

Nuvo-3100VTC Series

Intel® 3rd-Gen Core™ i7/i5 Fanless in-Vehicle Controller with 4x 802.3at PoE+ Ports and Dual-Drives RAID



Key Features

- 212 mm x 165 mm x 62 mm very compact size
- Intel® 3rd-Gen i7/i5 PGA-type processor
- 4x IEEE 802.3at (25.5W) Gigabit PoE+ ports
- Dual 2.5" SATA ports with one easy-swap HDD tray
- Patented damping bracket* for in-vehicle installation
- 8 ~ 35V wide-range DC input and built-in ignition power control
- 3x mini-PCIe/mSATA slots for 3G/WIFI/GPS capability
- E13 No. 10R-0413512 and EN 50155/EN 50121-3-2 certificate



*R.O.C Patent No. M491752

Introduction

Nuvo-3100VTC is a fanless controller with E-Mark and EN 50155/EN 50121-3-2 certificate for in-vehicle usage. It supports 3rd-Gen i7 quad-core CPU to provide extraordinary performance for emerging high-end requirements. It also integrates four IEEE 802.3at PoE+ ports to facilitate Ethernet connectivity and power IP cameras for surveillance applications.

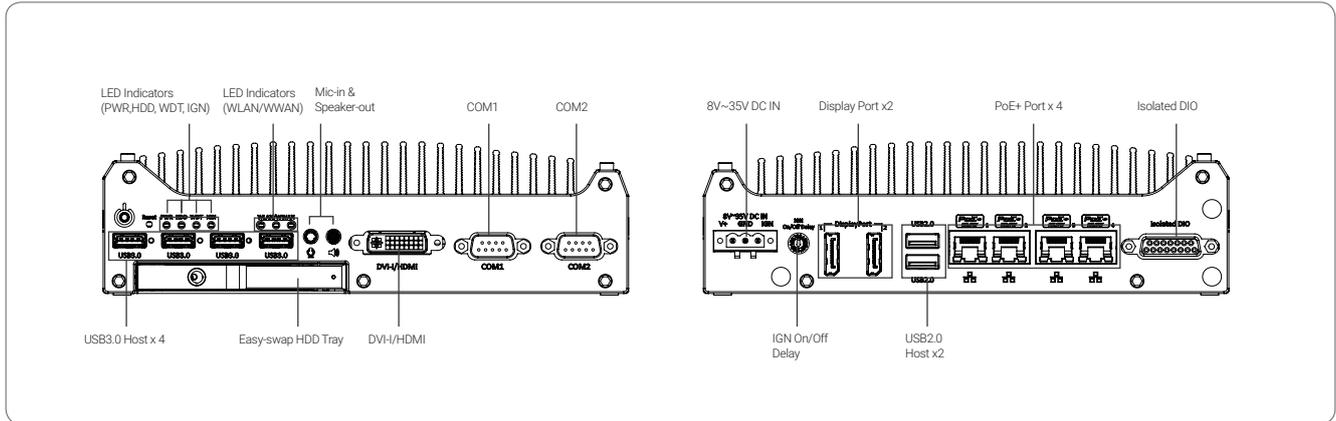
Nuvo-3100VTC takes into account all demands of in-vehicle applications. It has very compact footprint to fit into restricted space. Its 8~35V wide-range DC input and enhanced surge protection make Nuvo-3100VTC highly robust when car power applied. Nuvo-3100VTC further incorporates built-in RAID supporting data striping (RAID 0) and data mirroring (RAID 1) for two 2.5" HDDs. You can also take advantage of the easy-swap HDD tray for easy HDD replacement. For in-vehicle installation, our patented mounting bracket can absorb shock/vibration and extend overall system reliability.

Combining superior performance, PoE+ and comprehensive design, Nuvo-3100VTC presents more possibilities for innovative in-vehicle applications!

