

Nuvo-7000LP Series

Intel® 8th-Gen Coffee Lake Core™ i7/i5/i3 Fanless Controller with 6x GbE Ports, MeziO™ Interface and Low-profile Chassis



CE FC

Key Features

- Intel® 8th-Gen Core™ hexa-core 35W/ 65W LGA1151 CPU
- Low-profile chassis with hot-swappable 2.5" HDD/SSD tray
- MeziO™ interface for easy function expansion
- Rugged, -25°C to 70°C fanless operation
- Up to 6x GigE ports, supporting 9.5 KB jumbo frame
- M.2 2280 M key NVMe (Gen3 x4) socket for fast storage access
- 4x USB 3.1 Gen2 ports and 4x USB 3.1 Gen1 ports
- VGA/DVI/DP triple independent display, supporting 4K2K resolution

Introduction

Introducing Neosys Technology's 2018 flagship rugged fanless controllers, the new Nuvo-7000 series, powered by Intel® 8th-Gen Core™ i processors with up to 6-core/ 12-thread architecture that offer a significant performance improvement over previous 6th-Gen or 7th-Gen platform.

Nuvo-7000LP series is the derivative of Nuvo-7000 series maintaining the same level of ruggedness and versatility in a 79 mm low-profile chassis. In addition to effective fanless design, proprietary MeziO™ interface and plethora of on-board I/O interfaces, Nuvo-7000LP series features one front-accessible, hot-swappable HDD/SSD tray which can be configured as RAID 0/1 combined with the internal SATA port. It also leverages cutting-edge M.2 NVMe technology to support over 2000 MB/s disk read/write speed.

Nuvo-7000LP series consolidates hexa-core CPU, high-speed I/O interfaces, super-fast disk access and flexible storage configuration to form a high-performance, ruggedized embedded controller. You can also take advantage of MeziO™ I/O modules to expand a broader range of applications.

