ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU

Product Guide

Take remote work to the next level with NVIDIA A16. Combined with NVIDIA Virtual PC (vPC) or NVIDIA RTX Virtual Workstation (vWS) software, the A16 enables virtual desktops and workstations with the power and performance to tackle any project from anywhere. Purpose-built for high-density, graphics-rich virtual desktop infrastructure (VDI) and leveraging the NVIDIA Ampere architecture, A16 provides double the user density versus the previous generation, while ensuring the best possible user experience.

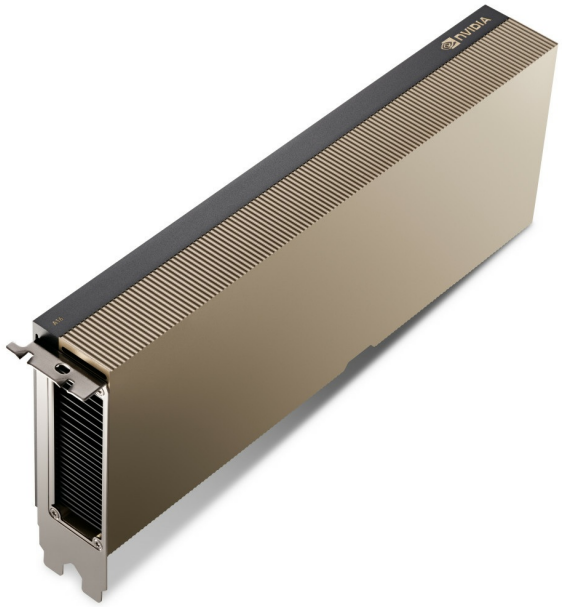


Figure 1. ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU

Did you know?

When combined with NVIDIA RTX Virtual Workstation (vWS) software, the A16 enables affordable entry-level virtual workstations ideal for running workloads such as computer-aided design (CAD). The A16 features a unique quad-GPU board design enabling the provisioning of mixed user profile sizes, so IT can support light virtual PC workloads as well as users with larger memory and graphics requirements. Mixing user types on a board is also supported, enabling the provisioning of virtual PCs, virtual workstations, and even virtualized compute on a single board.

Part number information

The following table shows the part numbers for the NVIDIA A16 GPU.

Table 1. Ordering information

Part number	Feature code	Description
4X67A76727	BNFE	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU
CTO only	BQZU	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU w/o CEC

The PCIe option part numbers includes the following:

- One NVIDIA A16 GPU with full-height (3U) adapter bracket attached
- Documentation

GPUs without a CEC chip: The NVIDIA A16 GPU is offered without a CEC chip (look for "w/o CEC" in the name). The CEC is a secondary Hardware Root of Trust (RoT) module that provides an additional layer of security, which can be used by customers who have high regulatory requirements or high security standards. NVIDIA uses a multi-layered security model and hence the protection offered by the primary Root of Trust embedded in the GPU is expected to be sufficient for most customers. The CEC defeatured products still offer Secure Boot, Secure Firmware Update, Firmware Rollback Protection, and In-Band Firmware Update Disable. Specifically, without the CEC chip, the GPU does not support Key Revocation or Firmware Attestation. CEC and non-CEC GPUs of the same type of GPU can be mixed in field upgrades.

Features

The ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU offers the following features:

