ThinkSystem NVIDIA T400 4GB PCIe Active GPU
Product Guide

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

Featuring 384 CUDA cores and 4GB of GDDR6 memory, the T400 packs power and performance in a small form factor so professionals can tackle a range of multi-app workflows with ease.

Figure 1. ThinkSystem NVIDIA T400 4GB 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 number for the T400 GPU.

Tip: NVIDIA Quadro branding is now NVIDIA RTX.

Table 1. Ordering information

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

The PCIe option part numbers includes the following:

- One T400 GPU with full-height (3U) adapter bracket attached
- Low profile bracket
- Documentation

Features

With 384 CUDA cores, the NVIDIA T400 GPU is an efficient single-slot professional solution for CAD, DCC, financial service industry (FSI) and visualization professionals in general looking to reach great performance in a compact and efficient form factor.

The Turing GPU architecture features advanced shader technologies, including mesh shading, a compute-based geometry pipeline to speed geometry processing and culling on geometrically complex models and scenes. Mesh shading provides up to 2x performance improvement on geometry-bound workloads.

Key features:

- Architecture: Built on the NVIDIA Turing GPU architecture.
- CUDA Cores: Equipped with 384 CUDA cores.
- Memory: 4GB of GDDR6 memory.
- Display Support: Natively supports up to three 5K displays.
- Power Consumption: Draws a maximum power of 30 W.
- Form Factor: Designed as a single-slot card.
- Connectivity: Features three Mini DisplayPort 1.4 connectors.
- Software Support: Includes NVIDIA RTX Desktop Manager software and NVIDIA RTX Experience.

Technical specifications

The following table lists the specifications of the ThinkSystem NVIDIA T400 4GB PCIe Active GPU.

Table 2. 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
Form factor	PCIe Low profile, single slot - 2.7 inches x 6.1 inches

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)
4X67A79778	ThinkSystem NVIDIA T400 4GB PCIe Active GPU	N	N	N	N	N	N	8	N	N	N	N	N	N	N	N	N	N	1	1

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)
4X67A79778	ThinkSystem NVIDIA T400 4GB PCIe Active GPU	N	N	N	N	N	N	N	N	N	N	N	1	1	N	N	N

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)
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

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)
4X67A79778	ThinkSystem NVIDIA T400 4GB PCIe Active GPU	N	N	N	N	N	N	N	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 T400 4GB PCIe Active GPU, 4X67A79778

Operating systems	SR250 V3	ST250 V3	SR650 V3 (4th Gen Xeon)	SR650 V3 (5th Gen Xeon)	SR250 V2	ST250 V2
Microsoft Windows 10	N	N	Y	Y	N	N
Microsoft Windows 11	N	N	Y	Y	N	N
Microsoft Windows Server 2019	N	N	Y	Y	Y	Y
Microsoft Windows Server 2022	Y	Y	Y	Y	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	N	N	Y	N	Y	Y
Red Hat Enterprise Linux 8.7	N	N	Y	N	Y	Y
Red Hat Enterprise Linux 8.8	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 9.0	N	N	Y	N	Y	Y
Red Hat Enterprise Linux 9.1	N	N	Y	N	Y	Y
Red Hat Enterprise Linux 9.2	Y	Y	Y	Y	Y	N
SUSE Linux Enterprise Server 15 SP3	N	N	N	N	Y	Y
SUSE Linux Enterprise Server 15 SP4	N	N	Y	N	Y	Y
SUSE Linux Enterprise Server 15 SP5	Y	Y	Y	Y	Y	N
Ubuntu 22.04 LTS	N	N	Y	N	Y	Y

NVIDIA GPU software

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

- NVIDIA Omniverse Software (OVE)
- NVIDIA HPC Compiler Software

NVIDIA Omniverse Software (OVE)

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 and Lenovo offer a robust, scalable solution for deploying Omniverse Enterprise, accommodating a wide range of professional needs. This document details the critical components, deployment options, and support available, ensuring an efficient and effective Omniverse experience.

