEC	N	N	N	N	N	N	N	N	N	N	N	N	N	2	4	N	N	N	N

Part Number	Description	4S V1			1S Intel V1			2S Intel V1						Dense V1					
		SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST50 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)	ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	SR570 (7Y02 / 7Y03)	SR590 (7X98 / 7X99)	SR630 (7X01 / 7X02)	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)
4X67A86324	ThinkSystem NVIDIA A800 80GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	2	N	N	N	N	N
BCSL	ThinkSystem NVIDIA HGX A100 40GB 400W 4-GPU Board	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
BHT3	ThinkSystem NVIDIA HGX A100 80GB 500W 4-GPU Board	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A72593	ThinkSystem NVIDIA A40 48GB PCIe Gen4 Passive GPU w/o CEC	N	N	N	N	N	N	N	N	N	N	N	N	N	4 ^{1,2}	N	N	N	N
4X67A76581	ThinkSystem NVIDIA A30 24GB PCIe Gen4 Passive GPU w/o CEC	N	N	N	N	N	N	N	N	N	N	N	N	2	4	N	N	N	N
4X67A76727	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	2	N	N	N	N	N
4X67A71311	ThinkSystem NVIDIA A10 24GB PCIe Gen4 Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	4	N	N	N	N	N
4X67A81547	ThinkSystem NVIDIA A2 16GB PCIe Gen4 Passive GPU w/o CEC	N	N	N	N	N	N	N	N	N	N	N	2	5	N	N	N	N	N
4X67A84009	ThinkSystem Qualcomm Cloud AI 100	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A14926	ThinkSystem NVIDIA T4 16GB PCIe Passive GPU	N	N	N	N	N	N	N	N	N	N	N	2	5 ³	8	N	N	N	N
4X67A81102	ThinkSystem AMD Instinct MI210 PCIe Gen4 Passive Accelerator	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A71310	ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	2	N	N	N	N	N
4X67A76726	ThinkSystem NVIDIA RTX A4500 20GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A76720	ThinkSystem NVIDIA RTX A2000 12GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A79777	ThinkSystem NVIDIA T1000 8GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A79778	ThinkSystem NVIDIA T400 4GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

1. Only available via Lenovo Scalable Infrastructure (LeSI). Select "AI & HPC – LeSI Solutions" in the DCSC configurator. See the [LeSI product guide](#) for details.

2. DisplayPort ports not supported and are disabled.
3. The SR650 has support for 5x T4 or 5x P4 GPUs in servers with second-generation Intel Xeon Scalable processors only. SR650 systems originally with first-generation processors have support for up to 4x T4 or 2x P4 GPUs.
4. Special Bid only

ThinkAgile HX support

The following tables summarize the ThinkAgile HX appliance and certified node support for the GPUs. The numbers listed in the server columns represent the number of GPUs supported.

Table 5. ThinkAgile HX appliance and certified node GPU support - Purley systems

Part number	Description	HX Appliances										HX Certified Nodes										
		HX1320 (7X83)	HX1520-R (7X84)	HX3320 (7X83)	HX3375 (7D2U)	HX3520-G (7X84)	HX3720 (7X81)	HX5520 (7X84)	HX5520-C (7X84)	HX7520 (7X84)	HX7820 (7Y95)	HX1021 (7D20)	HX1321 (7Y89)	HX1521-R (7Y90)	HX3321 (7Y89)	HX3376 (7D2U)	HX3521-G (7Y90)	HX3721 (7Y88)	HX5521 (7Y90)	HX5521-C (7Y90)	HX7521 (7Y90)	HX7821 (7Y96)
4X67A13135	NVIDIA A100	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A72593	NVIDIA A40	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4X67A14926	NVIDIA T4	N	N	N	2	5*	N	N	N	N	N	1	N	N	N	2	5*	N	N	N	N	N
4X67A71310	NVIDIA Quadro RTX A6000	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

* These GPUs are only supported in HX appliances and certified nodes with second-generation Intel Xeon Scalable processors.

Table 6. ThinkAgile HX appliance and certified node GPU support - Whitley systems

Part number	Feature	Description	Maximum supported									
			HX1331	HX2331	HX3331	HX5530	HX7530	HX5531	HX7531	HX1330	HX2330	HX3330
CTO	BQZS	ThinkSystem NVIDIA A10 24GB PCIe Gen4 Passive GPU w/o CEC	No	No	No	4	4	4	4	No	No	No
CTO	BQZU	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU w/o CEC	No	No	No	2	3	2	3	No	No	No
4X67A76581	BJHG	ThinkSystem NVIDIA A30 24GB PCIe Gen4 Passive GPU	No	No	No	2	3	2	3	No	No	No
4X67A13135	BEL5	ThinkSystem NVIDIA A100 40GB PCIe Gen4 Passive GPU	No	No	No	2	2	2	2	No	No	No
CTO	BQZP	ThinkSystem NVIDIA A100 80GB PCIe Gen4 Passive GPU w/o CEC	No	No	No	2	3	2	3	No	No	No
4X67A14926	B4YB	ThinkSystem NVIDIA T4 16GB PCIe Passive GPU	1	2	2	6	7	6	7	1	2	2

ThinkAgile VX support

The following tables summarize the ThinkAgile VX appliance and certified node support for the GPUs. The numbers listed in the server columns represent the number of GPUs supported.

Table 7. ThinkAgile VX appliance and certified node GPU support - Purley systems

Part number	Description	VX Appliances							Certified Nodes		
		VX2320 (7Y93)	VX3320 (7Y93)	VX3520-G (7Y94)	VX3720 (7Y92)	VX5520 (7Y94)	VX7320-N (7Y93)	VX7520 (7Y94)	VX 1U Cert. Node (7Y93)	VX 2U Cert. Node (7Y94)	VX 2U4N Cert. Node (7Y92)
4X67A13135	NVIDIA A100	N	N	N	N	N	N	N	N	N	N
4X67A72593	NVIDIA A40	N	N	N	N	N	N	N	N	N	N
4X67A14926	NVIDIA T4 16GB	N	N	5*	N	N	N	N	N	5*	N
4X67A71310	NVIDIA Quadro RTX A6000	N	N	N	N	N	N	N	N	N	N

* The VX3520-G and VX 2U Certified Node have support for five T4 GPUs in servers with second-generation Intel Xeon Scalable processors only. Servers originally with first-generation processors have support for up to three T4 GPUs.

Table 8. ThinkAgile VX appliance and certified node GPU support - Whitley systems

Part number	Description	Maximum supported							
		VX2330	VX3330	VX3331	VX3530-G	VX5530	VX7330-N	VX7530	VX7531
4X67A13135	ThinkSystem NVIDIA A100 40GB PCIe Gen4 Passive GPU	No	No	No	3	No	No	No	3
4X67A72593	ThinkSystem NVIDIA A40 48GB PCIe Gen4 Passive GPU	No	No	No	3	No	No	No	3
4X67A71311	ThinkSystem NVIDIA A10 24GB PCIe Gen4 Passive GPU	No	No	No	4	No	No	No	4
4X67A14926	ThinkSystem NVIDIA T4 16GB PCIe Passive GPU	No	No	3	8	No	No	No	8

ThinkAgile MX support

The following tables summarize the ThinkAgile MX appliance and certified node support for the GPUs. The numbers listed in the server columns represent the number of GPUs supported.

Table 9. ThinkAgile MX appliance and certified node GPU support - Purley systems

Part number	Feature	Description	Maximum supported					
			MX1020	MX1021	MX3520-F	MX3520-H	MX All Flash	MX Hybrid
4X67A14926	B4YB	ThinkSystem NVIDIA T4 16GB PCIe Passive GPU	1	1	5	5	5	5
4X67A71311	BQZS	ThinkSystem NVIDIA A10 24GB PCIe Gen4 Passive GPU w/o CEC	No	No	4	4	4	4
4X67A76727	BQZU	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU w/o CEC	No	No	2	2	2	2
4X67A76581	BJHG	ThinkSystem NVIDIA A30 24GB PCIe Gen4 Passive GPU	No	No	2	2	2	2
4X67A13135	BEL5	ThinkSystem NVIDIA A100 40GB PCIe Gen4 Passive GPU	No	No	2	2	2	2

Table 10. ThinkAgile MX appliance and certified node GPU support - Whitley systems

Part number	Feature	Description	Maximum supported							
			MX3330-F	MX3330-H	MX3331-F	MX3331-H	MX3530-F	MX3530-H	MX3531-F	MX3531-H
4X67A14926	B4YB	ThinkSystem NVIDIA T4 16GB PCIe Passive GPU	3	3	3	3	8	8	8	8
4X67A71311	BQZS	ThinkSystem NVIDIA A10 24GB PCIe Gen4 Passive GPU w/o CEC	No	No	No	No	4	4	4	4
4X67A76727	BQZU	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU w/o CEC	No	No	No	No	3	3	3	3
4X67A72593	BQZQ	ThinkSystem NVIDIA A40 48GB PCIe Gen4 Passive GPU w/o CEC	No	No	No	No	3	3	3	3
4X67A76581	BJHG	ThinkSystem NVIDIA A30 24GB PCIe Gen4 Passive GPU	No	No	No	No	3	3	3	3
4X67A13135	BEL5	ThinkSystem NVIDIA A100 40GB PCIe Gen4 Passive GPU	No	No	No	No	3	3	3	3

NVIDIA software

This section lists the NVIDIA software that is available from Lenovo.

- [NVIDIA vGPU Software \(vApps, vPC, RTX vWS, and vCS\)](#)
- [NVIDIA Omniverse Software \(OVE\)](#)
- [NVIDIA AI Enterprise Software](#)
- [NVIDIA HPC Compiler Software](#)

NVIDIA vGPU Software (vApps, vPC, RTX vWS, and vCS)

Lenovo offers the following virtualization software for NVIDIA GPUs:

- **Virtual Applications (vApps)**

For organizations deploying Citrix XenApp, VMware Horizon RDSH or other RDSH solutions. Designed to deliver PC Windows applications at full performance. NVIDIA Virtual Applications allows users to access any Windows application at full performance on any device, anywhere. This edition is suited for users who would like to virtualize applications using XenApp or other RDSH solutions. Windows Server hosted RDSH desktops are also supported by vApps.

