

# Nuvo-5100VTC Series

Intel® 6th-Gen 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 & E13 No. 10R-0514321

## 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 connection in shock/ vibration environments. Two more Gigabit Ethernet ports by RJ45 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 the perfect solution for all your in-vehicle application needs.

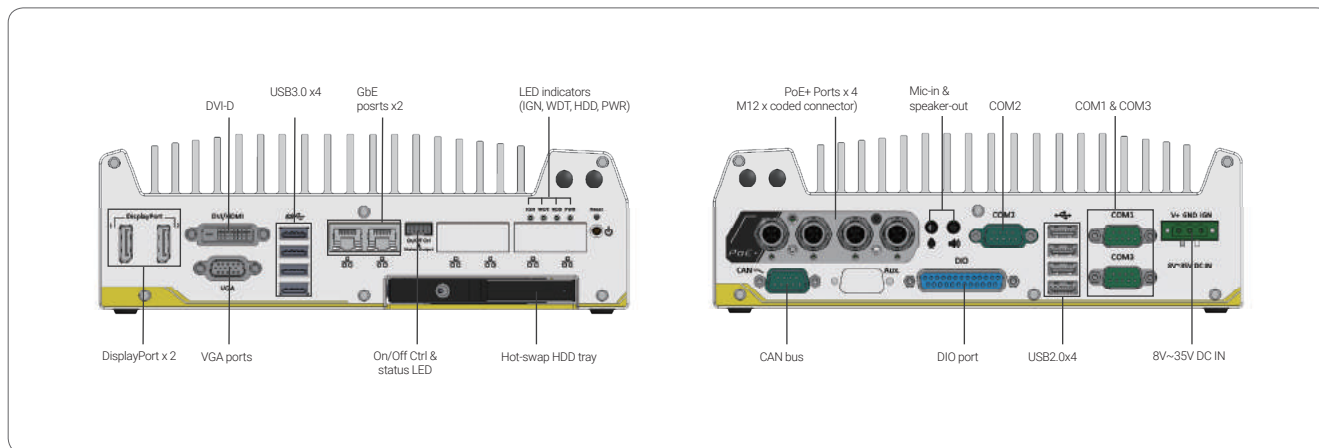
## Specifications

System Core		Storage Interface	
<b>Processor</b>	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)	<b>mSATA</b>	1x full-size mSATA port (mux with mini-PCIe)
<b>Chipset</b>	Intel® Q170 platform controller hub	<b>Expansion Bus</b>	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
<b>Graphics</b>	Integrated Intel® HD graphics 530	<b>Mini PCI-E</b>	
<b>Memory</b>	Up to 32 GB DDR4-2133 SDRAM (two SO-DIMM slots)	<b>Power Supply</b>	
<b>AMT</b>	Supports AMT 11.0	<b>DC Input</b>	1x 3-pin pluggable terminal block for 8~35V DC input
<b>TPM</b>	Supports TPM 2.0	<b>Remote Ctrl. &amp; Status Output</b>	1x 10-pin (2x5) wafer connector for remote on/ off control and status LED output
I/O Interface		Mechanical	
<b>Ethernet</b>	2x Gigabit Ethernet ports by Intel® I219 and I210	<b>Dimension</b>	240 mm (W) x 225 mm (D) x 79 mm (H)
<b>PoE+</b>	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)	<b>Weight</b>	3.3 kg
<b>CAN</b>	1x CAN 2.0 port	<b>Mounting</b>	Neosys' patented damping bracket (standard) or optional DIN-rail mounting
<b>Isolated DIO</b>	4x isolated DI and 4x isolated DO	Environmental	
<b>USB</b>	4x USB3.0 ports via native xHCI controller 4x USB2.0 ports	<b>Operating Temperature</b>	-40°C ~ 70°C */**
<b>Video Port</b>	1x stacked VGA + DVI-D connector 2x DisplayPort connectors, supporting 4K2K resolution	<b>Storage Temperature</b>	-40°C ~ 85°C
<b>Serial Port</b>	2x software-programmable RS-232/422/485 port (COM1 & COM3) 1x RS-232 port (COM2)	<b>Humidity</b>	10%~90%, non-condensing
<b>Audio</b>	1x Mic-in and 1x speaker-out	<b>Vibration</b>	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64)
Storage Interface		<b>Shock</b>	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)
<b>SATA HDD</b>	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	<b>Certification</b>	EN 50155 (Nuvo-5100VTC), E-Mark (Nuvo-5108VTC) CE/ FCC Class A, according to EN 55022, EN 55024 & EN 55032

