

# Nuvo-6108GC Series

## Ruggedized GPU Computing Edge AI platform supporting 250W NVIDIA® GPU, Intel® Xeon® E3 v5 or 6th-Gen Core™ processor

### 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 USB3.0 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



\*R.O.C Patent No. M534371 / M491241 / M491752



### 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, USB3.0 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.

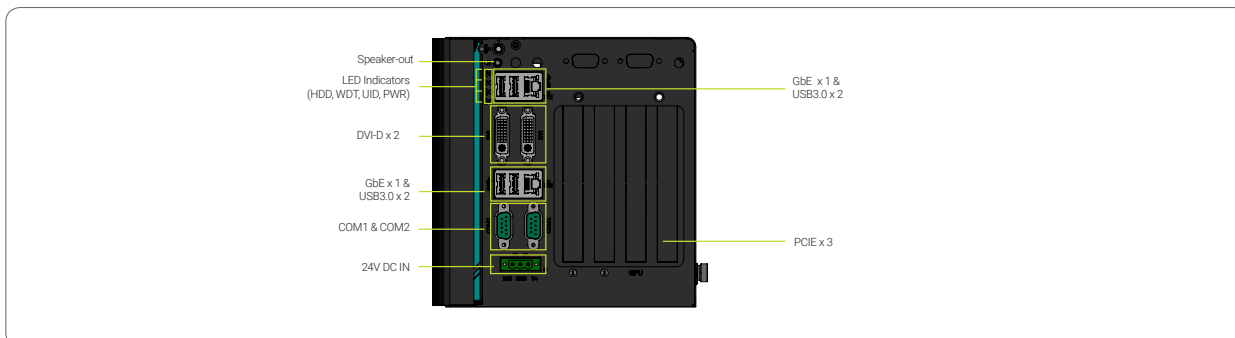
### Specifications

| System Core              |  | Expansion Bus/ Internal I/O Interface   |  |
|--------------------------|--|---|--|
| <b>Processor</b>         | Intel® Xeon® E3 v5 or 6th-Gen Core™ LGA1151 CPU<br>- Intel® Xeon® Processor E3-1275 v5 (8M Cache, 3.6/ 4.0 GHz)<br>- Intel® Xeon® Processor E3-1268L v5 (8M Cache, 2.4/ 3.4 GHz)<br>- Intel® Core™ i7-6700 (8M Cache, 3.4/ 4.0 GHz)<br>- Intel® Core™ i5-6500 (6M Cache, 3.2/ 3.6 GHz)<br>- Intel® Core™ i7-6700TE (8M Cache, 2.4/ 3.4 GHz)<br>- Intel® Core™ i5-6500TE (6M Cache, 2.3/ 3.3 GHz) | <b>PCI Express</b>                      | 1x PCIe x16 slot @ Gen3, 16-lanes PCIe signals for GPU<br>2x PCIe x8 slot @ Gen3, 4-lanes PCIe signals |
| <b>Chipset</b>           | Intel® C236 platform controller hub  | <b>M.2</b>                              | 1x M.2 B key socket for 3G/4G options with SIM socket  |
| <b>Graphics</b>          | Independent GPU via x16 PEG port, or integrated Intel® HD 530 controller   | <b>mini-PCIe</b>                        | 1x full-size mini PCI Express socket   |
| <b>Memory</b>            | Up to 32 GB ECC/ non-ECC DDR4-2133   | <b>Remote Ctrl. &amp; Status Output</b> | 1x 2x6-pin 2.0mm pin-header connector for remote on/ off control and status LED output                 |
| <b>I/O Interface</b>     |  | <b>Power Supply</b>                     |  |
| <b>Ethernet</b>          | 1x Gigabit Ethernet port by Intel® I219-LM<br>1x Gigabit Ethernet port by Intel® I210-IT   | <b>DC Input</b>                         | 24 VDC   |
| <b>Native Video Port</b> | 2x DVI-D connectors for DVI outputs, supporting 1920x1200 resolution*  | <b>Input Connector</b>                  | 3-pin pluggable terminal block for DC input (IGN/ GND/ V+)   |
| <b>Serial Port</b>       | 2x software-programmable RS-232/ 422/ 485 ports  | <b>Mechanical</b>                       |  |
| <b>USB</b>               | 4x USB3.0 ports  | <b>Dimension</b>                        | 178 mm (W) x 360 mm (D) x 174 mm (H)   |
| <b>Audio</b>             | 1x speaker-out   | <b>Weight</b>                           | 4.7 kg (incl. CPU, GPU, memory and HDD)  |
| <b>Storage Interface</b> |  | <b>Mounting</b>                         | Wall-mount with damping brackets   |
| <b>SATA</b>              | 4x SATA ports for 2.5" HDD/ SSD installation, supporting RAID 0/ 1/ 5/ 10 (Nuvo-6108GC)<br>2x easy-swap HDD trays for 2.5" HDD/ SSD installation (Nuvo-6108GC-IGN)<br>1x internal SATA port for 2.5" HDD/ SSD installation, supporting RAID 0/ 1/ 5 (Nuvo-6108GC-IGN)  | <b>Environmental</b>                    |  |
|                          |  | <b>Operating Temperature</b>            | -25°C ~ 60°C with 100% CPU/ GPU loading **/***   |
|                          |  | <b>Storage Temperature</b>              | -40°C ~ 85°C   |
|                          |  | <b>Humidity</b>                         | 10%~90%, non-condensing  |
|                          |  | <b>Vibration</b>                        | Operating, 1 Grms, 5-500 Hz, 3 Axes (w/ GPU, fan and HDD), according to IEC60068-2-64)                 |
|                          |  | <b>EMC</b>                              | CE/ FCC Class A, according to EN 55022, EN 55024 & EN 55032  |

