

# RAIBOX-ORNX

RAILWAY GRADE ORIN NX COMPUTER



## **HIGHLIGHTS**

- > EN50155 railway grade computer for reliability
- Al ready for railway application with 100 TOPS performance
- High Speed Interfaces (2xGigabit Ethernet, USB 3.2)
- Wireless and 5G connectivity
- M.2 SSD support for enhanced storage
- > Withstands extreme temperatures, shock & vibration
- > Robust & secure gateway for railway infrastructure
- Low power operation (<40 Watts)</p>
- > Ideal for critical railway applications

#### **TECHNICAL SPECIFICATIONS**

Supported Modules	NVIDIA Jetson Orin Nano 4GB / 8GB NVIDIA Jetson Orin NX 8GB / 16GB
Memory	4 GB 64-bit LPDDR5 / 8 GB 128 bit LPDDR5 8 GB 256-bit LPDDR5 / 16 GB 128 bit LPDDR5
<b>Graphics Interfaces</b>	1x HDMI 2.0(max resolution 3840x2160)
Interfaces	2x Gigabit Ethernet 1x USB 3.1 Type-A 1x USB 3.1 Type-C 2x CAN Bus (Isolated) 2x RS232/RS422/RS485 (Isolated) 4x Digital In, 4x Digital Out (Isolated) 4x GMSL (FAKRA Connector)
Wireless Communication	WiFi/Bluetooth/LTE Connectivity by extension sockets
Power Supply	10-75VDC
Extension Sockets	1x M.2 Key-E, 1x M.2 Key-B, 1x SIM
Mass Storage	2x M.2 Key-M SSD Slot
<b>Ambient Conditions</b>	-25°C +85°C
Form Factor / Dimensions	275 mm x 200 mm x 75 mm 2750gr
Operating Systems	Ubuntu Linux 20.04
Standards	EN50155, EN45545-2 HL3, EN61373, EN60068, IP67
JetPack Support	JetPack 5.x

Introducing the RAIBOX-ORNX, a ruggedized railway grade computer that meets the EN50155 standard, ensuring reliability and safety for your critical railway applications. Powered by the high-performance Orin NX 16GB SoM, this computer features 2x Gigabit Ethernet and GMSL Camera support, enabling seamless data transmission and processing.

With USB3.2, HDMI, 2x CAN, Wireless, and 5G connectivity, the RAIBOX-ORNX offers unparalleled flexibility and connectivity options. The M.2 SSD support further enhances its storage capabilities, making it ideal for storing and processing large amounts of data.

Designed to withstand extreme temperatures, shock, vibration, and electromagnetic interference, the RAIBOX-ORNX is the perfect solution for railway applications that require reliable and ruggedized computing power.

Whether you're looking for a powerful and dependable onboard computer for your train control and monitoring systems, or a robust and secure gateway for your railway infrastructure, the RAIBOX-ORNX is the perfect choice for your critical railway applications.



Railway



Transportation



Agriculture



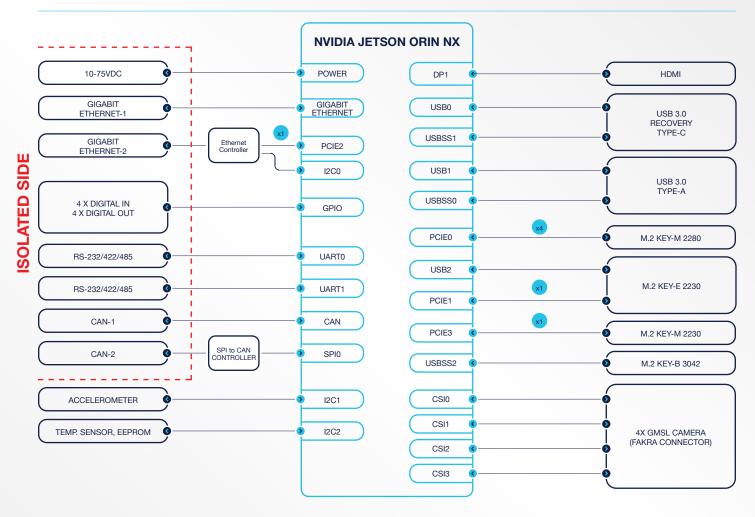








#### **BLOCK DIAGRAM**



### **ORDERING INFORMATION**

RAIBOX-ORNX-AA	RAIBOX-ORNX Railway Grade PC with Jetson Orin NX 8GB
RAIBOX-ORNX-AA-250	RAIBOX-ORNX Railway Grade PC with Jetson Orin NX 8GB and 250GB SSD
RAIBOX-ORNX-AA-500	RAIBOX-ORNX Railway Grade PC with Jetson Orin NX 8GB and 500GB SSD
RAIBOX-ORNX-AA-1000	RAIBOX-ORNX Railway Grade PC with Jetson Orin NX 8GB and 1000GB SSD
RAIBOX-ORNX-AA-2000	RAIBOX-ORNX Railway Grade PC with Jetson Orin NX 8GB and 2000GB SSD
RAIBOX-ORNX-AB	RAIBOX-ORNX Railway Grade PC with Jetson Orin NX 16GB
RAIBOX-ORNX-AB-250	RAIBOX-ORNX Railway Grade PC with Jetson Orin NX 16GB and 250GB SSD
RAIBOX-ORNX-AB-500	RAIBOX-ORNX Railway Grade PC with Jetson Orin NX 16GB and 500GB SSD
RAIBOX-ORNX-AB-1000	RAIBOX-ORNX Railway Grade PC with Jetson Orin NX 16GB and 1000GB SSD
RAIBOX-ORNX-AB-2000	RAIBOX-ORNX Railway Grade PC with Jetson Orin NX 16GB and 2000GB SSD

#### Forecr ESTONIA

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#### Forecr TURKEY

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