- **Designed For Accelerated VDI:** Optimized for user density, and combined with NVIDIA vPC software, enables graphics-rich virtual PCs to be accessible from anywhere.
- **Affordable Virtual Workstations:** Large frame buffer per user for entry-level virtual workstations, with NVIDIA RTX vWS software, running workloads such as computer-aided design (CAD).
- **Flexibly Support Diverse User Types:** Unique quad-GPU board design enables the provisioning of mixed user profile sizes and user types, such as virtual PCs and virtual workstations, on a single board.
- **Superior User Experience:** Provides increased frame rate and lower end-user latency, versus CPU-only VDI, resulting in more responsive applications and a user experience that is indistinguishable from a native PC or workstation.
- **Double The User Density:** Purpose-built for graphics-rich VDI, with support for up to 64 concurrent users per board, in a dual-slot form factor.
- **High-Resolution Display:** Supports multiple, high resolution monitors to enable maximum productivity and photorealistic quality in a VDI environment.
- **More Than 2X The Encoder Throughput:** More than double the encoder throughput versus previous generation M10, providing high-performance transcoding and the multiuser performance required for multi-stream video and multimedia.
- **Highest Quality Video:** Support for the latest codecs, including H.265 encode/decode, VP9, and AV1 decode for the highest-quality video experiences.
- **NVIDIA Ampere Architecture:** NVIDIA Ampere architecture based CUDA cores, second generation RT-Cores, and third- generation Tensor-Cores provide the flexibility to host virtual workstations powered by NVIDIA RTX vWS software, or to leverage unused VDI resources to run compute workloads with NVIDIA AI Enterprise software.

Technical specifications

The following table lists the specifications of the NVIDIA A16 PCIe GPU.

Table 2. A16 specifications

Feature	Specification
GPU Architecture	NVIDIA Ampere
NVIDIA third-generation Tensor Cores	160 total Tensor Cores (40 cores per GPU, 4 GPUs)
NVIDIA CUDA Cores (shading units)	5120 total FP32 CUDA Cores (1280 cores per GPU, 4 GPUs)
NVIDIA RT Cores	40 total RT Cores (10 cores per GPU, 4 GPUs)
Double-Precision Performance (FP64)	Not applicable
Single-Precision Performance	FP32: 4x 4.5 TFLOPS Tensor Float 32 (TF32): 4x 9 TFLOPS, 4x 18 TFLOPS*
Half-Precision Performance	FP16: 4x 17.9 TFLOPS, 4x 35.9 TFLOPS*
Bfloat16	Not applicable
Integer Performance	INT8: 4x 35.9 TOPS, 4x 71.8 TOPS*
GPU Memory	64GB GDDR6 (16 GB per GPU, 4 CPUs)
Memory Bandwidth	4x 200 GB/s
ECC	Yes
Interconnect Bandwidth	Not applicable
System Interface	PCIe Gen 4, x16 lanes
Form Factor	PCIe full height/length, double width (dual slot)
Multi-Instance GPU (MIG)	No support
Max Power Consumption	250 W
Thermal Solution	Passive
Graphics APIs	DirectX 12.07, Shader Model 5.17, OpenGL 4.68, Vulkan 1.18
Compute APIs	CUDA, DirectCompute, OpenCL, OpenACC

Server support

The following tables list the ThinkSystem servers that are compatible.

Table 3. Server support (Part 1 of 4)

		2S AMD V3				2S Intel V3			4S 8S Intel V3			Multi Node			GPU Rich				1S V3	
Part Number	Description	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)
4X67A76727	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU	N	3	N	3	N	N	3	N	N	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)	SR650 V2 (7Z72 / 7Z73)
4X67A76727	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU	N	N	N	N	N	N	N	N	N	N	N	N	N	N	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)
4X67A76727	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive GPU	N	N	N	N	3	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)
4X67A76727	ThinkSystem NVIDIA A16 64GB Gen4 PCIe Passive 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 A16 64GB Gen4 PCIe Passive GPU, 4X67A76727

