



Main Features

- Intel® Coffee Lake S/Refresh 9th/ 8th-Gen Core™/Xeon® LGA1151 socket-type CPU
- Six SIM cards + three WWAN modules support
- 4 x External SSD for RAID 0, 1, 5, 10 (compatible with 15mm disk)
- 2 x mSATA (occupied mini-PCIe slot)
- EN50155 conformity
- Three video outputs, one VGA and two HDMI
- 3 x mini-PCIe + 2 x M.2 socket expansion
- 1 x SD card for exporting and backing up data
- Wide voltage input 14~48 VDC

Product Overview

NEXCOM system nROK 7252 accomplishes operational efficiency of public transportation and service. Based on Intel® Coffee Lake S/Refresh 9th/ 8th-Gen Core™/Xeon® LGA1151 socket-type CPU, it provides an integral solution incorporating high computing power. With dual SIM cards per modem support, it allows six SIM cards backup each other for a better connectivity quality by software. In addition, six SIM cards and three WWAN modules architecture can increase the bandwidth for a faster data transmission speed. RAID 0, 1, 5, 10 guarantees the safety of data in the 4 x external SSD.

Specifications

CPU

- Intel® Coffee Lake S/Refresh 9th/ 8th-Gen Core™/Xeon® LGA1151 socket-type CPU
 - Intel® Xeon® E-2278GEL (8 core)
 - Intel® Core™ 9th Gen. (Coffee Lake Refresh) i7-9700TE (8 core) & i5-9500TE (6 core) & i3-9100TE (4 core)
 - Intel® Core™ 8th Gen. (Coffee Lake-S) i7-8700T (6 core) & i5-8500T (6 core) & i3-8100T (4 core) & Celeron® G4900T (2 core)

Chipset

- Intel® C246 platform controller hub

Memory

- 2 x 204-pin DDR4 SO-DIMM sockets up to 32GB/channel (64GB for two channels), default 4GB + 4GB industrial grade memory

Video Output

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

Storage

- 4 x 2.5" SATA 3.0 external SSD (compatible with 15mm drive)
- 2 x mSATA (occupied mini-PCIe slot)
- 1 x removable SD 3.0

Expansion

- 1 x Full size mini-PCIe socket (USB 2.0 + PCIe 3.0 / SATA)

- 1 x Full size mini-PCIe socket (USB 2.0 + PCIe 3.0 / SATA), BOM optional M.2 key B (USB2.0 + USB 3.0) with 2 x external SIM
- 1 x Full size mini-PCIe socket (USB 2.0 + USB 3.0 (BOM optional)), BOM optional M.2 key B 3042/3052 (USB2.0 + USB 3.0 / PCIe 3.0 (BOM optional) + PCIe 3.0 (BOM optional)) with 2 x external SIM
- 2 x M.2 key B 3042/3052 (USB2.0 + USB3.0 + PCIe 3.0 (BOM optional)) with 2 x external SIM

GNSS and On Board Sensor

- 1 x Default U-blox NEO-M8N GNSS module for GPS/Glonass/QZSS/Galileo/Beidou
- Optional M8U/M8L modules with dead reckoning available
- G Sensor (3-axis, 10-bit resolution)