- **Virtual PC (vPC)**

This product is ideal for users who want a virtual desktop but need great user experience leveraging PC Windows® applications, browsers and high-definition video. NVIDIA Virtual PC delivers a native experience to users in a virtual environment, allowing them to run all their PC applications at full performance.

- **NVIDIA RTX Virtual Workstation (RTX vWS)**

NVIDIA RTX vWS is the only virtual workstation that supports NVIDIA RTX technology, bringing advanced features like ray tracing, AI-denoising, and Deep Learning Super Sampling (DLSS) to a virtual environment. Supporting the latest generation of NVIDIA GPUs unlocks the best performance possible, so designers and engineers can create their best work faster. IT can virtualize any application from the data center with an experience that is indistinguishable from a physical workstation — enabling workstation performance from any device.

- **Virtual Compute Server (vCS)**

NVIDIA Virtual Compute Server (vCS) enables data centers running on Red Hat Enterprise Linux, Red Hat Virtualization, and other supported KVM-based hypervisors to accelerate server virtualization with the latest NVIDIA data center GPUs, so that the most compute-intensive workloads, such as artificial intelligence, deep learning, and data science, can be run in a virtual machine (VM) powered by NVIDIA vGPU technology.

The following license types are offered:

- **Perpetual license**

A non-expiring, permanent software license that can be used on a perpetual basis without the need to renew. Each Lenovo part number includes a fixed number of years of Support, Upgrade and Maintenance (SUMS).

- **Annual subscription**

A software license that is active for a fixed period as defined by the terms of the subscription license, typically yearly. The subscription includes Support, Upgrade and Maintenance (SUMS) for the duration of the license term.

- **Concurrent User (CCU)**

A method of counting licenses based on active user VMs. If the VM is active and the NVIDIA GRID vGPU software is running, then this counts as one CCU. A vGPU CCU is independent of the connection to the VM.

The following table lists the ordering part numbers and feature codes.

Table 11. NVIDIA vGPU Software

Part number	Feature code	Description
NVIDIA vApps		
7S020003WW	B1MP	NVIDIA vApps Perpetual License and SUMS 5Yr, 1 CCU

Part number	Feature code	Description
7S020004WW	B1MQ	NVIDIA vApps Subscription License 1 Year, 1 CCU
7S020005WW	B1MR	NVIDIA vApps Subscription License 3 Years, 1 CCU
7S02003DWW	S832	NVIDIA vApps Subscription License 4 Years, 1 CCU
7S02003EWW	S833	NVIDIA vApps Subscription License 5 Years, 1 CCU
NVIDIA vPC		
7S020009WW	B1MV	NVIDIA vPC Perpetual License and SUMS 5Yr, 1 CCU
7S02000AWW	B1MW	NVIDIA vPC Subscription License 1 Year, 1 CCU
7S02000BWW	B1MX	NVIDIA vPC Subscription License 3 Years, 1 CCU
7S02003FWW	S834	NVIDIA vPC Subscription License 4 Years, 1 CCU
7S02003GWW	S835	NVIDIA vPC Subscription License 5 Years, 1 CCU
NVIDIA RTX vWS		
7S02000FWW	B1N1	NVIDIA RTX vWS Perpetual License and SUMS 5Yr, 1 CCU
7S02000GWW	B1N2	NVIDIA RTX vWS Subscription License 1 Year, 1 CCU
7S02000HWW	B1N3	NVIDIA RTX vWS Subscription License 3 Years, 1 CCU
7S02000LWW	B1N6	NVIDIA RTX vWS EDU Perpetual License and SUMS 5Yr, 1 CCU
7S02000MWW	B1N7	NVIDIA RTX vWS EDU Subscription License 1 Year, 1 CCU
7S02000NWW	B1N8	NVIDIA RTX vWS EDU Subscription License 3 Years, 1 CCU
7S02003BWW	S830	NVIDIA RTX vWS EDU Subscription License 4 Years, 1 CCU
7S02003CWW	S831	NVIDIA RTX vWS EDU Subscription License 5 Years, 1 CCU
7S02000XWW	S6YJ	NVIDIA RTX vWS Subscription License 4 Years, 1 CCU
7S02000YWW	S6YK	NVIDIA RTX vWS Subscription License 5 Years, 1 CCU
NVIDIA vCS		
7S02000ZWW	S6YL	NVIDIA Virtual Compute Server Subscription, 1 GPU (Max 10 CC VMs), 1 Year
7S020010WW	S6YM	NVIDIA Virtual Compute Server Subscription, 1 GPU (Max 10 CC VMs), 3 Years
7S020011WW	S6YN	NVIDIA Virtual Compute Server Subscription, 1 GPU (Max 10 CC VMs), 5 Years
7S020012WW	S6YP	NVIDIA Virtual Compute Server Subscription, 1 GPU (Max 10 CC VMs), EDU, 1 Year
7S020013WW	S6YQ	NVIDIA Virtual Compute Server Subscription, 1 GPU (Max 10 CC VMs), EDU, 3 Years
7S020014WW	S6YR	NVIDIA Virtual Compute Server Subscription, 1 GPU (Max 10 CC VMs), EDU, 5 Years

NVIDIA Omniverse Software (OVE)

Lenovo offers the following NVIDIA Omniverse Software software. 3D workflows are now an essential component of every industry. Efficient design collaboration between teams is crucial. NVIDIA Omniverse™ Enterprise is an end-to-end collaboration and simulation platform that fundamentally transforms complex design workflows, creating a more harmonious environment for creative teams.

- **NVIDIA Omniverse Enterprise Nucleus**

Collaboration service which enables a variety of Omniverse Enterprise-enabled client applications (Apps, Connectors, and others) to share and modify authoritative representations of virtual worlds in USD. Omniverse Nucleus is built for collaboration across multiple users. Omniverse Nucleus is the database and collaboration engine of Omniverse.

Includes:

- Collaboration and scalable core microservices deployed on servers and/or workstations.
- Nucleus Workstation
- Enterprise Nucleus Server
- NVIDIA Enterprise Support

Note: The Omniverse Enterprise Nucleus Subscription is priced and licensed per named user.

- **NVIDIA Omniverse Enterprise Creator**

App for accelerated advanced scene composition and world building. Creator enables scene composition, simulation, and rendering on workstations and virtual workstations.

Includes:

- Omniverse Create
- Omniverse Kit
- Omniverse Extensions
- Batch microservices (on up to 64 GPUs)
- NVIDIA Enterprise Support

Note: Collaboration via Nucleus requires a Nucleus subscription.

- **NVIDIA Omniverse Enterprise Reviewer**

Simple app designed to visualize projects in stunning, physically accurate photorealism and enable minor editing and comment permissions. Reviewer enables review and approval for workstations and virtual workstations.

Includes:

- Omniverse View
- NVIDIA Enterprise Support

Note: Editing and commenting via Nucleus requires a Nucleus subscription.

The following license types are offered:

- **Concurrent User (CCU) License**

A method of allocating licenses based on the number of users that are concurrently using the software. As an example, one CCU license allows only one concurrent user to use the software.

- **Floating User License**

For licensing, same as Concurrent User License.

- **Named User License**

A method of licensing based on the number of named authorized users who may not re-assign or share the license with any other person.

- **Subscription**

A software license that is active for a fixed period as defined by the terms of the subscription. An annual subscription includes SUMS for the duration of the license term.

The following table lists the ordering part numbers and feature codes.

Table 12. NVIDIA Omniverse Software (OVE)

Part number	Feature code	Description
Omniverse Enterprise Nucleus		
7S02002MWW	S82A	NVIDIA Omniverse Enterprise Nucleus Subscription per Named User, 1 Year
7S02002NWW	S82B	NVIDIA Omniverse Enterprise Nucleus Subscription per Named User, 3 Years
7S02002PWW	S82C	NVIDIA Omniverse Enterprise Nucleus Subscription per Named User, 4 Years
7S02002QWW	S82D	NVIDIA Omniverse Enterprise Nucleus Subscription per Named User, 5 Years
7S02002RWW	S82E	NVIDIA Omniverse Enterprise Nucleus Subscription per Named User, EDU, 1 Year
7S02002SWW	S82F	NVIDIA Omniverse Enterprise Nucleus Subscription per Named User, EDU, 3 Years
7S02002TWW	S82G	NVIDIA Omniverse Enterprise Nucleus Subscription per Named User, EDU, 4 Years
7S02002UWW	S82H	NVIDIA Omniverse Enterprise Nucleus Subscription per Named User, EDU, 5 Years
Omniverse Enterprise Creator		
7S02002VWW	S82J	NVIDIA Omniverse Enterprise Creator Subscription per CCU, 1 Year
7S02002WWW	S82K	NVIDIA Omniverse Enterprise Creator Subscription per CCU, 3 Years
7S02002XWW	S82L	NVIDIA Omniverse Enterprise Creator Subscription per CCU, 4 Years
7S02002YWW	S82M	NVIDIA Omniverse Enterprise Creator Subscription per CCU, 5 Years
7S02002ZWW	S82N	NVIDIA Omniverse Enterprise Creator Subscription per CCU, EDU, 1 Year
7S020030WW	S82P	NVIDIA Omniverse Enterprise Creator Subscription per CCU, EDU, 3 Years
7S020031WW	S82Q	NVIDIA Omniverse Enterprise Creator Subscription per CCU, EDU, 4 Years
7S020032WW	S82R	NVIDIA Omniverse Enterprise Creator Subscription per CCU, EDU, 5 Years
Omniverse Enterprise Reviewer		
7S020033WW	S82S	NVIDIA Omniverse Enterprise Reviewer Subscription per CCU, 1 Year
7S020034WW	S82T	NVIDIA Omniverse Enterprise Reviewer Subscription per CCU, 3 Years
7S020035WW	S82U	NVIDIA Omniverse Enterprise Reviewer Subscription per CCU, 4 Years
7S020036WW	S82V	NVIDIA Omniverse Enterprise Reviewer Subscription per CCU, 5 Years
7S020037WW	S82W	NVIDIA Omniverse Enterprise Reviewer Subscription per CCU, EDU, 1 Year
7S020038WW	S82X	NVIDIA Omniverse Enterprise Reviewer Subscription per CCU, EDU, 3 Years
7S020039WW	S82Y	NVIDIA Omniverse Enterprise Reviewer Subscription per CCU, EDU, 4 Years
7S02003AWW	S82Z	NVIDIA Omniverse Enterprise Reviewer Subscription per CCU, EDU, 5 Years

NVIDIA AI Enterprise Software

Lenovo offers the NVIDIA AI Enterprise (NVAIE) cloud-native enterprise software. NVIDIA AI Enterprise is an end-to-end, cloud-native suite of AI and data analytics software, optimized, certified, and supported by NVIDIA to run on VMware vSphere and bare-metal with NVIDIA-Certified Systems™. It includes key enabling technologies from NVIDIA for rapid deployment, management, and scaling of AI workloads in the modern hybrid cloud.

