

Nuvo-6108GC/ Nuvo-6108GC-IGN

Industrial-grade in-vehicle GPU-computing Platform with 250W NVIDIA® GPU and Intel® Xeon® E3 v5 and 6th-Gen Core™ Processor



CE FC

Key Features

- Supports Intel® Xeon® E3 v5 or 6th-Gen Core™ i7/ i5 LGA1151 CPU
- Supports NVIDIA® GPU (up to 250W TDP)
- Patented thermal design for -25 °C to 60 °C rugged operation*
- Two x8, Gen3 PCIe slots for add-on cards
- Dual GbE ports and four USB 3.1 ports
- Four 2.5" SATA hard drives with RAID 0/ 1/ 5/ 10 support
- Three 2.5" SATA hard drives with RAID 0/ 1/ 5 support (Nuvo-6108GC-IGN)
- Patented easy-swap trays* for HDD replacement (Nuvo-6108GC-IGN)
- Automatic temperature sensing and fan control
- Patented damping brackets* to withstand 1 Grms vibration
- Built-in ignition control (Nuvo-6108GC-IGN)

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Introduction

Nuvo-6108GC series is world's first industrial-grade GPU computer supporting high-end graphics cards. It's designed to fuel emerging GPU-accelerated applications, such as artificial intelligence, VR, autonomous driving and CUDA computing by accommodating a 250W NVIDIA® GPU.

Leveraging Intel® C236 chipset, Nuvo-6108GC series supports Xeon® E3 v5 or 6th-Gen Core™ i7/ i5 CPU with up to 32 GB ECC/ non-ECC DDR4 memory. It incorporates general computer I/O like Gigabit Ethernet, USB 3.1 and serial ports. In addition to the x16 PCIe port for GPU installation, Nuvo-6108GC series also has two x8 PCIe slots so you can install additional high performance expansion card with high bandwidths for data collection analytics and communication.

Nuvo-6108GC series comes with sophisticated power design to handle heavy power consumption and power transient of a 250W GPU. Furthermore, to have reliable GPU performance for industrial environments, Nuvo-6108GC series utilizes Neosys' patented design*, a tuned cold air intake to effectively dissipate the heat generated by GPU. This unique design guarantees operation at 60°C under 100% GPU loading, making Nuvo-6108GC series extremely reliable for demanding field applications.

The new model Nuvo-6108GC-IGN features built-in ignition power control and two of its three 2.5" drives come with Neosys' patented easy-swap trays for simple HDD/ SSD replacement.

