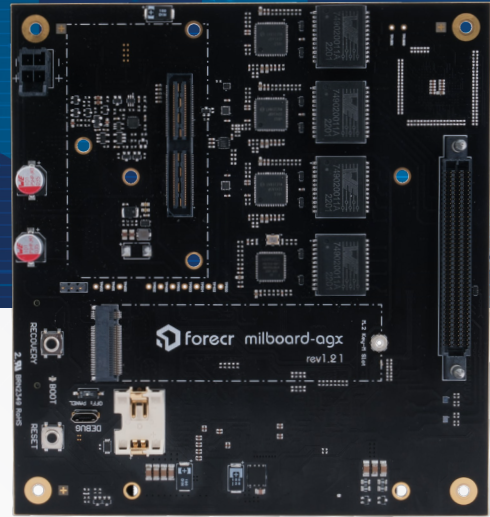# MILBOARD-AGX
MIL-GRADE AGX XAVIER / ORIN CARRIER BOARD

HIGHLIGHTS

› Supports NVIDIA Jetson AGX Xavier/Orin SOM Family)

› Supercomputer level performance for military applications

› 4K Video Display (DP 1.4)

› Rich IO options (8x UART, 2x CAN Bus)

› High Speed Interfaces (4x Gigabit Ethernet, 2x USB 3.2)

› Compatible with military standards

› Wide voltage input range

› Extended temperature range

› Robust design for 7/24 operation

TECHNICAL SPECIFICATIONS

Supported Modules	NVIDIA Jetson AGX Xavier 32GB NVIDIA Jetson AGX Xavier 64GB NVIDIA Jetson AGX Xavier Industrial NVIDIA Jetson AGX Orin 32GB NVIDIA Jetson AGX Orin 64GB NVIDIA Jetson AGX Orin Industrial
Memory	32 / 64 GB 256-bit LPDDR5x
Graphics Interfaces	1x HDMI 2.0(max resolution 3840x2160)
Interfaces	4x Gigabit Ethernet 2x USB 3.2 2x USB 2.0 2x CAN Bus 8x UART 1x MicroUSB 2.0 (Debug UART) 1 x I2C 1 x SPI 1x FAN (5V) 1x Temperature Sensor
Wireless Communication	None
Power Supply	12-30 VDC
Extension Sockets	1x Camera Connector (6 CSI camera support)
Mass Storage	32 / 64 GB eMMC 5.1 Flash 1x M.2 Key-M SSD Slot SD Card
Ambient Conditions	-40°C ... +85°C
Form Factor / Dimensions	150 mm x 140 mm, 120gr
Operating Systems	Ubuntu Linux 18.04 / 20.04 / 22.04
JetPack Support	JetPack 4.x / 5.x / 6.x

MILBOARD-AGX is a carrier board designed for harsh military and aerospace environments. It is powered by the NVIDIA Jetson AGX Xavier module, which has an NVIDIA Volta GPU and an eight-core ARM64 CPU, providing high processing power for complex applications. The carrier board features a rugged design that ensures reliable performance even in the most extreme conditions. It has a wide operating temperature range and a robust power management system that can handle input voltages from 18V to 32V.

In addition to its powerful processing capabilities, MILBOARD-AGX also offers a variety of connectivity options, including multiple Gigabit Ethernet ports and UARTs. It also features several USB 3.0 ports, HDMI output, and two CAN bus interfaces. The carrier board also includes an M.2 Key-M slot for additional storage options.

MILBOARD-AGX runs on the NVIDIA JetPack SDK, providing a complete software development environment for building and deploying AI applications. It is a versatile solution for a wide range of military and aerospace applications.