NVIDIA AI Enterprise is licensed on a per-GPU basis. NVIDIA AI Enterprise products can be purchased as either a perpetual license with support services, or as an annual or multi-year subscription.

- The perpetual license provides the right to use the NVIDIA AI Enterprise software indefinitely, with no expiration. NVIDIA AI Enterprise with perpetual licenses must be purchased in conjunction with one-year, three-year, or five-year support services. A one-year support service is also available for renewals.
- The subscription offerings are an affordable option to allow IT departments to better manage the flexibility of license volumes. NVIDIA AI Enterprise software products with subscription includes support services for the duration of the software's subscription license

The features of NVIDIA AI Enterprise Software are listed in the following table.

Table 13. Features of NVIDIA AI Enterprise Software (NVAIE)

Features	Supported in NVIDIA AI Enterprise
Per GPU Licensing	Yes
Compute Virtualization	Supported
Windows Guest OS Support	No support
Linux Guest OS Support	Supported
Maximum Displays	1
Maximum Resolution	4096 x 2160 (4K)
OpenGL and Vulkan	In-situ Graphics only
CUDA and OpenCL Support	Supported
ECC and Page Retirement	Supported
MIG GPU Support	Supported
Multi-vGPU	Supported
NVIDIA GPUDirect	Supported
Peer-to-Peer over NVLink	Supported
GPU Pass Through Support	Supported
Baremetal Support	Supported
AI and Data Science applications and Frameworks	Supported
Cloud Native ready	Supported

Note: Maximum 10 concurrent VMs per product license

The following table lists the ordering part numbers and feature codes.

Table 14. NVIDIA AI Enterprise Software (NVAIE)

Part number	Feature code	Description
AI Enterprise Perpetual License		
7S020019WW	S6YW	NVIDIA AI Enterprise Perpetual License and Support per GPU, 1 Year
7S02001AWW	S6YX	NVIDIA AI Enterprise Perpetual License and Support per GPU, 3 Years
7S02001BWW	S6YY	NVIDIA AI Enterprise Perpetual License and Support per GPU, 5 Years
7S02001CWW	S6YZ	NVIDIA AI Enterprise Perpetual License and Support per GPU, EDU, 1 Year
7S02001DWW	S6Z0	NVIDIA AI Enterprise Perpetual License and Support per GPU, EDU, 3 Years
7S02001EWW	S6Z1	NVIDIA AI Enterprise Perpetual License and Support per GPU, EDU, 5 Years
AI Enterprise Subscription License		
7S02001FWW	S6Z2	NVIDIA AI Enterprise Subscription License and Support per GPU, 1 Year

Part number	Feature code	Description
7S02001GWW	S6Z3	NVIDIA AI Enterprise Subscription License and Support per GPU, 3 Years
7S02001HWW	S6Z4	NVIDIA AI Enterprise Subscription License and Support per GPU, 5 Years
7S02001JWW	S6Z5	NVIDIA AI Enterprise Subscription License and Support per GPU, EDU, 1 Year
7S02001KWW	S6Z6	NVIDIA AI Enterprise Subscription License and Support per GPU, EDU, 3 Years
7S02001LWW	S6Z7	NVIDIA AI Enterprise Subscription License and Support per GPU, EDU, 5 Years

Find more information in the [NVIDIA AI Enterprise Sizing Guide](#).

NVIDIA HPC Compiler Software

Table 15. NVIDIA HPC Compiler

Part number	Feature code	Description
HPC Compiler Support Services		
7S090014WW	S924	NVIDIA HPC Compiler Support Services, 1 Year
7S090015WW	S925	NVIDIA HPC Compiler Support Services, 3 Years
7S09002GWW	S9UQ	NVIDIA HPC Compiler Support Services, 5 Years
7S090016WW	S926	NVIDIA HPC Compiler Support Services, EDU, 1 Year
7S090017WW	S927	NVIDIA HPC Compiler Support Services, EDU, 3 Years
7S09002HWW	S9UR	NVIDIA HPC Compiler Support Services, EDU, 5 Years
7S090018WW	S928	NVIDIA HPC Compiler Support Services - Additional Contact, 1 Year
7S09002JWW	S9US	NVIDIA HPC Compiler Support Services - Additional Contact, 3 Years
7S09002KWW	S9UT	NVIDIA HPC Compiler Support Services - Additional Contact, 5 Years
7S090019WW	S929	NVIDIA HPC Compiler Support Services - Additional Contact, EDU, 1 Year
7S09002LWW	S9UU	NVIDIA HPC Compiler Support Services - Additional Contact, EDU, 3 Years
7S09002MWW	S9UV	NVIDIA HPC Compiler Support Services - Additional Contact, EDU, 5 Years
HPC Compiler Premier Support Services		
7S09001AWW	S92A	NVIDIA HPC Compiler Premier Support Services, 1 Year
7S09002NWW	S9UW	NVIDIA HPC Compiler Premier Support Services, 3 Years
7S09002PWW	S9UX	NVIDIA HPC Compiler Premier Support Services, 5 Years
7S09001BWW	S92B	NVIDIA HPC Compiler Premier Support Services, EDU, 1 Year
7S09002QWW	S9UY	NVIDIA HPC Compiler Premier Support Services, EDU, 3 Years
7S09002RWW	S9UZ	NVIDIA HPC Compiler Premier Support Services, EDU, 5 Years
7S09001CWW	S92C	NVIDIA HPC Compiler Premier Support Services - Additional Contact, 1 Year
7S09002SWW	S9V0	NVIDIA HPC Compiler Premier Support Services - Additional Contact, 3 Years
7S09002TWW	S9V1	NVIDIA HPC Compiler Premier Support Services - Additional Contact, 5 Years
7S09001DWW	S92D	NVIDIA HPC Compiler Premier Support Services - Additional Contact, EDU, 1 Year
7S09002UWW	S9V2	NVIDIA HPC Compiler Premier Support Services - Additional Contact, EDU, 3 Years
7S09002VWW	S9V3	NVIDIA HPC Compiler Premier Support Services - Additional Contact, EDU, 5 Years

NVIDIA-Certified Systems

NVIDIA-Certified Systems create the essential platform for the evolution of enterprise data centers, delivering the necessary infrastructure for running a diverse range of accelerated workloads. The certification test suite is designed to exercise the performance and functionality of the configured server by running a set of software that represents a wide range of real-world applications. This includes deep learning training, AI inference, end-to-end AI frameworks including NVIDIA Riva and NVIDIA Clara™, data science including Spark, intelligent video analytics (IVA), high-performance computing (HPC) and CUDA functions, and rendering. It also covers infrastructure performance acceleration such as network and storage offload, security features, and remote management capabilities. The certification covers compute-oriented and general-purpose data center servers as well as edge servers and workstations.

To see the list of certified systems, go to the [NVIDIA Certified Systems Catalog](#).

In addition to supporting [hundreds of commercial applications](#), NVIDIA-Certified Systems enable enterprises to easily deploy software solutions from NVIDIA and partners for AI, Data Analytics, Visualization, and more. They also provide the best foundation for enterprise solutions such as NVIDIA AI Enterprise and NVIDIA Omniverse Enterprise.

To learn more, download the [Lenovo NVIDIA-Certified datasheet](#).

Intel Max Series 1550 GPU

The Intel Max Series 1550 GPUs are optimized for machine learning and high-performance computing applications while also containing media decode and encode engines to support certain media analytics use cases. These highly specialized GPUs are enabled with Intel's OneAPI, an open cross-architecture programming model.

- [Part numbers](#)
- [Technical specifications](#)
- [Server support](#)
- [Auxiliary power cables](#)

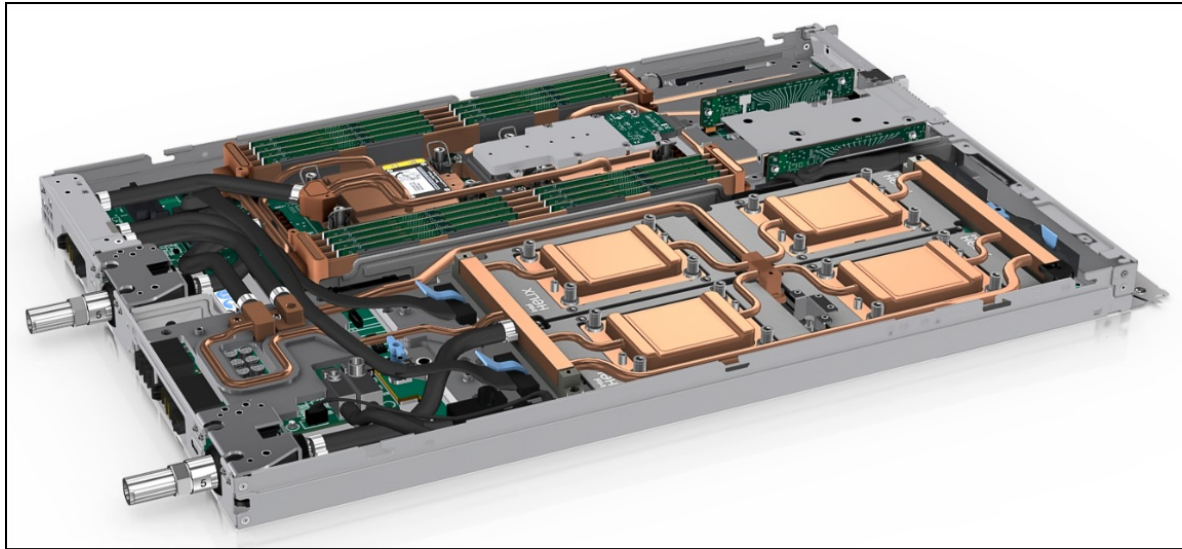


Figure 2. Four Intel Data Center GPU Max Series accelerators in the ThinkSystem SD650-I V3 server

Part numbers

Table 16. Ordering information

Feature code	Description
BL18	ThinkSystem Intel Data Center GPU Max 1550 128GB 600W 4-GPU OAM Board

Technical specifications

The following table lists the specifications of the Intel Max Series 1550 GPUs.

