

# Nuvo-10108GC series

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

## Features

PRELIMINARY

- › 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)



**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)<br>- Intel® Core™ i9-13900E/ i9-13900TE<br>- Intel® Core™ i7-13700E/ i7-13700TE<br>- Intel® Core™ i5-13500E/ i5-13400E/ i5-13500TE<br>- Intel® Core™ i3-13100E/ i3-13100TE | Support Intel® 12th-Gen Core™ CPU (LGA1700 socket, 35W/ 65W TDP)<br>- Intel® Core™ i9-12900E/ i9-12900TE<br>- Intel® Core™ i7-12700E/ i7-12700TE<br>- Intel® Core™ i5-12500E/ i5-12500TE<br>- Intel® Core™ i3-12100E/ i3-12100TE<br>- Intel® Pentium® G7400E/ G7400TE<br>- Intel® Celeron® G6900E/ G6900TE |
|-----------|--|--|

|          |  |
|----------|--|
| 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<br>1x USB 2.0 ports (internal for dongle use)                          |
| Video        | 1x VGA connector, supporting 1920 x 1200 resolution<br>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:<br>The standard GPU locking bracket is designed for NVIDIA® RTX™ A4000, A5000, A6000, 6000 Ada, and selected RTX 40 Series GPU cards<br>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<br>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 | <b>With 35W CPU and NVIDIA® 350W GPU:</b> -25°C to 60°C *<br><b>with 65W CPU and NVIDIA® 350W GPU:</b> -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  |

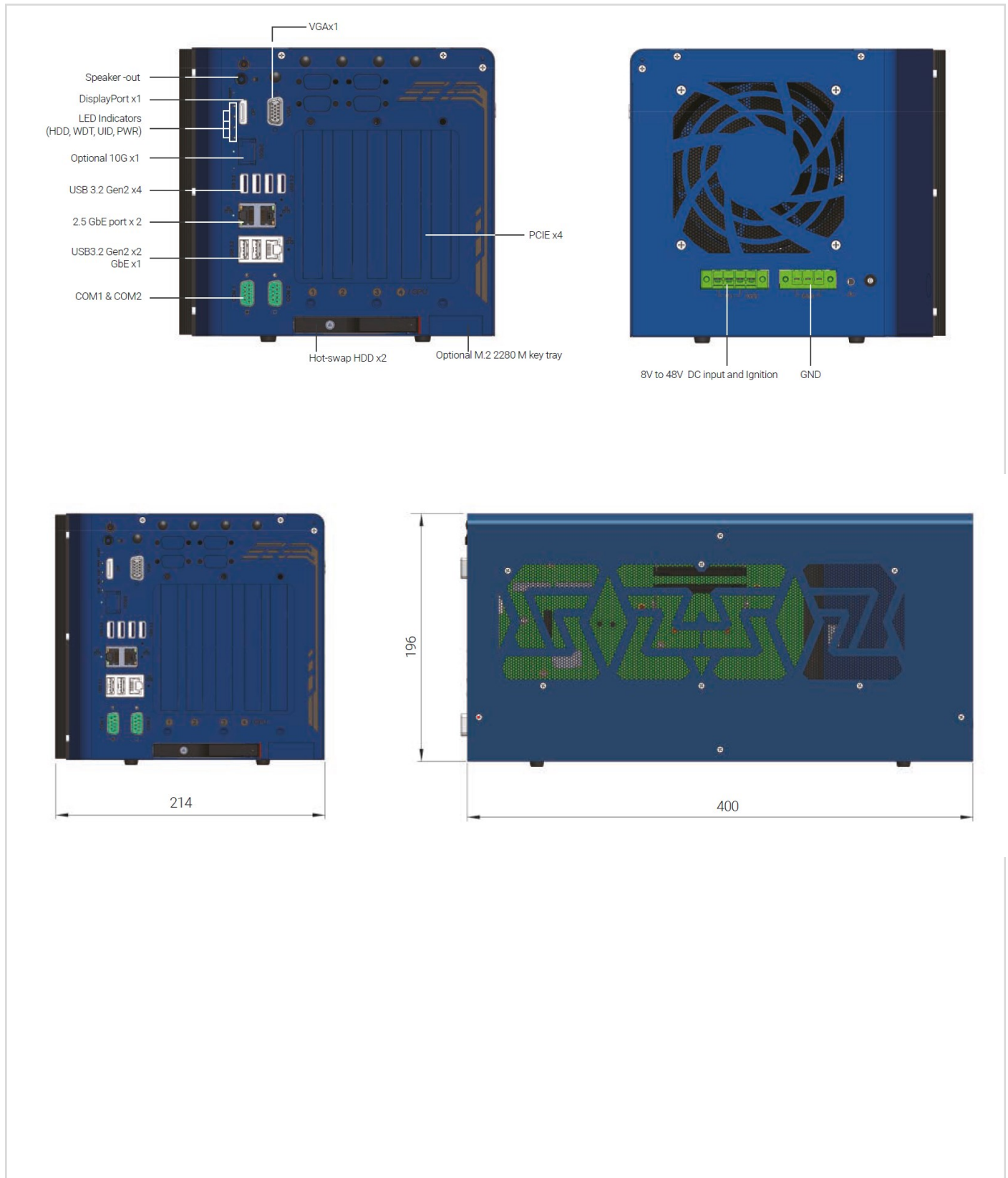
\*For sub-zero operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required.

\*\*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

| Nuvo-10108GC series         |   |
|-----------------------------|---|
| <b>MODEL NO.</b>            |   |
| 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) |
| <b>OPTIONAL ACCESSORIES</b> |   |
| 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  |