

# ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU

## Product Guide

The NVIDIA RTX™ A6000, built on the NVIDIA Ampere architecture, delivers everything designers, engineers, scientists, and artists need to meet the most graphics and compute-intensive workflows. The RTX A6000 is equipped with the latest generation RT Cores, Tensor Cores, and CUDA® cores for unprecedented rendering, AI, graphics, and compute performance.

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.



Figure 1. ThinkSystem NVIDIA Quadro RTX A6000 48GB PCIe Active GPU

### Did you know?

Certified with a broad range of professional applications, tested by leading independent software vendors (ISVs) and workstation manufacturers, and backed by a global team of support specialists, NVIDIA RTX is the visual computing solution of choice for demanding enterprise deployments.

## Part number information

The following table shows the part numbers for the RTX A6000 GPU.

Table 1. Ordering information

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

The PCIe option part numbers includes the following:

- One RTX A6000 GPU with full-height (3U) adapter bracket attached
- Documentation

## Features

The ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU offers the following features:

- **NVIDIA Ampere Architecture**  
NVIDIA® RTX™ technology revolutionized professional visual computing forever. The NVIDIA Ampere architecture builds on the power of RTX to significantly enhance the performance of rendering, graphics, AI, and compute workloads. Engineered to perfection and featuring cutting-edge innovations, the NVIDIA Ampere architecture takes RTX to new heights for professional workloads.
- **Third-Generation Tensor Cores**  
New Tensor Float 32 (TF32) precision provides up to 5X the training throughput over the previous generation to accelerate AI and data science model training without requiring any code changes. Hardware support for structural sparsity doubles the throughput for inferencing. Tensor Cores also bring AI to graphics with capabilities like DLSS, AI denoising, and enhanced editing for select applications.
- **Second-Generation RT Cores**  
With up to 2X the throughput over the previous generation and the ability to concurrently run ray tracing with either shading or denoising capabilities, second-generation RT Cores deliver massive speedups for workloads like photo-realistic rendering of movie content and virtual prototyping of product designs. This technology also speeds up the rendering of ray-traced motion blur for faster results with greater visual accuracy.
- **Third-Generation NVLink**  
Third-generation NVIDIA NVLink® technology enables users to connect two GPUs together to share GPU performance and memory. With up to 112 gigabytes per second (GB/s) of bidirectional bandwidth and combined graphics memory of up to 96 GB, professionals can tackle the largest rendering, AI, virtual reality, and visual computing workloads. The new NVLink connector also features a shorter Z height, which enables NVLink functionality in a wider range of chassis.
- **NVIDIA Ampere Architecture-based CUDA Cores**  
The NVIDIA Ampere architecture's CUDA® cores bring double-speed processing for single-precision floating point (FP32) operations and are up to 2X more power efficient than Turing GPUs. This provides significant performance gains for graphics workflows like 3D model development and compute workflows like desktop simulation for computer-aided engineering (CAE).
- **PCI Express Gen 4.0**  
NVIDIA Ampere architecture-based GPUs support PCIe Gen 4.0, which provides 2X the bandwidth of PCIe Gen 3.0. This improves data transfer speeds from CPU memory for data-intensive tasks such as AI and data science. Faster PCIe performance also accelerates GPU direct memory access (DMA) transfers, enabling faster video data transfers from GPUDirect® for video-enabled devices and faster input/output (I/O) with GPUDirect Storage.

## Technical specifications

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

Table 2. NVIDIA 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
NVLink support	Yes; 1x NVLink Bridge supported per pair of GPUs
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 3. Server support (Part 1 of 4)

Part Number	Description	2S AMD V3			2S Intel V3			4S 8S Intel V3			Multi Node			GPU Rich			1S V3			
		SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)	SR950 V3 (7DC5 / 7DC4)	SD535 V3 (7DD8 / 7DD1)	SD530 V3 (7DDA / 7DD3)	SD550 V3 (7DD9 / 7DD2)	SR670 V2 (7Z22 / 7Z23)	SR675 V3 (7D9Q / 7D9R)	SR680a V3 (7DHE)	SR685a V3 (7DHC)	ST250 V3 (7DCF / 7DCE)	SR250 V3 (7DCM / 7DCL)
4X67A71310	ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU	N	3	N	3	4	N	3	2	4	N	N	N	N	N	N	N	N	N	N

