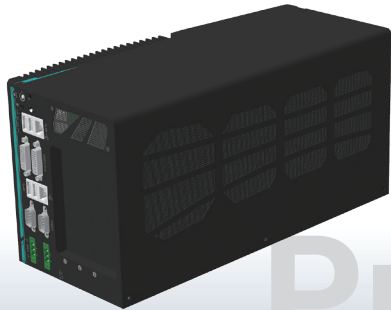# Nuvo-6108GC

Industrial-grade GPU Computing Platform with 250W nVidia® GPU and Intel® Xeon® E3 v5 and 6th-Gen Core™ Processor

◢ Key Features

· Supports Intel® Xeon® E3 v5 and 6th-Gen Core™ i7/i5 LGA1151 CPU
· Supports nVidia® GPU with 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 3.0 ports
· Dual DVI display outputs
· Four 2.5" SATA drives with RAID 0/1/5/10 support
· Automatic temperature sensing and fan control

Preliminary

R.O.C Patent No. M534371

◢ Introduction

Nuvo-6108GC 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 nVidia® GTX 1080 or TITAN X GPU.

Leveraging Intel® C236 chipset, Nuvo-6108GC supports Xeon® E3 v5 and 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 3.0 and serial ports. In addition to the x16 PCIe port for GPU installation, Nuvo-6108GC further provides two x8 PCIe slots so you can have additional devices for information collection and communication.

Nuvo-6108GC 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 inherits Neousys' patented design* of tuned cold air intake to effectively dissipate the heat generated by GPU. This unique design guarantees the operation at 60°C with 100% GPU loading and make Nuvo-6108GC extremely reliable for demanding field usage.
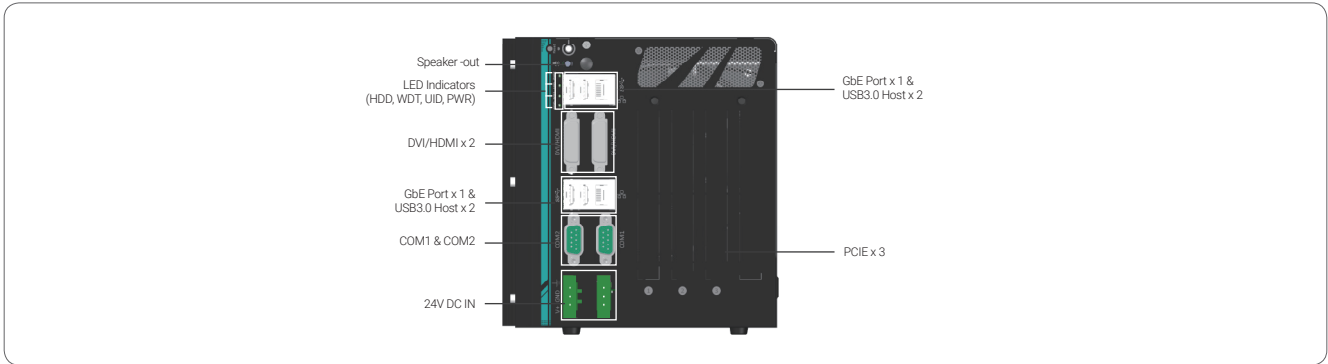
◢ Specifications

System Core

Processor	Intel® Xeon® E3 v5 and 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)
Chipset	Intel® C236 Platform Controller Hub
Graphics	Independent GPU via x16 PEG port, or Integrated Intel® HD 530 Controller
Memory	Up to 32 GB ECC/non-ECC DDR4-2133

I/O Interface

Ethernet	1x Gigabit Ethernet port by Intel® I219-LM 1x Gigabit Ethernet port by Intel® I210-IT
Naive Video Port	2x DVI-D connectors for DVI/HDMI outputs, supporting 1920x1200 resolution
Serial Port	2x Software-programmable RS-232/422/485 ports
USB	4x USB 3.0 ports
Audio	1x Speaker-out

Storage Interface

SATA	4x SATA ports for 2.5" HDD/SSD installation, supporting RAID 0/1/5/10

Expansion Bus

PCI Express	1x PCIe x16 slot @ Gen3, 16-lanes PCIE signals for GPU 2x PCIe x8 slot @ Gen3, 4-lanes PCIE signals

Power Supply

DC Input	1x 2x3-pin pluggable terminal block for 24 VDC input

Mechanical

Dimension	164 mm (W) x 360 mm (D) x 174 mm (H)
Mounting	Wall-mounting with damping bracket

Environmental

Operating Temperature	-25°C ~ 60°C with 100% CPU/GPU loading **/***
Storage Temperature	-40°C ~ 85°C
Humidity	10%~90% , non-condensing
Vibration	Operating, 0.5 Grms, 5-500 Hz, 3 Axes (w/ GPU, fan and HDD), according to IEC60068-2-64)
EMC	CE/FCC Class A, according to EN 55022 & EN 55024

