

DSBOARD-ORNX-LAN

JETSON ORIN NX & ORIN NANO CARRIER BOARD with DUAL LAN

HIGHLIGHTS

- Supports NVIDIA Jetson Orin Nano and Orin NX SOMs
- Dual Gigabit Ethernet Support
- > 4K Video Display (HDMI 2.0)
- Industrial IO options (RS232/485, CAN Bus, Digital I/Os)
- Rich extension options (M.2 Key-E, M.2 Key-B, M.2 Key-M)
- High Speed Interfaces (Gigabit Ethernet, USB 3.1)
- Robust power design
- Wide voltage input range
- Extended temperature range

TECHNICAL SPECIFICATIONS

Supported ModulesNVIDIA Jetson Orin Nano 4GB / 8GB NVIDIA Jetson Orin NX 8GB / 16GBMemory4 GB 64-bit LPDDR5 / 8 GB 128 bit LPDDR5 8 GB 256-bit LPDDR5 / 16 GB 128 bit LPDDR5Graphics Interfaces1 x HDMI 2.0(max resolution 3840x2160)Interfaces2x Gigabit Ethernet 3x USB 3.1 Type-C 1x CAN Bus 1 x RS232/422/485 2x Digital Output 2x CSI 4-LANE or 4x CSI 2-LANEWireless CommunicationWiFi/Bluetooth Connectivity by extension socketsPower Supply9-28 VDCExtension Sockets1 x M.2 Key-E, 1 x 5V Fan 1 x SPI, 1 x 12S, 1 x 12C, 1 x UARTMass Storage2 x M.2 Key-M SSD SlotForm Factor / Dimensions100 mm x 100 mm, 88grOperating SystemsUbuntu Linux 20.04 / 22.04		
MemoryLPDDR5 8 GB 256-bit LPDDR5 / 16 GB 128 bit LPDDR5Graphics Interfaces1x HDMI 2.0(max resolution 3840x2160)Interfaces2x Gigabit Ethernet 3x USB 3.1 Type-C 1x CAN Bus 1 x RS232/422/485 2x Digital Input 2x OGI 4-LANE or 4x CSI 2-LANEWireless CommunicationWiFi/Bluetooth Connectivity by extension socketsPower Supply9-28 VDCExtension Sockets1x M.2 Key-E, 1x 5V Fan 1x SPI, 1x 12S, 1x 12C, 1x UARTMass Storage2x M.2 Key-M SSD SlotAmbient Conditions-25°C +85°CForm Factor / Dimensions100 mm x 100 mm, 88grOperating SystemsUbuntu Linux 20.04 / 22.04	Supported Modules	
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Wireless CommunicationsocketsPower Supply9-28 VDCExtension Sockets1x M.2 Key-E, 1x 5V Fan 1x SPI, 1x I2S, 1x I2C, 1x UARTMass Storage2x M.2 Key-M SSD SlotAmbient Conditions-25°C +85°CForm Factor / Dimensions100 mm x 100 mm, 88grOperating SystemsUbuntu Linux 20.04 / 22.04	Interfaces	3x USB 3.1 Type-C 1x CAN Bus 1 x RS232/422/485 2x Digital Input 2x Digital Output
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Ambient Conditions -25°C +85°C Form Factor / Dimensions 100 mm x 100 mm, 88gr Operating Systems Ubuntu Linux 20.04 / 22.04		sockets
Form Factor / Dimensions 100 mm x 100 mm, 88gr Operating Systems Ubuntu Linux 20.04 / 22.04	Power Supply	sockets 9-28 VDC 1x M.2 Key-E, 1x 5V Fan
Operating Systems Ubuntu Linux 20.04 / 22.04	Power Supply Extension Sockets	sockets 9-28 VDC 1x M.2 Key-E, 1x 5V Fan 1x SPI, 1x I2S, 1x I2C, 1x UART
	Power Supply Extension Sockets Mass Storage	sockets 9-28 VDC 1x M.2 Key-E, 1x 5V Fan 1x SPI, 1x I2S, 1x I2C, 1x UART 2x M.2 Key-M SSD Slot
JetPack Support JetPack 5.x / 6.x	Power Supply Extension Sockets Mass Storage Ambient Conditions	sockets 9-28 VDC 1x M.2 Key-E, 1x 5V Fan 1x SPI, 1x I2S, 1x I2C, 1x UART 2x M.2 Key-M SSD Slot -25°C +85°C
	Power Supply Extension Sockets Mass Storage Ambient Conditions Form Factor / Dimensions	sockets 9-28 VDC 1x M.2 Key-E, 1x 5V Fan 1x SPI, 1x I2S, 1x I2C, 1x UART 2x M.2 Key-M SSD Slot -25°C +85°C 100 mm x 100 mm, 88gr



DSBOARD-ORNX-LAN is an industrial carrier board designed for harsh environments and applications that demand high processing power and reliability. It is based on the NVIDIA Orin NX system-on-module (SOM), which features multiple NVIDIA Ampere GPU cores and Arm64 CPU cores. The compact design of the carrier board makes it a versatile and flexible solution for a wide range of industrial applications such as autonomous systems, robotics, and intelligent video analytics.

DSBOARD-ORNX-LAN comes with various connectivity options, including dual Gigabit Ethernet, USB 3.1, HDMI, and CAN, enabling seamless integration with a wide range of devices and systems. The dual Gigabit Ethernet support allows for increased data transfer speeds and redundancy in network connections. The NVIDIA Orin NX SOM provides the processing power and capabilities needed to support intensive data processing and analysis.

In addition to its compact size, DSBOARD-ORNX-LAN also features multiple expansion slots for adding peripherals and customizing the system to meet specific requirements. Its wide operating temperature range ensures reliable operation in challenging environments.

Overall, DSBOARD-ORNX-LAN is an effective solution for industrial applications that demand high processing power and a reliable platform. Its advanced features, including dual Gigabit Ethernet support, and compact design make it an ideal choice for applications where space is limited, and flexibility is key.







Transportation

Agriculture

Robotics Smart Retail





Systems

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Energy



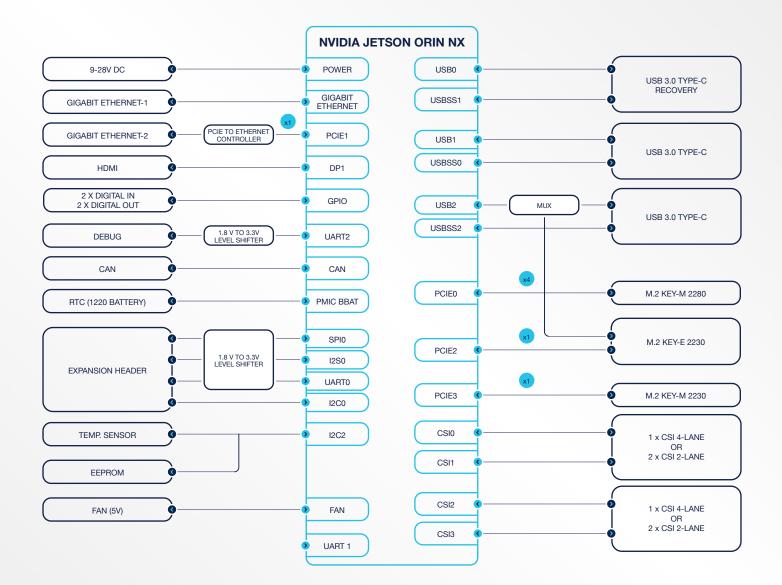


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BLOCK DIAGRAM



FOR ORDERING

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