Table 17. Intel Max Series 1550 specifications

Specification	Intel Max Series 1550 GPU
Form Factor	OCP Accelerator Module (OAM)
FP64	52 teraFLOPS
FP32	52 teraFLOPS
XMx Float 32 (TF32)	419 teraFLOPS
XMx BF16	839 teraFLOPS
XMx FP16	839 teraFLOPS
XMx INT8	1678 TOPS
Maximum Frequency	1.6 GHz
GPU Memory	128 GB HBM2e
GPU Memory Bandwidth	3.2TB/s
Total Graphics Power (TGP)	600W
Virtual Functions (VF)	63 VFs on 2 stacks
Interconnect (Bi-Directional)	Xe Link: 636 GB/s, PCIe Gen5: 128 GB/s

Server support

The following tables list the ThinkSystem servers that are compatible.

Table 18. Server support (Part 1 of 3)

Part Number	Description	Edge				1S Intel V2			AMD V3				Intel V3						
		SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	ST50 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	SR675 V3 (7D9Q / 7D9R)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)	SR950 V3 (7DC5 / 7DC4)
BL18	ThinkSystem Intel Data Center GPU Max 1550 128GB 600W 4-GPU OAM Board	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table 19. Server support (Part 2 of 3)

Part Number	Description	Dense V3				2S Intel V2				AMD V1				Dense V2		4S V2	8S				
		SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)	SR650 V2 (7Z72 / 7Z73)	SR670 V2 (7Z22 / 7Z23)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7Z59 / 7Z60)	SR950 (7X11 / 7X12)
BL18	ThinkSystem Intel Data Center GPU Max 1550 128GB 600W 4-GPU OAM Board	N	N	N	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

1. Contains 4 separate GPUs connected via high-speed interconnects

Table 20. Server support (Part 3 of 3)

Part Number	Description	4S V1		1S Intel V1		2S Intel V1						Dense V1								
		SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST50 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)	ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	SR570 (7Y02 / 7Y03)	SR590 (7X98 / 7X99)	SR630 (7X01 / 7X02)	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
BL18	ThinkSystem Intel Data Center GPU Max 1550 128GB 600W 4-GPU OAM Board	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Auxiliary power cables

The power cables needed for the Intel Max Series 1550 GPUs are included with the supported servers.

NVIDIA H100 and H100 NVL GPUs

For details on these GPUs, see the separate NVIDIA H100 product guide:

<https://lenovopress.lenovo.com/lp1732-thinksystem-nvidia-h100-80gb-pcie-gen5-passive-gpu>

NVIDIA H800 and H800 NVL GPUs

For details on these GPUs, see the separate NVIDIA H800 product guide:

<https://lenovopress.lenovo.com/lp1814-thinksystem-nvidia-h800-80gb-pcie-gen5-passive-gpu>

NVIDIA H100 SXM5 GPU Board

For details on this GPU, see the separate NVIDIA H100 product guide:

<https://lenovopress.lenovo.com/lp1732-thinksystem-nvidia-h100-80gb-pcie-gen5-passive-gpu>

NVIDIA L40S GPU

For details on this GPU, see the separate NVIDIA L40S product guide:

<https://lenovopress.lenovo.com/lp1812-nvidia-l40s-48gb-pcie-gen4-passive-gpu>

NVIDIA L40 GPU

For details on this GPU, see the separate NVIDIA L40 product guide:

<https://lenovopress.lenovo.com/lp1718-nvidia-l40-48gb-pcie-gen4-passive-gpu>

NVIDIA L4 GPU

For details on this GPU, see the separate NVIDIA L4 product guide:

<https://lenovopress.lenovo.com/lp1717-thinksystem-nvidia-l4-24gb-pcie-gen4-passive-gpu>

NVIDIA A100 GPU

For details on the A100 GPU, see the separate product guide:

<https://lenovopress.lenovo.com/lp1734-thinksystem-nvidia-a100-pcie-gpu>

NVIDIA HGX A100 4-GPU Board

For details on this GPU, see the separate NVIDIA A100 product guide:

<https://lenovopress.lenovo.com/lp1734-thinksystem-nvidia-a100-40gb-pcie-40-passive-gpu>

NVIDIA A800 GPU

For details on the A800 GPU, see the separate product guide:

<https://lenovopress.lenovo.com/lp1813-thinksystem-nvidia-a800-pcie-gpu>

NVIDIA A40 GPU

For details on the A40 GPU, see the separate product guide:

<https://lenovopress.lenovo.com/lp1773-thinksystem-nvidia-a40-48gb-pcie-gen4-passive-gpu>

NVIDIA A30 GPU

For details on the A30 GPU, see the separate product guide:

<https://lenovopress.lenovo.com/lp1774-thinksystem-nvidia-a30-24gb-pcie-gen4-passive-gpu>

NVIDIA A16 GPU

For details on the A16 GPU, see the separate product guide:

<https://lenovopress.lenovo.com/lp1815-thinksystem-nvidia-a16-64gb-gen4-pcie-passive-gpu>

NVIDIA A10 GPU

For details on the A10 GPU, see the separate product guide:

<https://lenovopress.lenovo.com/lp1816-thinksystem-nvidia-a10-24gb-pcie-gen4-passive-gpu>

NVIDIA A2 GPU

For details on the A2 GPU, see the separate product guide:

<https://lenovopress.lenovo.com/lp1817-thinksystem-nvidia-a2-16gb-pcie-gen4-passive-gpu>

Qualcomm Cloud AI 100 Accelerator

For details on this accelerator, see the separate Qualcomm Cloud AI 100 product guide:

<https://lenovopress.lenovo.com/lp1772-thinksystem-qualcomm-cloud-ai-100>

NVIDIA T4 GPU

The NVIDIA T4 GPU supports diverse cloud workloads, including high-performance computing, deep learning training and inference, machine learning, data analytics, and graphics. Based on the new NVIDIA Turing Architecture and packaged in an energy-efficient 70-watt, small PCIe form factor, Tesla T4 is optimized for scale-out computing environments with its multi-precision Turing Tensor Cores and new RT Cores.

- [Introduction](#)
- [Part numbers](#)
- [Technical specifications](#)
- [Server support](#)
- [Operating system support](#)
- [Auxiliary power cables](#)

Introduction

The NVIDIA T4 GPU is a single-slot, low-profile, 6.6-inch PCIe 3.0 Universal Deep Learning Accelerator. The Tesla T4 has 16GB GDDR6 memory.

The T4 GPU provides revolutionary multi-precision performance to accelerate deep learning and machine learning training and inference, video transcoding and virtual desktops. Powering performance from FP32 to FP16 to INT8, as well as INT4 precisions, T4 delivers up to 40x higher performance than CPUs. As part of the NVIDIA AI platform, Tesla T4 supports all AI frameworks and network types, delivering dramatic performance and efficiency.



Figure 3. ThinkSystem NVIDIA T4 16GB PCIe Passive GPU

Part numbers

Table 21. Ordering information

Part number	Feature code	Description
4X67A14926	B4YB	ThinkSystem NVIDIA T4 16GB PCIe Passive GPU

Technical specifications

The following table lists the specifications of the NVIDIA T4 GPU.

Table 22. Technical Specifications

Feature	Specification
GPU Architecture	NVIDIA Turing
NVIDIA Turing Tensor Cores	320 cores
NVIDIA CUDA Cores	2560 cores
Single Precision Performance (FP32)	8.1 TFLOPS
Mixed Precision (FP16/FP32)	65 FP16 TFLOPS
INT8 Precision	130 INT8 TOPS
INT4 Precision	260 INT4 TOPS
System Interface	PCIe 3.0 x16 or x8 (x16 physical connector)
GPU Memory	16 GB GDDR6
Memory Bandwidth	320+ GB/s
Form Factor	single-slot, low-profile
Max Power Consumption	70 W
Thermal Solution	Passive
Compute APIs	CUDA, DirectCompute, OpenCL, OpenACC

Server support

The following tables list the ThinkSystem servers that are compatible.

Table 23. Server support (Part 1 of 3)

Part Number	Description	Edge				1S Intel V2			AMD V3				Intel V3						
		SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	ST50 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	SR675 V3 (7D9Q / 7D9R)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)	SR950 V3 (7DC5 / 7DC4)
4X67A14926	ThinkSystem NVIDIA T4 16GB PCIe Passive GPU	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table 24. Server support (Part 2 of 3)

Part Number	Description	Dense V3				2S Intel V2				AMD V1				Dense V2		4S V2	8S				
		SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)	SR650 V2 (7Z72 / 7Z73)	SR670 V2 (7Z22 / 7Z23)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7Z59 / 7Z60)	SR950 (7X11 / 7X12)
4X67A14926	ThinkSystem NVIDIA T4 16GB PCIe Passive GPU	N	N	N	N	8	3	8	8	3	6	N	3	8	N	N	N	N	2	8	N

Table 25. Server support (Part 3 of 3)

Part Number	Description	4S V1			1S Intel V1				2S Intel V1						Dense V1					
		SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST50 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)	ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	SR570 (7Y02 / 7Y03)	SR590 (7X98 / 7X99)	SR630 (7X01 / 7X02)	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
4X67A14926	ThinkSystem NVIDIA T4 16GB PCIe Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	2	5 ¹	8	N	N	N	N

1. The SR650 has support for 5x T4 or 5x P4 GPUs in servers with second-generation Intel Xeon Scalable processors only. SR650 systems originally with first-generation processors have support for up to 4x T4 or 2x P4 GPUs.

Operating system support

The following table lists the supported operating systems.

Tip: These tables are automatically generated based on data from [Lenovo ServerProven](#).