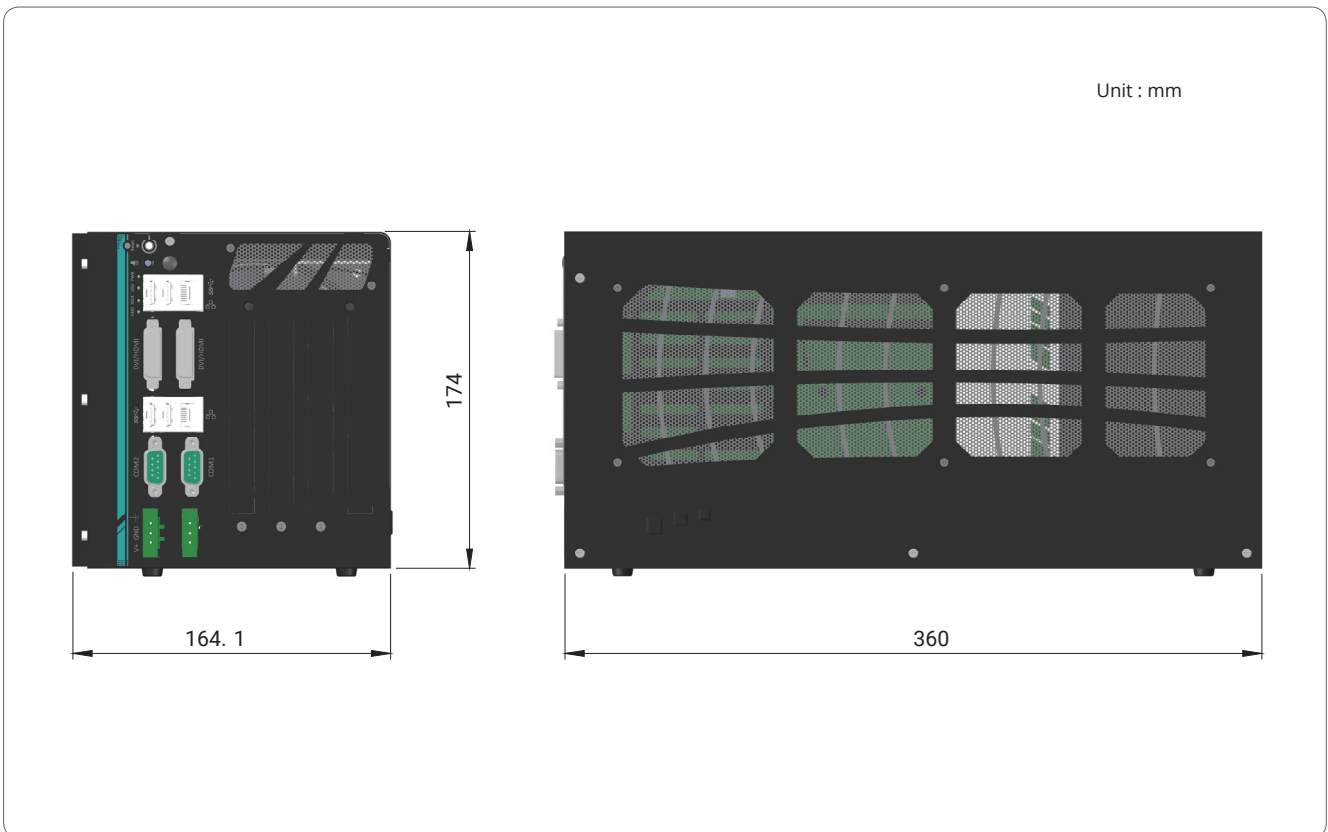* CPU with 65W/80W TDP shall be configured to operate with maximal 45W TDP due to thermal consideration.
** The CPU and GPU loading is applied using Passmark® BurnInTest 8.0. For detail testing criteria, please contact Neousys Technology
*** For sub-zero operating temperature, a wide temperature HDD drive or Solid State Disk (SSD) is required.

NEOUSYS TECHNOLOGY

Appearance

- Speaker -out
- LED Indicators (HDD, WDT, UID, PWR)
- DVI/HDMI x 2
- GbE Port x 1 & USB3.0 Host x 2
- COM1 & COM2
- 24V DC IN
- GbE Port x 1 & USB3.0 Host x 2
- PCIE x 3

Dimensions

Unit : mm

174

164. 1

360

Ordering Information

Model No.	Product Description
Nuvo-6108GC	Industrial-grade GPU Computing Platform with 250W nVidia® GPU and Intel® Xeon® E3 v5 and 6th-Gen Core™ Processor

Optional Accessories

24V, 280W AC/DC power adapter

NEOUSYS
TECHNOLOGY