

Rugged Embedded



Nuvo-5026E Series

Intel® 6th-Gen Core™ i7/ i5/ i3 Fanless Controller with Dual PCIe Slot Expansion Cassette, 6x GbE and MeziO™ Interface



Key Features

- Intel® 6th-Gen Core™ i7/ i5/ i3 LGA1151 35W/ 65W
- Dual PCIe x8 slots in patented expansion Cassette*
- MeziO™ interface for easy function expansion
- Rugged, -25°C to 70°C fanless operation
- 6x GbE ports, supporting 9.5 KB jumbo frame
- Up to 32 GB, DDR4-2133 SO-DIMM
- Accommodates two 2.5" SATA HDD/ SSD with RAID 0/1 support
- VGA/ DVI/ DP triple independent display, supporting 4K2K resolution

*R.O.C Patent No. M456527

Introduction

Nuvo-5026E is the latest Nuvo-5000 family member with dual PCIe slots. The dual PCIe slots enhance expansion abilities while preserving all practical features such as ruggedness, performance and versatility. The expandability makes Nuvo-5026E more adaptable to various application needs while the two PCIe slots in the patented expansion Cassette are easy to access for PCIe card installation without the need to disassemble the system.

Nuvo-5026E supports LGA1151 6th-Gen Core™ processors. It offers processor selection flexibility from Core™ i7 to Celeron according to performance needs and operating environment. It also offers plenty of I/O functions such as 6x GbE, 4x USB3.0, 3x COM ports and triple independent display support. In addition, Neosys' MeziO™ interface can also further expand system I/Os offering up to either 11x COM ports, 10x GbE, 8x USB3.0, 32x DIO or ignition power control by installing an optional MeziO™ module.

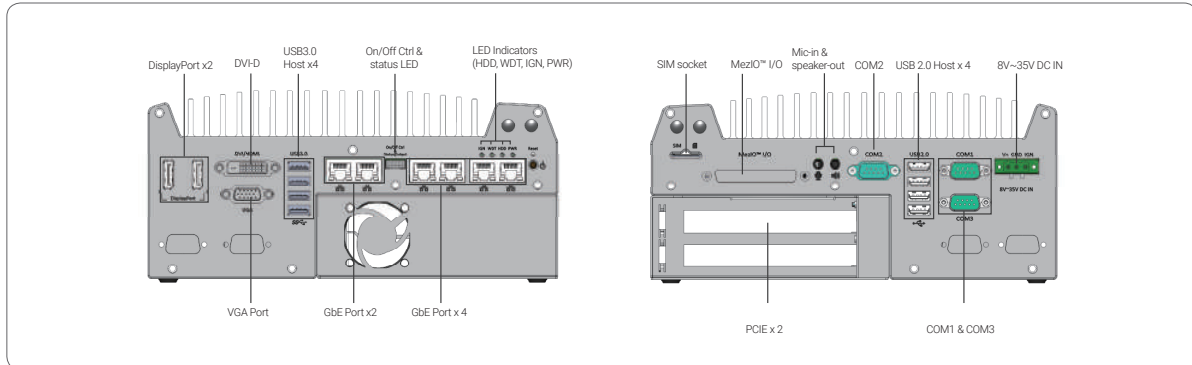
Nuvo-5026E is an expandable and flexible platform with numerous I/O functions for various industrial applications.