Table 4. Server support (Part 2 of 4)

Part Number	Description	Edge						Super Computing				1S Intel V2		2S Intel V2		
		SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	SE455 V3 (7DBY)	SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	SD650-N V3 (7D7N)	ST50 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)
4X67A71310	ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	N	4	N	3

Table 5. Server support (Part 3 of 4)

Part Number	Description	AMD V1				Dense V2				4S V2	8S	4S V1		1S Intel V1						
		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)	SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST50 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)
4X67A71310	ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU	N	N	2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table 6. Server support (Part 4 of 4)

Part Number	Description	2S Intel V1						Dense V1					
		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	2	N	N	N	N	N

## Operating system support

The following table lists the supported operating systems:

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

Table 7. Operating system support for ThinkSystem NVIDIA RTX A6000 48GB PCIe Active GPU, 4X67A71310

Operating systems	SR650 V3 (4th Gen Xeon)	SR650 V3 (5th Gen Xeon)	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	Y	N	N	N	N	N	N	N
Microsoft Windows 11	Y	Y	Y	Y	N	N	N	N	N	N	N
Microsoft Windows Server 2016	N	N	N	N	N	N	N	Y	Y	N	Y
Microsoft Windows Server 2019	Y	Y	Y	Y	Y <sup>1</sup>	Y <sup>1</sup>	Y	Y	Y	N	Y
Microsoft Windows Server 2022	Y	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	N	Y
Red Hat Enterprise Linux 7.8	N	N	N	N	N	N	N	N	N	N	Y
Red Hat Enterprise Linux 7.9	N	N	N	N	N	N	N	Y	Y	N	Y
Red Hat Enterprise Linux 8.1	N	N	N	N	N	N	N	N	N	Y <sup>2</sup>	Y
Red Hat Enterprise Linux 8.2	N	N	N	N	N	N	N	Y	Y	Y <sup>2</sup>	Y
Red Hat Enterprise Linux 8.3	N	N	N	N	N	N	N	Y	Y	Y	Y
Red Hat Enterprise Linux 8.4	N	N	N	N	N	N	N	Y	Y	Y	Y
Red Hat Enterprise Linux 8.5	N	N	N	N	N	N	N	Y	Y	Y	Y
Red Hat Enterprise Linux 8.6	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
Red Hat Enterprise Linux 8.7	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
Red Hat Enterprise Linux 8.8	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Red Hat Enterprise Linux 9.0	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y

Operating systems	SR650 V3 (4th Gen Xeon)	SR650 V3 (5th Gen Xeon)	SR655 V3	SR665 V3	SR850 V3	SR860 V3	ST650 V3	SR650 V2	ST650 V2	SR655	SR650 (Xeon Gen 2)
Red Hat Enterprise Linux 9.1	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
Red Hat Enterprise Linux 9.2	Y	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	N	Y
SUSE Linux Enterprise Server 15 SP2	N	N	N	N	N	N	N	Y	Y	N	Y
SUSE Linux Enterprise Server 15 SP3	N	N	N	N	N	N	N	Y	Y	N	Y
SUSE Linux Enterprise Server 15 SP4	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
SUSE Linux Enterprise Server 15 SP5	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Ubuntu 18.04.5 LTS	N	N	N	N	N	N	N	Y	Y	N	N
Ubuntu 20.04 LTS	N	N	N	N	N	N	N	Y	N	N	N
Ubuntu 20.04.5 LTS	N	N	Y	Y	Y	Y	N	N	N	N	N
Ubuntu 22.04 LTS	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
VMware vSphere Hypervisor (ESXi) 6.5 U2	N	N	N	N	N	N	N	N	N	N	Y
VMware vSphere Hypervisor (ESXi) 6.5 U3	N	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	N	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	N	N	N	N	N	N	N	N	N	N	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	N	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	N	Y
VMware vSphere Hypervisor (ESXi) 7.0 U1	N	N	N	N	N	N	N	N	N	N	Y
VMware vSphere Hypervisor (ESXi) 7.0 U2	N	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	Y	N	Y
VMware vSphere Hypervisor (ESXi) 8.0	Y	N	Y	Y	N	N	N	Y	Y	N	Y
VMware vSphere Hypervisor (ESXi) 8.0 U1	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
VMware vSphere Hypervisor (ESXi) 8.0 U2	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y

