



Main Features

- ♦ High performance processor with Intel® Core™ i7 3517UE/ i5 3610ME
- ♦ Fanless and rugged design
- ♦ Support ignition signal for delay-time control
- ♦ Support software base RAID 0/ 1/ 5/ 10
- ♦ Isolation RS-232/ 422/ 485 and GPIO for optional
- ♦ Four Removable 2.5" HDD/ SSD tray with 1Grms vibration
- ♦ DC power input with isolated protection
- ♦ Support 8 channels POE with IEEE802.3af for optional
- ♦ Support dual PCI express x8 expansion slot for optional
- ♦ Certified by EN50155 with TX grade temperature standard

Product Overview

nROK series is targeted for the rolling stock market with special design scheme to meet the criteria of installation in the vehicle on the rolling stock. They pass numerous environmental tests and are compliant EN50155 standard. Rapid transit system, metropolitan rail, commuter rail, high speed rail, tram, and train will make the best use of nROK.

nROK 5500 series also offer the powerful computing platform with rack mount form factor to install in the cabinet. It is packed with the eight PoE LAN ports and multiple storage bays with SATA interface and RAID capability for large media program. I/O connections are securely fixed with locks, averting system breakdown caused by loose ends. Wireless communication design is reserved to supports GPS function and WiFi and WWAN connection.

Specifications

CPU

- ♦ Intel® Core™ i7 3517UE 1.7GHz
- ♦ Intel® Core™ i5 3610ME 2.7GHz

Main Chipset

- ♦ Intel® QM77 chipsets

Memory

- ♦ 2GB DDR3 1333MHz SODIMM with ECC (up to 16GB)

Expansion

- ♦ 2 x Mini-PCIe socket (PCIe + USB) for WLAN option
- ♦ 1 x Mini-PCIe socket (USB) for 3.5G module option
- ♦ 1 x GPS or GPS with dead reckoning option

I/O Interface-Front

- ♦ 7 x LED for power, storage, WWAN, WLAN, GPS, LAN1 and LAN2
- ♦ Power on/ off switch
- ♦ The system rest button
- ♦ 2 x 10/ 100/ 1000 Ethernet with M12 connector and support iAMT8.0
- ♦ 8 x 10/100/1000 PoE LAN with M12 connector and support IEEE802.3af (Optional with LED, LAN hub switch, Max 60W)
- ♦ 2 x USB 3.0 type A connector
- ♦ 2 x USB 2.0 with M12 connector
- ♦ 1 x DB15 VGA connector
- ♦ 2 x HDMI connector
- ♦ 2 x DB9 RS-232 connector (Isolation optional)

- ♦ 1 x DB9 RS-422/ 485 connector (Isolation optional)
- ♦ 1 x DB9 female connector for 4GPI and 4GPO connector (Isolation optional)
- ♦ Digital Input (source type: 0~30V)
- ♦ Digital Output (sink type: 20mA max)
- ♦ 1 x Line-in, 1 x Line-out, 1 x Mic-in

I/O Interface-Rear

- ♦ Power DC Input
- ♦ 5 x Antenna holes for WWAN/ WLAN/ GPS/ BT

Expandable Storage

- ♦ 4 x 2.5" SATA SSD removable tray

Power Management

- ♦ Selectable boot-up & shut-down voltage for low power protection by software
- ♦ Setting 8-level on/off delay time by software
- ♦ Status of ignition and low voltage status can be detected by software

