

Nuvo-10208GC Series

Industrial-grade Edge AI Platform Supporting Dual NVIDIA® RTX series 350W GPU Cards, Intel® 13th /12th-Gen Core™ Processor with 3x Additional PCIe Slots and 10G/2.5G/1G Ethernet Ports



CE FC

Key Features

- Supports dual NVIDIA RTX™ series 350W GPUs with patent-pending locking mechanism
- Intel® 13th/12th-Gen Core™ 35W/ 65W LGA1700 CPU
- Up to 64GB DDR5 4800 with Intel R680E PCH (2x SODIMM)
- Three x8, Gen3 PCIe slots (x4 signal) for add-on cards
- 2x 2.5GbE and 1x GbE and 1x optional 10GBASE-T Ethernet
- 1x internal M.2 NVMe, 2x 2.5" SATA trays and 1x optional NVMe tray
- Support 8 to 48V wide-range DC input with ignition power control
- Rugged, -25°C to 60°C operation

Introduction

Nuvo-10208GC is an Intel® 13th/ 12th-Gen rugged edge AI platform supporting dual RTX 40 series/ RTX A6000/A4500 GPU cards to offer GPU performances up to 97 TFLOPS in FP32 for autonomous driving, vision inspection and surveillance applications.

Powered by Intel® 13th/ 12th-Gen CPU with up to 24 cores and 32 threads, Nuvo-10208GC offers up to twice the performance when compared to previous Intel 10th or 11th Gen platforms. It inherits proven thermal dissipation design for the CPU and two 350W GPUs to optimize overall system performance in harsh temperature conditions. To secure the bigger and heavier NVIDIA® RTX™ 40 series GPU, Nuvo-10208GC features innovative, patent-pending GPU locking brackets to fasten GPUs to the chassis. It also features Neosys' patented damping bracket to guarantee rock-solid reliability for on-road and off-road in-vehicle applications.

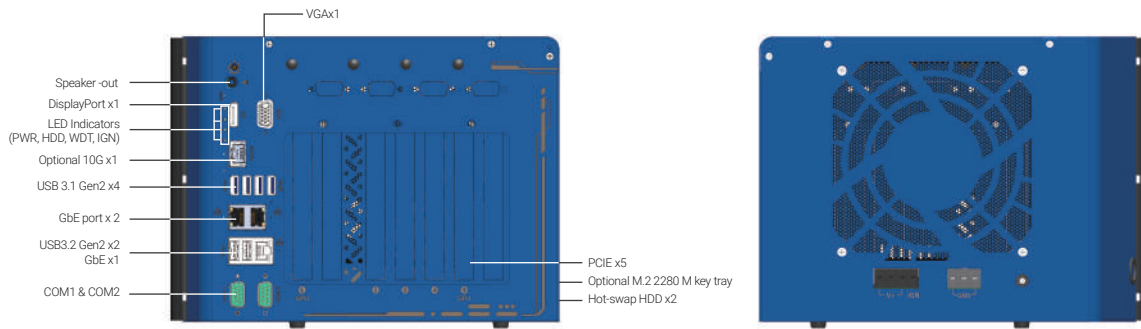
Nuvo-10208GC also incorporates an abundance of I/Os such as 3x 2.5GbE/GbE, 6x USB3.2 Gen2, 1x M.2 M key 2280 Gen4x4 NVMe, dual SATA trays with RAID 0/1 capability, dual display ports and three additional PCIe slots for function expansion. Moreover, it's equipped with one optional 10G Ethernet port for high-bandwidth data transmission, and one optional M.2 2280 NVMe tray for high-speed, removable data storage.

Utilizing Intel's 13th/ 12th-Gen platform, proven thermal and rugged mechanical designs with rich I/O interfaces, Nuvo-10208GC is a ruggedized edge AI platform that offers unprecedented GPU and CPU computing power for various industrial edge AI applications.

