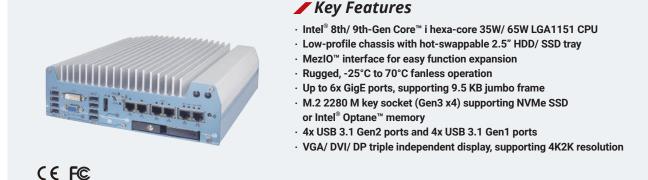
# **Nuvo-7000LP Series**



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Intel<sup>®</sup> 8th/ 9th-Gen Core™ i7/ i5/ i3 Fanless Controller with 6x GbE Ports, MezIO™ Interface and Low-profile Chassis



### Introduction

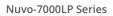
The Neousys Nuvo-7000LP series is powered by Intel<sup>®</sup> 8th/ 9th-Gen Core™ i processors with up to 6-core/ 8-core architecture that offer a significant performance improvement over previous 6th or 7th-Gen platforms.

Nuvo-7000LP series is a derivative of Nuvo-7000 series that features the same level of ruggedness and versatility in a 79 mm low-profile chassis. In addition to effective fanless design, proprietary MezIO<sup>™</sup> 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 when combined with the internal SATA port. It also leverages cutting-edge M.2 NVMe SSD technology for over 2000MB/s disk read/ write speed, or install an Intel<sup>®</sup> Optane<sup>™</sup> memory for the ultimate system acceleration.

Neousys Nuvo-7000LP series consolidates the latest Intel<sup>®</sup> hexa/octa-core CPU, high-speed I/O interfaces, super-fast disk access and flexible storage configuration to form a high-performance ruggedized embedded controller. In addition, you can also take advantage of the built-in MezIO<sup>™</sup> interface to add on modules for application-specific I/Os.

### Specifications

System Core		Expansion Bus		
Processor	Supporting Intel <sup>®</sup> 8th/ 9th-Gen CPU (LGA1151 socket, 65W/ 35W TDP) - Intel <sup>®</sup> Core <sup>™</sup> 17-8700/ i7-8700T/ i7-9700E/ i7-9700TE - Intel <sup>®</sup> Core <sup>™</sup> 15-8500/ i5-8500T/ i5-9500E/ i5-9500TE - Intel <sup>®</sup> Core <sup>™</sup> 3-8100/ i3-8100T/ i3-9100E/ i3-9100TE	Mini PCI Express	1x full-size mini PCI Express socket with internal SIM socket (mux with mSATA)	
		M.2	1x M.2 2242 B key socket with dual front-accessible SIM sockets	
		Expandable I/O	1x MezlO™ expansion port for Neousys MezlO™ modules	
	- Intel <sup>®</sup> Pentium <sup>®</sup> G5400/ G5400T - Intel <sup>®</sup> Celeron <sup>®</sup> G4900/ G4900T	Power Supply		
Chipset	Intel <sup>®</sup> Q370 platform controller hub	DC Input	1x 3-pin pluggable terminal block for 8~35VDC DC input	
Graphics	Integrated Intel <sup>®</sup> UHD graphics 630	Remote Ctrl. & LED Output	1x 3-pin pluggable terminal block for remote control and PWR LED output	
Memory	Up to 64 GB DDR4 2666/ 2400 SDRAM (two SODIMM slots)	Mechanical		
AMT	Supports AMT 12.0		240	
TPM	Supports TPM 2.0	Dimension	240 mm (W) x 225 mm (D) x 79 mm (H)	
I/O Interface		Weight	3.1 kg	
Ethernet	2x Gigabit Ethernet ports by I219 and I210 (Nuvo-7002LP) 6x Gigabit Ethernet ports by I219 and 5x I210 (Nuvo-7006LP)	Mounting Environmental	Wall-mounting (standard) or DIN-Rail mounting (optional)	
PoE+	Optional IEEE 802.3at PoE+ PSE for Port 3 ~ Port 6 100 W total power budget	Operating	with 35W CPU -25°C ~ 70°C **	
USB	4x USB 3.1 Gen2 (10 Gbps) ports 4x USB 3.1 Gen1 (5 Gbps) ports	Temperature	with 65W CPU -25°C ~ 70°C */** (configured as 35W TDP) -25°C ~ 50°C */** (configured as 65W TDP)	
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	Storage Temperature	-40°C ~ 85°C	
		Humidity	10%~90% , non-condensing	
Serial Port	2x software-programmable RS-232/422/485 ports (COM1/ COM2) 2x RS-232 ports (COM3/ COM4)	Vibration	Operating, MIL-STD-810G, Method 514.6, Category 4	
Audio	1x 3.5 mm jack for mic-in and speaker-out	Shock	Operating, MIL-STD-810G, Method 516.6, Procedure I, Table 516.6-II	
Storage Interface		EMC	CE/FCC Class A, according to EN 55032 & EN 55024	
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	EMC CE/FCC Class A, according to EN 55032 & EN 55024 * For i7-8700 and i7-9700E running at 65W mode, the highest operating temperature shall be limited to 50°C ar thermal throttling may occur when sustained full-loading applied. Users can configure CPU power in BIOS obtain higher operating temperature.		
M.2	1x M.2 2280 M key socket (PCle Gen3 x4) for NVMe SSD or Intel <sup>®</sup> Optane™ memory installation	** For sub-zero operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required.		
mSATA	1x full-size mSATA port (mux with mini-PCle)			