Operating System

- ♦ Windows Embedded Standard 7

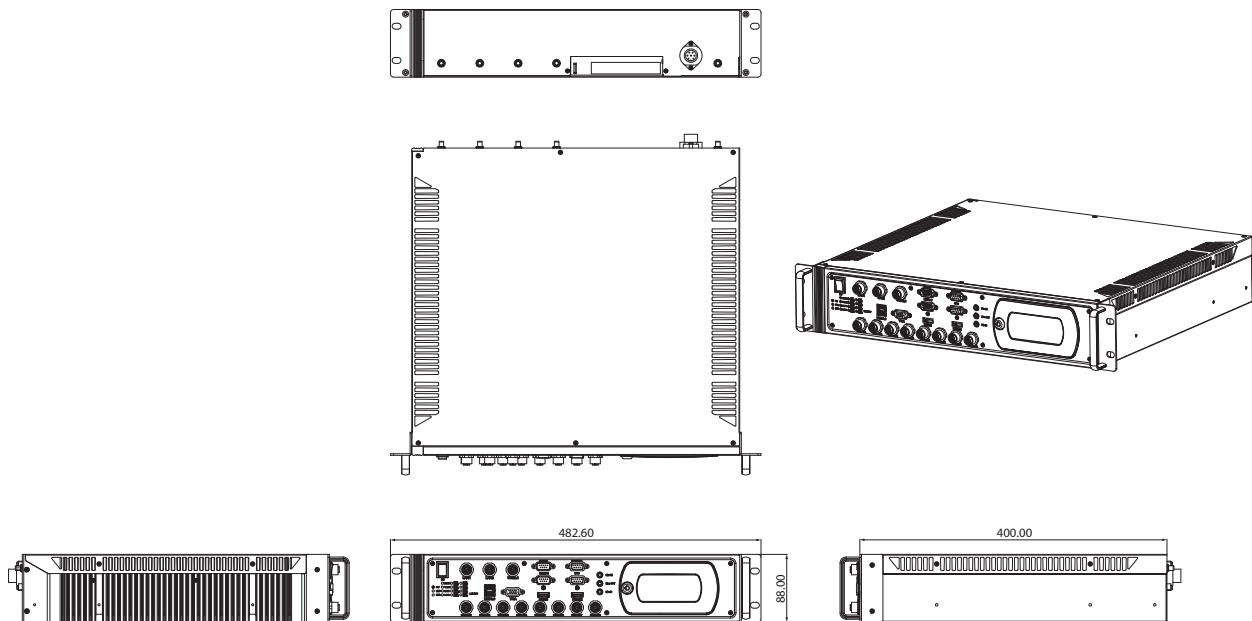
System Dimension

- ♦ 482.6mm (W) x 400mm (D) x 88mm (H) (19" x 15.75" x 3.46")

Construction

- ♦ Sheet metal with heat sink

Dimension Drawing



Environment

- Operating temperatures
Ambient with air: -40°C to 70°C (EN50155 Class TX)
- Storage temperatures: -40°C to 80°C
- Damp heat test: 55°C, 95% RH (non-operating, EN 50155)
- Relative humidity: 0% to 90% (non-condensing)
- Vibration (random):
Compliance with EN61373 Category 1 Class B
- Shock:
Compliance with EN61373 Category 1 Class B

Ingress Protection

- IP40 rating

Standards/ Certifications

- CE
- FCC Class A
- Compliance with EN50155

Ordering Information

• nROK 5500-FC8 (P/N:10A00550000X0)

Intel® Core™ i7 3517UE fanless rackmount railway computer with 8-channel PoE and 110VDC isolation power input

• nROK 5300-AC8 (P/N:10A00530000X0)

Intel® Core™ i5 3610ME fanless rackmount railway computer with 8-channel PoE and 24VDC isolation power input

The following combinations are also available, please contact NEXCOM Global Service for further information

• nROK 5500-AC8 (P/N: TBD)

Intel® Core™ i7 3517UE fanless rackmount railway computer with 8-channel PoE and 24VDC isolation power input

• nROK 5500-AC (P/N: TBD)

Intel® Core™ i7 3517UE fanless rackmount railway computer and 24VDC isolation power input

• nROK 5500-FC (P/N: TBD)

Intel® Core™ i7 3517UE fanless rackmount railway computer and 110VDC isolation power input

• nROK 5300-FC8 (P/N: TBD)

Intel® Core™ i5 3610ME fanless rackmount railway computer with 8-channel PoE and 110VDC isolation power input

• nROK 5300-FC (P/N: TBD)

Intel® Core™ i5 3610ME fanless rackmount railway computer and 110VDC isolation power input

• nROK 5300-AC (P/N: TBD)

Intel® Core™ i5 3610ME fanless rackmount railway computer and 24VDC isolation power input

• Optional Accessories

Part No.	Description
10VK0006013X0	WLAN Kits QCOM Q802XKN5F, W/ANTENNA & CABLE
10VK0WWAN01X0	WWAN Kits CINTERION: CM8000(PHS8-P), W/ANTENNA & CABLE
10VK0006017X0	GPS Kits DGM-U2525T,U-BLOX 6 , w/ Cable & Antenna & Bracket
B000000126X00	One PCI x 8 expansion Kits
603LAN0001X00	External LAN Cable WATERPROOF 8P TO RJ45, L=300mm LAN CABLE FOR nROK5500-F ST:MD-5101249
603USB0001X00	External USB Cable WATERPROOF 8P TO USB(A), L=300mm USB CABLE FOR nROK5500-F ST:MD-5101248
603POW0001X00	External Power Cable WATERPROOF 7P TO WIRE, L=300mm POWER CABLE FOR nROK5500 ST:MD-5101247
603POW0007X00	External Power CONN Circle Type CONN only (for Power), 7Pin Waterproof
603LAN0004X00	External M12 CONN M12 CONN only (for USB or LAN), 8Pin Waterproof
60233SAM03X00	Internal Antenna ANTENNA GSM EDI:201012010221-RS
60233SAM16X00	External Antenna(WLAN) WLAN 2.4G, SANAV:41EN01-11B0105-000N
60233SAM17X00	External Antenna(WWAN) GSM/UMTS/HSDPA
60233SAM05X00	External Antenna(GPS) ARKNAV: A-130 GPS Antenna 5M SMA180P=