<sup>1</sup> For limitation, please refer [Support Tip TT1591](#)

<sup>2</sup> The OS is not supported with EPYC 7003 processors.

## NVIDIA GPU software

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

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

## NVIDIA vGPU Software (vApps, vPC, RTX vWS)

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.

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 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 8. NVIDIA vGPU Software

Part number	Feature code 7S02CTO1WW	Description
NVIDIA vApps		
7S020003WW	B1MP	NVIDIA vApps Perpetual License and SUMS 5Yr, 1 CCU
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		

Part number	Feature code 7S02CTO1WW	Description
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
<b>NVIDIA RTX vWS</b>		
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
7S02000XWW	S6YJ	NVIDIA RTX vWS Subscription License 4 Years, 1 CCU
7S02000YWW	S6YK	NVIDIA RTX vWS Subscription License 5 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

### 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 9. 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



Features	Supported in NVIDIA AI Enterprise
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 10. NVIDIA AI Enterprise Software (NVAIE)

Part number	Feature code 7S02CTO1WW	Description
AI Enterprise Perpetual License		
7S02001BWW	S6YY	NVIDIA AI Enterprise Perpetual License and Support per GPU, 5 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
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 11. NVIDIA HPC Compiler

Part number	Feature code 7S09CTO6WW	Description
HPC Compiler Support Services		
7S090014WW	S924	NVIDIA HPC Compiler Support Services, 1 Year
7S090015WW	S925	NVIDIA HPC Compiler Support Services, 3 Years

<b>Part number</b>	<b>Feature code 7S09CTO6WW</b>	<b>Description</b>
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
<b>HPC Compiler Premier Support Services</b>		
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

## 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 12. Auxiliary power cables for RTX A6000 (click images to show larger versions)

Auxiliary power cables needed with the SR665, SR650 V2, SR650 V3, SR655 V3, SR665 V3
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### 360mm 8pin (2x4) cable

#### Option\*:

SR665: 4M17A80478 or 4M17A11759

SR650 V2: 4H47A38666 or 4H47A80491

SR650 V3: 4X67A82883

SR655 V3: 4X67A86438

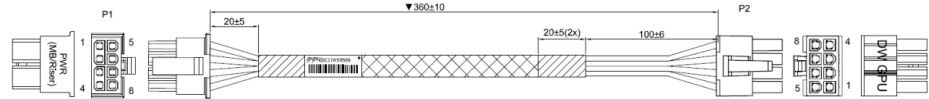
SR665 V3: 4X67A85856

**Feature:** BAD8

**SBB:** SBB7A49792 or SBB7A21691

**Base:** SC17A59596

**FRU:** 02YE420



\* 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.

