Lenovo ThinkStation PGX for Manufacturing

Build, fine-tune, and run large AI models with the NVIDIA GB10 Grace Blackwell Superchip, without sending production data to the cloud.



Accelerated by NVIDIA

128GB Unified Memory | Up to **4TB** SSD Storage | Up to **1 petaFLOP**

AI development for engineering teams: on the desk, not in the cloud

Manufacturing AI challenges

Compute Bottlenecks
Shared clusters and cloud GPUs queue your jobs and scale costs unpredictably.

Cloud Dependency
Production data can't leave the plant, so cloud-only AI creates compliance exposure.

Software Complexity
Teams spend more time assembling libraries and drivers than building models.

Environment Mismatch
Cloud-built models rarely run unchanged at the edge, forcing rework.

Industry segments:

- **Automotive & EV**
- **Electronics & Semiconductors**
- **Industrial Manufacturing**
- **Aerospace & Defense**
- **Pharmaceutical & Process Manufacturing**



Personal AI supercomputer for your engineering desk

AI performance
NVIDIA Blackwell architecture accelerates AI training and inference

Scalability
Dual QSFP 200 Gb/s ports pair two PGX units for models up to 405B parameters

Unified memory
128GB shared CPU-GPU memory for large models without splitting

AI-Ready stack
Validated for NVIDIA AI software stack and NVIDIA DGX™ OS

Advancing intelligent manufacturing workflows



Predictive maintenance

Industrial data scientists iterate on sensor and telemetry data locally.



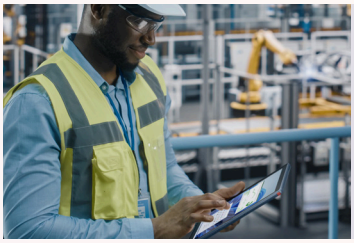
Quality inspection

AI/ML engineers build computer vision for line defect detection.



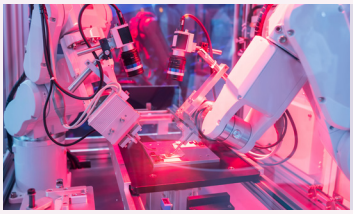
Generative design & simulation

R&D engineers run CAD/CAE for lighter, optimized parts.



Digital twin

Manufacturing engineers simulate production processes on-prem.



Robotics & automation

Engineers develop perception, planning, and control models for industrial robots.

What makes ThinkStation PGX different

Server-grade AI power in a desktop form factor. NVIDIA Grace Blackwell architecture, enterprise-class cooling, and the option to pair two units for larger models.



Features & specifications

NVIDIA GB10 Grace Blackwell Superchip
NVIDIA CUDA® cores · Tensor cores · RT cores

Up to 1 PFLOP (FP4) ·
273 GB/s memory bandwidth

4x USB Type-C (20 Gb/s) · HDMI 2.1a
RJ-45 10 GbE · Wi-Fi 7 · Bluetooth 5.3

128GB Coherent
unified system memory

1TB or **4TB**
NVMe M.2 (self-encrypting)

Discover more about Lenovo ThinkStation PGX and how it powers intelligent manufacturing innovation

Learn more

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