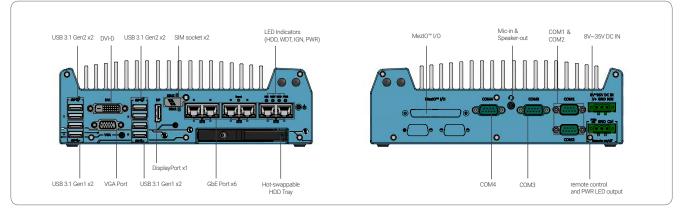


# Backplane Systems Technology Pty Ltd

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#### Appearance



### **Dimensions**

	Unit : mm	

### **Ordering Information**

Model No.	Product Description	
Nuvo-7002LP Intel <sup>®</sup> 8th/ 9th-Gen Core <sup>™</sup> fanless controller with 2x GbE ports, MezIO <sup>™</sup> interface and low-profile chassis		
Nuvo-7006LP Intel <sup>®</sup> 8th/ 9th-Gen Core <sup>™</sup> fanless controller with 6x GbE ports, MezIO <sup>™</sup> interface and low-profile chassis		
Optional IEEE 802.3at PoE+ for GbE ports 3 ~ 6		

## **Optional Accessories**

PA-160W-OW	160W AC/DC power adapter 20V/8A;18AWGx4C/120cm, cord end terminals for terminal block, operating temperature : -30 to 70°C.		
DINRAIL-O	DIN-rail mounting assembly for Nuvo-7000 series		
Dmpbr-Nuvo5000	0_7000 Neousys' patented damping bracket assembly for Nuvo-7000E/DE/P		
ETHY-100-2008S	0-2008S Ethernet I/O expansion module with 8 isolated digital inputs and outputs		
ETHY-100-2604S	Ethernet I/O expansion module with 8 isolated digital inputs and 4 relays outputs (coming soon)		
MezIO™ Module	25		
MezIO <sup>™</sup> -C180	MezIO™ module with 4x RS-232/ 422/ 485 ports and 4x RS-232 ports		
MezIO <sup>™</sup> -C181	MezIO™ module with 4x RS-232/ 422/ 485 ports and 4x RS-422/ 485 ports		
MezIO <sup>™</sup> -D220	MezIO™ module with 8-CH isolated digital input and 8-CH isolated digital output		
MezIO <sup>™</sup> -D230	MezIO™ module with 16-CH isolated digital input and 16-CH isolated digital output		
MezIO <sup>™</sup> -V20-EP	MezIO <sup>™</sup> module with ignition power control function for in-vehicle application		
MezIO <sup>™</sup> -U4	MezIO <sup>™</sup> module with 4x USB3.0 ports		
MezIO <sup>™</sup> -G4	MezIO™ module with 4x GigE ports		
MezIO <sup>™</sup> -G4P	MezIO <sup>™</sup> module with 4x IEEE 802.3at PoE+ ports Only Nuvo-7006LP-PoE supports MezIO-G4P		