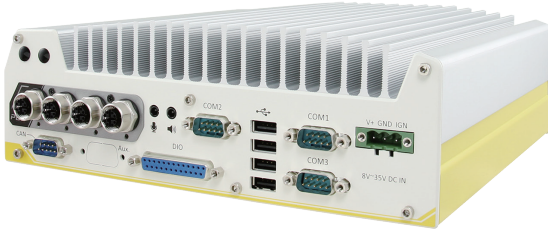# Nuvo-5100VTC Series

Intel® 6th-Gen Skylake Core™ i7/i5/i3 In-Vehicle Controller with 4x M12 PoE+ Ports, DIO, CAN Bus and RAID

Features

· Supports Intel® 6th-Gen Core™ i7/i5/i3 LGA1151 socket-type CPU
· 4x 802.3at Gigabit PoE+ ports via M12 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
· E-Mark and 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 802.3at PoE+ ports to supply 25W power to the connected device. They are implemented using 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. Combing ignition power control and dual-drive RAID storage, Nuvo-5100VTC is simply the one to satisfy all your application demands.

Specifications

System Core	
Processor	Supports 6th-Gen Intel® 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)
Chipset	Intel® Q170 Platform Controller Hub
Graphics	Integrated Intel® HD Graphics 530
Memory	Up to 32 GB DDR4-2133 SDRAM by two SODIMM sockets
AMT	Supports AMT 11.0
TPM	Supports TPM 2.0

I/O Interface	
Ethernet	2x Gigabit Ethernet ports by Intel® I219 and I210
PoE+	4x IEEE 802.3at (25.5W) Gigabit PoE+ ports by Intel® I210, M12 x-coded connector
CAN	1x CAN 2.0 port
Isolated DIO	4x isolated DI and 4x isolated DO
USB	4x USB 3.0 ports via native XHCI controller 4x USB 2.0 ports
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 & COM2) 1x RS-232 port (COM3)
Audio	1x mic-in and 1x speaker-out

Storage Interface	
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
mSATA	1x full-size mSATA port (mux with mini-PCIe)

Expansion Bus	
Mini PCI-E	1x full-size mini-PCIe socket with panel-accessible SIM socket 1x full-size mini-PCIe socket with internal SIM socket (mux. with mSATA) 2x full-size mini-PCIe sockets (USB signals only) with internal SIM sockets

Power Supply	
DC Input	1x 3-pin pluggable terminal block for 8~35VDC DC input
Remote Ctrl. & Status Output	1x 10-pin (2x5) wafer connector for remote on/off control and status LED output

Mechanical	
Dimension	240 mm (W) x 225 mm (D) x 79 mm (H)
Weight	3.3 kg
Mounting	Neousys' patented damping bracket (standard) or optional DIN-Rail mounting

Environmental	
Operating Temperature	-25°C ~ 70°C */**
Storage Temperature	-40°C ~ 85°C
Humidity	10%~90% , non-condensing
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)
EMC	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.

Order Information

Nuvo-5100VTC

Intel® 6th-Gen Skylake Core™ i7/i5/i3 In-Vehicle Controller with 4x M12 PoE+ Ports, DIO, CAN Bus and RAID

Accessories

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