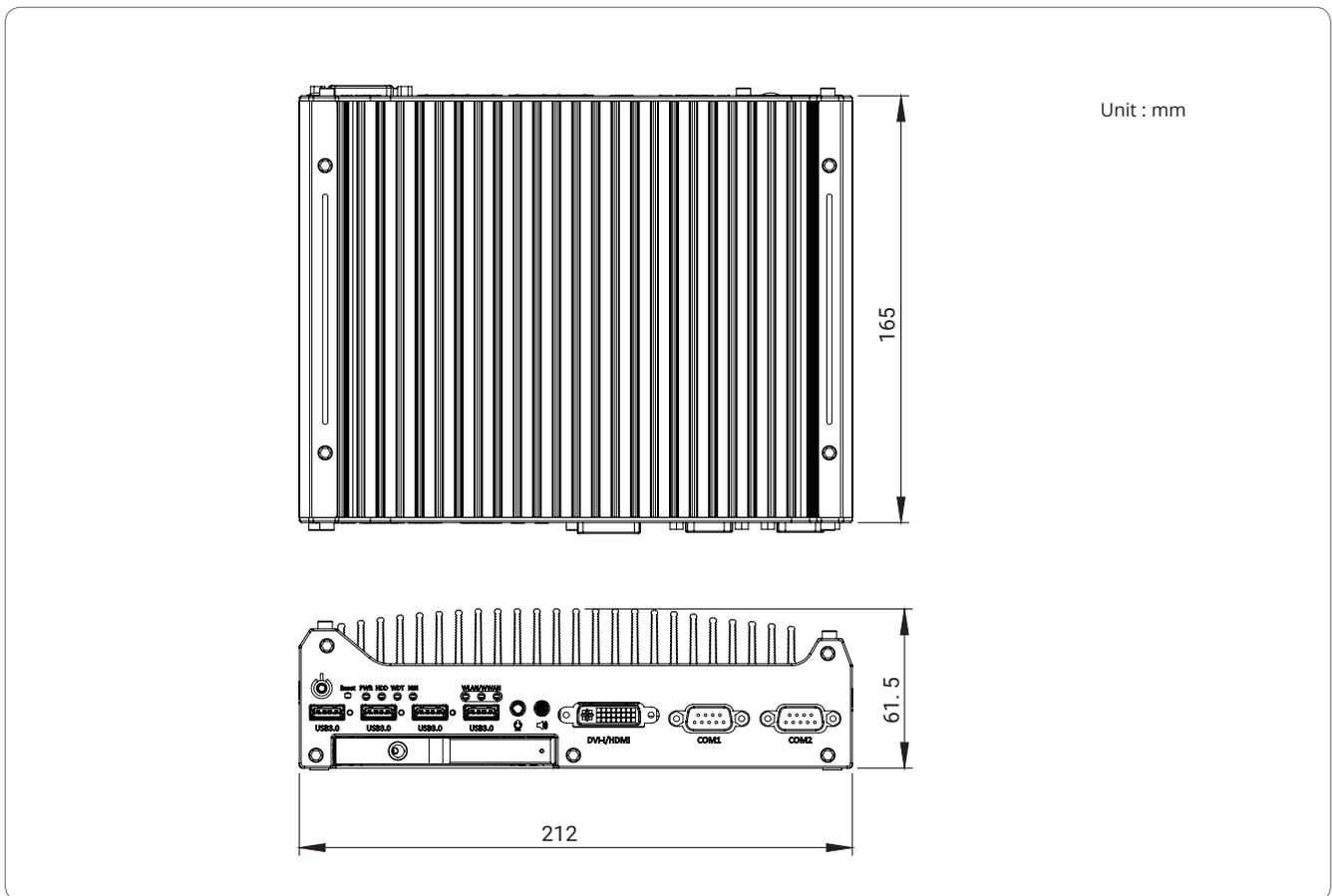
Specifications

	Nuvo-3100VTC	Nuvo-3110VTC		Nuvo-3100VTC	Nuvo-3110VTC
System Core			Power Supply & Ignition Control		
Processor	Supports the following CPU Intel® Core™ i7-3610QE (2.3/3.3 GHz, 6 MB cache) Intel® Core™ i5-3610ME (2.7/3.3 GHz, 3 MB cache) Intel® Celeron™ 1020E (2.2 GHz, 2 MB cache)		Processor	1x 3-pin 3-pin pluggable terminal block for 8~35V DC input	
Chipset	Intel® QM77 Platform Controller Hub with AMT & RAID support		Ignition Control	Ignition power control with user-selectable on/off delay	
Graphics	Integrated Intel® HD Graphics 4000 Controller		Mechanical		
Memory	1x 204-pin SO-DIMM sockets, up to 8GB DDR3 1333/1600 MHz SDRAM		Dimension	212 mm (W) x 165 mm (D) x 62 mm (H)	
I/O Interface			Weight	2.8 kg (incl. CPU, memory and HDD)	
Ethernet	1x Gigabit Ethernet port by Intel® 82579LM, supporting Wake-on-LAN 3x Gigabit Ethernet ports by Intel® i210		Mounting	Damping bracket (Standard) or DIN-Rail mounting (optional)	
PoE	Compliant to IEEE 802.3at (25.5W) with per-port power on/off control 75W total power budget for 4x PoE+ ports		Environmental		
Video Port	1x DVI-I connector for VGA/DVI output, supporting 2048x1536 (VGA) or 1920x1080 (DVI) resolution 2x DisplayPort, supporting 2560x1600 resolution		Operating Temperature	i7-3610QE, 100% CPU loading*	i5-3610ME, 100% CPU loading* Celeron 1020E, 100% CPU loading*
USB	4x USB 3.0 ports and 2x USB 2.0 ports		Maximal Performance	-25°C ~ 50°C**	-25°C ~ 60°C** -25°C ~ 70°C**
Serial Port	2x software-programmable RS-232/422/485 (COM1 & COM2)		Reduced Performance	-25°C ~ 60°C**	-25°C ~ 70°C** -25°C ~ 70°C**