Specifications

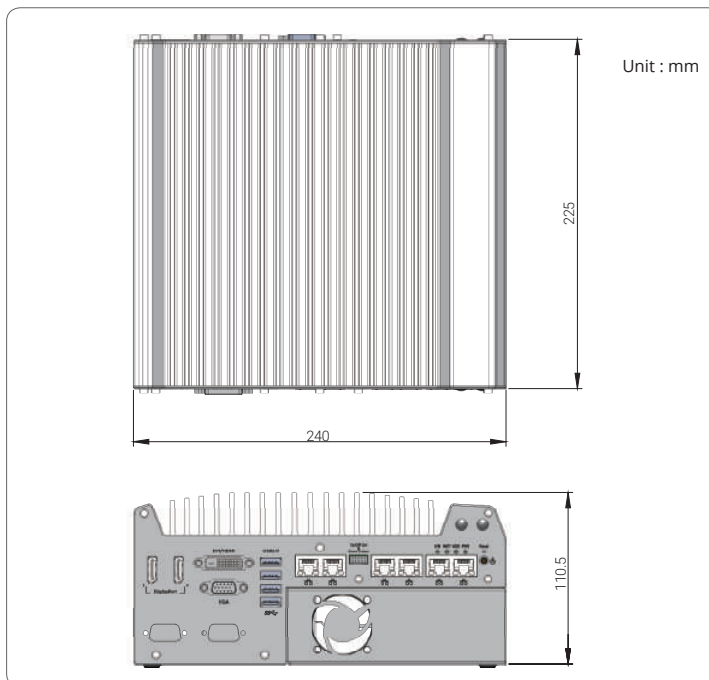
System Core		Expansion Bus		
Processor	Intel® Core™ i7-6700 (8M Cache, 3.4/ 4.0 GHz, 65W TDP)*	PCI/PCI Express	2x PCIe x8 slot @ Gen3, 4-lanes PCIe signals in expansion Cassette	
	Intel® Core™ i5-6500 (6M Cache, 3.2/ 3.6 GHz, 65W TDP)*	Mini PCI-E	1x internal mini PCI Express socket with front-accessible SIM socket 1x internal mini PCI Express socket with internal SIM socket (mux with mSATA)	
	Intel® Core™ i3-6100 (3M Cache, 3.7 GHz, 51W TDP)*	Expandable I/O	1x MeziO™ expansion port for Neosys' MeziO™ modules	
	Intel® Pentium® G4400 (3M Cache, 3.3 GHz, 54W TDP)*	Power Supply	DC Input	1x 3-pin pluggable terminal block for 8~35VDC DC input
	Intel® Celeron® G3900 (2M Cache, 2.8 GHz, 51W TDP)*	Remote Ctrl. & Status Output	1x 10-pin (2x5) wafer connector for remote on/off control and status LED output	
	Intel® Core™ i7-6700TE (8M Cache, 2.4/ 3.4 GHz, 35W TDP)	Mechanical	Dimension	240 mm (W) x 225 mm (D) x 111 mm (H)
	Intel® Core™ i5-6500TE (6M Cache, 2.3/ 3.3 GHz, 35W TDP)	Weight	3.7 kg (incl. CPU, memory and HDD)	
	Intel® Core™ i3-6100TE (4M Cache, 2.7 GHz, 35W TDP)	Mounting	Wall-mount by mounting bracket (standard) or DIN-rail mounting (optional)	
Intel® Pentium® G4400TE (3M Cache, 2.4 GHz, 35W TDP)	Environmental	Operating Temperature	-25°C ~ 70°C **	i7-6700TE (35W TDP) i5-6500TE (35W TDP) i3-6100TE (35W TDP) Pentium G4400TE (35W TDP)
Intel® Celeron® G3900TE (2M Cache, 2.3 GHz, 35W TDP)	Chipset		Intel® Q170 platform controller hub	-25°C ~ 70°C */** (configured as 35W CPU mode)
Graphics	Integrated Intel® HD graphics 530 or 510 (CPU dependent)	-25°C ~ 50°C */** (configured as 65W/ 51W CPU mode)	i5-6500 (65W/51W TDP)	i3-6100 (65W/51W TDP)
Memory	Up to 32 GB DDR4-2133 SDRAM (two SO-DIMM slots)	Storage Temperature	-40°C ~ 85°C	
AMT	Supports AMT 11.0	Humidity	10%~90% , non-condensing	
TPM	Supports TPM 2.0	Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64)	
I/O Interface		Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)	
Ethernet	6x Gigabit Ethernet ports by Intel® I219 and 5x I210	EMC	CE/ FCC Class A, according to EN55024 & EN55032	
PoE+	Optional IEEE 802.3at PoE+ PSE for GbE Port 3 ~ Port 6, 80 W total power budget	* For i7-6700 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.		
USB	4x USB3.0 ports via native xHCI controller 4x USB 2.0 ports	** For sub-zero operating temperature, a wide temperature HDD drive or Solid State Disk (SSD) is required.		
Video Port	1x stacked VGA + DVI-D connector 2x DisplayPort connectors, supporting 4K2K resolution			
Serial Port	2x software-programmable RS-232/ 422/ 485 port (COM1 & COM3) 1x RS-232 port (COM2)			
Audio	1x Mic-in and 1x Speaker-out			
Storage Interface				
SATA HDD	2x internal SATA port for 2.5" HDD/ SSD installation, supporting RAID 0/ 1			
mSATA	1x full-size mSATA port (mux with mini-PCIe)			

Nuvo-5026E Series

Appearance



Dimensions



▲ Nuvo-5026E



▲ Dual PCIe Cassette

Ordering Information

Model No.	Product Description
Nuvo-5026E	Intel® 6th-Gen Core™ fanless controller with dual PCIe Cassette, 6x GbE and MeziO™ interface
	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-5026E series
DmpbrNuvo5000_7000	Neosys' patented damping bracket assembly for Nuvo-7000E/DE/P
MeziO™ Modules	
MeziO™-C180	MeziO™ module with 4x RS-232/422/485 ports and 4x RS-232 ports
MeziO™-C181	MeziO™ module with 4x RS-232/422/485 ports and 4x RS-422/485 ports
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 power control function for in-vehicle usage
MeziO™-G4P	MeziO™ module with 4x Gigabit 802.3at PoE+ ports
MeziO™-G4	MeziO™ module with 4x Gigabit Ethernet ports
MeziO™-U4	MeziO™ module with 4x USB3.0

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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