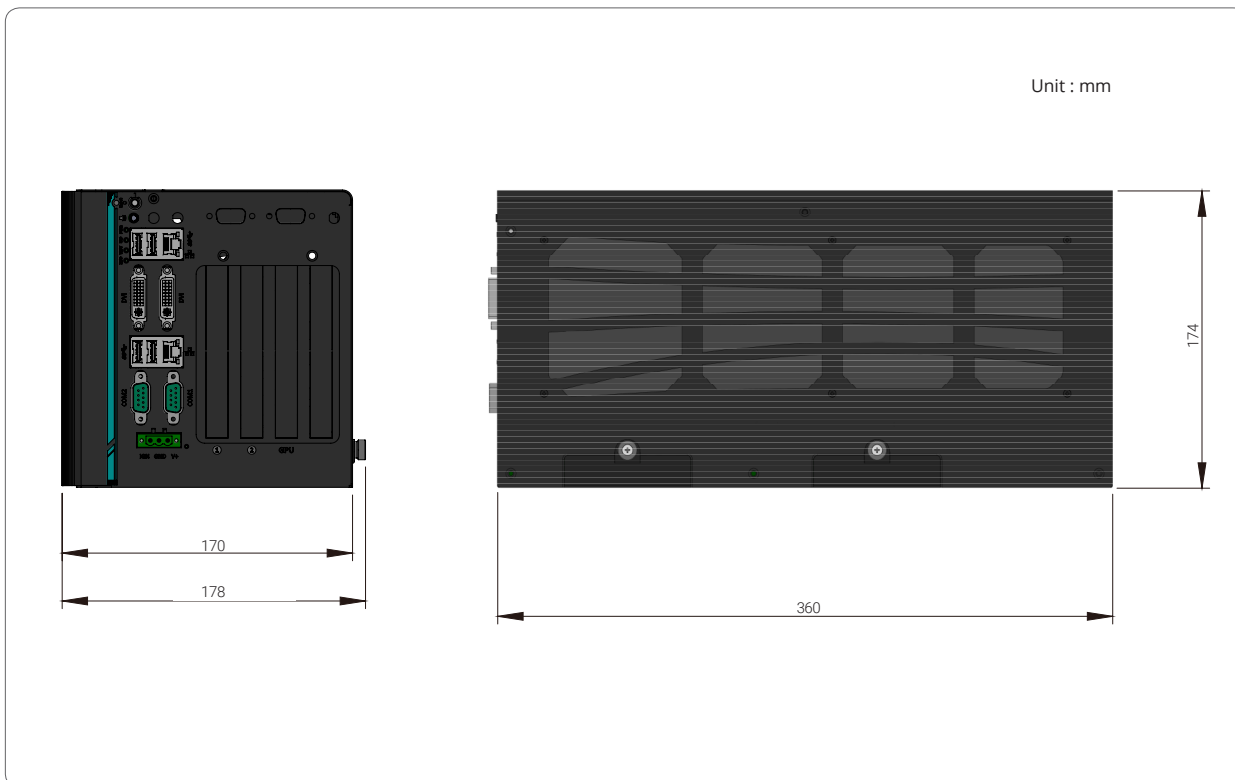
\*\* The CPU and GPU loading are applied using Passmark® BurnInTest 8.0 with 35 TDP CPU. Operating Temperature degrades with higher TDP CPU. For detail testing criteria, please contact Neosys Technology  
\*\*\* For sub-zero operating temperature, a wide temperature HDD drive or Solid State Disk (SSD) is required.

# Nuvo-6108GC Series

## Appearance



## Dimensions



## Ordering information

| Model No.              | Product Description   |
|------------------------|---|
| <b>Nuvo-6108GC</b>     | Industrial-grade GPU computing platform supporting 180W NVIDIA <sup>®</sup> GTX-1080 and Intel <sup>®</sup> Xeon <sup>®</sup> E3 v5 and 6th-Gen Core™ processor   |
| <b>Nuvo-6108GC-TI</b>  | Industrial-grade GPU computing platform supporting 250W NVIDIA <sup>®</sup> GTX-1080 Ti and Intel <sup>®</sup> Xeon <sup>®</sup> E3 v5 and 6th-Gen Core™ processor  |
| <b>Nuvo-6108GC-IGN</b> | Industrial-grade GPU computing platform supporting up to 250W NVIDIA <sup>®</sup> graphics card, Intel <sup>®</sup> Xeon <sup>®</sup> E3 v5 and 6th-Gen Core™ processor with built-in ignition control and 2x easy-swap trays |

## Optional accessories

|                    |  |
|--------------------|--|
| <b>PA-280W-ET2</b> | 280W AC/DC power adapter 24V/11.67A; 16AWG/100cm; cord end terminals for terminal block, operating temperature : -30 to 60 °C. |
| <b>PA-480W-DIN</b> | 480W AC-DC power adapter DIN-rail mount, 24V 20A, 90-264VAC/127-370VDC, terminal block, -20 to 70°C, Meanwell SDR-480-24       |