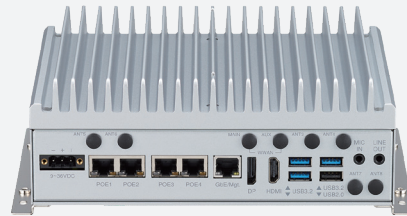# VTC 7260-5HCIoT/7HCIoT

Fanless AI-aided Vehicle Computer with
11th Gen Intel® Core™ Processor

HAILO
Empowering Intelligence

Main Features

- 11th Gen Intel® Core™ processor, cost-efficient performance
- Hailo AI accelerator (26TOPS)
- Rich I/Os: 4 x PoE+, 1 x GbE, 4 x USB 3.2/2.0 & 2 x RS-232/422/485
- 1 x 2.5" SSD, 1 x mSATA and 1 x NVMe SSD for data integrity
- Up to 3 combinations of LTE/5G, Wi-Fi 5/6 for mobile router function

- Triple displays: VGA, HDMI® and DP for multi video-out
- 9V~36V DC input with ignition control & OCP/OVP
- Wide range operating temperature of -30°C~60°C (15W TDP&PoE)
- Military standard of anti-vibration/shock for OHV applications
- CE/FCC, UKCA, E mark certified

Product Overview

VTC 7260-5HCIoT/7HCIoT is an in-vehicle AI-aided telematics computer powered by 11th Gen Intel® Core™ processor, which performs 25% more computing power than the previous generation. Moreover, its 10-year product lifespan can satisfy the long-term support suitable for any in-vehicle applications. With the compact, rugged, and fanless design, VTC 7260-5HCIoT/7HCIoT can widely be installed in any limited cabinet space with ease, and reduce the maintenance efforts while operating 24/7 services. In addition, the VTC 7260-5HCIoT/7HCIoT features diverse peripherals, such as 2.5GbE, PoE+, USB 3.2, isolation CAN bus, serial ports, ultra-speed NVMe storage, triple displays, audio in/out, DI/DO, and 9V~36V DC with IGN control, making it a sophisticated in-vehicle computer.

To work as the edge AI, the user can install LTE/5G/Wi-Fi 5/6 modules along with Hailo AI accelerator (26TOPS) to deploy AI services, provided from cloud SaaS. In consideration of the harsh environment applications, VTC 7260-5HCIoT/7HCIoT can be operated at the temperature range of -30°C~60°C (15W TDP & PoE) and is compliant with MIL-STD-810G military standard for anti-vibration/shock. For the regulation, VTC 7260-5HCIoT/7HCIoT is compliant with CE/FCC Class A, UKCA, and E mark (E13).

Specifications

CPU
- 11th Gen Intel® Core™ processor
- Intel® Core™ i5-1145GRE processor, base frequency 1.5GHz/ 2.6GHz, 4c, 8 MB Intel® Smart Cache (VTC 7260-5HCIoT)
- TDP boot mode in BIOS setting: nominal (15W)
- Intel® Core™ i7-1185GRE processor, base frequency 1.8GHz/ 2.8GHz, 4c, 12 MB Intel® Smart Cache (VTC 7260-7HCIoT)
- Graphics:
  - Intel® Iris® Xᵉ Graphics, 1.3GHz
  - Max resolution: 4096x2304@60Hz (HDMI®)
  - DirectX: 12.1, OpenGL: 4.6

Memory
- 2 x SO-DIMM DDR4 3200MHz
- 4GB + 4GB in default, 64GB in max.
- IBECC (In-Band ECC), dual-channel support

Storage
- 1 x 2.5" SSD (15mm height)
- 1 x Mini PCIe for mSATA (SATA 3.0)
- 1 x M.2 Key M 2242/2280 NVMe SSD (PCIe 4.0 x4), Hailo AI card in option