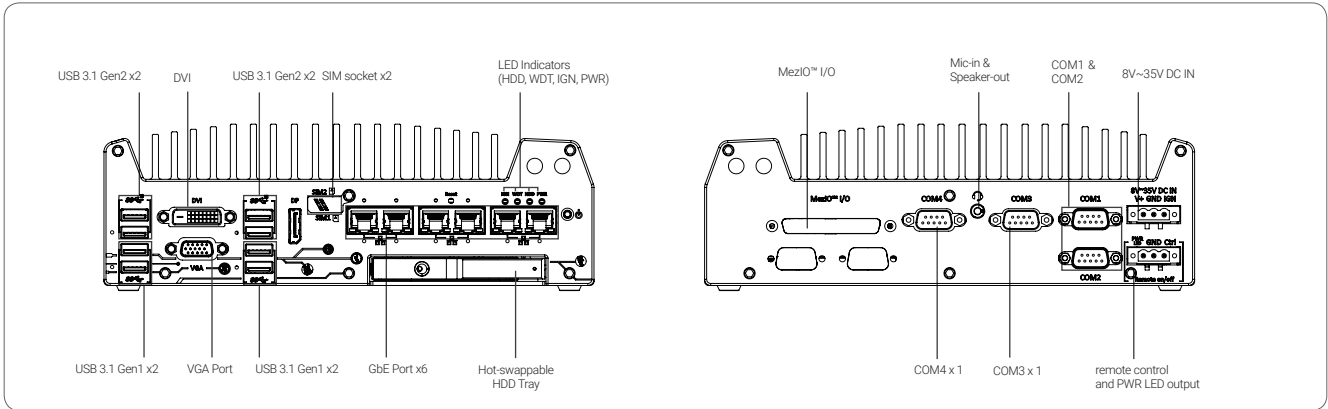
Specifications

System Core		Expansion Bus	
Processor	Supporting Intel® 8th-Gen Coffee Lake 6-core CPU (LGA1151 socket, 35W/ 65W TDP)	Mini PCI-E	1x full-size mini PCI Express socket with internal SIM socket (mux with mSATA)
	- Intel® Core™ i7-8700/ i7-8700T	M.2	1x M.2 2242 B key socket with dual front-accessible SIM sockets
	- Intel® Core™ i5-8500/ i5-8500T	Expandable I/O	1x MeziO™ expansion port for Neosys MeziO™ modules
	- Intel® Core™ i3-8100/ i3-8100T	Power Supply	
	- Intel® Pentium® G5400/ G5400T	DC Input	1x 3-pin pluggable terminal block for 8–35VDC DC input
- Intel® Celeron® G4900/ G4900T	Remote Ctrl. & LED Output	1x 3-pin pluggable terminal block for remote control and PWR LED output	
Chipset	Intel® Q370 Platform Controller Hub	Mechanical	
Graphics	Integrated Intel® UHD Graphics 630	Dimension	240 mm (W) x 225 mm (D) x 79 mm (H)
Memory	Up to 32 GB DDR4 2666/ 2400 SDRAM (two SODIMM slots)	Weight	3.1 kg
AMT	Supports AMT 12.0	Mounting	Wall-mounting (standard) or DIN-Rail mounting (optional)
TPM	Supports TPM 2.0	Environmental	
I/O Interface		Operating Temperature	with 35W CPU -25°C ~ 70°C ** with 65W CPU -25°C ~ 70°C */** (configured as 35W TDP) -25°C ~ 50°C */** (configured as 65W TDP)
Ethernet	2x Gigabit Ethernet ports by I219 and I210 (Nuvo-7002LP) 6x Gigabit Ethernet ports by I219 and 5x I210 (Nuvo-7006LP)	Storage Temperature	-40°C ~ 85°C
PoE+	Optional IEEE 802.3at PoE+ PSE for Port 3 – Port 6 100 W total power budget	Humidity	10%~90% , non-condensing
USB	4x USB 3.1 Gen2 (10 Gbps) ports 4x USB 3.1 Gen1 (5 Gbps) ports	Vibration	Operating, MIL-STD-810G, Method 514.6, Category 4
Video Port (Integrated Graphics)	1x VGA connector, supporting 1920 x 1200 resolution 1x DVI-D connector, supporting 1920 x 1200 resolution 1x DisplayPort connector, supporting 4096 x 2304 resolution	Shock	Operating, MIL-STD-810G, Method 516.6, Procedure I, Table 516.6-II
Serial Port	2x software-programmable RS-232/422/485 ports (COM1/ COM2) 2x RS-232 ports (COM3/ COM4)	EMC	CE/FCC Class A, according to EN 55032 & EN 55024
Audio	1x 3.5 mm jack for mic-in and speaker-out		
Storage Interface			
SATA HDD	1x front-accessible, hot-swappable 2.5" HDD/SSD tray 1x internal SATA port for 2.5" HDD/SSD installation, supporting RAID 0/ 1		
M.2 NVMe	1x M.2 2280 M key NVMe socket (PCIe Gen3/ x4) for NVMe SSD installation		
mSATA	1x full-size mSATA port (mux with mini-PCIe)		

* For 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.

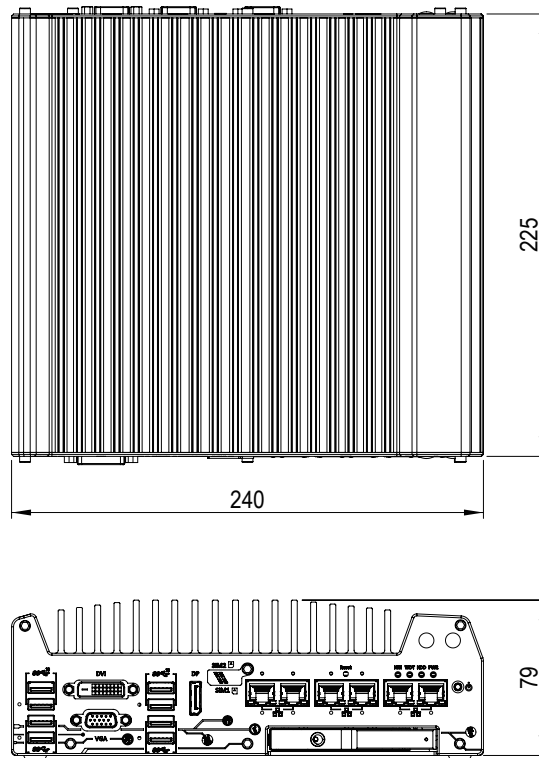
** For sub-zero operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required.

Appearance



Dimensions

Unit : mm



Ordering Information

Model No.	Product Description
Nuvo-7002LP	Intel® 8th-Gen Coffee Lake Core™ i7/i5/i3 fanless controller with 2x GbE ports, MeziO™ interface and low-profile chassis
Nuvo-7006LP	Intel® 8th-Gen Coffee Lake Core™ i7/i5/i3 fanless controller with 6x GbE ports, MeziO™ interface and low-profile chassis
<i>Option of 802.3at PoE+ for GbE ports 3 ~ 6</i>	

Optional Accessories

PA-160W-OW	160W AC/DC power adapter 20V/8A;18AWGx4C/120cm, cord end terminals for terminal block, operating temperature : -30°C to 70°C.
Fan-25	Fan assembly for 1-slot Cassette, 25x25x10 mm
DINRAIL-O	DIN-rail mounting assembly for Nuvo-7000 series