Table 26. Operating system support for ThinkSystem NVIDIA T4 16GB PCIe Passive GPU, 4X67A14926

Operating systems	SE350	SR630 V2	SR650 V2	SR670 V2	SR850 V2	SR860 V2	ST650 V2	SR635	SR645	SR655	SR665	SR630 (Xeon Gen 2)	SR650 (Xeon Gen 2)	SR670 (Xeon Gen 2)	SR630 (Xeon Gen 1)	SR650 (Xeon Gen 1)	SR670 (Xeon Gen 1)
Microsoft Windows 10	N	N	N	N	N	N	N	N	N	Y ²	N	N	N	N	N	N	N
Microsoft Windows 11	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N

Operating systems	SE350	SR630 V2	SR650 V2	SR670 V2	SR850 V2	SR860 V2	ST650 V2	SR635	SR645	SR655	SR665	SR630 (Xeon Gen 2)	SR650 (Xeon Gen 2)	SR670 (Xeon Gen 2)	SR630 (Xeon Gen 1)	SR650 (Xeon Gen 1)	SR670 (Xeon Gen 1)
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Microsoft Windows Server 2012 R2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N
Microsoft Windows Server 2016	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N
Microsoft Windows Server 2019	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N
Microsoft Windows Server 2022	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 6.10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N
Red Hat Enterprise Linux 6.9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N
Red Hat Enterprise Linux 7.3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N
Red Hat Enterprise Linux 7.4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N
Red Hat Enterprise Linux 7.5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y
Red Hat Enterprise Linux 7.6	Y	N	N	N	N	N	N	Y ¹	Y ¹	Y ¹	Y ¹	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.7	Y	N	N	N	N	N	N	Y ¹	Y ¹	Y ¹	Y ¹	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.8	Y	N	N	N	N	N	N	Y ¹	Y ¹	Y ¹	Y ¹	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.9	Y	Y	Y	Y	Y	Y	Y	Y ¹	Y ¹	Y ¹	Y ¹	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.0	N	N	N	N	N	N	N	Y ¹	N	Y ¹	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.1	Y	N	N	N	N	N	N	Y ¹	Y ¹	Y ¹	Y ¹	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.2	Y	Y	Y	Y	Y	Y	Y	Y ¹	Y ¹	Y ¹	Y ¹	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 SP4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N
SUSE Linux Enterprise Server 12 SP2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N
SUSE Linux Enterprise Server 12 SP3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N
SUSE Linux Enterprise Server 12 SP4	N	N	N	N	N	N	N	Y ¹	N	Y ¹	N	Y	Y	N	Y	Y	N
SUSE Linux Enterprise Server 12 SP5	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 15	Y	N	N	N	N	N	N	N	N	N	N	Y	Y	N	Y	Y	N
SUSE Linux Enterprise Server 15 SP1	Y	N	N	N	N	N	N	Y ¹	Y ¹	Y ¹	Y ¹	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP3	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Operating systems	SE350	SR630 V2	SR650 V2	SR670 V2	SR850 V2	SR860 V2	ST650 V2	SR635	SR645	SR655	SR665	SR630 (Xeon Gen 2)	SR650 (Xeon Gen 2)	SR670 (Xeon Gen 2)	SR630 (Xeon Gen 1)	SR650 (Xeon Gen 1)	SR670 (Xeon Gen 1)
SUSE Linux Enterprise Server 15 SP5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ubuntu 18.04.5 LTS	N	Y	Y	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N
Ubuntu 18.04.6 LTS	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Ubuntu 20.04 LTS	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Ubuntu 20.04.5 LTS	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Ubuntu 22.04 LTS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N
VMware vSphere Hypervisor (ESXi) 6.5 U1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N
VMware vSphere Hypervisor (ESXi) 6.5 U2	Y	N	N	N	N	N	N	N	N	N	N	Y	Y	N	Y	Y	N
VMware vSphere Hypervisor (ESXi) 6.5 U3	N	N	N	N	N	N	N	Y ¹	N	Y ¹	N	Y	Y	N	Y	Y	N
VMware vSphere Hypervisor (ESXi) 6.7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N
VMware vSphere Hypervisor (ESXi) 6.7 U1	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	Y	Y	N
VMware vSphere Hypervisor (ESXi) 6.7 U2	Y	N	N	N	N	N	N	N	N	N	N	Y	Y	N	Y	Y	N
VMware vSphere Hypervisor (ESXi) 6.7 U3	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0	Y	N	N	N	N	N	N	Y ¹	Y ¹	Y ¹	Y ¹	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U1	Y	N	N	N	Y	Y	N	Y ¹	Y	Y ¹	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

¹ The OS is not supported with EPYC 7003 processors.

² ISG will not sell/preload this OS, but compatibility and cert only.

Auxiliary power cables

The T4 does not require an auxiliary power cable.

AMD Instinct MI210 Accelerator

The ThinkSystem AMD Instinct MI210 Accelerator is a compute workhorse optimized for accelerating single precision and double-precision HPC-class system. The accelerator can also be deployed for training large scale machine intelligence workloads.



Figure 4. ThinkSystem AMD Instinct MI210 Accelerator

The accelerator's powerful compute engine, new matrix math FP64 cores and advanced memory architecture, combined with AMD's ROCm open software platform and ecosystem, provides a powerful, flexible heterogeneous compute solution that is designed to help datacenter designers meet the challenges of a new era of compute.

- [Part numbers](#)
- [Technical specifications](#)
- [Server support](#)
- [Operating system support](#)
- [Auxiliary power cables](#)

Part numbers

Table 27. Ordering information

Part number	Feature code	Description
4X67A81102	BP04	ThinkSystem AMD Instinct MI210 PCIe Gen4 Passive Accelerator
4X67A82325	BRMD	ThinkSystem AMD Instinct MI210 4x Infinity Fabric Link Bridge Card

Technical specifications

The following table lists the specifications of the AMD Instinct MI210 Accelerator.

Table 28. Technical specifications

Feature	Specification
Compute units	104
Stream Processors:	6,656
GPU Memory:	64GB HBM2e
ECC	Yes
Memory Bandwidth:	1.6 TB/s
Peak FP64 Vector	23 TFLOPS

Feature	Specification
Peak FP32 Vector	23 TFLOPS
Peak FP64 Matrix	45 TFLOPS
Peak FP32 Matrix	45 TFLOPS
Peak FP16	181 TFLOPS
Peak BF16	181 TFLOPS
Bus Interface:	PCIe Gen 4 x16
AMD Infinity Fabric Link support:	2 GPU or 4 GPU (4-GPU link support by using part number 4X67A82325)
Board Form Factor:	Full-Height, Full-Length, Dual-Slot
Thermal Solution:	Passively Cooled
Standard Max Power:	300W TDP
OS Support:	Linux 64-bit
ROCm Software Platform:	ROCm 5.0
Programing Environment:	OpenMP, OpenCL, ISO C++ (via HIP conversion tool), CUDA (via HIP conversion tool)

Server support

The following tables list the ThinkSystem servers that are compatible.

Table 29. Server support (Part 1 of 3)

Part Number	Description	Edge				1S Intel V2			AMD V3				Intel V3						
		SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	ST50 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	SR675 V3 (7D9Q / 7D9R)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)	SR950 V3 (7DC5 / 7DC4)
4X67A81102	ThinkSystem AMD Instinct MI210 PCIe Gen4 Passive Accelerator	N	N	N	N	N	N	N	N	3	N	3	8	N	N	3	2	4	N

Table 30. Server support (Part 2 of 3)

Part Number	Description	Dense V3				2S Intel V2				AMD V1				Dense V2				4S V2	8S		
		SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)	SR650 V2 (7Z72 / 7Z73)	SR670 V2 (7Z22 / 7Z23)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7Z59 / 7Z60)	SR950 (7X11 / 7X12)
4X67A81102	ThinkSystem AMD Instinct MI210 PCIe Gen4 Passive Accelerator	N	N	N	N	N	N	3	8	N	2 ¹	N	N	3 ¹	N	N	N	N	N	N	N

1. Supported only with EPYC 7003 "Milan" processors. Not supported with EPYC 7002 "Rome" processors

Table 31. Server support (Part 3 of 3)

Part Number	Description	4S V1		1S Intel V1		2S Intel V1						Dense V1								
		SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST50 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)	ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	SR570 (7Y02 / 7Y03)	SR590 (7X98 / 7X99)	SR630 (7X01 / 7X02)	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
4X67A81102	ThinkSystem AMD Instinct MI210 PCIe Gen4 Passive Accelerator	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Operating system support

The following tables list the supported operating systems.

Tip: These tables are automatically generated based on data from [Lenovo ServerProven](#).

Table 32. Operating system support for ThinkSystem AMD Instinct MI210 PCIe Gen4 Passive Accelerator, 4X67A81102

Operating systems	SR650 V3	SR655 V3	SR665 V3	SR675 V3	SR850 V3	SR860 V3	SR650 V2	SR670 V2	SR655	SR665
Red Hat Enterprise Linux 7.9	N	N	N	N	N	N	Y	Y	N	N
Red Hat Enterprise Linux 8.3	N	N	N	N	N	N	Y	N	N	N
Red Hat Enterprise Linux 8.4	N	N	N	N	N	N	Y	Y	Y ¹	Y ¹
Red Hat Enterprise Linux 8.5	N	N	N	N	N	N	Y	Y	Y ¹	Y ¹
Red Hat Enterprise Linux 8.6	Y	Y	Y	Y	Y	Y	Y	Y	Y ¹	Y ¹
Red Hat Enterprise Linux 9.0	Y	Y	Y	Y	Y	Y	Y	Y	Y ¹	Y ¹
SUSE Linux Enterprise Server 15 SP3	N	N	N	N	N	N	Y	Y	Y ¹	Y ¹
SUSE Linux Enterprise Server 15 SP4	Y	Y	Y	Y	Y	Y	Y	Y	Y ¹	Y ¹
Ubuntu 18.04.5 LTS	N	N	N	N	N	N	Y	Y	N	N
Ubuntu 20.04 LTS	N	N	N	N	N	N	Y	N	N	N
Ubuntu 20.04.5 LTS	N	Y	Y	N	N	N	N	N	N	N
Ubuntu 22.04 LTS	Y	Y	Y	Y	N	N	Y	Y	Y ¹	Y ¹

¹ HW is not supported with EPYC 7002 processors.

Auxiliary power cables

The MI210 option part number does not ship with auxiliary power cables.

