

Nuvo-9166GC

Edge AI inference PC with Intel® 13th/12th Gen. CPU and NVIDIA® L4 GPU support

Features

- Intel® 13th/12th-Gen Core™ up to 16C /24T 35W / 65W CPU.
- Supports NVIDIA® L4 GPU and one additional PCIe card
- 5x 2.5GbE and 1x GbE with optional PoE+
- Provides space for two 2.5" SATA HDD/ SSD with RAID 0/ 1 support
- Operating temperature: -26 °C ~ 60 °C

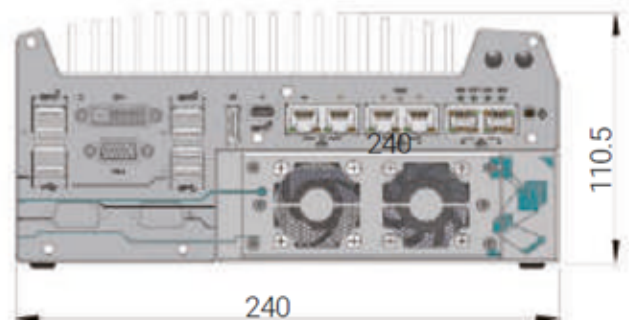
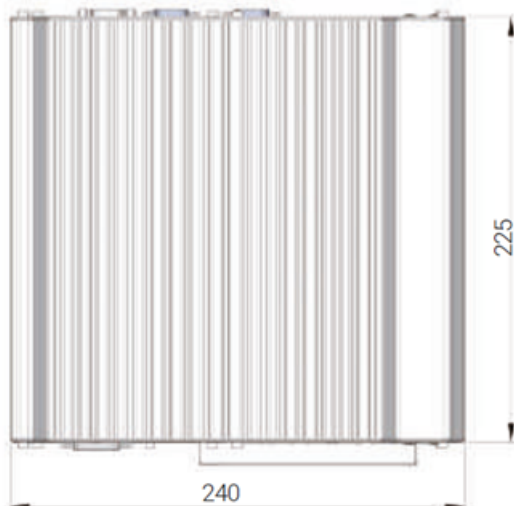
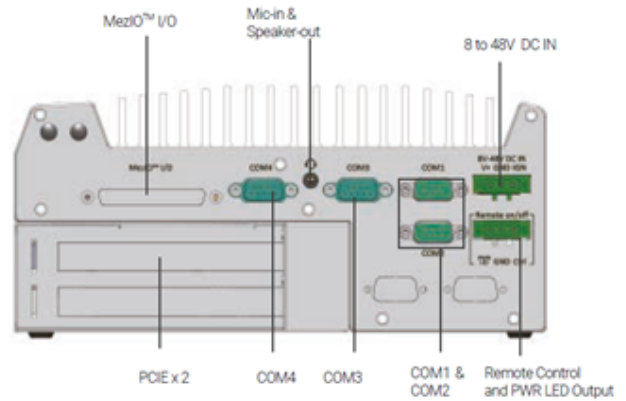
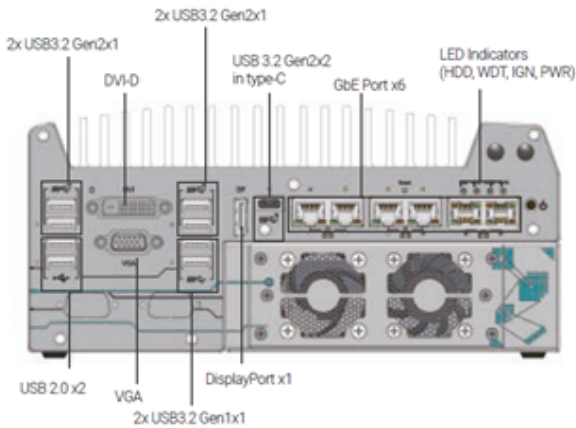


Nuvo-9166GC: Powerful Edge AI Inference PC for demanding applications

The Nuvo-9166GC is a rugged, temperature-resistant Edge AI inference computer that delivers outstanding CPU and GPU performance by leveraging the Intel® 13th/12th-Gen platform and NVIDIA® L4. It is ideal for multi-camera applications that require real-time responses, such as AI inspection, robotic guidance, and autonomous machines.

Powerful CPU and GPU for AI inference

The Nuvo-9166GC supports an Intel® Core™ CPU with up to 24 cores and 32 threads, offering almost twice the performance compared to 11th and 10th Gen platforms. It also supports NVIDIA® L4, a datacenter-grade GPU based on the NVIDIA® Ada Lovelace architecture for energy-efficient AI acceleration applications. It provides up to 30.3 TFLOPS in FP32 or 485 TOPS in INT8, setting new benchmarks for Industrial Edge AI Computing.



