ThinkStation PGX
Product Guide

The Lenovo ThinkStation PGX is the first Lenovo workstation accelerated by the NVIDIA GB10 Grace Blackwell Superchip, and is designed solely for AI development.

Purpose built to complement the user's AI workflow, the PGX supports a wide range of applications, including classic statistics, machine learning, computer vision, generative AI/LLMs, robotics, and agentic design. It provides a controlled, sandboxed environment for local prototyping, fine-tuning, and inferencing, and integrates seamlessly into existing workstation setups to unlock greater compute capacity—supporting AI models with up to 200B parameters. Preloaded with the NVIDIA DGX™ OS and the NVIDIA AI software stack, plus popular tools like PyTorch and Jupyter Notebooks, the PGX delivers a familiar, efficient development experience.

Figure 1. Lenovo ThinkStation PGX

Did you know?

ThinkStation PGX is for AI developers, data scientists, students, researchers, and AI enthusiasts -- anyone seeking scalable, local inferencing without cloud complexity and at the fraction of the cost of cloud resources.

Lenovo Hybrid AI Advantage with NVIDIA

Lenovo is at the forefront of delivering AI-ready performance across its workstation portfolio, from powerful ThinkStation desktops to mobile ThinkPad P Series workstations. Through Lenovo's Hybrid AI Advantage with NVIDIA, Lenovo offers full-stack, validated AI solutions that accelerate the development and deployment of agentic AI—systems capable of reasoning, planning, and acting to achieve goals efficiently. These scalable solutions empower enterprises to harness AI across diverse environments, from edge computing to cloud infrastructures, enhancing productivity and driving innovation in the AI era.

Lenovo ThinkStation PGX is the perfect companion for Lenovo's Hybrid AI platforms:

- Hybrid AI 285 platform - based on the NVIDIA 2-8-5 PCIe-optimized configuration — 2x CPUs, 8x GPUs, and 5x network adapters — ideally suited for medium (per GPU) to large (per node) Inference use cases
- Hybrid AI 289 platform - based on the NVIDIA 2-8-9 configuration— 2x CPUs, 8x GPUs, and 9x network adapters —ideally suited for model training and large-scale inference use cases.

ThinkStation PGX provides developers with a powerful, economical platform for prototyping models and AI applications, freeing up valuable computing resources in on-prem cluster and/or cloud compute environments that are better suited to training and/or deploying production of AI models.

Leveraging the NVIDIA AI platform software architecture makes it possible for ThinkStation PGX users to seamlessly move their models from their desktop to any accelerated cloud or data center infrastructure with virtually no code changes, making it easier than ever to prototype, fine-tune, and iterate.

Think of all the synergies possible with a platform like SC777 V4 for example, which is designed for NVIDIA AI Enterprise, which is a comprehensive suite of artificial intelligence and data analytics software designed for optimized development and deployment in enterprise settings.

Figure 2. ThinkStation PGX with ThinkVision monitor, keyboard and mouse

Technical specifications

The following table summarizes the technical details of the ThinkStation PGX.

For more information, see the product page on PSREF:
https://psref.lenovo.com/Product/ThinkStation/ThinkStation_PGX

Table 1. Technical specifications

Component	Specification
Architecture	• NVIDIA Grace Blackwell
Processor	• NVIDIA Grace 20 core Arm® CPU • 10 Cortex-X925 cores • 10 Cortex-A725 cores
GPU	• NVIDIA Blackwell Architecture • CUDA® Cores - Blackwell • Tensor Cores - 5th gen • RT Cores - 4th gen • Dedicated NVENC video encoder Dedicated NVDEC video decoder
AI	• 1000 TOPS • 1 PFLOP (FP4, sparsity)
Unified System Memory	• 128GB LPDDR5x • 256-bit bus • 273 GB/s bandwidth
Total Storage	• 1TB or 4TB NVMe M.2 with self-encryption
Scalability	• Two ThinkStation PGX nodes can be linked via integrated NVIDIA ConnectX®-7 to handle models up to 405B parameters
Power Consumption	• 240W

Component	Specification
Software	
OS	• NVIDIA DGX OS • Ubuntu Linux® Pro with NVIDIA Base OS
Pre-installed NVIDIA software	• NVIDIA AI Software Stack • CUDA 13 • GB10 Dashboard • AI Workbench
Connectivity	
Power	• 240W USB-C power supply included
Rear Ports	• 1x USB-C for power (PD 3.1) • 3x USB-C (USB4 20Gb/s) with DisplayPort 2.1 support • 1x HDMI 2.1a (multichannel audio) • 1x RJ-45 10GbE • 2x QSFP ports for NVIDIA ConnectX-7 (required to connect to other ThinkStation PGX units) (cables sold separately)
Wireless Connectivity	• Wi-Fi 7 • Bluetooth™ 5.3 LE
LAN	• 10 GbE
Security	
Security	• Security Self-encrypting NVMe (AES SED) • TPM 2.0 • NVLink-C2C enclave • NVIDIA FW Recovery • AMI Setup Password • UEFI Secure Boot
Design	
Volume	• 1.13 Liter (Small Form Factor)
Dimensions (WxDxH)	• 150 x 150 x 50.50 mm • 5.91 x 5.91 x 1.99 inches
Weight	• Starting at: 2.65lbs (1.2kg)
Sustainability	
Packaging	• Carton: 90% Recycled and/or FSC certified content • Cushion: 90% Recycled EPE
Certifications	• RoHS Compliant

Recommended services

Lenovo offers a comprehensive portfolio of services to support and protect your ThinkStation investment —so you can focus on your business, not your IT.

The following services are recommended with the ThinkSystem PGX:

- Premier Support - Bypass phone menus and scripted troubleshooting to access advanced-level technicians with the expertise needed to quickly diagnose and solve problems.
- Keep Your Drive - Enhance your data protection by keeping ownership of your drive in case of replacement.

How to order

The ThinkStation PGX is available to order on the ThinkSystem PGX product page.

For more information

For more information, see these resources:

- Product web page for ThinkStation PGX: https://www.lenovo.com/us/en/p/workstations/thinkstation-p-series/lenovo-thinkstation-pgx-sff/len102s0023
- PSREF page for ThinkStation PGX: https://psref.lenovo.com/Product/ThinkStation/ThinkStation_PGX
- Lenovo accessories and options: https://smartfind.lenovo.com/accessories/#/

Related product families

Product families related to this document are the following:

- Artificial Intelligence
- Hybrid AI Factory

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