Table 33. Auxiliary power cables for MI210 (click images to show larger versions)

Auxiliary power cables supplied with the SR655 (configure-to-order or field upgrade)	
<p>350mm 8pin (2x4) cable Server support: SR655 (Riser 1 or Riser 2) Option: 4X97A59853, ThinkSystem SR655 GPU Cable Kit Feature: B5T5 SBB: SBB7A14640 Base: SC17A50848 FRU: 02JK011</p>	
<p>250mm 8pin (2x4) cable Server support: SR655 (Riser 3) Option: 4X97A59853, ThinkSystem SR655 GPU Cable Kit Feature: B5TS SBB: SBB7A10974 Base: SC17A50844 FRU: 02JK010</p>	
Auxiliary power cables needed with the SR650 V2 or SR665 (EPYC 7003 "Milan" processors only)	
<p>360mm 8pin (2x4) cable Option: 4M17A80478 / 4M17A11759 (SR665) or 4H47A38666 / 4H47A80491 (SR650 V2)* Feature: BAD8 SBB: SBB7A49792 or SBB7A21691 Base: SC17A59596 FRU: 02YE420</p>	
<p>* The option part numbers are for thermal kits and include other components needed to install the GPU. See the SR665 product guide or SR650 V2 product guide for details.</p>	

NVIDIA RTX A6000 GPU

Unlock the next generation of revolutionary designs, scientific breakthroughs, and immersive entertainment with the NVIDIA RTX A6000, the world's most powerful visual computing GPU. With cutting-edge performance and features, the RTX A6000 lets you work at the speed of inspiration—to tackle the urgent needs of today and meet the rapidly evolving, compute-intensive tasks of tomorrow.

- [Introduction](#)
- [Part numbers](#)
- [Technical specifications](#)
- [Server support](#)
- [Operating system support](#)
- [Auxiliary power cables](#)



Figure 5. ThinkSystem NVIDIA Quadro RTX A6000 48GB PCIe Active GPU

Part numbers

Table 34. Ordering information

Part number	Feature code	Description
4X67A71310	BFT0	ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU

Technical specifications

The following table lists the specifications of the NVIDIA Quadro RTX A6000 GPU.

Table 35. RTX A6000 specifications

Feature	Specification
GPU Memory	48 GB GDDR6
Memory Interface	384-bit
Memory Bandwidth	Up to 768 GB/s
ECC	Yes
NVIDIA CUDA Cores	10,752
NVIDIA Tensor Cores	336
NVIDIA RT Cores	84
Single-Precision Performance	38.7 TFLOPS (peak)
RT Core performance	75.6 TFLOPS (peak)
Tensor Performance	309.7 TFLOPS (peak)
Host Interface	PCI Express 4.0 x 16
Power Consumption	300 W
Thermal Solution	Active cooling
Form Factor	4.4" H x 10.5" L, Dual Slot, Full Height, Full Length
Display Connectors	4x DisplayPort 1.4a
Maximum simultaneous displays	4x 4096 x 2160 @ 120 Hz, 4x 5120 x 2880 @ 60 Hz, 2x 7680 x 4320 @ 60 Hz
Encode / Decode Engines	1x encode, 2x decode (+AV1 decode)
VR Ready	Yes
vGPU software support	NVIDIA vPC/vApps, NVIDIA RTX Virtual Workstation, NVIDIA Virtual Compute Server
vGPU profiles supported	1 GB, 2 GB, 3 GB, 4 GB, 6 GB, 8 GB, 12 GB, 16 GB, 24 GB, 48 GB
Graphics APIs	DirectX 12.07, Shader Model 5.17, OpenGL 4.68, Vulkan 1.18
Compute APIs	CUDA, DirectCompute, OpenCL

Server support

The following tables list the ThinkSystem servers that are compatible.

Table 36. Server support (Part 1 of 3)

Part Number	Description	Edge				1S Intel V2			AMD V3				Intel V3						
		SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	ST50 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	SR675 V3 (7D9Q / 7D9R)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)	SR950 V3 (7DC5 / 7DC4)
4X67A71310	ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU	N	N	N	N	N	N	N	N	3	N	3	N	4	N	3	2	4	N

Table 37. Server support (Part 2 of 3)

Part Number	Description	Dense V3				2S Intel V2			AMD V1			Dense V2			4S V2	8S					
		SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)	SR650 V2 (7Z72 / 7Z73)	SR670 V2 (7Z22 / 7Z23)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7Z59 / 7Z60)	SR950 (7X11 / 7X12)
4X67A71310	ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU	N	N	N	N	4	N	3	N	N	2	N	N	N	N	N	N	N	N	N	N

Table 38. Server support (Part 3 of 3)

Part Number	Description	4S V1			1S Intel V1			2S Intel V1						Dense V1						
		SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST150 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)	ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	SR570 (7Y02 / 7Y03)	SR590 (7X98 / 7X99)	SR630 (7X01 / 7X02)	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
4X67A71310	ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	2	N	N	N	N	N	N

Operating system support

The following table lists the supported operating systems.

Tip: This table is automatically generated based on data from [Lenovo ServerProven](#).

Table 39. Operating system support for ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU, 4X67A71310

Operating systems	SR650 V3	SR655 V3	SR665 V3	SR850 V3	SR860 V3	ST650 V3	SR650 V2	ST650 V2	SR655	SR650 (Xeon Gen 2)
Microsoft Windows 10	Y	Y	Y	N	N	N	N	N	N	N
Microsoft Windows 11	Y	Y	Y	N	N	N	N	N	N	N
Microsoft Windows Server 2016	N	N	N	N	N	N	Y	Y	N	Y
Microsoft Windows Server 2019	Y	Y	Y	Y ¹	Y ¹	Y	Y	Y	N	Y
Microsoft Windows Server 2022	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Red Hat Enterprise Linux 7.7	N	N	N	N	N	N	N	N	N	Y
Red Hat Enterprise Linux 7.8	N	N	N	N	N	N	N	N	N	Y
Red Hat Enterprise Linux 7.9	N	N	N	N	N	N	Y	Y	N	Y
Red Hat Enterprise Linux 8.1	N	N	N	N	N	N	N	N	Y ²	Y
Red Hat Enterprise Linux 8.2	N	N	N	N	N	N	Y	Y	Y ²	Y
Red Hat Enterprise Linux 8.3	N	N	N	N	N	N	Y	Y	Y	Y
Red Hat Enterprise Linux 8.4	N	N	N	N	N	N	Y	Y	Y	Y
Red Hat Enterprise Linux 8.5	N	N	N	N	N	N	Y	Y	Y	Y
Red Hat Enterprise Linux 8.6	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Red Hat Enterprise Linux 8.7	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Red Hat Enterprise Linux 8.8	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Red Hat Enterprise Linux 9.0	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Red Hat Enterprise Linux 9.1	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Red Hat Enterprise Linux 9.2	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
SUSE Linux Enterprise Server 15 SP1	N	N	N	N	N	N	N	N	N	Y
SUSE Linux Enterprise Server 15 SP2	N	N	N	N	N	N	Y	Y	N	Y
SUSE Linux Enterprise Server 15 SP3	N	N	N	N	N	N	Y	Y	N	Y
SUSE Linux Enterprise Server 15 SP4	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
SUSE Linux Enterprise Server 15 SP5	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Ubuntu 18.04.5 LTS	N	N	N	N	N	N	Y	Y	N	N
Ubuntu 20.04 LTS	N	N	N	N	N	N	Y	N	N	N
Ubuntu 20.04.5 LTS	N	Y	Y	N	N	N	N	N	N	N
Ubuntu 22.04 LTS	Y	Y	Y	N	N	Y	Y	Y	N	Y
VMware vSphere Hypervisor (ESXi) 6.5 U2	N	N	N	N	N	N	N	N	N	Y

	SR650 V3	SR655 V3	SR665 V3	SR850 V3	SR860 V3	ST650 V3	SR650 V2	ST650 V2	SR655	SR650 (Xeon Gen 2)
Operating systems										
VMware vSphere Hypervisor (ESXi) 6.5 U3	N	N	N	N	N	N	N	N	N	Y
VMware vSphere Hypervisor (ESXi) 6.7 U1	N	N	N	N	N	N	N	N	N	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	N	N	N	N	N	N	N	N	N	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	N	N	N	N	N	N	Y	Y	N	Y
VMware vSphere Hypervisor (ESXi) 7.0	N	N	N	N	N	N	N	N	N	Y
VMware vSphere Hypervisor (ESXi) 7.0 U1	N	N	N	N	N	N	N	N	N	Y
VMware vSphere Hypervisor (ESXi) 7.0 U2	N	N	N	N	N	N	Y	Y	N	Y
VMware vSphere Hypervisor (ESXi) 7.0 U3	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
VMware vSphere Hypervisor (ESXi) 8.0	Y	Y	Y	N	N	N	Y	Y	N	Y
VMware vSphere Hypervisor (ESXi) 8.0 U1	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
VMware vSphere Hypervisor (ESXi) 8.0 U2	Y	Y	Y	Y	Y	Y	Y	Y	N	Y

¹ For limitation, please refer [Support Tip TT1591](#)

² The OS is not supported with EPYC 7003 processors.

Auxiliary power cables

The RTX A6000 option part number does not ship with auxiliary power cables. For the SR650, the needed cable is part of ThinkSystem SR650 GPU Cable Kit, 4XH7A08794.

Table 40. Auxiliary power cables for RTX A6000 (click images to show larger versions)

Auxiliary power cables needed with the SR650 V2	
<p>360mm 8pin (2x4) cable Option: 4H47A38666 or 4H47A80491 (SR650 V2)* Feature: BAD8 SBB: SBB7A49792 or SBB7A21691 Base: SC17A59596 FRU: 02YE420</p>	
<p>* The option part numbers are for thermal kits and include other components needed to install the GPU. See the SR650 V2 product guide for details.</p>	
Auxiliary power cables needed with the ST650 V2	
<p>320mm power cable for slots 1-4 Option: 4Z57A60816* Feature: BE4Q SBB: SBB7A29294 Base: SC17A80718 FRU: 02JJ693</p>	
<p>660mm power cable for slots 5-8 Option: 4Z57A60816* Feature: BE4R SBB: SBB7A29293 Base: SC17A80717 FRU: 02JJ692</p>	
<p>* The option part number is for ThinkSystem ST650 V2/V3 RTX A6000 GPU Power Cable Kit and includes both the 320mm and 660mm cables needed to install the GPU. See the ST650 V2 product guide for details.</p>	
Auxiliary power cables needed with the SR650 (configure-to-order or field upgrade)	
<p>300mm 8pin (2x4) cable Option: 4XH7A08794, ThinkSystem SR650 GPU Cable Kit Feature: AUSR SBB: SBB7A00299 Base: SC17A02296 FRU: 01KN066</p>	

NVIDIA RTX A4500 GPU

Based on the groundbreaking NVIDIA Ampere Architecture graphics processing unit (GPU), NVIDIA RTX A4500 delivers hardware-accelerated ray tracing, revolutionary AI features, advanced shading, and powerful simulation capabilities to creative professionals. With a graphics memory footprint of 20 GB of GDDR6 memory, the A4500 GPU enables the most graphics-intensive applications run with the highest level of user experience, even with largest of data sets.