Expansion slots
- 1 x Mini PCIe socket (PCIe 3.0/USB 3.2 + USB 2.0), 2 x micro-SIM supported
- 1 x M.2 Key B 3042/3052 socket (USB 3.2), 2 x micro-SIM supported
- 1 x M.2 Key E 2230 socket (PCIe 3.0 x2 & USB 2.0), default with Hailo AI card

Display
- 1 x HDMI® 2.0a/b, up to 3840x2160@60Hz
- 1 x VGA, up to 2560x1600@60Hz
- 1 x DP, 4096x2304@60Hz

PoE+
- 4-port independent 2.5GbE, RJ45 connector
  - IEEE 802.3 af/at, total 60W
  - 9K byte jumbo frame
  - PTP (IEEE 1588) support
  - Controller: Intel® I225-IT

GbE
- 1-port independent GbE, RJ45 connector
  - vPro (iAMT) support
  - 9K byte jumbo frame
  - PTP (IEEE 1588) support
  - Wake-up function (WoL)
  - Boot from PXE (UEFI)

USB
- 3 x USB 3.2 Gen 1:
  - Host Type-A connector
  - 5V@900mA each
  - Up to 10Gbit/s link speed & compliance with USB 2.0 (LS/FS/HS link speed)
- 1 x USB 2.0, host Type-A, 2 x USB 2.0 wafter-type reserved

Serial Port
- 2 x full RS-232/422/485, selectable
- 2 x full RS-232 wafer-type reserved
  - RS-232 working voltage ± 9V, baud rate up to 115.2kb/s

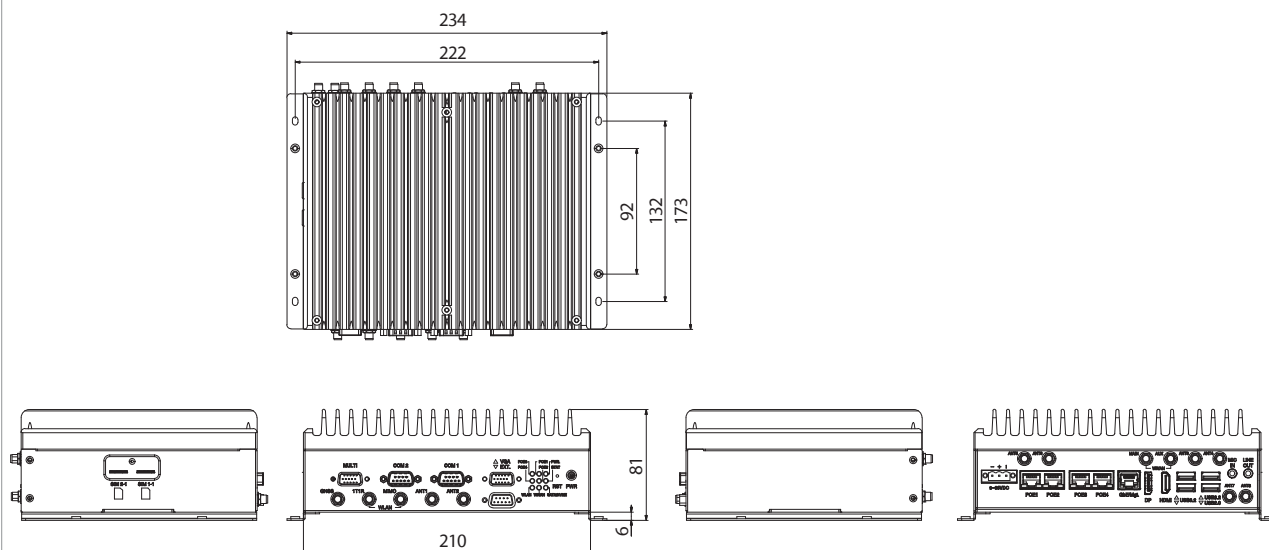### Security
- TPM 2.0: Infineon SLB9670VQ2.0 FW7.62

Audio
- Line out, unbalance stereo, left & right channel

NEXCOM

Dimension Drawing

- MIC in, stereo
- Line in reserved (wafer connector)