Isolated DIO	4x isolated DI with COS interrupt and 4x isolated DO		Extended Temperature	-25°C ~ 70°C**	-25°C ~ 70°C** -25°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 Internal SATA port for 2.5" HDD/SSD 1x Easy-swap HDD tray for 2.5" HDD/SSD		Vibration	Operating, 1 Grms, 5-500 Hz, 3 Axes (w/ HDD, according to IEC60068-2-64) Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64)	
mSATA	1x full-size mSATA (SATA/USB/W_DISABLE#) with USIM socket		Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)	
Expansion Bus			Certification	E-Mark for vehicle applications EN 50155/EN 50121-3-2 CE/FCC Class A, according to EN 55022 & EN 55024	
Mini PCI-E	1x full-size mini PCI Express socket with USIM socket 1x half-size mini PCI Express socket		* 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



Ordering Information

Model No.	Product Description
Nuvo-3100VTC-I7QC	Intel® Core™ i7-3610QE fanless in-vehicle controller with 4x 802.3at PoE+ ports and dual-drives RAID
Nuvo-3100VTC-I5DC	Intel® Core™ i5-3610ME fanless in-vehicle controller with 4x 802.3at PoE+ ports and dual-drives RAID
Nuvo-3100VTC-C1020	Intel® Celeron® 1020E fanless in-vehicle controller with 4x 802.3at PoE+ ports and dual-drives RAID
Nuvo-3110VTC-I7QC	Intel® Core™ i7-3610QE fanless in-vehicle controller with 4x GbE ports and dual-drives RAID
Nuvo-3110VTC-I5DC	Intel® Core™ i5-3610ME fanless in-vehicle controller with 4x GbE ports and dual-drives RAID
Nuvo-3110VTC-C1020	Intel® Celeron® 1020E fanless in-vehicle controller with 4x GbE ports and dual-drives RAID

Optional Accessories

- DIN-Rail mounting kit
- 120W AC/DC power adapter