Deployment options cater to varying team sizes and workloads. Using Lenovo NVIDIA-Certified Systems™ and Lenovo OVX nodes which are meticulously designed to manage scale and complexity, ensures optimal performance for Omniverse tasks.

Deployment options include:

- Workstations: NVIDIA-Certified Workstations with A5000 or A6000 Ada GPUs for desktop environments.
- Data Center Solutions: Deployment with Lenovo OVX nodes or NVIDIA-Certified Servers equipped with L40, L40S or A40 GPUs for centralized, high-capacity needs.

NVIDIA Omniverse Enterprise includes the following components and features:

- Platform Components: Kit, Connect, Nucleus, Simulation, RTX Renderer.
- Foundation Applications: USD Composer, USD Presenter.
- Omniverse Extensions: Connect Sample & SDK.
- Integrated Development Environment (IDE)
- Nucleus Configuration: Workstation, Enterprise Nucleus Server (supports up to 8 editors per scene); Self-Service Public Cloud Hosting using Containers.
- Omniverse Farm: Supports batch workloads up to 8 GPUs.
- Enterprise Services: Authentication (SSO/SSL), Navigator Microservice, Large File Transfer, User Accounts SAML/Account Directory.
- User Interface: Workstation & IT Managed Launcher.
- Support: NVIDIA Enterprise Support.
- Deployment Scenarios: Desktop to Data Center: Workstation deployment for building and designing, with options for physical or virtual desktops. For batch tasks, rendering, and SDG workloads that require headless compute, Lenovo OVX nodes are recommended.

The following part numbers are for a subscription license which is active for a fixed period as noted in the description. The license is for a named user which means the license is for named authorized users who may not re-assign or share the license with any other person.

Table 8. NVIDIA Omniverse Software (OVE)

Part number	Feature 7S02CTO1WW	Description
7S02003ZWW	SCX0	NVIDIA Omniverse Enterprise Subscription per GPU, 1 Year
7S020042WW	SCX3	NVIDIA Omniverse Enterprise Subscription per GPU, 3 Years
7S020041WW	SCX2	NVIDIA Omniverse Enterprise Subscription per GPU, INC, 1 Year
7S020040WW	SCX1	NVIDIA Omniverse Enterprise Subscription per GPU, EDU, 1 Year
7S020043WW	SCX4	NVIDIA Omniverse Enterprise Subscription per GPU, EDU, 3 Years

NVIDIA HPC Compiler Software

Table 9. 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

Part number	Feature code 7S09CTO6WW	Description
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

Auxiliary power cables

The T400 GPU does not require an auxiliary power cable.

Regulatory approvals

The T400 GPU has the following regulatory approvals:

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

Operating environment

The T400 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 in Professional Workstations :
  https://www.nvidia.com/desktop-graphics/

Related product families

Product families related to this document are the following:

- GPU adapters

Notices

This document, LP1925, was created or updated on March 21, 2024.

Send us your comments in one of the following ways:

- Use the online Contact us review form found at:
  https://lenovopress.lenovo.com/LP1925
- Send your comments in an e-mail to:
  comments@lenovopress.com

This document is available online at https://lenovopress.lenovo.com/LP1925.

Trademarks

Lenovo and the Lenovo logo are trademarks or registered trademarks of Lenovo in the United States, other countries, or both. A current list of Lenovo trademarks is available on the Web at https://www.lenovo.com/us/en/legal/copytrade/.

The following terms are trademarks of Lenovo in the United States, other countries, or both:
Lenovo®
ServerProven®
ThinkAgile®
ThinkSystem®

The following terms are trademarks of other companies:

Intel® and Xeon® are trademarks of Intel Corporation or its subsidiaries.

Linux® is the trademark of Linus Torvalds in the U.S. and other countries.

Microsoft®, DirectX®, Windows Server®, and Windows® are trademarks of Microsoft Corporation in the United States, other countries, or both.

Other company, product, or service names may be trademarks or service marks of others.