

# Nuvo-8240GC

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



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## 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

\*R.O.C Patent No. M491752

## Introduction

Nuvo-8240GC is a rugged edge AI platform designed specifically to support dual NVIDIA® Tesla T4s for advanced inference acceleration applications. It features NVIDIA multi-precision Turing Tensor Cores and new RT Cores while 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 socket for the ultimate PCIe NVMe SSD. 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 graphics card 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 Neosys' proven heat dissipation design, damping brackets\* for withstanding 3 Grms vibration, making it steady and rock-solid in various conditions. The Nuvo-8240GC is Neosys' 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.

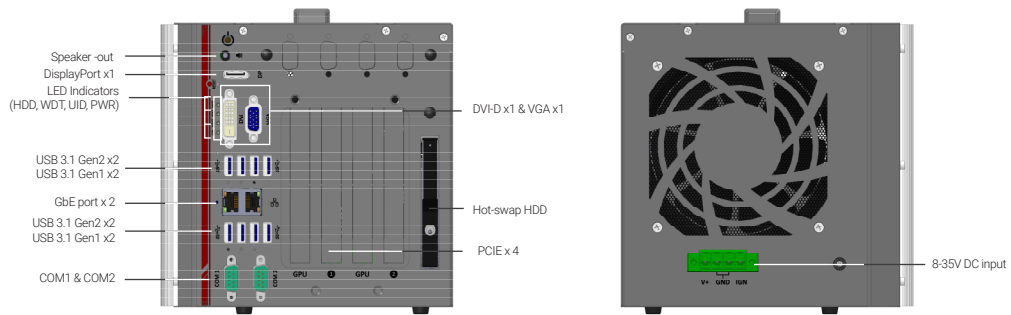
## Specifications

System Core		Expansion Bus	
Processor	Supporting Intel® Xeon® E and 9th/ 8th-Gen CPU (LGA1151 socket) - Xeon E 2176G (6C/12T) / 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	PCI Express	2x PCIe x16 slot@Gen3, 8-lanes 2x PCIe x8 slots@Gen3, 4-lanes
Chipset	Intel® C246 Platform Controller Hub	M.2	1x M.2 2242 B key socket supporting dual SIM mode with selected M.2 LTE module
Graphics	Integrated Intel® UHD Graphics 630	Mini-PCIe	2x full-size mini PCI Express socket
Memory	Up to 128 GB ECC/ non-ECC DDR4 2133 SDRAM (four SODIMM slots)	Power Supply	
AMT	Supports AMT 12.0	DC Input	1x 4-pin pluggable terminal block for 8~48V DC input with ignition control
TPM	Supports TPM 2.0	Mechanical	
I/O Interface		Dimension	170 mm (W) x 360 mm (D) x 186 mm (H)
Ethernet	1x Gigabit Ethernet port by Intel® I219-LM 1x Gigabit Ethernet port by Intel® I210-IT	Weight	5 kg
Video Port	1x VGA, supporting 1920 x 1200 resolution 1x DVI-D, supporting 1920 x 1200 resolution 1x DisplayPort, supporting 4096 x 2304 resolution	Mounting	Wall-mount with damping brackets
Serial Port	2x software-programmable RS-232/ 422/ 485 ports (COM1/COM2)	Environmental	
USB 3.1	4x USB 3.1 Gen2 (10 Gbps) ports 4x USB 3.1 Gen1 (5 Gbps) ports	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
USB 2.0	1x USB 2.0 ports (internal for dongle use)	Storage Temperature	-40°C ~ 85°C
Audio	1x Speaker-out	Humidity	10%~90% , non-condensing
Storage Interface		Vibration	Operating, MIL-STD-810G, Method 514.6, Category 4 & 3Grms
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	Shock	Operating, MIL-STD-810G, Method 516.6, Procedure I, Table 516.6-II
M.2	1x M.2 2280 M key socket (PCIe Gen3 x4) for NVMe SSD or Intel® Optane™ memory installation	EMC	CE/FCC Class A, according to EN 55032 & EN 55024
mSATA	2x full-size mSATA port (mux with mini-PCIe)		

\* 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.

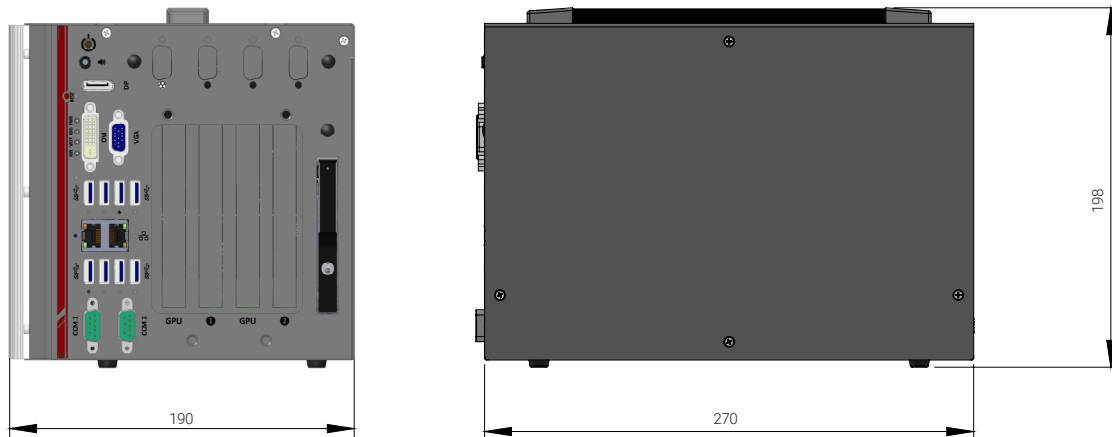
\*\* For sub-zero operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required.

## Appearance



## Dimensions

Unit : mm



## Ordering Information

Model No.	Product Description
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## 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
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