

DSBOARD-ORNX

JETSON ORIN NX & ORIN NANO CARRIER BOARD

HIGHLIGHTS

- Supports NVIDIA Jetson Orin Nano and Orin NX SOMs
- Al ready for edge analytics with 100 TOPS performance
- 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 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	1x Gigabit Ethernet 2x USB 3.1 Type-A 1x CAN Bus 1x RS232 & 1x RS422 1x microUSB 2.0 (Recovery) 2x Digital Input, 2x Digital Output 2X CSI 4-LANE or 4x CSI 2-LANE
Wireless Communication	WiFi/LTE/5G Connectivity by extension sockets
Power Supply	9-28 VDC
Extension Sockets	1x M.2 Key-E, 1x M.2 Key-B, 1x SIM, 1x 5V FAN, 1x SPI, 1x I2S, 1x I2C
Mass Storage	2x M.2 Key-M SSD Slot
Mass Storage Ambient Conditions	2x M.2 Key-M SSD Slot -25°C +85°C
	-25°C +85°C
Ambient Conditions	-25°C +85°C



DSBOARD-ORNX 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 comes with various connectivity options, including Gigabit Ethernet, USB 3.1, HDMI, and CAN, enabling seamless integration with a wide range of devices and systems. 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 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 is an effective solution for industrial applications that demand high processing power and a reliable platform. Its advanced features and compact design make it an ideal choice for applications where space is limited, and flexibility is key.



Autonomous **Vehicles**



Security and Surveillance



Healthcare



Industrial Automation



Robotics



Agriculture

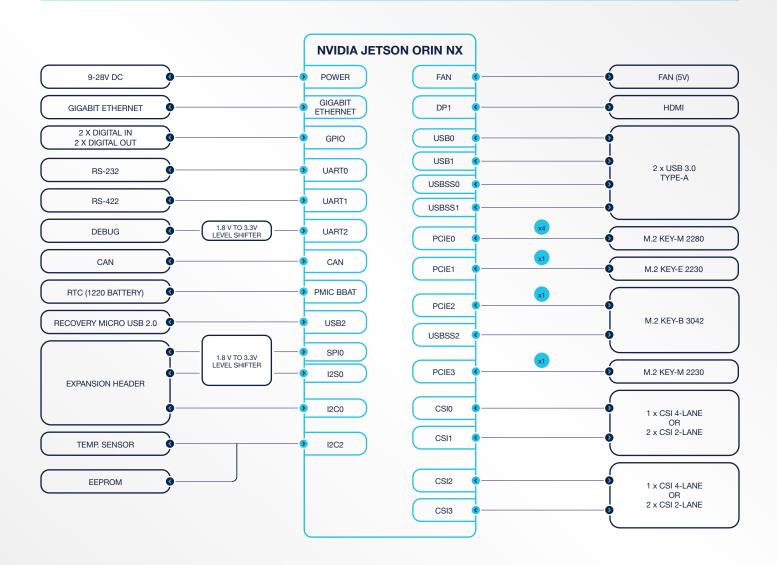








BLOCK DIAGRAM



ORDERING INFORMATION

DSBOARD-ORNX-AA	DSBOARD-ORNX carrier board without SOM
DSBOARD-ORNX-AB8	DSBOARD-ORNX carrier board with Orin NX 8GB SOM
DSBOARD-ORNX-AB16	DSBOARD-ORNX carrier board with Orin NX 16GB SOM
DSBOARD-ORNX-AC4	DSBOARD-ORNX carrier board with Orin Nano 4GB SOM
DSBOARD-ORNX-AC8	DSBOARD-ORNX carrier board with Orin Nano 8GB SOM

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