



## Main Features

- High performance processor with Intel® Core™ i7 3517UE
- 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
- 4 Removable 2.5" SSD tray (3 HDD tray for optional)
- DC power input with isolated protection
- Support 8 channels POE with IEEE802.3af for optional
- Support one PCI express x8 expansion slot for optional
- EN50155 Certification

## Product Overview

nROK 5500 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 Wi-Fi and WWAN connection.

## Specifications

### CPU

- Intel® Core™ i7 3517UE 1.7GHz

### 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 WWAN 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
- 1 x M12 connector with two USB2.0
- 1 x DB15 VGA connector
- 2 x HDMI connector
- 2 x DB9 RS-232 connector (Isolation)
- 1 x DB9 RS-422/485 connector (Isolation)

- 1 x DB9 female connector for 4GPI and 4GPO connector (Isolation)  
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

- 1 x Waterproof DC Input Connector with ignition and typical 120W power consumption(optional rating)  
24VDC (16.8V ~ 31.2V) Input with 4KVDC isolation  
36VDC (25.2V ~ 46.8V) Input with 4KVDC isolation  
48VDC (33.6V ~ 62.4V) Input with 4KVDC isolation  
72VDC (50.4V ~ 93.6V) Input with 4KVDC isolation  
110VDC (77V ~ 143V) Input with 4KVDC isolation
- 5 x Antenna holes for WWAN/WLAN/GPS/BT

### Expandable Storage

- 4 x 2.5" SATA SSD removable tray (optional 3 removable tray plus 1 fixed tray for HDD)

### Power Management

- Setting 8-level on/off delay time by software
- Status of ignition detected by software

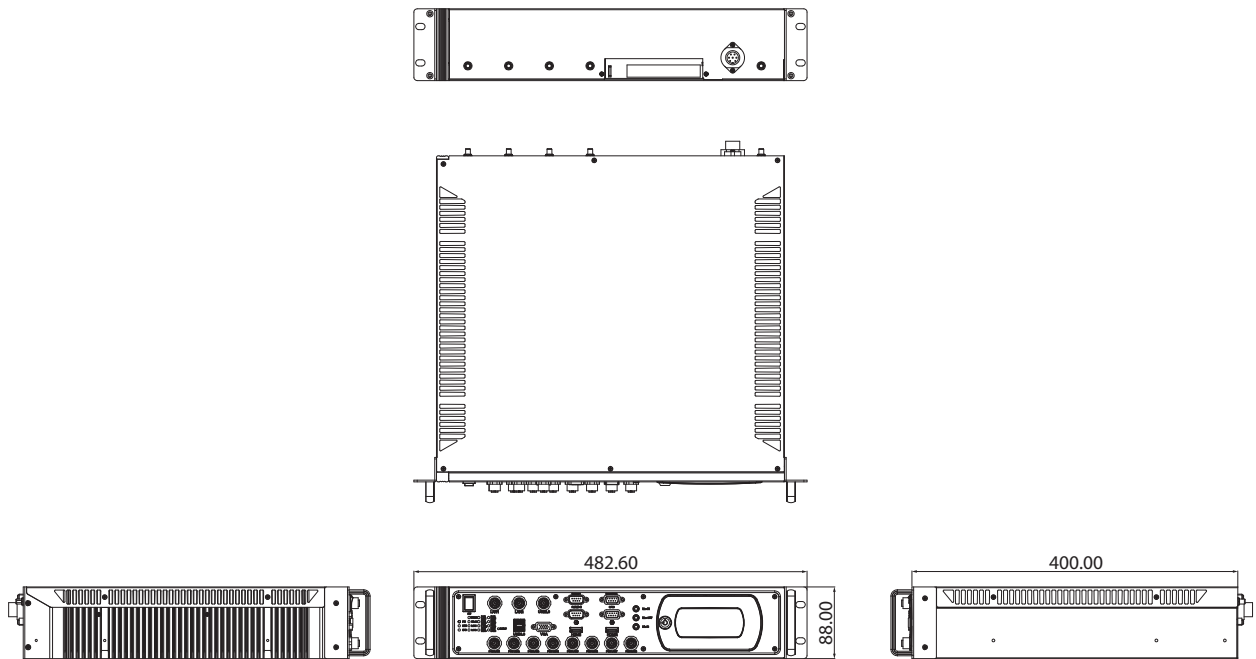
### Operating System

- Windows Embedded Standard 7

### System Dimension

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

## Dimension Drawing



- Weight : 14.5kg

### Construction

- Sheet metal with heat sink

### Environment

- Operating temperatures:
  - 40°C to 70°C (w/ industrial SSD) with air flow
  - 20°C to 45°C (w/ commercial HDD) with air flow
- Storage temperatures: -35°C to 85°C
- Relative humidity: 10% to 90% (non-condensing)

### Ingress Protection

- IP40 rating

### Standards/Certifications

- CE approval
- FCC Class A
- EN50155 Certification
  - Ambient Temperature EN 50155 TX (-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
- EN45545-2 Certification

## 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

### • Optional Accessories

Part No.	Description
10VK0006013X0	WLAN Kits QCOM Q802XKN5F, w/ antenna & cable
10VK0006006X0	WLAN Kits QCOM Q802XKN, w/ antenna & cable

10VK0WLAN02X0	WLAN+ BT Combo Kits QCOM: ZQ802XRACB, w/ antenna & cable
10VK0006009X0	WWAN Kits Sierra Wireless MC5728V for Sprint, w/ antenna & cable
10VK0006018X0	WWAN Kits HUAWEI: EM820W, w/ antenna & cable
10VK0WWAN00X0	WWAN Kits TELIT: HE910-G, w/ antenna & cable
10VK0WWAN01X0	WWAN Kits CINTERION: CM8000(PHS8-P), w/ antenna & cable
10VK0WWAN03X0	WWAN Kits Sierra MC8790, w/ antenna & cable
10VK0WWAN10X0	WWAN Kits uBlox LISA-U200, w/ antenna & cable
10VK00LTE00X0	LTE Kits MC7710 (EU), w/ antenna & cable
10VK00LTE01X0	LTE Kits MC7700, w/ antenna & cable
10VK00LTE02X0	LTE Kits MC7304, w/ antenna & cable
10VK00LTE03X0	LTE Kits MC7354, w/ antenna & cable
10VK00GPS01X0	GPS Kits uBlox-M8N solution, w/ antenna & cable
10VK00GPS03X0	GPS Kits uBlox-M8L DR solution, support 5V antenna, w/ coin battery, w/ antenna & cable
603LAN0001X00	External 8-pin M12 to LAN Cable
60233LAN19X00	External 4-pin M12 to LAN Cable
603USB0011X00	External 8-pin M12 to USB Cable
603LAN0011X00	External 8-Pin M12 CONN
603LAN0012X00	External 4-pin M12 CONN
603POW0001X00	External Power Cable
603POW0007X00	External Power Connector