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Specifications	Nuvo-9166GC
SYSTEM	
CPU	Supports Intel® Core™ CPU 13th Gen. (LGA1700 socket, 65W/ 35W TDP) – Intel® Core™ i9-13900E/ i9-13900TE – Intel® Core™ i7-13700E/ i7-13700TE – Intel® Core™ i5-13500E/ i5-13400E/ i5-13500TE – Intel® Core™ i3-13100E/ i3-13100TE Supports Intel® Core™ CPU 12th Gen. (LGA1700 socket, 35W/ 65W 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
Chipset	Intel® Q670E Platform Controller Hub
Graphics	Integrated Intel® UHD Graphics 770 (32EU) / 730 (24EU)
RAM	Up to 64 GB DDR5 4800 SDRAM (two SODIMM slots)
Storage	2x internal SATA connector for 2.5" HDD/ SSD installation, supports RAID 0/ 1/x M.2 2280 M-Socket (PCIe Gen4 x4) for NVMe SSD
AMT	Supports Intel vPro/ AMT I6.0
TPM	Supports TPM 2.0
Expansion	2x PCIe x16 slot@Gen3, 8-lanes PCIe signal in cassette for installation of NVIDIA® L4 GPU and one additional PCIe card 1x Mini PCI Express socket in full size 1x M.2 3042/3052 B key socket with SIM slot for M.2 4G/ 5G module 1x MezzIO expansion port for Neosys MezzIO modules
INTERFACE	
Ethernet	5x 2.5G Ethernet through I225-IT and 1x Gigabit Ethernet through I219-LM with screw cap Optional IEEE 802.3at PoE+ PSE for port 3 ~ port 6. 100W total power budget
USB	1x USB 3.2 Gen2x2 (20 Gbit/s) port in Type-C connector with screwlock 4x USB 3.2 Gen2x1 (10 Gbit/s) ports in Type-A connectors 2x USB 3.2 Gen1x1 (5 Gbit/s) ports in Type-A connectors 2x USB 2.0 ports
COM	2x software-programmable RS-232/ 422/ 485 interfaces (COM1/COM2) 2x RS-232 ports (COM3/COM4)
Video	1x VGA port, supports 1920 x 1200 resolution 1x DVI-D port, supports 1920 x 1200 resolution 1x DisplayPort port, supports a resolution of 4096 x 2304
Audio	1x 3.5 mm jack for microphone input and speaker output
Power	1x 3-pole plug-in terminal strip for 8 to 48V DC input [1]
ENVIRONMENTAL	
Remote Control & LED	1x 3-pole pluggable terminal strip for remote control and PWR LED output
Operating Temperature	With 35W CPU and 130W GPU: 25°C to 60°C [2][3] With 65W CPU and 130W GPU: -25°C to 60°C [2][3] (configured as 35W TDP) -25°C to 50°C [2][3] (configured as 65W TDP)
Storage Temperature	-40° ~ 85°C
Vibration / Shock Resistance	Vibration: MIL-STD-810H, method 514.8, category 4 with optional damping bracket Shocks: MIL-STD-810H, Method 516.8, Procedure I with optional damping bracket
Humidity	10%~90% , non-condensing
Dimensions	240 mm (W) x 225 mm (D) x 110,5 mm (H)
Weight	4 kg
Mounting	Wall mounting (standard) or damper mount (optional)
Certifications	CE/FCC Class A, according to EN 55032 & EN 55035

[1] The system is designed to tolerant 8V to 48V voltage fluctuation. The minimal nominal voltage is required with different system configuration. For system with CPU and L4 GPU, 12V or above nominal DC voltage is recommended. For system with CPU, L4 GPU and additional PoE+ PD and/or high-watt PCIe card, 24V or above nominal DC voltage is recommended.

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

[3] For CPU operating 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 allow higher operating temperature.

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Ordering Information	Nuvo-9166GC
MODEL NO.	
Nuvo-9166GC	Robust Edge AI Inference Computer with support for NVIDIA® L4 GPU and Intel® 13th/12th-Gen Core™ processor with two PCIe slots
PoE+ Option	Optional 802.3at PoE + PSE for 2.5GbE Port 3 ~ Port 6
OPTIONAL ACCESSORIES	
Dmpbr-Nuvo9160	Patented damping bracket for Nuvo-9166GC
PA-280W-ET2	280W AC/DC power supply 24V/11.67A; 16AWG/100cm; cable end clamps for terminal strip, operating temperature: -30°C to 60°C
PA-600W-ENC	600W AC/DC power supply unit 24V/25A; cable end terminals for terminal strip, operating temperature: -20°C to 70°C
MezIO®-C180	MezIO® module with 4x RS-232/ 422/ 485 interfaces and 4x RS-232 interfaces
MezIO®-C181	MezIO® module with 4x RS-232/ 422/ 485 interfaces and 4x RS-422/ 485 interfaces
MezIO®-D220	MezIO® module with 8-CH isolated digital input and 8-CH isolated digital output
MezIO®-D230	MezIO® module with 16-CH isolated digital input and 16-CH isolated digital output
MezIO®-V20-EP	MezIO® module with ignition current control function for in-vehicle applications
MezIO®-U4	MezIO® module with 4x USB 3.1 ports
MezIO®-G4	MezIO® module with 4x GigE connections
MezIO®-G4P	MezIO® module with 4x IEEE 802.3at PoE+ connections