### Auxiliary power cables needed with the ST650 V2, ST650 V3

#### 320mm power cable for slots 1-4

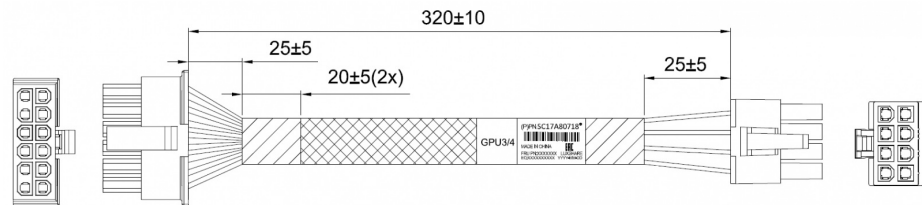
**Option:** 4Z57A60816\*

**Feature:** BE4Q

**SBB:** SBB7A29294

**Base:** SC17A80718

**FRU:** 02JJ693



#### 660mm power cable for slots 5-8

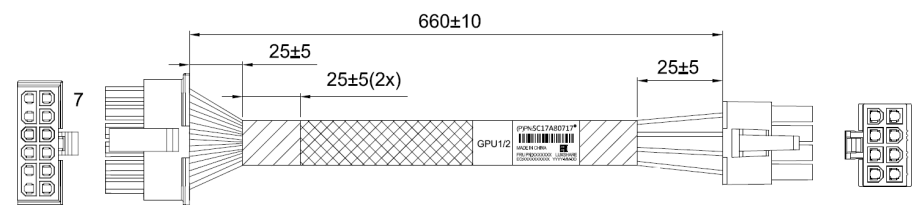
**Option:** 4Z57A60816\*

**Feature:** BE4R

**SBB:** SBB7A29293

**Base:** SC17A80717

**FRU:** 02JJ692



\* 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.

### Auxiliary power cables needed with the SR850 V3, SR860 V3

#### 200mm power cable

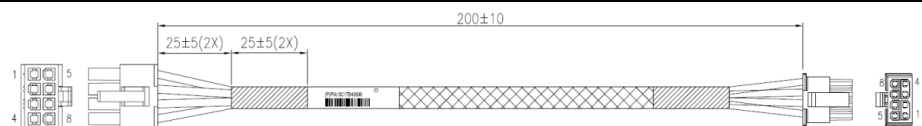
**Option:** 4X97A88017

**Feature:** BW29

**SBB:** SBB7A72760

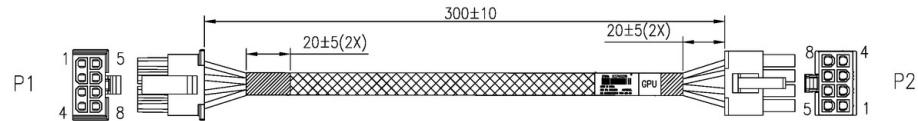
**Base:** SC17B40606

**FRU:** 03LF917



### Auxiliary power cables needed with the SR650 (configure-to-order or field upgrade)

**300mm 8pin (2x4) cable**  
**Option:** 4XH7A08794,  
ThinkSystem SR650 GPU  
Cable Kit  
**Feature:** AUSR  
**SBB:** SBB7A00299  
**Base:** SC17A02296  
**FRU:** 01KN066



## Regulatory approvals

The RTX A6000 GPU has the following regulatory approvals:

- RCM
- BSMI
- CE
- FCC
- ICES
- KCC
- cUL, UL
- VCCI

## Operating environment

The RTX A6000 GPU has the following operating characteristics:

- Ambient temperature
  - Operational: 0°C to 50°C (-5°C to 55°C for short term\*)
  - Storage: -40°C to 75°C
- Relative humidity:
  - Operational: 5-85% (5-93% short term\*)
  - Storage: 5-95%

\* A period not more than 96 hours consecutive, not to exceed 15 days per year.

## Warranty

One year limited warranty. When installed in a Lenovo server, the GPU assumes the server's base warranty and any warranty upgrades.

## Related publications

For more information, refer to these documents:

- ThinkSystem and ThinkAgile GPU Summary:  
<https://lenovopress.lenovo.com/lp0768-thinksystem-thinkagile-gpu-summary>
- ServerProven compatibility:  
<https://serverproven.lenovo.com/>
- NVIDIA RTX A6000 product page:  
<https://www.nvidia.com/en-us/design-visualization/rtx-a6000/>
- NVIDIA Ampere Architecture page  
<https://www.nvidia.com/en-us/data-center/ampere-architecture/>

## Related product families

Product families related to this document are the following:

- [GPU adapters](#)

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