

# Nuvo-7250VTC Series

Vehicle-compatible fanless embedded PC with Intel® Core™ 9th/8th Gen. CPUs with power backup module

**BRESSNER**  
A ONE STOP SYSTEMS COMPANY

## Features

- Intel® Core™ i7/i5/i3 9th/8th Gen. CPU
- DDR4 2,666/2,400 SDRAM, up to 64GB
- Intel® Q370 chipset
- 4x or 8x 802.3at Gigabit PoE+ ports via M12 or RJ45 connectors
- Patented Supercapacitor-based uninterruptible power backup



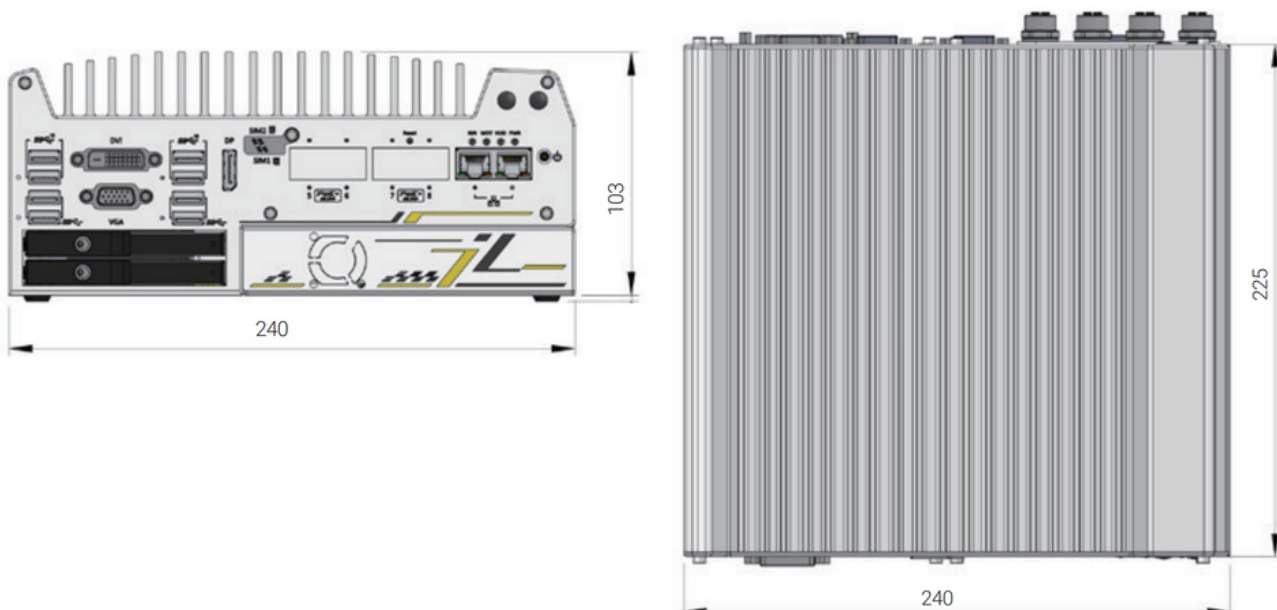
## Nuvo-7250VTC – Vehicle-ready embedded PC with powerful computing power and robust design

The Nuvo-7250VTC Series is a robust automotive onboard controller with an innovative emergency power solution based on supercapacitors. The system features Intel® 8th/9th Gen Core™ processors with up to 8 cores/16 threads and 64 GB DDR4 memory.

The Nuvo-7250VTC is equipped with supercapacitor technology that allows 2,500 watt seconds of stored energy to be transferred to the system to enable it to shut down safely in the event of unforeseen power failures, for example. The Nuvo-7250VTC is available with a wide range of peripherals and connection options. It has 4 or 8 802.3at PoE+ ports, depending on the version, which can deliver up to 25W of power to connected devices such as IP cameras, M12 (x-coded) connectors and screw-lock I/O connectors such as Gigabit Ethernet, USB 3.0 and USB 3.1 to ensure extremely robust connectivity in environments with shock and vibration. The controller is also expandable internally, via two M.2 and three Mini PCIe sockets, for which wireless modules for 3G/4G, Wi-Fi, GPS or even a CAN module for wireless data exchange are available.

An optional 4G mobile network module is also available, certified to operate with the most popular U.S. wireless carriers, reducing implementation time and cost. In addition, the Nuvo-7250VTC also features an isolated CAN bus for on-board communication, isolated DIO for sensor/actuator control, power supply via an 8 – 35 V DC input and integrated ignition control – in addition, the device is E-Mark and EN 50155 compliant. Together with the supercapacitor emergency power technology, the Nuvo-7250VTC offers the best possible data security and is perfectly suited for vehicle applications.

## Drawing (mm)



# Nuvo-7250VTC Series

Vehicle-compatible fanless embedded PC with Intel® Core™ 9th/8th Gen. CPUs with power backup module

