Nuvo-8240GC

Industrial-grade edge AI platform supporting dual NVIDIA® Tesla T4 and Intel® Xeon® E and 9th/ 8th-Gen Core™ processor

Key Features

- Supports dual NVIDIA® Tesla T4 GPU
- Supports Intel® Xeon® E or 9th/ 8th-Gen Core™ i7/ i5 LGA1151 CPU
- Up to 128GB ECC/ non-ECC DDR4 2133 (4x SODIMM)
- Two x8 (4-lanes), Gen3 PCIe slots for add-on cards
- 1x M.2 M key, 1x M.2 B key and 2x full-size mini-PCIe sockets
- 8~48V wide-range DC input with built-in ignition power control
- Proven thermal design for -25°C to 60°C rugged operation*
- Patented damping brackets* to withstand 3 Grms vibration

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R.O.C Patent No. M491752

Introduction

Nuvo-8240GC is a rugged edge AI platform designed specifically to support dual NVIDIA® Tesla T4 for advanced inference acceleration applications. It features NVIDIA multi-precision Turing Tensor Cores offering tremendous GPU power up to 130 TFLOPS in FP16 and 520 TOPS in INT4 for emerging GPU-accelerated edge computing and advanced AI inference. In addition, Nuvo-8240GC is powered by Intel® Xeon® E or 9th/ 8th-Gen Core™ CPU up to 8-core/ 16-thread coupled with workstation-grade Intel® C246 chipset to support up to 128 GB ECC or non-ECC DDR4 memory.

The system incorporates one internal 2.5" SATA HDD/ SSD slot and one hot-swappable 2.5" tray for easy HDD/ SSD replacement. There is also an M.2 2280 NVMe SSD socket for ultimate disk performance . Its front-accessible GbE and USB 3.1 Gen1/ Gen2 ports feature screw-lock mechanisms for secure cable connections. In addition to the dual x16 PCIe slots (8-lanes) for Tesla T4 installation, Nuvo-8240GC has other two x8 PCIe slots (4-lanes) for expansion cards to extend function sets, making it that much more flexible for specific applications such as data collection, analytics and communication.

Nuvo-8240GC has a brand new power delivery design to accept 8~48V wide-range DC input with built-in ignition control. Mechanical wise, Nuvo-8240GC incorporates Neousys' proven heat dissipation design, damping brackets* for withstanding 3 Grms vibration, making it steady and rock-solid in various conditions. The Nuvo-8240GC is Neousys' response to the never-ending performance demand in industrial edge AI platforms and now with double the inference power, Nuvo-8240GC is ready to take it to the next level.

Specifications

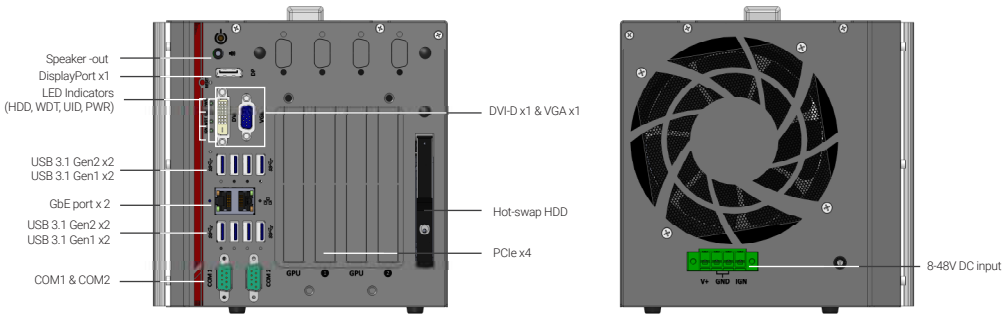
System Core	
Processor	Supporting Intel® Xeon® E and 9th/ 8th-Gen CPU (LGA1151 socket) - Xeon E 2176G/ 2278GE (8C/16T) / 2278GEL (8C/16T) - i7-9700E/ i7-9700TE/ i7-8700/ i7-8700T - i5-9500E/ i5-9500TE/ i5-8500/ i5-8500T - i3-9100E/ i3-9100TE/ i3-8100/ i3-8100T
Chipset	Intel® C246 Platform Controller Hub
Graphics	Integrated Intel® UHD Graphics 630
Memory	Up to 128 GB ECC/ non-ECC DDR4 2133 SDRAM (four SODIMM slots)
AMT	Supports AMT 12.0
TPM	Supports TPM 2.0
I/O Interface	
Ethernet	1x Gigabit Ethernet port by Intel® I219-LM 1x Gigabit Ethernet port by Intel® I210-IT
Video Port	1x VGA, supporting 1920 x 1200 resolution 1x DVI-D, supporting 1920 x 1200 resolution 1x DisplayPort, supporting 4096 x 2304 resolution
Serial Port	2x software-programmable RS-232/ 422/ 485 ports (COM1/COM2)
USB 3.1	4x USB 3.1 Gen2 (10 Gbps) ports 4x USB 3.1 Gen1 (5 Gbps) ports
USB 2.0	1x USB 2.0 ports (internal use)
Audio	1x 3.5 mm jack for mic-in and speaker-out
Storage Interface	
SATA	1x hot-swappable HDD tray for 2.5" HDD/ SSD installation 1x Internal SATA port for 2.5" HDD/ SSD installation, supporting RAID 0/ 1
M.2	1x M.2 2280 M key socket (PCIe Gen3 x4) for NVMe SSD or Intel® Optane™ memory installation
mSATA	2x full-size mSATA port (mux with mini-PCIe)