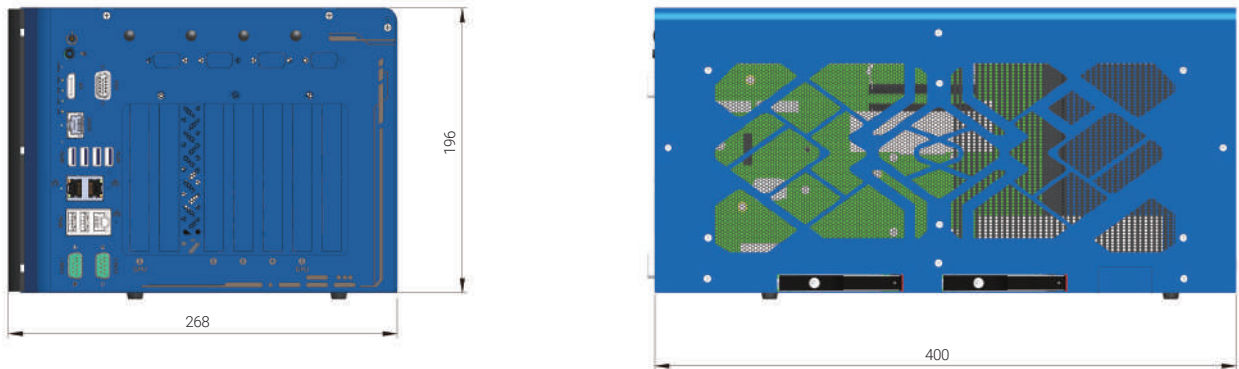
Specifications

System Core		Expansion Bus	
Processor	Supporting Intel® 13th-Gen Core™ CPU (LGA1700 socket, 65W/ 35W TDP)	PCI Express	2x PCIe x16 slot@Gen4, 8-lanes
	Supporting Intel® 12th-Gen Core™ CPU (LGA1700 socket, 65W/ 35W TDP) - Intel® Core™ i9-12900E/ i9-12900TE - Intel® Core™ i7-12700E/ i7-12700TE - Intel® Core™ i5-12500E/ i5-12500TE - Intel® Core™ i3-12100E/ i3-12100TE - Intel® Pentium® G7400E/ G7400TE - Intel® Celeron® G6900E/ G6900TE		3x PCIe x8 slot@Gen3, 4-lanes
Chipset	Intel® R680E Platform Controller Hub	mini-PCIe	2x full-size mini PCI Express sockets with internal SIM sockets
Graphics	Integrated Intel® UHD Graphics 770 (32EU) / 730 (24EU)	M.2	1x M.2 2242/3052 B key socket with internal SIM sockets
Memory	Up to 64GB ECC/ non-ECC DDR5 4800 SDRAM (two SODIMM slots)	Power Supply	
AMT	Supports Intel vPro/ AMT 16.0	DC Input	3-pin+ 4-pin pluggable terminal block for 8~48V DC input with ignition control
TPM	Supports dTPM 2.0	Mechanical	
I/O Interface		Dimension	268 mm (W) x 400 mm (D) x 196 mm (H)
Ethernet	2x 2.5G Ethernet by I226-IT and 1x Gigabit Ethernet by I219-LM	Weight	6.5 Kg
10G Ethernet	Optional 1x 10GBASE-T port by Marvell AQC113CS, supporting NBASE-T (5G/ 2.5G) and 1000BASE-T	Mounting	Wall-mount with damping brackets
USB 3.2	6x USB 3.2 Gen2x1 (10 Gbps) ports	Environmental	
USB 2.0	1x USB 2.0 ports (internal for dongle use)	Operating Temperature	With 35W CPU and dual NVIDIA® 350W GPU -25°C to 60°C * with 65W CPU and dual NVIDIA® 350W GPU -25°C ~ 60°C **/*** (with optional fan kit) -25°C ~ 50°C */** (without optional fan kit)
Serial Port	2x software-programmable RS-232/ 422/ 485 ports (COM1/ COM2)	Storage Temperature	-40°C ~ 85°C
Video Port (Integrated Graphics)	1x VGA output, supporting 1920 x 1200 resolution 1x DisplayPort, supporting 4096 x 2304 resolution	Humidity	10%~90% , non-condensing
Audio	1x 3.5 mm jack for mic-in and speaker-out	Vibration	MIL-STD-810H, Method 514.8, Category 4
Storage Interface		Shock	MIL-STD-810H, Method 516.8, Procedure I
SATA HDD	2x hot-swappable HDD trays for 2.5" HDD/ SSD installation (support RAID 0/ 1)	EMC	CE/ FCC Class A, according to EN 55032 & EN 55035
M.2	1x M.2 2280 M key socket (PCIe Gen4 x4) for NVMe SSD Optional 1x M.2 2280 M key tray (PCIe Gen4 x4) for NVMe SSD	* For sub-zero operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required. ** For 65W CPUs, the optional fan kit is recommended for operating at ambient temperatures higher than 50°C.	

Appearance



Dimensions



Ordering Information

Model No.	Product Description
Nuvo-10208GC	Industrial-grade Edge AI Platform supporting dual NVIDIA® RTX series 350W GPU Cards, Intel® 13th/12th-Gen Core™ processor with 3x additional PCIe slots
<i>Optional 10GbE and M.2 2280 M key tray (PCIe Gen4 x4)</i>	

Optional Accessories

AccsyBx-FAN-Nuvo10208GC	Fan assembly for Nuvo-10208GC series, 92x92x25 mm
TY-NVMe- Nuvo10208GC	M.2 NVMe 2230/42/60/80 SSD Tray
PA-600W-ENC	600W AC/DC power adapter 24V/25A; cord end terminals for terminal block, operating temperature : -20°C to 70°C.