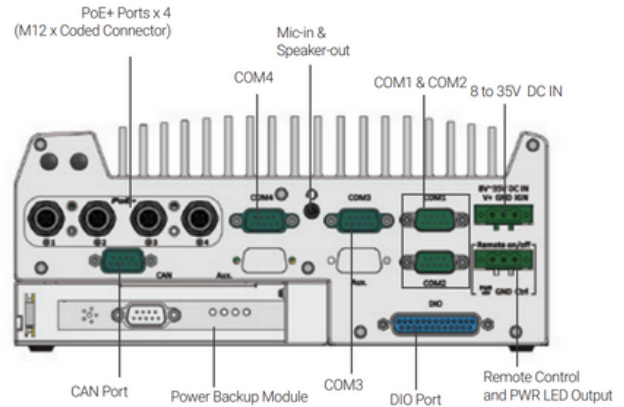
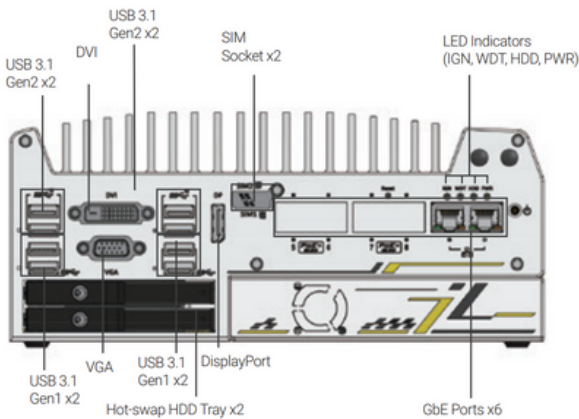
Specifications	Nuvo-7250VTC Series
<b>SYSTEM</b>	
CPU	Supporting Intel® 9th/ 8th-Gen CPU (LGA1151 socket, 35W TDP) – Intel® Core™ i7-8700T/ i7-9700TE – Intel® Core™ i5-8500T/ i5-9500TE – Intel® Core™ i3-8100T/ i3-9100TE
Chipset	Intel® Q370 platform controller hub
Graphics	Integrated Intel® HD Graphics 630
RAM	Up to 64 GB DDR4 2,666/ 2,400 SDRAM (two SODIMM slots)
Storage	2x hot-swappable HDD tray for 2.5" HDD/ SSD installation, supporting RAID 0/ 1 1x full-size mSATA port (mux with mini-PCIe) 1x M.2 2280 M key socket (PCIe Gen3 x4) for NVMe SSD or Intel® Optane™ memory installation
AMT	Supports AMT I2.0
TPM	Supports TPM 2.0
Expansion	1x full-size mini PCI Express socket with internal SIM socket (mux with mSATA) 2x full-size mini-PCIe sockets (USB signals only) with internal SIM sockets 2x M.2 2242 B key socket, one with dual front-accessible SIM sockets, supporting dual SIM mode with selected M.2 LTE module
Power Backup	Super capacitor power backup module with 2500 watt seconds
<b>INTERFACE</b>	
Ethernet	2x Gigabit Ethernet ports by Intel® I219 and I210 4x IEEE 802.3af (25.5W) Gigabit PoE+ ports by Intel® I210 – M12 x-coded connector (Nuvo-7250VTC); – RJ45 connector (Nuvo-7254VTC) 8x IEEE 802.3af (25.5W) Gigabit PoE+ ports by Intel® I210 – RJ45 connector (Nuvo-7258VTC)
USB	4x USB 3.1 Gen2 (10 Gbps) ports 4x USB 3.1 Gen1 (5 Gbps) ports
COM	COM 1/2: 2x software-programmable RS-232/422/485 ports COM 3/4: 2x RS-232 ports
Digital I/O	4x isolated DI and 4x isolated DO
Video	1x VGA connector, supporting 1,920 x 1,200 resolution 1x DVI-D connector, supporting 1,920 x 1,200 resolution 1x DisplayPort connector, supporting 4,096 x 2,304 resolution
Audio	1x Mic-in and 1x speaker-out
Other	1x isolated CAN 2.0 port
<b>ENVIRONMENTAL</b>	
Cooling	Fanless
Power Supply	1x 3-pin pluggable terminal block for 8 ~ 35V DC input (IGN/ GND/ V+)
Remote Control & LED	1x 3-pin pluggable terminal block for remote control and PWR LED output
Operating Temperature	-40° ~ 70°C **
Storage Temperature	-40° ~ 85°C
Vibration / Shock Resistance	Vibration: IEC61373:2010, Category I, Class B Body mounted (part of EN50155) Shock: IEC61373:2010, Category I, Class B Body mounted (part of EN50155)
Humidity	10 ~ 90% , non-condensing
Dimensions	240 (W) x 225 (D) x 103 (H) mm
Weight	4.1kg
Mounting	Wall-mount with damping brackets (Standard) or DIN-rail mount (optional)
Certifications	E-Mark, EN 50155, EN45545 (Nuvo-7258VTC), CE/FCC Class A, according to EN 55032 & EN 55024

\* For i7-9700E and i7-8700 running at 65W mode, the highest operating temperature shall be limited to 50°C and thermal throttling may occur when sustained full-loading applied. Users can configure CPU power in BIOS to obtain higher operating temperature.

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

# Nuvo-7250VTC Series

Vehicle-compatible fanless embedded PC with Intel® Core™ 9th/8th Gen. CPUs with power backup module



Ordering Information	Product Description
Nuvo-7250VTC	Intel® 8th/ 9th-Gen Core™ in-vehicle controller with 4x M12 PoE+ ports, ultracapacitor-based power backup module
Nuvo-7254VTC	Intel® 8th/ 9th-Gen Core™ in-vehicle controller with 4x RJ45 PoE+ ports, ultracapacitor-based power backup module
Nuvo-7258VTC	Intel® 8th/ 9th-Gen Core™ in-vehicle controller with 8x RJ45 PoE+ ports, ultracapacitor-based power backup module

Optional Accessories	
Cbl-M12X8M-RJ45-500CM	M12 (8-pole-X-coded) to RJ45, CAT6, length : 500CM
Cbl-M12X8M-RJ45-1000CM	M12 (8-pole-X-coded) to RJ45, CAT6, length : 1000CM
PA-120W-OW	120W AC/DC power adapter 20V/6A; 18AWG/120cm; cord end terminals for terminal block, operating temperature : -30 to 70 °C.

Optional Cellular Module	
NSIO-LTE-7455	Cat. 6 LTE embedded socket modem