Expansion Bus	
PCI Express	2x PCIe x16 slot@Gen3, 8-lanes 2x PCIe x8 slots@Gen3, 4-lanes
M.2	1x M.2 2242 B key socket supporting dual SIM mode with selected M.2 LTE module
Mini-PCIe	2x full-size mini PCI Express socket
Power Supply	
DC Input	1x 4-pin pluggable terminal block for 8~48V DC input with ignition control
Mechanical	
Dimension	190 mm (W) x 271 mm (D) x 198.5 mm (H)
Weight	5 kg
Mounting	Wall-mount with damping brackets
Environmental	
Operating Temperature	**with 35W CPU** -25°C ~ 60°C */** **with 65W CPU** -25°C ~ 60°C */** (configured as 35W TDP mode) -25°C ~ 50°C */** (configured as 65W TDP mode) In compliance with NVIDIA® Tesla T4 warranty policy, an operating temperature of 0°C~50°C is required for systems with Tesla T4 installed
Storage Temperature	-40°C ~ 85°C
Humidity	10%~90% , non-condensing
Vibration	Operating, MIL-STD-810G, Method 514.6, Category 4 and 3Grms
Shock	Operating, MIL-STD-810G, Method 516.6, Procedure I,Table 516.6-II
EMC	CE/FCC Class A, according to EN 55032 & EN 55024

** For i7-9700E and i7-8700 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.*

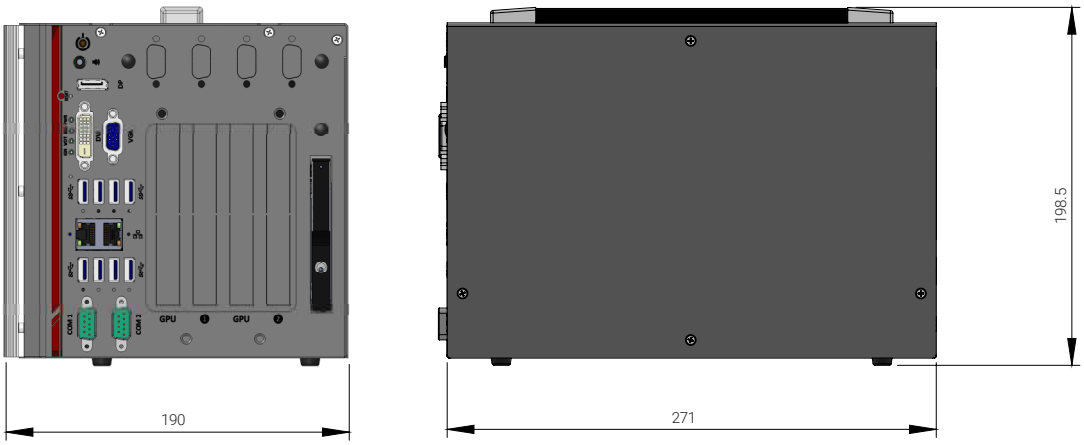
*** For sub-zero operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required.*

Appearance



Dimensions

Unit : mm



Ordering Information

Model No.	Product Description
Nuvo-8240GC	Industrial-grade edge AI platform supporting dual NVIDIA® Tesla T4 and Intel® Xeon® E and 9th/ 8th-Gen Core™ processor

Optional Accessories

PA-280W-ET2	280W AC/DC power adapter 24V/11.67A; 16AWG/100cm; cord end terminals for terminal block, operating temperature : -30°C to 60°C