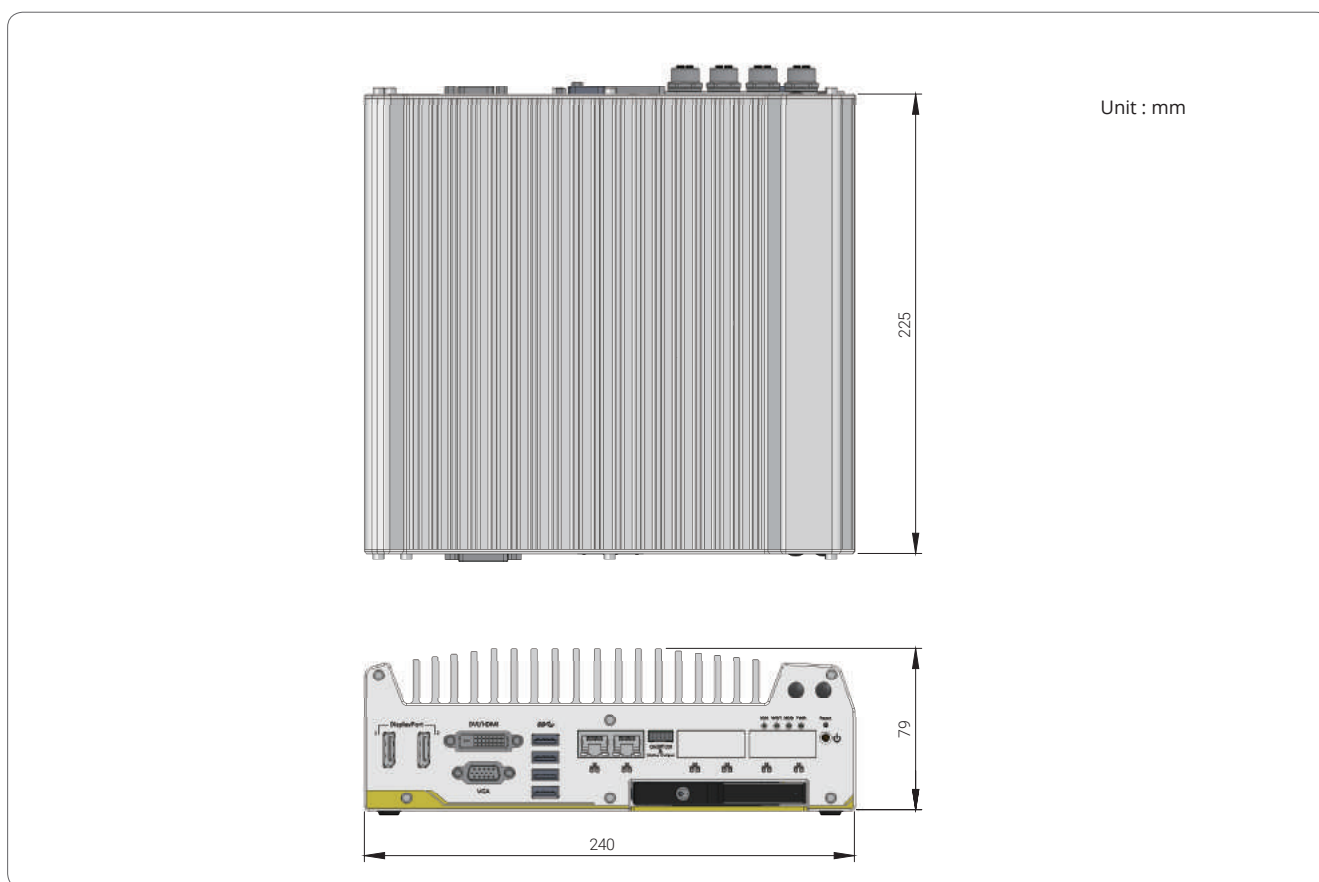
\*The CPU loading is applied using Passmark® BurnInTest 8.0. For detail testing criteria, please contact Neosys Technology

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

## Appearance



## Dimensions



## Ordering Information

Model No.	Product Description
<b>Nuvo-5100VTC</b>	Intel® 6th-Gen Core™ in-vehicle controller with 4x M12 PoE+ Ports, DIO, CAN bus and RAID
<b>Nuvo-5104VTC</b>	Intel® 6th-Gen Core™ in-vehicle controller with 4x RJ45 PoE+ Ports, DIO, CAN bus and RAID
<b>Nuvo-5108VTC</b>	Intel® 6th-Gen Core™ in-vehicle controller with 8x RJ45 PoE+ Ports, DIO, CAN bus and RAID

## Optional Accessories

<b>Cbl-M12X8M-RJ45-500CM</b>	M12 (8-pole-X-coded) to RJ45, CAT6, length : 500CM
<b>Cbl-M12X8M-RJ45-1000CM</b>	M12 (8-pole-X-coded) to RJ45, CAT6, length : 1000CM
<b>DINRAIL-O</b>	DIN-rail mounting assembly for Nuvo-5100VTC series
<b>PA-120W-OW</b>	120W AC/DC power adapter 20V/6A; 18AWG/120cm; cord end terminals for terminal block, operating temperature : -30 to 70 °C.