# VTC 7251

Fanless Vehicle Computer
with 8th Gen Intel® Core™ i Processor





## Main Features

- 8th Gen Intel® Core™ i7-8700T, up to 4 GHz, 6-Core
- 1 x VGA and 1 x HDMI® video output
- 2 x External SSD and 2 x mSATA (BIOS selection) for RAID 0, 1
- 3 x WWAN module slot, each for 2 x external SIM slot
- 4 x Mini PCIe slot and 1 x M.2 Key B slot
- CE/FCC/E mark
- Compliant with MIL-STD-810G
- Reserved M.2 slot for WWAN 5G modules

## Product Overview

NEXCOM mobile system VTC 7251 accomplishes operational efficiency of public transportation and service. Based on the 8th generation Intel® Core™ processor i7-8700T, the VTC 7251 provides an integral solution incorporating high computing power, wireless communication (3 x WWAN + 6 x SIM) and GNSS tracking with optional Dead Reckoning (DR) support to record in-vehicle activities, locations, driving patterns, and vehicle diagnostics for buses and patrol vehicles achieving better measures for safety and management.

## Specifications

### CPU

- 8th Gen Intel® Core™ i7-8700T, up to 4 GHz, 35W, 6-Core
  - Compatible with 9th Gen Intel® Core™ i processor

### Chipset

- Intel® Q370 platform controller hub

### Memory

- 2-Channel 260-pin DDR4 SO-DMIM sockets up to 32GB/channel (64GB for two channels, non-ECC up to 2666 MHz), default 4GB + 4GB industrial grade memory

### Video Output

- Chipset Intel® UHD Graphics 630
- 1 x HDMI® 1.4b up to 4096 x 2160 @ 30Hz
- 1 x VGA up to 1920 x 1200 @ 60Hz

### Storage

- 2 x 2.5" SATA 3.0 external SSD (compatible with 15mm height), RAID 0/1 supported
- 2 x mSTAT 3.0 (BIOS selection)

### Expansion

- 1 x M.2 3042/3050/3052 (default) Key B slot (USB 2.0, USB 3.2) for LTE/5G NR module with dual SIM
- 1 x Full-size Mini PCIe slot (USB 2.0) for LTE with dual SIM
  - Optional M.2 3042 Key B (USB 2.0, USB 3.2) for LTE/5G NR module
- 1 x Full-size mini-PCIe slot (USB 2.0) for LTE with dual SIM
  - Optional M.2 3042 Key B (USB 2.0, USB 3.2) for LTE/5G NR module
- 1 x Full-size Mini PCIe slot (USB 2.0, PCIe 3.0 & SATA 3.0, BIOS selection)
- 1 x Full-size Mini PCIe slot (USB 2.0, PCIe 3.0 & SATA 3.0, BIOS selection)

### GNSS and Onboard Sensor

- 1 x Default u-blox NEO-M8N GNSS module for GPS/GLONASS/QZSS/Galileo/Beidou
- Optional modules with dead reckoning available
- TPM 2.0 by Infineon SLB 9665TT2
- G Sensor (3-axis, 10-bit resolution)

