

# 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.

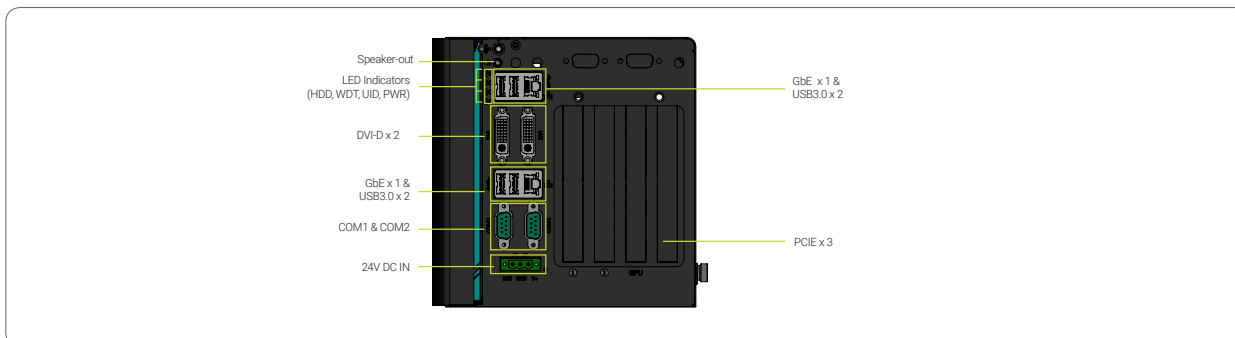
### Specifications

System Core		Expansion Bus/ Internal I/O Interface	
<b>Processor</b>	Intel® Xeon® E3 v5 or 6th-Gen Core™ LGA1151 CPU - Intel® Xeon® Processor E3-1275 v5 (8M Cache, 3.6/ 4.0 GHz) - Intel® Xeon® Processor E3-1268L v5 (8M Cache, 2.4/ 3.4 GHz) - Intel® Core™ i7-6700 (8M Cache, 3.4/ 4.0 GHz) - Intel® Core™ i5-6500 (6M Cache, 3.2/ 3.6 GHz) - Intel® Core™ i7-6700TE (8M Cache, 2.4/ 3.4 GHz) - 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 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 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) 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)	<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

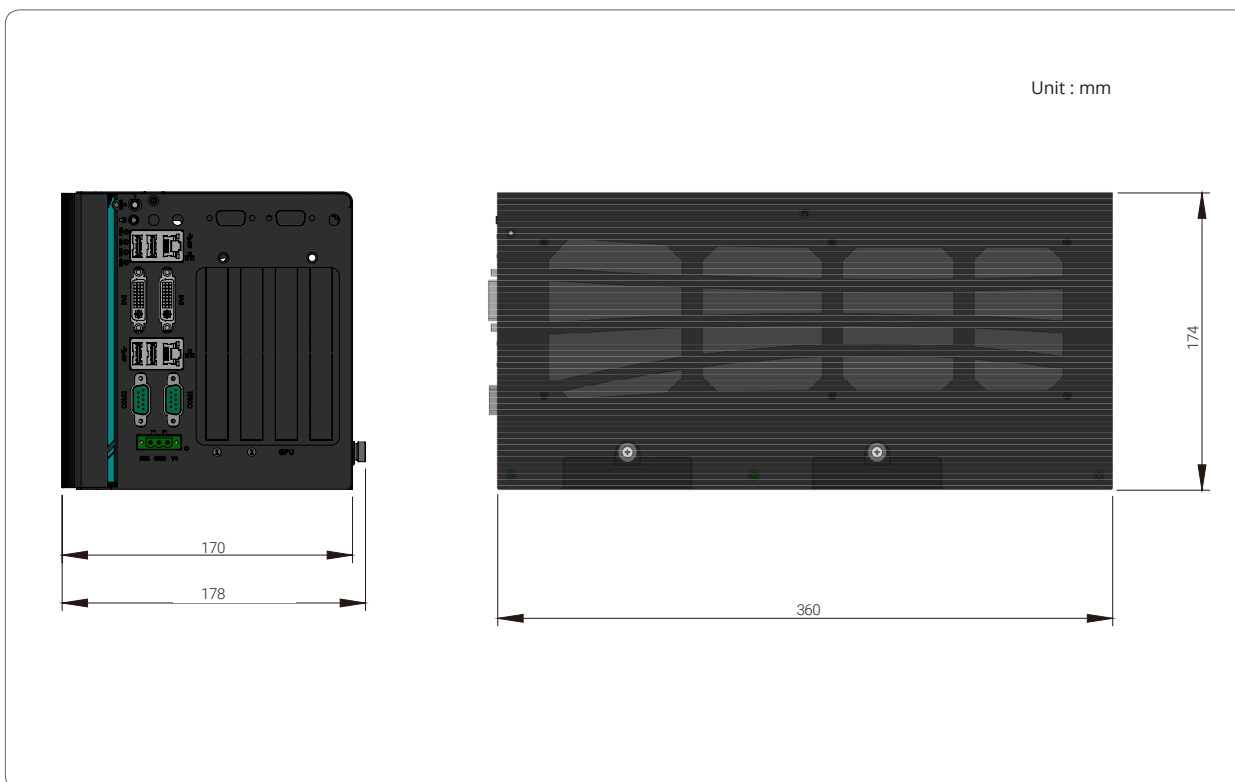
\*\* The CPU and GPU loading are applied using Passmark® BurnInTest 8.0 with 35 TDP CPU. Operating Temperature degrades with higher TDP CPU. For detail testing criteria, please contact Neosys Technology  
\*\*\* For sub-zero operating temperature, a wide temperature HDD drive or Solid State Disk (SSD)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