

Description

The TERMA Nuvo-10003 Server is a compact yet highly expandable edge AI computing platform, built on the Neosys Nuvo-10003. Designed to replace large rackmount IPCs, it delivers powerful AI capabilities while maintaining a small footprint.

Equipped with the Intel® Core™ i7-13700TE (16 cores / 24 threads), NVIDIA® RTX™ 2000E Ada GPU, and Intel® E810-XXVAM2 dual-port 25G NIC, this platform offers exceptional performance, rich I/O, and high-speed connectivity for industrial automation, vision systems, and embedded AI applications.

Key Features

- Supports NVIDIA® RTX™ 2000E Ada GPU (up to 115W) via Gen4 x16 slot
- Intel® Core™ i7-13700TE, 16 cores / 24 threads
- Integrated Intel® E810-XXVAM2 Dual-Port 25G SFP28 NIC
- Up to 128 GB DDR5-4800 SDRAM with Intel® Q670E chipset
- 1x PCIe x16 and 2x PCIe x8 slots
- 8x USB 3.2 ports with screw-lock design
- 2x 2.5" SATA HDD/SSD bays with RAID 0/1 support
- Compact industrial design with wall-mount support
- Ideal for AI inference, motion control, and machine vision



Technical Specifications

System Core

Component	Detail
CPU	Intel® Core™ i7-13700TE (16 cores / 24 threads)
Memory	2x 16GB DDR5-4800 SODIMM (-40°C to +85°C)
Chipset	Intel® Q670E

GPU

Component	Detail
Model	NVIDIA® RTX™ 2000E Ada
Single Precision	8.9 TFLOPS* (boost clock)
RT Core	20.5 TFLOPS*
Tensor (AI)	71 AI TOPS, 71 TFLOPS** (INT8/FP8 with sparsity)

* Performance based on GPU Boost Clock.

** Theoretical INT8 TOPS and FP8 TFLOPS using sparsity feature.

Power Supply & Input

Component	Detail
Input Voltage	85–264 Vac, 50/60Hz
DC Input	3-pin + 4-pin terminal block (8V–48V) with ignition control
Model	PMC-24V600W1RW
Output	24Vdc @ 25.0A
Efficiency	>92% @ 230 Vac
EMC	IEC 60950-1, IEC/EN/UL 62368-1, GB 4943, K 60950-1, EN 55032 Class B, EN 55035, EN 55032 Class B & EN 55035

Interfaces & Connectivity

Component	Detail
Ethernet (2.5G)	1x 2.5G Ethernet (Intel® I226-IT)
Ethernet (1G)	1x 1G Ethernet (Intel® I219-LM)
USB 3.2 Gen2	4x USB 3.2 Gen2 (10 Gbps)
USB 3.2 Gen1	4x USB 3.2 Gen1 (5 Gbps)
Internal USB	1x USB 2.0 (internal, Type-A)
Serial Ports	2x RS-232/422/485 (COM1/COM2), 3x RS-232 (COM3–COM5)
Audio	1x 3.5 mm mic-in / speaker-out jack
Display Output	1x HDMI 1.4b (3840x2160), 1x DisplayPort (4096x2304)

Networking

Component	Detail
NIC	Intel® E810-XXVAM2-2BP Dual-Port 25G SFP28
Note	Only one port usable at full 25G due to PCIe limitation

Storage

Component	Detail
SATA Support	2x 2.5" SATA HDD/SSD bays (RAID 0/1 support)
M.2 Storage	1x M.2 2280 SATA interface

TERMA Nuvo-10003 Server

Based on Nuvo-10003 Platform | Redesigned for Terma

Category name 2
link <https://recab.com/>

Estimated Power Consumption

Component	Approx. Power
NIC	~15W
GPU	~50W
CPU	35W base / up to 65W
Others	~30W
Total	~130W – 160W

Internal Expansion Bus

Component	Approx. Power
PCIe x16 Slot	1x Gen3 slot (16 lanes)
PCIe x8 Slots	2x Gen3 slots (4 lanes each)
Mini PCIe	2x full-size mini PCI Express sockets with internal micro SIM sockets

Environmental Specifications

Specification	Value
Operating Temp	0°C to 50°C
Storage Temp	-40°C to 70°C
Humidity	10%–85% RH, non-condensing
Vibration/Shock (transport)	Protective foam included, no formal compliance
Shock Compliance	Not certified
Vibration Compliance	Not certified
Transport	Not rated
Ingress Protection	Not rated

Mounting and Physical Characteristics

Attribute	Value
Chassis	4.2 kg (excluding damping bracket)
Mounting	Wall-mountable with standard or damping brackets
NIC Weight	0.13568 kg
GPU Weight	0.68 kg
Power Supply	1.4 kg
Dimensions	214 mm (W) × 400 mm (D) × 196 mm (H)
Total Weight	~6.6 kg (with external PSU)

Regulatory Compliance

The system meets CE and FCC Class A compliance standards. It conforms to EN 55032:2025 + A11:2020 and EN 55035:2017 + A11:2020. Additional certifications are included for the power supply, in accordance with IEC 60950-1, IEC/EN/UL 62368-1, GB 4943, and K 60950-1.

Lifecycle & Reliability (Preliminary)

Specification	Status
Failure Rate	15.84 failures per million hours.
MTBF	63,136 Hours

Appearance and Marking

TERMA branding and design adjustments can be applied to align with project requirements. Each unit is labeled with a model ID and unique serial number as per regulatory standards.