### Ethernet

- 2 x Independent LAN, 10/100/1000 Mbps. LAN1 supports iAMT and WoL

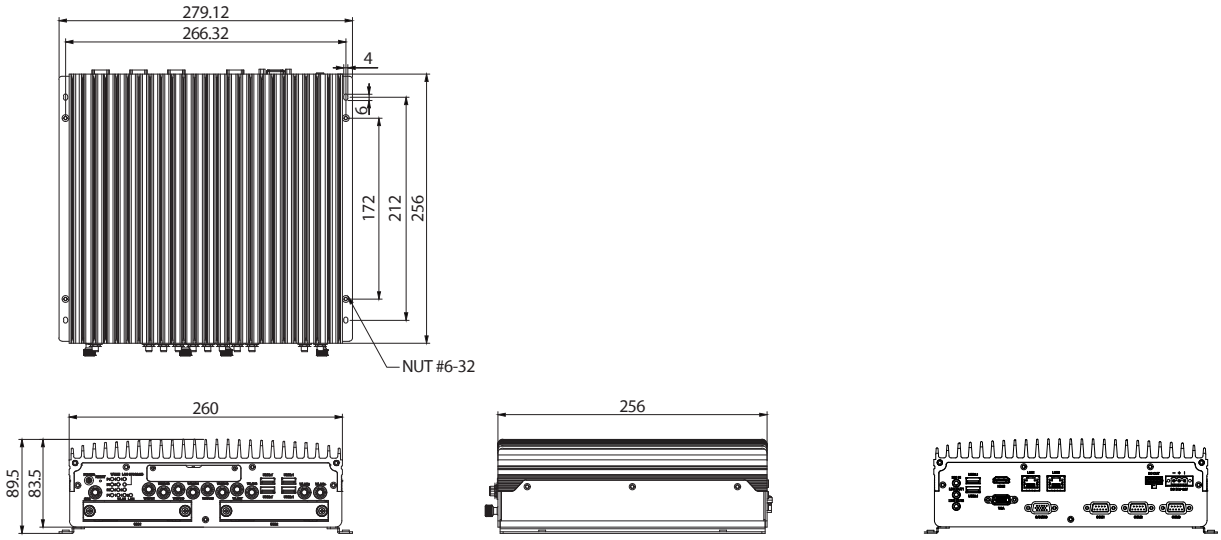
### I/O Interface-Front

- 13 x LED indicator (including 4 x programmable LED)
- 4 x USB 3.2 Type-A (5V/1A)
- 6 x Externally accessible SIM card slot (4 x WWAN + 8 x SIM, BOM option)
- 1 x Reset button
- 1 x Power button with LED
- 2 x 2.5" external SSD
- 11 x SMA antenna hole (GPS/WWAN/WLAN)

### I/O Interface-Rear

- 2 x RJ45 LAN port, 10/100/1000 Mbps
- 1 x 3-pin terminal block for 9V~36VDC
- 1 x Connector (4 x 2) for 12VDC/2A output, power button, 2 x MDI
- 1 x Mic in, 2 x Line out
- 2 x DB9 for full RS-232
- 1 x DB9 for full RS-232/422/485 (RI, 5V/0.5A, 12V/0.5A)
- 1 x DB15
  - 1 x Isolated CAN bus 2.0B
  - 1 x GPS DR (option)
  - 4 x DI and 4 x DO
- 2 x USB 3.2 Type-A (5V/1A)
- 1 x HDMI® 1.4b
- 1 x VGA

## Dimension Drawing




### Power Management & Software Support
- Power input 9~36VDC
- Cranking voltage: 6V~9V (< 30 seconds)
- Reverse protection, OCP & UVP
- Selectable boot-up & shut-down voltage for low power protection by software
- Setting 8-level power on/off delay time by software
- 10~255 seconds WDT support, setup by software
- SDK (Windows/Linux) including utility and sample code

### Operating System
- Windows 10
- Linux

### Dimensions
- 260 x 256 x 83.5 (W x D x H) (mm)

### Weight
- 4.2kg

### Environment
- Operating temperature:
  - -30°C~70°C (w/ industrial SSD) with air flow
- Storage temperature: -40°C~80°C
- Relative humidity: 90% (non-condensing)
- Vibration (random)
  - 2g@5~500 Hz (in operation, SSD)
- Vibration (SSD)
  - Operating: MIL-STD-810G, Method 514.6, Category 4, common carrier US highway truck vibration exposure
  - Storage: MIL-STD-810G, Method 514.6, Category 24, minimum integrity test
- Shock (SSD)
  - Operating: MIL-STD-810G, Method 516.6, Procedure I, functional shock=40g
  - Non-operating: MIL-STD-810G, Method 516.6, Procedure V, crash hazard shock test=75g

### Certifications
- CE approval
- FCC Class A
- E-mark (E13)

## Ordering Information

- **VTC 7251 (P/N: 10V00725103X0)**
  8th Gen Intel® Core™ i7-8700T, 2 x 4 GB industrial grade memory, VGA & HDMI® output, 2 x external SSD, 2 x LAN, 4 x Mini PCIe slot, 1 x M.2 slot, 6 x external SIM, 6 x USB 3.1, 2 x RS-232 (full), 1 x Full RS-232/422/485, 4 x DI & 4 x DO


We reserve the right to change specifications and product descriptions at any time without prior notice.