- [Part numbers](#)
- [Technical specifications](#)
- [Server support](#)
- [Operating system support](#)
- [Auxiliary power cables](#)



Figure 6. ThinkSystem NVIDIA RTX A4500 PCIe Active GPU

Part numbers

Table 41. Ordering information

Part number	Feature code	Description
4X67A76726	BNFD	ThinkSystem NVIDIA RTX A4500 20GB PCIe Active GPU

Technical specifications

The following table lists the specifications of the NVIDIA RTX A4500 GPU.

Table 42. NVIDIA RTX A4500 specifications

Feature	Specification
GPU Architecture	NVIDIA Ampere
GPU Memory	20 GB GDDR6
Memory Interface	300-bit
Memory Bandwidth	Up to 640 GB/s
ECC	Yes
NVIDIA CUDA Cores	7,168
NVIDIA Tensor Cores	224 third-generation Tensor Cores
NVIDIA RT Cores	56 second-generation RT Cores
Single-Precision Performance	23.7 TFLOPS (peak)

Feature	Specification
RT Core performance	46.2 TFLOPS (peak)
Tensor Performance	189.2 TFLOPS (peak)
Host Interface	PCI Express 4.0 x 16
Power Consumption	200 W
Thermal Solution	Active cooling
Form Factor	4.4" (H) x 10.5" (L), FHFL, Dual Slot
Display Connectors	4x DisplayPort (DP) 1.4a
Maximum simultaneous displays	4x 4096 x 2160 @ 120 Hz, 4x 5120 x 2880 @ 60 Hz, 2x 7680 x 4320 @ 60 Hz
Encode / Decode Engines	1x encode, 2x decode (+AV1 decode)
VR Ready	Yes
Graphics APIs	DirectX 12 Ultimate, Shader Model 6.6, OpenGL 4.6, Vulkan 1.3
Compute APIs	CUDA 11.6, DirectCompute, OpenCL 3.0

Server support

The following tables list the ThinkSystem servers that are compatible.

Table 43. NVIDIA RTX A4500 GPU (Part 1 of 3)

Part Number	Description	Edge				1S Intel V2			AMD V3				Intel V3						
		SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	ST50 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	SR675 V3 (7D9Q / 7D9R)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)	SR950 V3 (7DC5 / 7DC4)
4X67A76726	ThinkSystem NVIDIA RTX A4500 20GB PCIe Active GPU	N	N	N	N	N	N	N	N	3	N	3	N	4	N	3	2	4	N

Table 44. NVIDIA RTX A4500 GPU (Part 2 of 3)

Part Number	Description	Dense V3				2S Intel V2			AMD V1			Dense V2			4S V2	8S					
		SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)	SR650 V2 (7Z72 / 7Z73)	SR670 V2 (7Z22 / 7Z23)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7Z59 / 7Z60)	SR950 (7X11 / 7X12)
4X67A76726	ThinkSystem NVIDIA RTX A4500 20GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	2	N	N	N	N	N	N	N	N	N	N

Table 45. NVIDIA RTX A4500 GPU (Part 3 of 3)

Part Number	Description	4S V1			1S Intel V1			2S Intel V1						Dense V1						
		SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST150 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)	ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	SR570 (7Y02 / 7Y03)	SR590 (7X98 / 7X99)	SR630 (7X01 / 7X02)	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
4X67A76726	ThinkSystem NVIDIA RTX A4500 20GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Operating system support

The following table lists the supported operating systems.

Tip: This table is automatically generated based on data from [Lenovo ServerProven](#).

Table 46. Operating system support for ThinkSystem NVIDIA RTX A4500 20GB PCIe Active GPU, 4X67A76726

Operating systems	SR650 V3	SR655 V3	SR665 V3	SR850 V3	SR860 V3	ST650 V3	SR655
Microsoft Windows 10	Y	Y	Y	N	N	N	N
Microsoft Windows 11	Y	Y	Y	N	N	N	N
Microsoft Windows Server 2019	Y	Y	Y	Y ¹	Y ¹	Y	N
Microsoft Windows Server 2022	Y	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 8.2	N	N	N	N	N	N	Y ²
Red Hat Enterprise Linux 8.3	N	N	N	N	N	N	Y
Red Hat Enterprise Linux 8.4	N	N	N	N	N	N	Y
Red Hat Enterprise Linux 8.5	N	N	N	N	N	N	Y
Red Hat Enterprise Linux 8.6	Y	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 8.7	Y	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 8.8	Y	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 9.0	Y	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 9.1	Y	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 9.2	Y	Y	Y	Y	Y	Y	N
SUSE Linux Enterprise Server 15 SP4	Y	Y	Y	Y	Y	Y	N
SUSE Linux Enterprise Server 15 SP5	Y	Y	Y	Y	Y	Y	N
Ubuntu 20.04.5 LTS	N	Y	Y	N	N	N	N
Ubuntu 22.04 LTS	Y	Y	Y	N	N	Y	N

¹ For limitation, please refer [Support Tip TT1591](#)

² The OS is not supported with EPYC 7003 processors.

Auxiliary power cables

The RTX A4500 option part number does not ship with auxiliary power cables. Cables are server-specific due to length requirements. For CTO orders, auxiliary power cables are derived by the configurator. For field upgrades, cables will need to be ordered separately as listed in the table below.

Table 47. Auxiliary power cables for RTX A4500 (click images to show larger versions)

Auxiliary power cables supplied with the SR655	
<p>350mm 8pin (2x4) cable Server support: SR655 (Riser 1 or Riser 2) Option: 4X97A59853, ThinkSystem SR655 GPU Cable Kit Feature: B5T5 SBB: SBB7A14640 Base: SC17A50848 FRU: 02JK011</p>	
<p>250mm 8pin (2x4) cable Server support: SR655 (Riser 3) Option: 4X97A59853, ThinkSystem SR655 GPU Cable Kit Feature: B5TS SBB: SBB7A10974 Base: SC17A50844 FRU: 02JK010</p>	
Auxiliary power cables needed with the SR665 V3 or SR650 V3	
<p>360mm 8pin (2x4) cable Option: 4X97A86165 (SR665 V3) or 4X97A82948 (SR650 V3)* Feature: BMPQ SBB: SBB7A49792 Base: SC17A59596 FRU: 02YE420</p>	
<p>* Additional components may be required to install the GPU. See the SR665 V3 product guide or SR650 V3 product guide for details.</p>	

NVIDIA RTX A2000 GPU

The NVIDIA RTX A2000 brings the power of NVIDIA RTX technology, realtime ray tracing, AI-accelerated compute, and high-performance graphics to more professionals. Built on the NVIDIA Ampere architecture, the VR ready RTX A2000 combines 26 second-generation RT Cores, 104 third-generation Tensor Cores, and 3,328 next-generation CUDA cores and 6 or 12GB of GDDR6 graphics memory with error correction code (ECC) support for error free computing.

The RTX A2000 GPU features a power-efficient low profile, dual-slot PCIe form factor, and the RTX A2000 12GB doubles memory for even larger models and datasets. Design bigger, render faster, and work smarter than ever before with RTX A2000 GPUs.

- [Part numbers](#)
- [Technical specifications](#)
- [Server support](#)
- [Operating system support](#)
- [Auxiliary power cables](#)



Figure 7. ThinkSystem NVIDIA RTX A2000 12GB PCIe Active GPU

Part numbers

Table 48. Ordering information

Part number	Feature code	Description
4X67A76720	BMT9	ThinkSystem NVIDIA RTX A2000 12GB PCIe Active GPU

Technical specifications

The following table lists the specifications of the NVIDIA RTX A2000 GPU.

Table 49. NVIDIA RTX A2000 specifications

Feature	Specification
GPU Memory	12 GB GDDR6

Feature	Specification
Memory Interface	192-bit
Memory Bandwidth	Up to 288 GB/s
ECC	Yes
NVIDIA CUDA Cores	3,328
NVIDIA Tensor Cores	104
NVIDIA RT Cores	26
Single-Precision Performance	8 TFLOPS (peak)
RT Core performance	15.6 TFLOPS (peak)
Tensor Performance	63.9 TFLOPS (peak)
Host Interface	PCI Express 4.0 x 16
Power Consumption	70 W
Thermal Solution	Active cooling
Form Factor	2.7" H x 6.6" L, Dual Slot, Low Profile
Display Connectors	4x Mini DisplayPort (mDP) 1.4a
Maximum simultaneous displays	4x 4096 x 2160 @ 120 Hz, 4x 5120 x 2880 @ 60 Hz, 2x 7680 x 4320 @ 60 Hz
Encode / Decode Engines	1x encode, 2x decode (+AV1 decode)
VR Ready	Yes
Graphics APIs	DirectX 12 Ultimate, Shader Model 6.6, OpenGL 4.6, Vulkan 1.3
Compute APIs	CUDA 11.6, DirectCompute, OpenCL 3.0

Server support

The following tables list the ThinkSystem servers that are compatible.