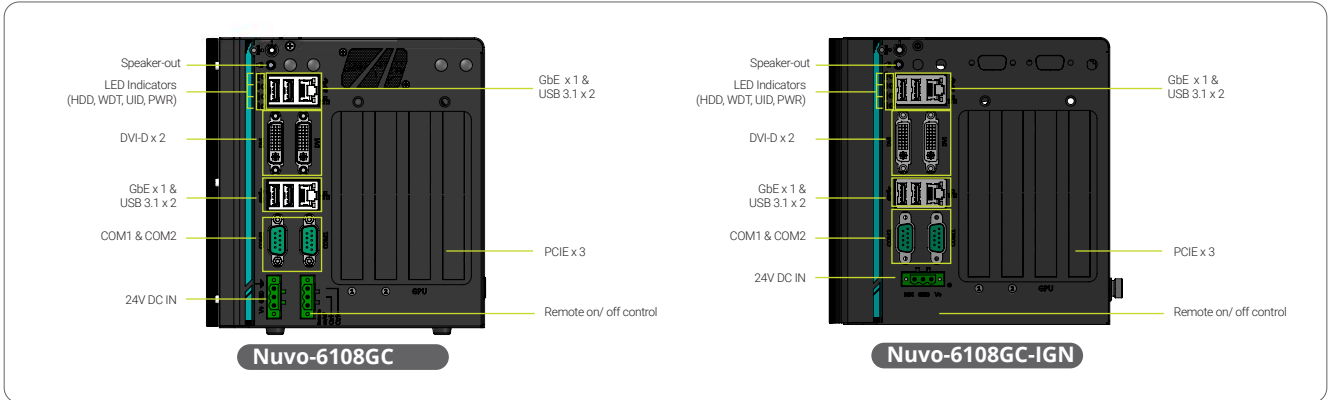
Specifications

| System Core | | Expansion Bus/ Internal I/O Interface | |
|---|---|---|--|
| Processor | Intel® Xeon® E3 v5 or 6th-Gen Core™ LGA1151 CPU | PCI Express | 1x PCIe x16 slot @ Gen3, 16-lanes PCIe signals for GPU 2x PCIe x8 slot @ Gen3, 4-lanes PCIe signals |
| | - Intel® Xeon® Processor E3-1275 v5 (8M Cache, 3.6/ 4.0 GHz) | M.2 | 1x M.2 B key socket for 3G/4G options with SIM socket |
| | - Intel® Xeon® Processor E3-1268L v5 (8M Cache, 2.4/ 3.4 GHz) | mini-PCIe | 1x full-size mini PCI Express socket |
| | - Intel® Core™ i7-6700 (8M Cache, 3.4/ 4.0 GHz) | Remote Ctrl. & Status Output | 1x 2x6-pin 2.0mm pin-header connector for remote on/ off control and status LED output |
| | - Intel® Core™ i5-6500 (6M Cache, 3.2/ 3.6 GHz) | Power Supply | |
| - Intel® Core™ i7-6700TE (8M Cache, 2.4/ 3.4 GHz) | DC Input | 24 VDC | |
| - Intel® Core™ i5-6500TE (6M Cache, 2.3/ 3.3 GHz) | Input Connector | 3-pin pluggable terminal block for DC input (IGN/ GND/ V+) (Nuvo-6108GC-IGN) | |
| Chipset | Intel® C236 platform controller hub | Mechanical | |
| Graphics | Independent GPU via x16 PEG port, or integrated Intel® HD 530 controller | Dimension | 167 mm (W) x 360 mm (D) x 174 mm (H) (Nuvo-6108GC) 178 mm (W) x 360 mm (D) x 174 mm (H) (Nuvo-6108GC-IGN) |
| Memory | Up to 32 GB ECC/ non-ECC DDR4-2133 | Weight | 4.7 kg (incl. CPU, GPU, memory and HDD) |
| I/O Interface | | Mounting | Wall-mount with damping brackets |
| Ethernet | 1x Gigabit Ethernet port by Intel® I219-LM 1x Gigabit Ethernet port by Intel® I210-IT | Environmental | |
| Video Port | 2x DVI-Ds for DVI outputs, supporting 1920x1200 resolution | Operating Temperature | -25°C ~ 60°C with 100% CPU/ GPU loading **/*** |
| Serial Port | 2x software-programmable RS-232/ 422/ 485 ports | Storage Temperature | -40°C ~ 85°C |
| USB 3.1 | 4x USB 3.1 Gen1 (5 Gbps) ports | Humidity | 10%~90% , non-condensing |
| Audio | 1x speaker-out | Vibration | Operating, 1 Grms, 5-500 Hz, 3 Axes (w/ GPU, fan and HDD), according to IEC60068-2-64) |
| Storage Interface | | EMC | CE/ FCC Class A, according to EN 55022, EN 55024 & EN 55032 |
| SATA | 4x SATA ports for 2.5" HDD/ SSD installation, supporting RAID 0/ 1/ 5/ 10 (Nuvo-6108GC) 2x easy-swap HDD trays for 2.5" HDD/ SSD installation (Nuvo-6108GC-IGN) 1x Internal SATA port for 2.5" HDD/ SSD installation, supporting RAID 0/ 1/ 5 (Nuvo-6108GC-IGN) | | |

