

# Nuvo-3100VTC Series

Intel® 3rd-Gen Core™ i7/ i5 Fanless In-vehicle Controller with 4x 802.3at PoE+ Ports and Dual 2.5" Hard Drives with RAID Support



## Key Features

- Compact dimensions, 212 mm x 165 mm x 62 mm
- 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 module installation
- E13 No. 10R-0413512 and EN 50155/EN 50121-3-2/EN45545 certificate

## Introduction

Nuvo-3100VTC is a fanless controller with E-Mark and EN 50155/ EN 50121-3-2/ EN 45545 certificate for in-vehicle use. It supports 3rd-Gen i7 quad-core CPU for to meet most in-vehicle computing needs. There are also four IEEE 802.3at PoE+ ports to facilitate Ethernet connectivity and power IP cameras for surveillance applications.

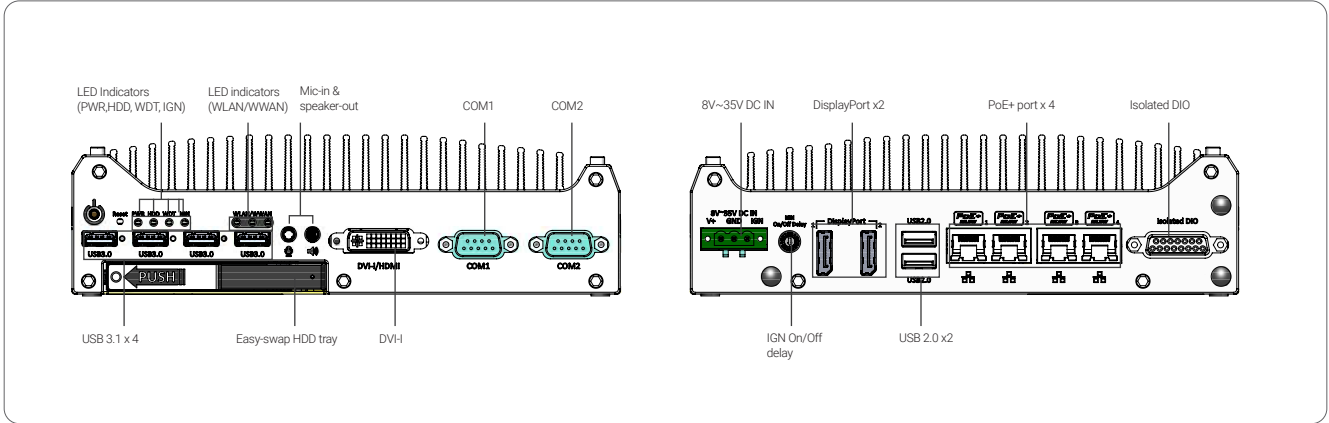
Nuvo-3100VTC takes into account all demands of in-vehicle applications. It has a very compact footprint to fit into restricted space, allows 8~35V wide-range DC input and enhanced surge protection to make Nuvo-3100VTC highly robust when implemented as an in-vehicle system. Nuvo-3100VTC support dual 2.5" hard drives in RAID configuration (RAID 0/ 1) or alternatively, take advantage of the easy-swap HDD tray for easy HDD replacement (non-RAID configuration). 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 offers more possibilities for in-vehicle applications!

