

Nuvo-5100VTC Series

Intel® 6th-Gen Skylake Core™ i7/i5/i3 In-Vehicle Controller with 4x or 8x PoE+ Ports, DIO, CAN Bus and RAID



Key Features

- Supports Intel® 6th-Gen Core™ i7/i5/i3 LGA1151 socket-type CPU
- 4x or 8x 802.3at Gigabit PoE+ ports via M12 or RJ45 connectors
- On-board CAN bus for in-vehicle communication
- 4-CH isolated DI and 4-CH isolated DO
- 2x SATA ports with one hot-swappable HDD tray, supporting RAID 0/1
- 4x full-size mini-PCIe sockets with SIM support
- 8~35V wide-range DC input with built-in ignition power control
- EN 50155 certificate

Introduction

Nuvo-5100VTC is a state-of-the-art in-vehicle controller in compliant with E-Mark and EN 50155 certificate. Featuring Intel® 6th-Gen Core™ CPU, it exhibits superb CPU and GPU performance for various in-vehicle applications.

Nuvo-5100VTC offers four or eight 802.3at PoE+ ports to supply 25W power to the connected device. They are implemented using RJ45 or M12 (x-coded connectors), which guarantee extremely rugged connectivities in shocking/vibrating environments. Two more Gigabit Ethernet ports by RJ-45 are available for data communication. You can also utilize four internal mini-PCIe sockets with corresponding modules for 3G/4G/WIFI/GPS communication.

In addition, Nuvo-5100VTC integrates CAN bus for in-vehicle communication, and isolated DIO for sensor/actuator control. Combining ignition power control and dual-drive RAID storage, Nuvo-5100VTC is simply the one to satisfy all your application demands.