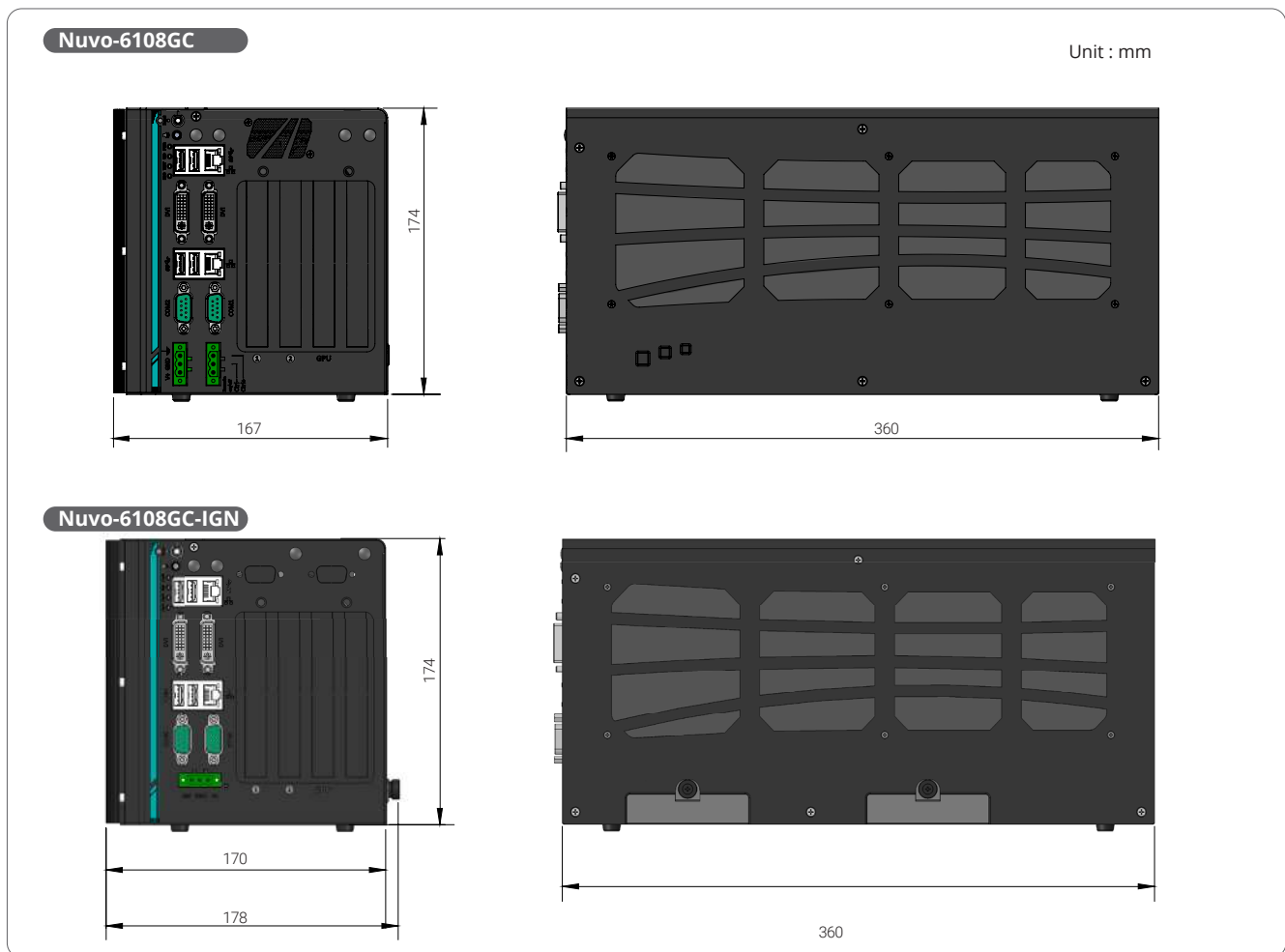
* For i7-6700 running at 65W mode, the highest operating temperature shall be limited to 50°C and thermal throttling may occur when sustained full-loading applied. Users can configure CPU power in BIOS to obtain higher operating temperature.

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

Appearance



Dimensions



Ordering Information

| Model No. | Product Description |
|-----------------|---|
| Nuvo-6108GC | Industrial-grade GPU computing platform supporting 250W NVIDIA® graphics card and Intel® Xeon® E3 v5 and 6th-Gen Core™ processor |
| Nuvo-6108GC-TI | Industrial-grade GPU computing platform supporting 250W NVIDIA® graphics card and Intel® Xeon® E3 v5 and 6th-Gen Core™ processor |
| Nuvo-6108GC-IGN | Industrial-grade GPU computing platform supporting up to 250W NVIDIA® graphics card, Intel® Xeon® E3 v5 and 6th-Gen Core™ processor with built-in ignition control and 2x easy-swap trays |

Optional Accessories

| | |
|-------------|--|
| PA-480W-DIN | 480W AC-DC power adapter DIN-rail mount, 24V 20A, 90~264VAC/127~370VDC, terminal block, -20 to 70°C, Meanwell SDR-480-24 |
|-------------|--|