



## FEATURES

- Built-in Intel® Atom™ D525 Dual Core 1.8GHz processor
- Fanless and rugged design
- Support ignition signal for delay-time control
- Easy maintenance
- Rich I/O interface with secure lock
- Removable 2.5" SSD tray
- Isolation RS-232/422/485 and GPIO
- DC power input with isolated protection
- Compliant with IP65 design
- Certified by EN50155

## PRODUCT DESCRIPTION

The nROK 3000 fanless computer certified with EN50155 is specially designed for railway related applications. Based on Intel® Atom™ D525 processor, nROK 3000 is designed with isolated DC input protection to ensure stable operation in harsh environments. Adopting lock concept, all connectors, such as M12 Ethernet connector on nROK 3000, are designed for anti-vibration. Equipped with a SIM card holder, CFast socket and mini-PCIe socket for optional 3G wireless module, nROK 3000 allows data to be transmitted over network and stored in a convenient SSD (Solid-State Drive) or CFast card for better vibration and shock protection. The EN50155-certified nROK 3000 is a reliable solution for railway applications.

*Due to continuing developments, specifications are subject to change without notice. No liability is accepted for errors or omissions.*

### Specifications

**CPU:** Intel® Atom™ D525 Dual Core 1.8GHz  
**Main Chipset:** Intel® ICH8M chipsets  
**Memory:** 1GB DDR3 1333MHz SODIMM (up to 4GB)

#### Expansion:

- 1 x Mini-PCIe socket (PCIe + USB) for WLAN option
- 1 x Mini-PCIe socket (USB) for 3.5G module option
- 1 x optional GPS module

#### I/O Interface-Front:

- 1 x DVI-I connector with DVI-D and VGA output
- 1 x 26-pin circular connector in support of RS232/422/485 with isolation, 4-channel digital input and 4-channel digital output
- 1 x USB 2.0 with M12 connector
- 1 x Mic-in & 1 x Line-out
- 3 x 10/100 Ethernet with M12 connector
- Wireless communication
  - 1 x External accessible SIM card socket
  - 3 x Antenna holes for WWAN/WLAN/GPS
- 4 x LED for power, SSD, WWAN and WLAN
- DC Input:
  - nROK3000-A : 24V with 500V isolated (range : 16.8V ~ 30V)
  - nROK3000-F : 110V with 1.5KV isolation (range : 77V ~ 137.5V)

#### I/O Interface-Rear:

- 1 x 2.5" accessible SATA SSD tray
- 2 x USB 2.0

#### Expandable Storage:

- 1 x 2.5" SATA SSD tray
- 1 x CFAST slot with protection cover

#### Power Management:

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

#### Operating System:

Windows Embedded Standard 2009

Windows Embedded Standard 7

#### System Dimension:

260mm (W) x 178mm (D) x 70mm (H) (10.24"x 7"x 2.76")

#### Construction:

Aluminum enclosure with fanless design

### 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 :** IP65 rating

**Standards/Certifications:** CE, FCC Class A, Compliance with EN50155

### Ordering Information

nROK 3000-A (P/N : 10A00300000X0)

- Intel® Atom™ D525 fanless railway computer with 24VDC isolation power input

nROK 3000-F (P/N : 10A00300001X0)

- Intel® Atom™ D525 fanless railway computer with 110VDC isolation

### Optional Accessories

P/N 10VK0006013X0- Wireless mini card kit, Ralink 802.11b/g/n 2T2R, QCOM : Q802XKN5F, w/antenna & cable (without assembly in NEXCOM)

P/N 10VK0WWAN01X0- VTK-WWAN : Cinterion PHS8-P kit, Five bands, UMTS/HSPA (850/800, 900, 1900 and 2100 MHz), Quad-Band GSM w/internal cable, antenna & packing

P/N 10VK0006007X0- Bluetooth kit, QCOM : QBTM400-01 (V7), w/antenna & cable (without assembly in NEXCOM)

P/N 10VK0006017X0- VTK60-GPS-04 GPS Kit (DGM-U2525T, U-BLOX 6 , w/cable, antenna & bracket)

P/N 60233SAM03X00- Internal cable for GSM/WLAN/GPS antenna connection MOQ : 20 pcs

P/N 60233SAM05X00- GPS antenna/5m/SMA180P

P/N 60233SAM07X00- GSM/GPRS antenna, SMA, support 850/900/1800/ 1900

P/N 60233SMA30X00- GPS+GSM combo antenna 5M/SMA180P

P/N 60233SAM17X00- GPRS/UMTS/HSDPA antenna, SMA, support 850/900/ 1800/1900/2100

P/N 60233PW243X00- POWER CABLE : Waterproof 4P L : 300mm

60233USB89X00- M12 TO USB CABLE : Waterproof M12 TO USB CON L : 200mm

P/N 60233AUD27X00- AUDIO CABLE : Waterproof MINI SIZE 6P TO DC3.5mm FEMALEx2 L : 300mm

P/N 60233DVI26X00- DVI Y-CABLE : Waterproof DVI(24+5P) to DVI(24+5P)/D-SUB(15P) L :100mm

P/N 6023331451X00- COM CABLE : Waterproof 31PIN to DB9 MALEx4/DB9 FEMALEx1 L=150mm

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