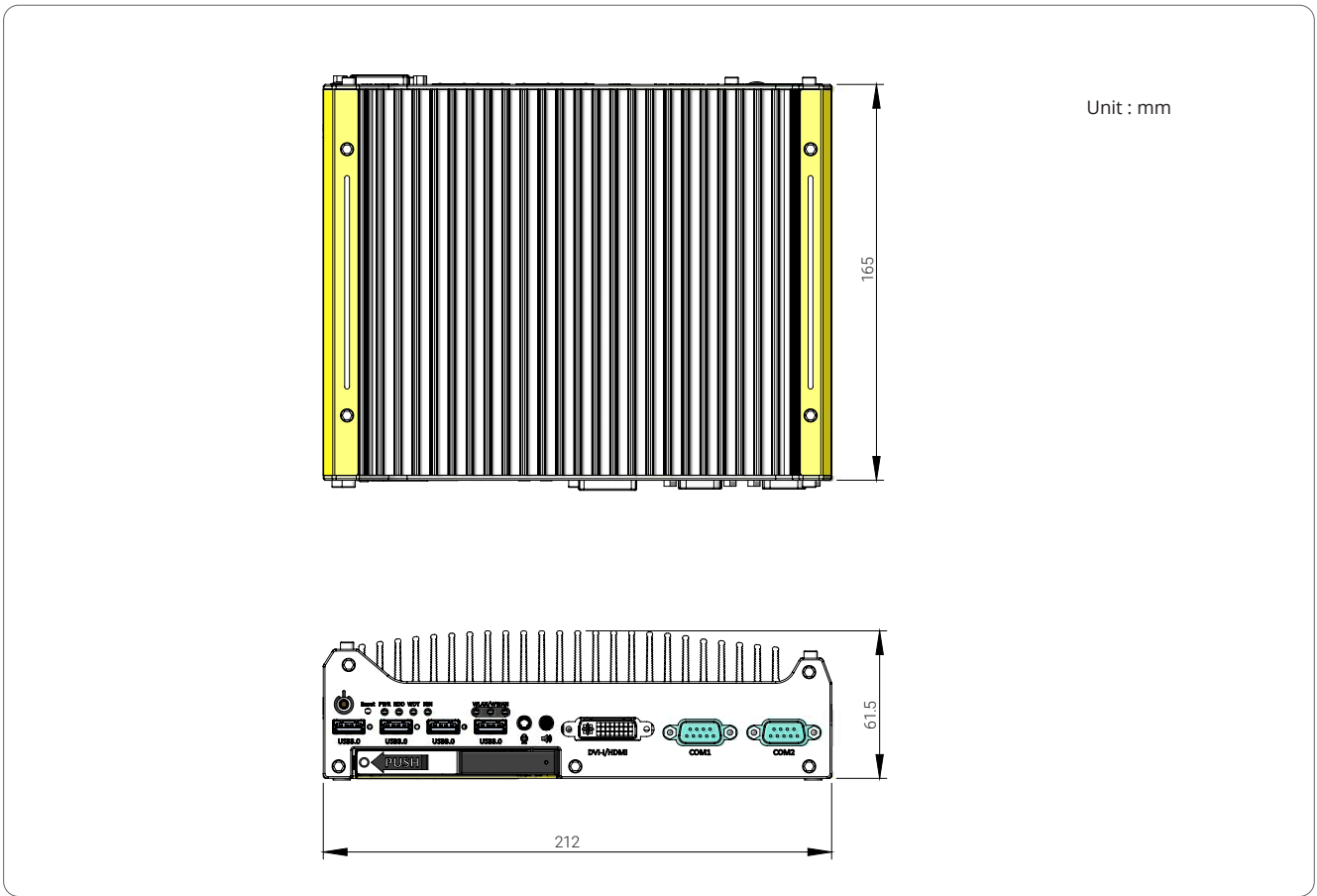
## Specifications

	Nuvo-3100VTC	Nuvo-3110VTC		Nuvo-3100VTC	Nuvo-3110VTC		
<b>System Core</b>			<b>Power Supply &amp; Ignition Control</b>				
Processor	Supports Intel® 3rd-Gen Core™ - 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)		DC input	1x 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		<b>Mechanical</b>				
Memory	Up to 8GB DDR3 1333/ 1600 MHz SDRAM (single SODIMM slot)		Dimension	212 mm (W) x 165 mm (D) x 62 mm (H)			
<b>I/O Interface</b>			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	Wall-mount with damping brackets (Standard) or DIN-rail mount (optional)			
PoE	Compliant to IEEE 802.3at (25.5W) with per-port power on/ off control 75W total power budget for 4x PoE+ ports		<b>Environmental</b>				
Video Port	1x DVI-I 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 3.1	4x USB 3.1 ports			Maximum Performance	-25°C ~ 50°C**	-25°C ~ 60°C**	-25°C ~ 70°C**
USB 2.0	2x USB 2.0 ports			General Performance	-25°C ~ 60°C**	-25°C ~ 70°C**	-25°C ~ 70°C**
Serial Port	2x software-programmable RS-232/ 422/ 485 (COM1 & COM2)		Extended Temperature	-25°C ~ 70°C**	-25°C ~ 70°C**	-25°C ~ 70°C**	
Isolated DIO	4x isolated DI with COS interrupt and 4x isolated DO		Storage Temperature	-40°C ~ 85°C**			
Audio	1x Mic-in and 1x speaker-out		Humidity	10%~90% , non-condensing			
<b>Storage Interface</b>			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)			
SATA HDD	1x internal SATA port for 2.5" HDD/ SSD 1x easy-swap HDD tray for 2.5" HDD/ SSD		Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)			
mSATA	1x full-size mSATA (SATA/ USB/ W_DISABLE#) with USIM socket		Certification	E-Mark for vehicle applications EN 50155/ EN 50121-3-2 CE/ FCC Class A, according to EN 55022, EN 55024 & EN 45545			
<b>Expansion Bus</b>			* The CPU loading is applied using Passmark® BurnInTest 8.0. For detail testing criteria, please contact Neousys Technology				
Mini PCI-E	1x full-size mini PCI Express socket with USIM socket 1x half-size mini PCI Express socket		** 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	Intel® 3rd-Gen Core™ fanless in-vehicle controller with 4x IEEE 802.3at PoE+ ports and dual-drives RAID
Nuvo-3110VTC	Intel® 3rd-Gen Core™ fanless in-vehicle controller with 4x GbE ports and dual-drives RAID

## Optional Accessories

DINRAIL-31	DIN-rail mount assembly for Nuvo-3100VTC series
PA-120W-OW	120W AC/DC power adapter 20V/6A; 18AWG/120cm; cord end terminals for terminal block, operating temperature : -30 to 70 °C.