

Nuvo-10108GC series

Edge AI PC with Intel® 13th/12th Gen Core CPU & NVIDIA® RTX™ GPU support & 3x PCIe slots

Features

- › Supports a NVIDIA® 350W GPU (Gen4 x16 PCIe)
- › Dedicated GPU-locking bracket
- › Intel® 13th/12th-Gen Core™ 35W/ 65W LGA1700 CPU
- › Up to 64GB DDR5 4800 with Intel R680E PCH (2x SODIMM)
- › Three x8 PCIe slots (Gen3 x4) for add-on cards
- › 2x front-accessible tray storage options: 1x 2.5" SATA & 1x optional NVMe
- › Support 8 to 48V wide-range DC input with ignition power control
- › Rugged and wide temperature operation (-25°C to 60°C)

PRELIMINARY



6x USB 3.2, 2x 2.5GbE, 1x GbE



Optional 10G Ethernet port



Rugged and fanless operation

Extreme CPU & GPU power: Nuvo-10108GC

Nuvo-10108GC is the new ruggedized Edge AI computer with extreme CPU and GPU performance for autonomous driving and AI-powered factory automation. It leverages an Intel® 13th/ 12th-Gen CPU and an NVIDIA® RTX™ 40 series or the latest RTX™ 6000 Ada GPU that offers single-precision GPU performances up to 48 TFLOPS or 91 TFLOPS, respectively.

Powered by Intel® 13th/ 12th-Gen CPU with up to 24 cores and 32 threads, the Nuvo-10108GC offers up to twice the performance compared to previous Intel® 10th or 11th-Gen platforms. Plus, Nuvo-10108GC supports ECC memory to deliver mission-critical computation, e.g., automated driving in urban traffic. It inherits a proven thermal dissipation design for the CPU and GPU to guarantee -25°C to 60°C wide-temperature operation. Featuring an innovative GPU locking bracket to fasten the GPU to the chassis and patented damping bracket to absorb high-frequency vibration allowing Nuvo-10108GC to thrive in continuous shaking and juddering conditions in on/ off highway applications.

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SYSTEM

Processor	Supporting Intel® 13th-Gen Core™ CPU (LGA1700 socket, 65W/ 35W TDP) - Intel® Core™ i9-13900E/ i9-13900TE - Intel® Core™ i7-13700E/ i7-13700TE - Intel® Core™ i5-13500E/ i5-13400E/ i5-13500TE - Intel® Core™ i3-13100E/ i3-13100TE	Support Intel® 12th-Gen Core™ CPU (LGA1700 socket, 35W/ 65W TDP) - Intel® Core™ i9-12900E/ i9-12900TE - Intel® Core™ i7-12700E/ i7-12700TE - Intel® Core™ i5-12500E/ i5-12500TE - Intel® Core™ i3-12100E/ i3-12100TE - Intel® Pentium® G7400E/ G7400TE - Intel® Celeron® G6900E/ G6900TE
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Chipset	Intel® R680E Platform Controller Hub
Graphics	Integrated Intel® UHD Graphics 770 (32EU) / 730 (24EU)
Memory	Up to 64GB ECC/ non-ECC DDR5 4800 SDRAM (two SODIMM slots)
AMT	Supports Intel vPro/ AMT 16.0
TPM	Supports dTPM 2.0

I/O

Ethernet	2x 2.5G Ethernet by I226-IT and 1x Gigabit Ethernet by I219-LM
10G Ethernet	Optional 1x 10GBASE-T port by Marvell AQC113CS, supporting NBASE-T (5G/ 2.5G) and 1000BASE-T
USB	6x USB 3.2 Gen2x1 (10 Gbps) ports 1x USB 2.0 ports (internal for dongle use)
Video	1x VGA connector, supporting 1920 x 1200 resolution 1x DisplayPort, supporting 4096 x 2304 resolution
Serial port	2x software-programmable RS-232/ 422/ 485 ports (COM1/ COM2)
Audio	1x 3.5 mm jack for mic-in and speaker-out

EXPANSION BUS

PCI Express	1x PCIe x16 slot @Gen4, 16-lanes with 6.5 mm slot width: The standard GPU locking bracket is designed for NVIDIA® RTX™ A4000, A5000, A6000, 6000 Ada, and selected RTX 40 Series GPU cards 3x PCIe x8 slots @Gen3, 4-lanes
Mini-PCIe	2x full-size mini PCI Express sockets with internal SIM sockets
M.2	1x M.2 2242/3052 B key socket with internal SIM sockets

STORAGE

SATA HDD	1x front-accessible, hot-swappable HDD trays for 2.5" HDD/ SSD installation
M.2	1x M.2 2280 M key socket (PCIe Gen4 x4) for NVMe SSD Optional 1x M.2 2280 M key tray (PCIe Gen4 x4) for NVMe SSD

MECHANICAL

DC Input	3-pin+ 4-pin pluggable terminal block for 8~48V DC input with ignition control
Dimensions	214mm (W) x 400 mm (D) x 196 mm (H) without damping bracket
Weight	TBD
Mounting	Wall-mount with damping brackets
Operating temperature	With 35W CPU and NVIDIA® 350W GPU: -25°C to 60°C * with 65W CPU and NVIDIA® 350W GPU: -25°C ~ 60°C **/** (with optional fan kit) or -25°C ~ 50°C **/** (without optional fan kit)
Storage temperature	-40°C ~ 85°C
Humidity	10% ~ 90%, non-condensing
Vibration	MIL-STD-810H, Method 514.8, Category 4 with damping bracket
Shock	MIL-STD-810H, Method 516.8, Procedure I with damping bracket
Certifications	CE/FCC Class A, according to EN 55032 & EN 55035