Operating systems	SR650 V3 (4th Gen Xeon)	SR650 V3 (5th Gen Xeon)	SR655 V3	SR665 V3	SR650 V2	SR665	SR650 (Xeon Gen 2)	SR650 (Xeon Gen 1)
Microsoft Windows 10	N	Y	Y	Y	N	N	N	N
Microsoft Windows 11	N	Y	Y	Y	N	N	N	N
Microsoft Windows Server 2019	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2022	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.8	N	N	N	N	N	Y [1]	Y	Y
Red Hat Enterprise Linux 7.9	N	N	N	N	Y	Y [1]	Y	Y
Red Hat Enterprise Linux 8.0	N	N	N	N	N	N	Y	Y
Red Hat Enterprise Linux 8.1	N	N	N	N	N	Y [1]	Y	Y
Red Hat Enterprise Linux 8.2	N	N	N	N	Y	Y [1]	Y	Y
Red Hat Enterprise Linux 8.3	N	N	N	N	Y	Y	Y	Y
Red Hat Enterprise Linux 8.4	N	N	N	N	Y	Y	Y	Y
Red Hat Enterprise Linux 8.5	N	N	N	N	Y	Y	Y	Y
Red Hat Enterprise Linux 8.6	Y	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.7	Y	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.8	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.0	Y	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.1	Y	N	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.2	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP1	N	N	N	N	N	Y [1]	Y	Y
SUSE Linux Enterprise Server 15 SP2	N	N	N	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP3	N	N	N	N	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP4	Y	N	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP5	Y	Y	Y	Y	Y	Y	Y	Y
Ubuntu 18.04.5 LTS	N	N	N	N	Y	N	N	N
Ubuntu 20.04 LTS	N	N	N	N	Y	N	N	N
Ubuntu 20.04.5 LTS	N	N	Y	Y	N	N	N	N
Ubuntu 22.04 LTS	Y	N	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5	N	N	N	N	N	N	N	Y
VMware vSphere Hypervisor (ESXi) 6.5 U1	N	N	N	N	N	N	N	Y
VMware vSphere Hypervisor (ESXi) 6.5 U2	N	N	N	N	N	N	Y	Y
VMware vSphere Hypervisor (ESXi) 6.5 U3	N	N	N	N	N	N	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7	N	N	N	N	N	N	N	Y

Operating systems	SR650 V3 (4th Gen Xeon)	SR650 V3 (5th Gen Xeon)	SR655 V3	SR665 V3	SR650 V2	SR665	SR650 (Xeon Gen 2)	SR650 (Xeon Gen 1)
VMware vSphere Hypervisor (ESXi) 6.7 U1	N	N	N	N	N	N	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U2	N	N	N	N	N	N	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	N	N	N	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0	N	N	N	N	N	Y [1]	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U1	N	N	N	N	N	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U2	N	N	N	N	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U3	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0	Y	N	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U1	Y	N	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U2	Y	Y	Y	Y	Y	Y	Y	Y

[1] 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		
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
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

Part number	Feature code 7S02CTO1WW	Description
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
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

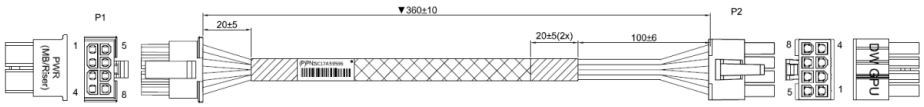
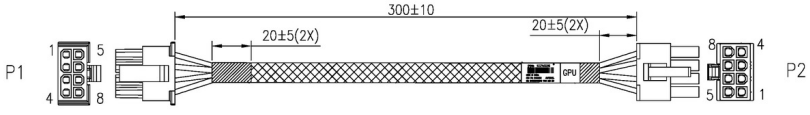
Part number	Feature code 7S09CTO6WW	Description
HPC Compiler Support Services		
7S090014WW	S924	NVIDIA HPC Compiler Support Services, 1 Year
7S090015WW	S925	NVIDIA HPC Compiler Support Services, 3 Years
7S09002GWW	S9UQ	NVIDIA HPC Compiler Support Services, 5 Years
7S090016WW	S926	NVIDIA HPC Compiler 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

Part number	Feature code 7S09CTO6WW	Description
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 A16 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 12. Auxiliary power cables for A16 (click images to show larger versions)

Auxiliary power cables needed with the SR665, SR650 V2, SR650 V3, SR655 V3, SR665 V3
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 server product guide for details.
Auxiliary power cables needed with the SR650
300mm 8pin (2x4) cable **Option**: 4XH7A08794, ThinkSystem SR650 GPU Cable Kit **Feature**: AUSR **SBB**: SBB7A00299 **Base**: SC17A02296 **FRU**: 01KN066 

Regulatory approvals

The NVIDIA A16 GPU has the following regulatory approvals:

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

Operating environment

The NVIDIA A16 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 A16 product page:
  https://www.nvidia.com/en-us/data-center/products/a16-gpu/
- 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

Notices

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