MEMS Sensor
- 3D accelerometer and 3D gyroscope
- Controller: ST LSM6DSLTR

DI/DO
- 4-bit input
  - Source: 9V~36V DC (12V@1.1mA/24V@2.2mA)
  - External: 0V~33V DC pull-high, high-level, 3.3V~33V DC; low-level, 0V~2V DC
- 4-bit output
  - Source: 9V~36V DC (nominal 35mA@24V):
  - External: 5V~27V DC pull-high, sink current w/ 220mA for each bit, 500mA max (@25C)
- Source or external can be selected by DIP switch (default: source type)

CAN bus
- 1 x CAN 2.0A/2.0B
- IEC 61000-4-2 Electrostatic Discharge (ESD): ± 8KV/15KV (contact/air)
- 2.5KV isolated

GNSS
- u-blox NEO-M9N GNSS module for GPS/GLONESS/QZSS/Galileo/Beidou
- Optional DR (Dead Reckoning) function, NEO-M8U/M8L

Power Supply
- Nominal voltage: 9V~36V
- Cranking voltage: 6V~9V (less than 20 sec)
- OCP & UVP (shut down once exceeding 37V)
- Ignition on/off control & programmable on/off delay timer
- Optional for remote power on/off control

I/O Ports, Front-Plate
- ATX power button, reset button
- 9 x LED Indicator, 1 x VGA (DB15), 2 x COM (DB9, RS-232/422/485), 1 x Multi-port (DB15, 4 x DI, 4 x DO, CAN, DR signal) , 1 x Ext. (DB15, reserved), 1 x PR-SMA for GNSS, 4 x PR-SMA for WLAN

I/O Ports, Rear-Plate
- 2 x Audio jack (Line out & MIC in)
- 3 x USB 3.2 Type-A, 1 x USB 2.0 Type-A
- 1 x HDMI®, 1 x DP, 4 x PoE+ (2.5GbE, RJ45), 1 x GbE, 9V~36V DC (3-pin Phoenix)
- 4 x SMA for WWAN, 4 x antenna hole reserved

I/O Ports, Side-Plate
- 2 x SIM slot (SIM1-1, SIM2-1)

Dimensions & Weight
- 210.0mm (W) x 173.0mm (D) x 75.0mm (H) (w/o mount brackets)
- 234.0mm (W) x 173.0mm (D) x 81.0mm (H) (w/ mount brackets)
- Weight: 3.1kg

Environment
- Operating temperatures: -30°C~60°C (15W TDP & PoE)
- Storage temperatures: -40°C~85°C
- Relative humidity: 10%~95% (non-condensing)

Vibration & Shock
- Vibration in operating:
  - MIL-STD-810H, 514.8C Procedure 6, Category 4
  - IEC 60068-2-64: 2.0g@5~500Hz
- Vibration in storage:
  - MIL-STD-810G, 514.6E Procedure 1, Category 24, 7.7g
- Shock:
  - MIL-STD-810G, 516.6 Procedure I, trucks and semi-trailers = 40g
  - Crash hazard: Procedure V, ground equipment = 75g

Certifications
- CE approval, FCC Class A, UKCA, E13 Certified

Operating System
- Linux (Ubuntu 18.04)

External Cable (option)
- DB15 multi-port adapter cable, 20cm

Ordering Information

- **VTC 7260-5HCIoT (P/N: TBC)**
  11th Gen Intel® Core™ i5, Hailo AI accelerator, 4 x PoE + 1 x GbE, 1 x USB 2.0, 3 x USB 3.2, 2 x RS-232/422/485, 1 x 2.5" SSD, 1 x mSATA, 9V~36V DC/IGN

- **VTC 7260-7HCIoT (P/N: TBC)**
  11th Gen Intel® Core™ i7, Hailo AI accelerator, 4 x PoE + 1 x GbE, 1x USB 2.0, 3 x USB 3.2, 2 x RS-232/422/485, 1 x 2.5" SSD, 1 x mSATA, 9V~36V DC/IGN

Last update: 05/09/2025