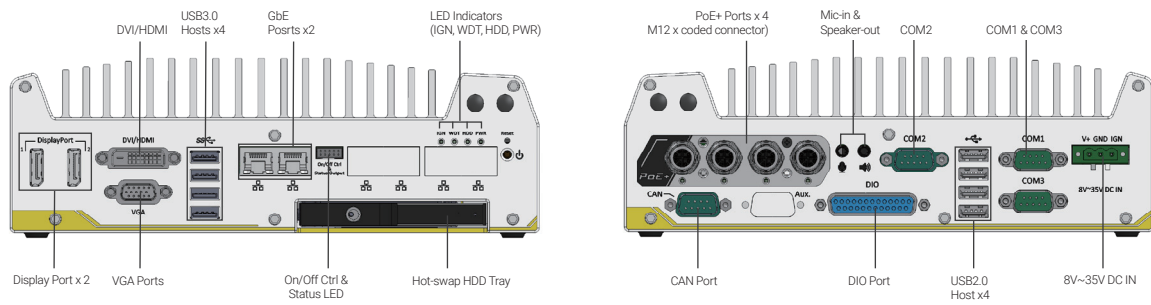
Specifications

System Core		Storage Interface	
Processor	Supports Intel® 6th-Gen Core™ i7/i5/i3 LGA1151 CPU Intel® Core™ i7-6700TE (8M Cache, 2.4/3.4 GHz, 35W TDP) Intel® Core™ i5-6500TE (6M Cache, 2.3/3.3 GHz, 35W TDP) Intel® Core™ i3-6100TE (4M Cache, 2.7 GHz, 35W TDP)	mSATA	1x full-size mSATA port (mux with mini-PCIe)
Chipset	Intel® Q170 Platform Controller Hub	Expansion Bus	
Graphics	Integrated Intel® HD Graphics 530	Mini PCI-E	1x full-size mini-PCIe socket with panel-accessible SIM socket
Memory	Up to 32 GB DDR4-2133 SDRAM by two SODIMM sockets		1x full-size mini-PCIe socket with internal SIM socket (mux. with mSATA)
AMT	Supports AMT 11.0		2x full-size mini-PCIe sockets (USB signals only) with internal SIM sockets
TPM	Supports TPM 2.0	Power Supply	
I/O Interface		DC Input	1x 3-pin pluggable terminal block for 8~35VDC DC input
Ethernet	2x Gigabit Ethernet ports by Intel® I219 and I210	Remote Ctrl. & Status Output	1x 10-pin (2x5) wafer connector for remote on/off control and status LED output
PoE+	4x IEEE 802.3at (25.5W) Gigabit PoE+ ports by Intel® I210, - M12 x-coded connector (Nuvo-5100VTC); - RJ45 connector (Nuvo-5104VTC) 8x IEEE 802.3at (25.5W) Gigabit PoE+ ports by Intel® I210 - RJ45 connector (Nuvo-5108VTC)	Mechanical	
CAN	1x CAN 2.0 port	Dimension	240 mm (W) x 225 mm (D) x 79 mm (H)
Isolated DIO	4x isolated DI and 4x isolated DO	Weight	3.3 kg
USB	4x USB 3.0 ports via native XHCI controller 4x USB 2.0 ports	Mounting	Neousys' patented damping bracket (standard) or optional DIN-Rail mounting
Video Port	1x stacked VGA + DVI-D connector 2x DisplayPort connectors, supporting 4K2K resolution	Environmental	
Serial Port	2x software-programmable RS-232/422/485 port (COM1 & COM2) 1x RS-232 port (COM3)	Operating Temperature	-40°C ~ 70°C */**
Audio	1x Mic-in and 1x Speaker-out	Storage Temperature	-40°C ~ 85°C
Storage Interface		Humidity	10%~90% , non-condensing
SATA HDD	1x hot-swappable HDD tray for 2.5" HDD/SSD installation 1x Internal SATA port for 2.5" HDD/SSD installation, supporting RAID 0/1	Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64)
		Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)
		Certification	EN 50155 / EN 50121-3-2 / EN 50121-2-1/ EN50121-2-2 / EN 61373 (Nuvo-5100VTC) CE/FCC Class A, according to EN 55022 & EN 55024

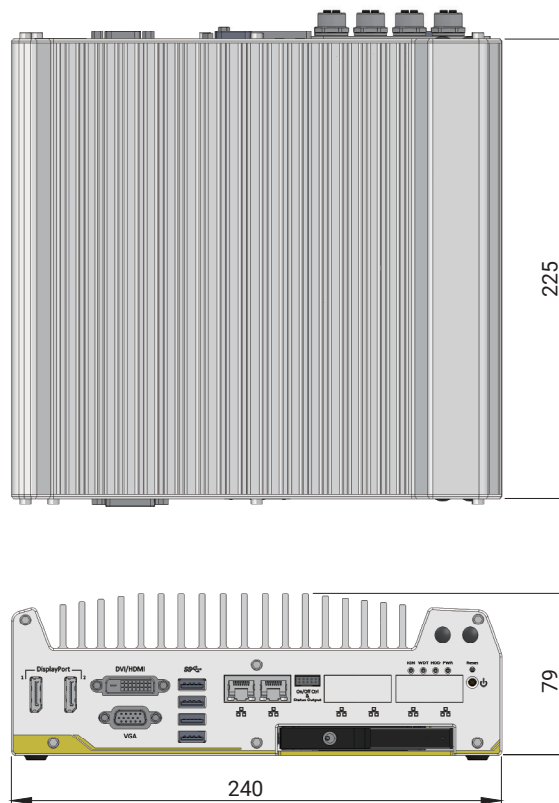
*The CPU loading is applied using Passmark® BurnInTest 8.0. For detail testing criteria, please contact Neousys Technology

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

Appearance



Dimensions



Unit : mm

Ordering Information

Model No.	Product Description
Nuvo-5100VTC	Intel® 6th-Gen Skylake Core™ i7/i5/i3 In-Vehicle Controller with 4x M12 PoE+ Ports, DIO, CAN Bus and RAID
Nuvo-5104VTC	Intel® 6th-Gen Skylake Core™ i7/i5/i3 In-Vehicle Controller with 4x RJ45 PoE+ Ports, DIO, CAN Bus and RAID
Nuvo-5108VTC	Intel® 6th-Gen Skylake Core™ i7/i5/i3 In-Vehicle Controller with 8x RJ45 PoE+ Ports, DIO, CAN Bus and RAID

Optional Accessories

M12, x-coded to RJ-45 Ethernet cable, 5 m length
 M12, x-coded to RJ-45 Ethernet cable, 10 m length
 DIN-Rail mounting kit
 120W AC/DC power adapter