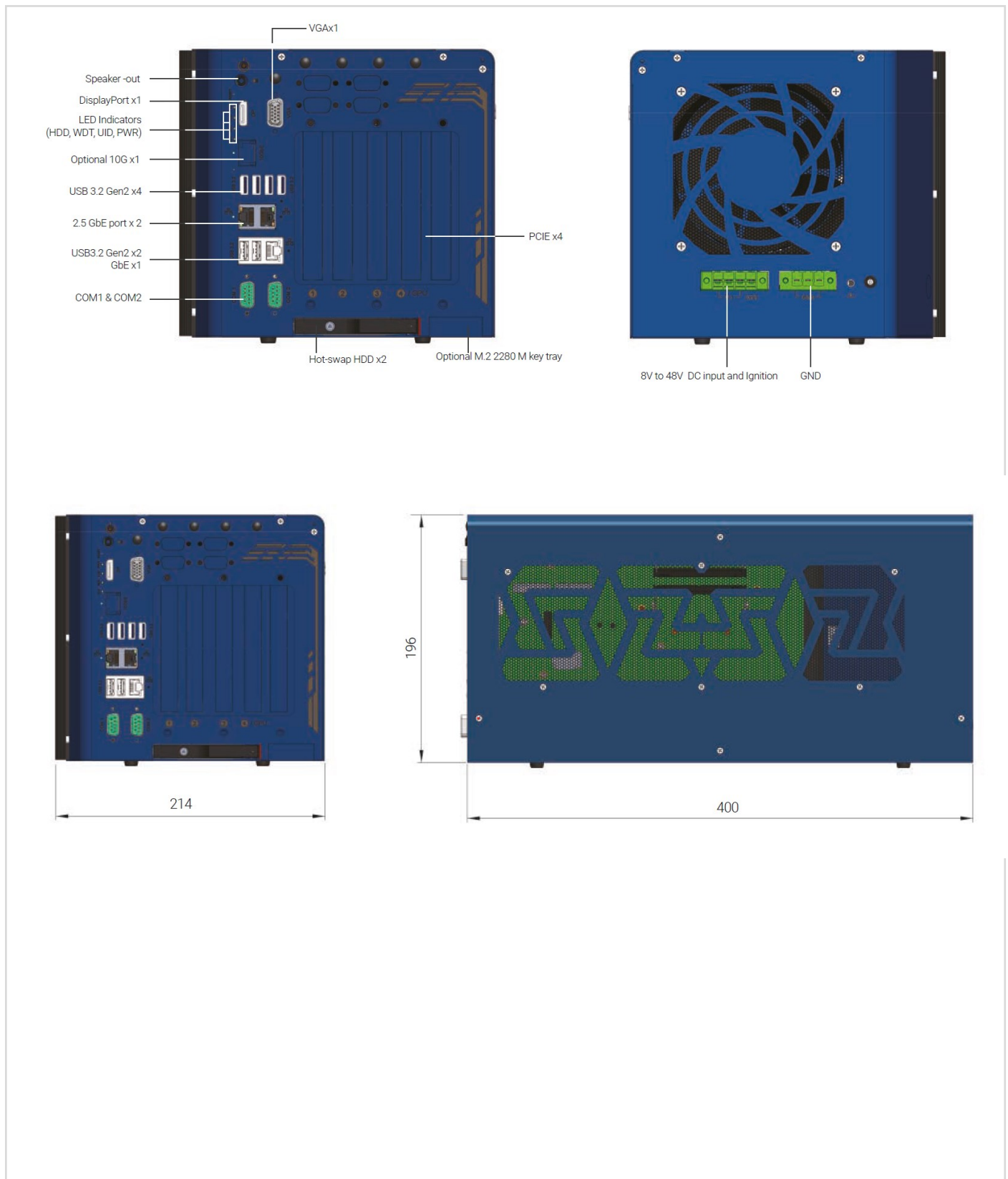
*For sub-zero operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required.

**For 65W CPUs, the optional fan kit is recommended for operating at ambient temperatures higher than 50°C.

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Appearance and dimensions (mm)



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Ordering information

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MODEL NO.

Nuvo-10108GC Industrial-grade Edge AI Platform supporting an NVIDIA® RTX series 350W GPU Card, Intel® 13th/12th-Gen Core™ processor with 3x additional PCIe slots, optional 10GbE and M.2 2280 M key tray (PCIe Gen4 x4)

OPTIONAL ACCESSORIES

AccsyBx-FAN-Nuvo10208GC Fan assembly for Nuvo-10108GC and Nuvo-10208GC series, 92x92x25 mm

TY-NVMe- Nuvo10208GC M.2 NVMe 2230/42/60/80 SSD Tray

PA-600W-ENC 600W AC/DC power adapter 24V/25A; cord end terminals for terminal block, operating temperature : -20°C to 70°C.

PA-1000W-MW-2 AC/DC power supply providing 1000W output power for 90V - 264V AC input voltage and offers rated voltage 24V