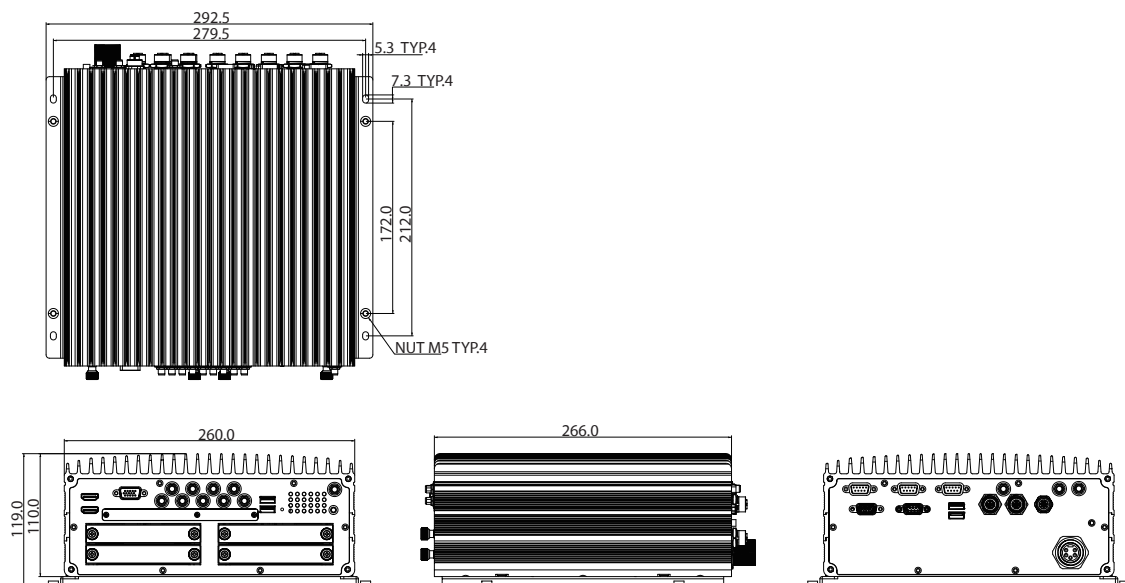
LAN

- 2-Port LAN M12 X-coded, 10/100/1000 Mbps I210-IT GbE

I/O Interface-Front

- 8 x LED indicators (including 3 x programmable LED)
- 2 x HDMI 1.4b
- 1 x VGA
- 2 x USB 3.1 type A (5V/1A)
- 6 x Externally accessible SIM card sockets with cover
- 4 x 2.5" removable SSD tray
- 1 x SD with cover
- 1 x Reset button

Dimension Drawing



- ♦ 1 x Power button
- ♦ 10 x SMA antenna

I/O Interface-Rear

- ♦ 2 x LAN M12 X-coded, I210-IT 10/100/1000 Mbps
- ♦ 1 x Mic-in, 2 x Line-out (DB9, female)
- ♦ 1 x M12 A-coded connector for 2 x USB2.0
- ♦ 2 x USB 3.1 (5V/1A) type A
- ♦ 2 x DB9 (COM1/COM2) for full RS232 (isolation)
- ♦ 1 x DB9 (MULTI PORT) for full RS232/422/485 (isolation)
- ♦ 1 x DB15 (CAN/GIO)
 - 1 x Isolated CANBus 2.0B
 - 4 x DI and 4 x DO (isolation)
 - GND
 - Power in, 14~48VDC
- ♦ 1 x Waterproof DC Input Connector with ignition
 - DC 24V/36V (14~48VDC) (w/o isolation)
- ♦ 3 x SMA antenna

Power Management & Software Support

- ♦ Power input 24V/36V w/o isolation
- ♦ Selectable boot-up & shut-down voltage for low power protection by software
- ♦ Setting 8-level power on/off delay time by software
- ♦ Support S3/S4 suspend mode
- ♦ 10~255 seconds WDT support, setup by software
- ♦ SDK (Windows/Linux) including utility and sample code

Operating System

- ♦ Windows 10/Linux

Dimensions

- ♦ 260 x 266 x 110 (W x D x H)(mm)

Weight

- ♦ TBD

Environment

- ♦ Operating temperatures: -40°C to 70°C (w/industrial SSD) with air flow
- ♦ Storage temperatures: -40°C to 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
- ♦ FCC Class A
- ♦ EN 50155:2017
 - Ambient temperature EN 50155, class OT4 (-40 ~ 70°C)
 - Shock and vibration IEC 61373 class B
 - Interruptions of voltage supply class S1,S2
 - Supply change over class C1,C2
 - EMC EN 50121-3-2:2016

Ordering Information

♦ nROK 7252-A (P/N: TBD)

Intel® Coffee Lake S/Refresh 9th/8th-Gen Core™/Xeon® LGA1151 socket-type CPU, 8GB industrial grade memory, DC input 24V/36V (w/o isolation), 3 x mini-PCIe, 2 x M.2, 6 x SIM, 1 x VGA, 2 x HDMI, 2 x LAN, 2 x RS-232, 1 x RS-232/422/485, 8 x GPIO, 4 x USB 3.1, 2 x USB 2.0