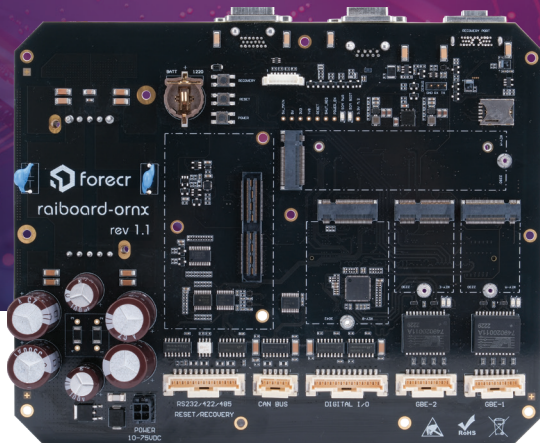


RAIBOARD-ORNX

RAILWAY GRADE ORIN NX & ORIN NANO CARRIER BOARD



HIGHLIGHTS

- › EN50155 railway-grade carrier board for reliability
- › NVIDIA Jetson Orin Nano & NX Super Mode Support
- › AI ready for railway applications with up to 157 TOPS performance
- › Up to 4-ch GMSL2 support
- › Wireless and 5G connectivity
- › M.2 SSD support for enhanced storage
- › Robust & secure gateway for railway infrastructure
- › Low power operation (<60 Watts)
- › 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
Graphics Interfaces	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 (Isolated) 4x Digital Out (Isolated)
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
Ambient Conditions	-25°C ... +85°C
Form Factor / Dimensions	275 mm x 200 mm x 75 mm, 2750gr
Operating Systems	Ubuntu Linux 20.04 / 22.04
Standards (with Raibox chassis)	EN50155, EN45545-2 HL3, EN61373, EN60068, IP67
JetPack Support	JetPack 5.x / 6.x

The RAIBOARD-ORNX is a cutting-edge AI computing solution designed for railway applications, powered by NVIDIA Jetson Orin NX & Orin Nano. It delivers up to 157 TOPS of AI performance, ideal for real-time data processing and machine learning tasks.

Key features include dual Gigabit Ethernet ports, USB 3.2, and support for WiFi, Bluetooth, LTE, and 5G connectivity. Its dual M.2 SSD slots ensure high-speed, large-capacity data storage, making it suitable for applications like video analytics and monitoring. Built to withstand extreme temperatures (-25°C to 85°C), shock, and vibration, it complies with EN50155 and other railway standards. With low power consumption and robust design, the RAIBOARD-ORNX excels as a secure gateway and onboard AI engine for railway infrastructure and monitoring systems. This platform redefines reliability, efficiency, and AI-driven innovation in railway technology.



Railway



Transportation



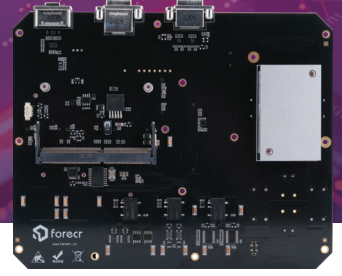
Agriculture



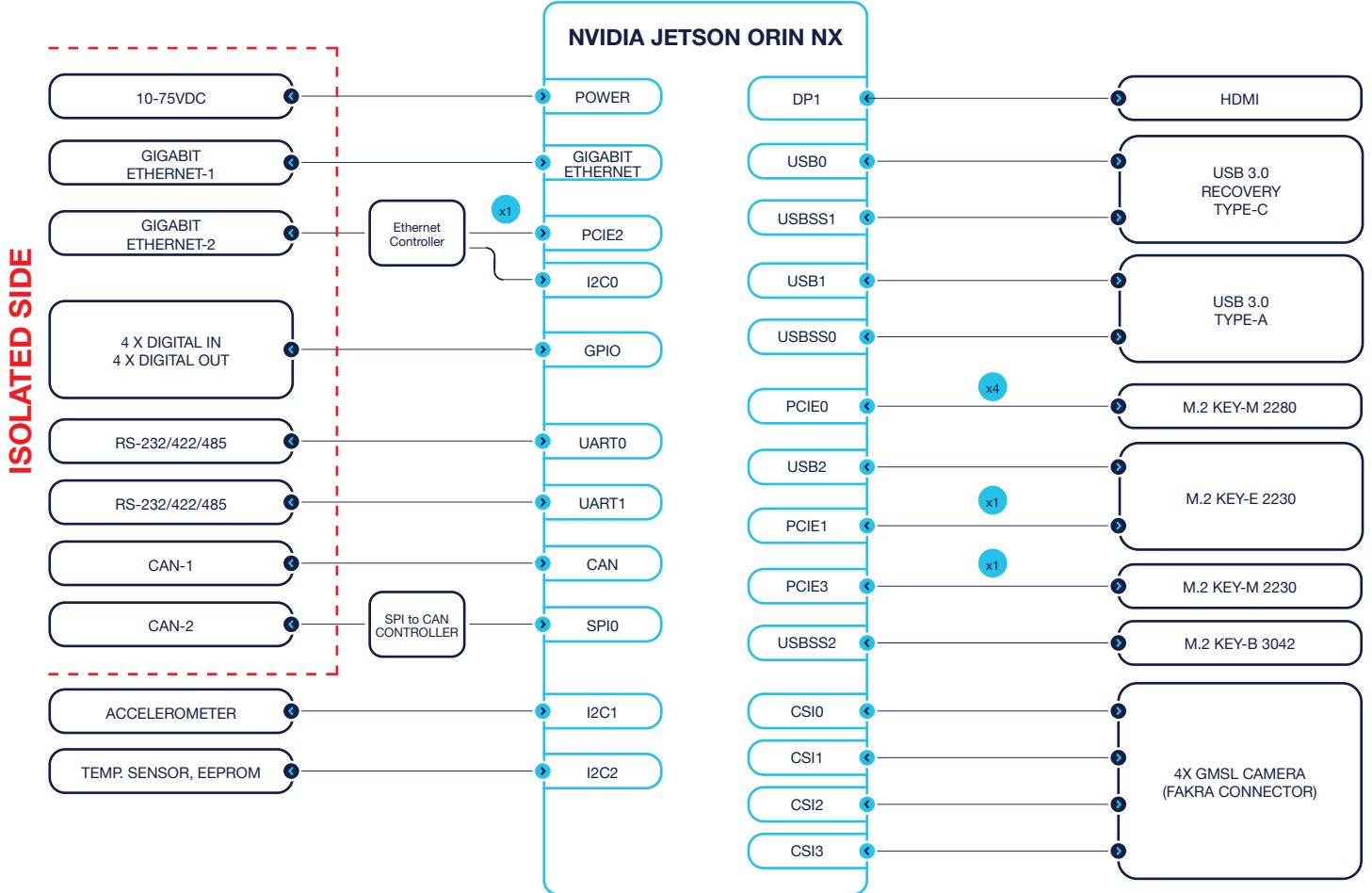
Marine

RAIBOARD-ORNX

RAILWAY GRADE ORIN NX & ORIN NANO CARRIER BOARD



BLOCK DIAGRAM



FOR ORDERING



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