Table 50. Server support (Part 1 of 3)

Part Number	Description	Edge				1S Intel V2		AMD V3				Intel V3						
		SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	ST150 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	SR675 V3 (7D9Q / 7D9R)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)
4X67A76720	ThinkSystem NVIDIA RTX A2000 12GB PCIe Active GPU	N	N	N	N	N	N	N	3	N	3	N	4	N	3	N	N	N

Table 51. Server support (Part 2 of 3)

Part Number	Description	Dense V3				2S Intel V2			AMD V1			Dense V2			4S V2	8S					
		SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)	SR650 V2 (7Z72 / 7Z73)	SR670 V2 (7Z22 / 7Z23)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7Z59 / 7Z60)	SR950 (7X11 / 7X12)
4X67A76720	ThinkSystem NVIDIA RTX A2000 12GB PCIe Active GPU	N	N	N	N	4	N	N	N	N	2	N	N	N	N	N	N	N	N	N	N

Table 52. Server support (Part 3 of 3)

Part Number	Description	4S V1			1S Intel V1			2S Intel V1						Dense V1						
		SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST150 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)	ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	SR570 (7Y02 / 7Y03)	SR590 (7X98 / 7X99)	SR630 (7X01 / 7X02)	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
4X67A76720	ThinkSystem NVIDIA RTX A2000 12GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Operating system support

The following table lists the supported operating systems.

Tip: This table is automatically generated based on data from [Lenovo ServerProven](#).

Table 53. Operating system support for ThinkSystem NVIDIA RTX A2000 12GB PCIe Active GPU, 4X67A76720

Operating systems	SR650 V3	SR655 V3	SR665 V3	ST650 V3	ST650 V2	SR655
Microsoft Windows 10	Y	Y	Y	N	N	N
Microsoft Windows 11	Y	Y	Y	N	N	N
Microsoft Windows Server 2019	Y	Y	Y	Y	Y	N
Microsoft Windows Server 2022	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 7.9	N	N	N	N	Y	N
Red Hat Enterprise Linux 8.3	N	N	N	N	Y	Y
Red Hat Enterprise Linux 8.4	N	N	N	N	Y	Y
Red Hat Enterprise Linux 8.5	N	N	N	N	Y	Y
Red Hat Enterprise Linux 8.6	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 8.7	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 8.8	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 9.0	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 9.1	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 9.2	Y	Y	Y	Y	Y	N
SUSE Linux Enterprise Server 15 SP2	N	N	N	N	Y	N
SUSE Linux Enterprise Server 15 SP3	N	N	N	N	Y	N
SUSE Linux Enterprise Server 15 SP4	Y	Y	Y	Y	Y	N
SUSE Linux Enterprise Server 15 SP5	Y	Y	Y	Y	Y	N
Ubuntu 18.04.5 LTS	N	N	N	N	Y	N
Ubuntu 20.04.5 LTS	N	Y	Y	N	N	N
Ubuntu 22.04 LTS	Y	Y	Y	Y	Y	N

Auxiliary power cables

The RTX A2000 does not require an auxiliary power cable.

NVIDIA Quadro RTX T1000 GPU

The NVIDIA T1000, built on the NVIDIA Turing GPU architecture, is a powerful, low profile solution that delivers the full-size features, performance and capabilities required by demanding professional applications in a compact graphics card.

- [Introduction](#)
- [Part numbers](#)
- [Technical specifications](#)
- [Server support](#)
- [Auxiliary power cables](#)

Introduction

Featuring 896 CUDA cores and 8GB of GDDR6 memory, the T1000 enables professionals to tackle multi-app workflows, from 3D modeling to video editing. Support for up to four 5K displays gives you the expansive visual workspace to view your work in stunning detail.

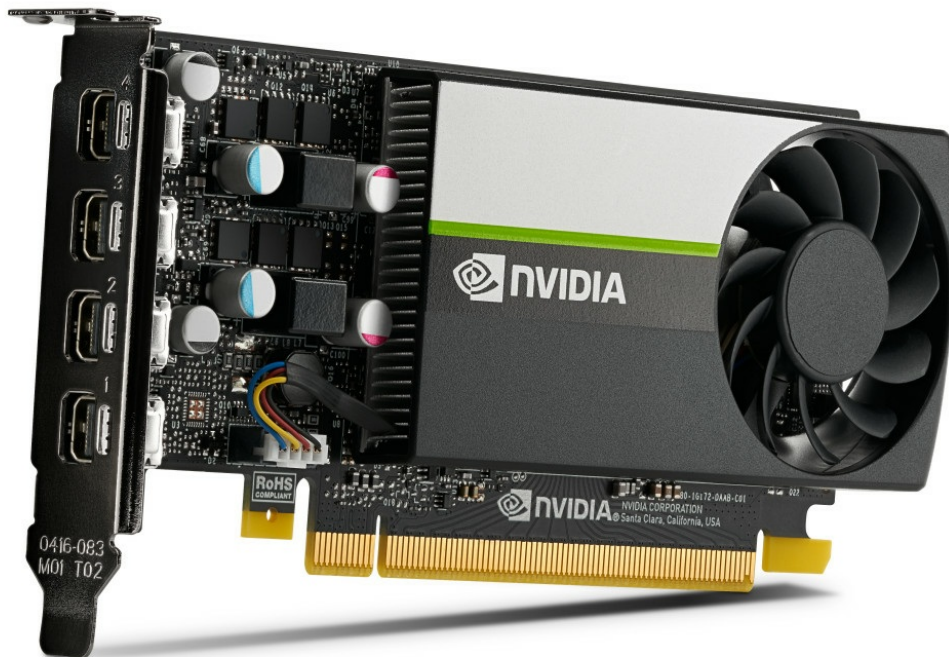


Figure 8. ThinkSystem NVIDIA Quadro RTX T1000

Part numbers

Table 54. Ordering information

Part number	Feature code	Description
4X67A79777	BMXD	ThinkSystem NVIDIA T1000 8GB PCIe Active GPU

Technical specifications

The following table lists the specifications of the NVIDIA Quadro RTX T1000 GPU.

Table 55. Technical specifications

Feature	Specification
GPU Memory	8 GB GDDR6
Memory Interface	128-bit
Memory Bandwidth	Up to 160 GB/s
NVIDIA CUDA Cores	896
System Interface	PCI Express 3.0 x16
Max Power Consumption	50 W
Thermal Solution	Active
Display Connectors	4x Mini Display Port (mDP) 1.4 with latching mechanism
Max Simultaneous Displays	4x 3840 x 2160 @ 120Hz 4x 5120 x 2880 @ 60Hz 2x 7680 x 4320 @ 60Hz
Graphics APIs	DirectX 12.07, Shader Model 5.17, OpenGL 4.68, Vulkan 1.2
Compute APIs	CUDA, DirectCompute, OpenCL

Server support

The following tables list the ThinkSystem servers that are compatible.

Table 56. Server support (Part 1 of 3)

Part Number	Description	Edge				1S Intel V2			AMD V3				Intel V3					
		SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	ST50 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	SR675 V3 (7D9Q / 7D9R)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)
4X67A79777	ThinkSystem NVIDIA T1000 8GB PCIe Active GPU	N	N	N	N	1	1	1	N	N	N	N	N	N	8	N	N	N

Table 57. Server support (Part 2 of 3)

Part Number	Description	Dense V3				2S Intel V2			AMD V1			Dense V2			4S V2	8S					
		SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)	SR650 V2 (7Z72 / 7Z73)	SR670 V2 (7Z22 / 7Z23)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7Z59 / 7Z60)	SR950 (7X11 / 7X12)
4X67A79777	ThinkSystem NVIDIA T1000 8GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table 58. Server support (Part 3 of 3)

Part Number	Description	4S V1			1S Intel V1			2S Intel V1						Dense V1						
		SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST150 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)	ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	SR570 (7Y02 / 7Y03)	SR590 (7X98 / 7X99)	SR630 (7X01 / 7X02)	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
4X67A79777	ThinkSystem NVIDIA T1000 8GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Auxiliary power cables

The RTX T1000 does not require an auxiliary power cable.

NVIDIA Quadro RTX T400 GPU

The NVIDIA T400, built on the NVIDIA Turing GPU architecture, delivers amazing performance and capabilities to power a range of professional workflows.

- [Introduction](#)
- [Part numbers](#)
- [Technical specifications](#)
- [Server support](#)
- [Auxiliary power cables](#)

Introduction

The RTX T400 GPU features 384 CUDA cores and 2GB of GDDR6 memory, and has native support for up to three 5K displays.



Figure 9. ThinkSystem NVIDIA Quadro RTX T400

Part numbers

Table 59. Ordering information

Part number	Feature code	Description
4X67A79778	BMXE	ThinkSystem NVIDIA T400 4GB PCIe Active GPU

Technical specifications

The following table lists the specifications of the NVIDIA Quadro RTX T400 GPU.

Table 60. Technical specifications

Feature	Specification
GPU Memory	4 GB GDDR6
Memory Interface	64-bit
Memory Bandwidth	Up to 80 GB/s
NVIDIA CUDA Cores	384
System Interface	PCI Express 3.0 x16
Max Power Consumption	30 W
Thermal Solution	Active
Display Connectors	3x Mini Display Port (mDP) 1.4 with latching mechanism
Max Simultaneous Displays	3x 3840 x 2160 @ 120Hz 3x 5120 x 2880 @ 60Hz
Graphics APIs	DirectX 12.07, Shader Model 5.17, OpenGL 4.68, Vulkan 1.2
Compute APIs	CUDA, DirectCompute, OpenCL

Server support

The following tables list the ThinkSystem servers that are compatible.

Table 61. Server support (Part 1 of 3)

Part Number	Description	Edge				1S Intel V2		AMD V3				Intel V3							
		SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	ST50 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	SR675 V3 (7D9Q / 7D9R)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)	SR950 V3 (7DC5 / 7DC4)
4X67A79778	ThinkSystem NVIDIA T400 4GB PCIe Active GPU	N	N	N	N	N	1	1	N	N	N	N	N	N	8	N	N	N	N

Table 62. Server support (Part 2 of 3)

Part Number	Description	Dense V3				2S Intel V2			AMD V1			Dense V2			4S V2	8S					
		SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)	SR650 V2 (7Z72 / 7Z73)	SR670 V2 (7Z22 / 7Z23)	SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7Z59 / 7Z60)	SR950 (7X11 / 7X12)
4X67A79778	ThinkSystem NVIDIA T400 4GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table 63. Server support (Part 3 of 3)

Part Number	Description	4S V1			1S Intel V1			2S Intel V1						Dense V1						
		SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST150 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)	ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	SR570 (7Y02 / 7Y03)	SR590 (7X98 / 7X99)	SR630 (7X01 / 7X02)	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
4X67A79778	ThinkSystem NVIDIA T400 4GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Auxiliary power cables

The RTX T400 does not require an auxiliary power cable.

Related product families

Product families related to this document are the following:

- [GPU adapters](#)

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