Defense   **Aerospace**   **Robotics**
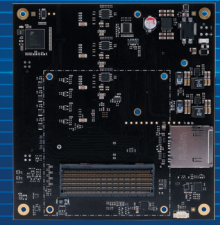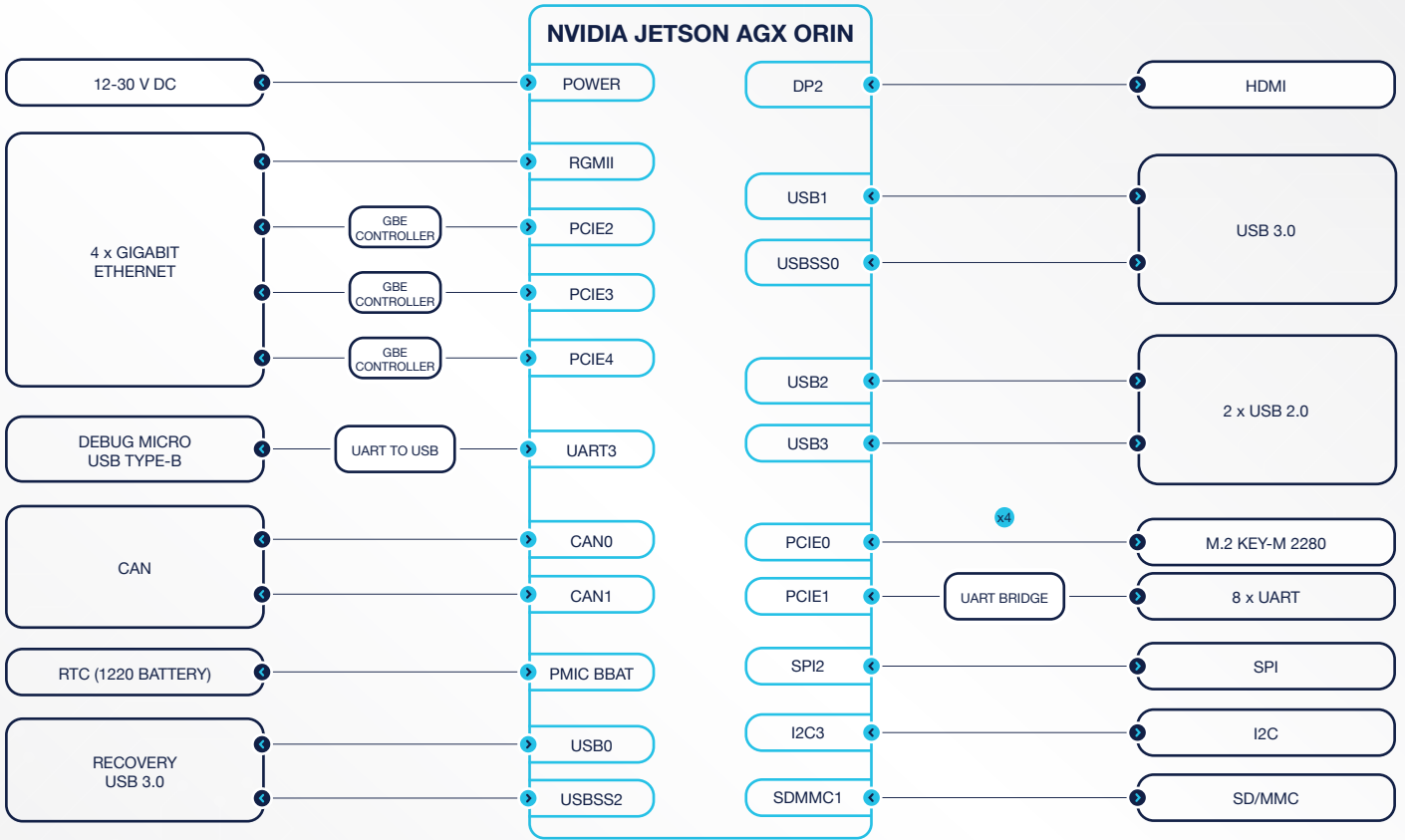
Industrial Automation   **Healthcare**   **Transportation**

RoHS COMPLIANT

NVIDIA Preferred Partner

MILBOARD-AGX
MIL-GRADE AGX XAVIER / ORIN CARRIER BOARD

BLOCK DIAGRAM

NVIDIA JETSON AGX ORIN

Left peripherals	Jetson connections	Right connections	Right peripherals
12-30 V DC	POWER	DP2	HDMI
4 x GIGABIT ETHERNET	RGMII	USB1	USB 3.0
	GBE CONTROLLER → PCIE2	USBSS0	
	GBE CONTROLLER → PCIE3	USB2	2 x USB 2.0
	GBE CONTROLLER → PCIE4	USB3	
DEBUG MICRO USB TYPE-B	UART TO USB → UART3	PCIE0	M.2 KEY-M 2280
CAN	CAN0	PCIE1 → UART BRIDGE	8 x UART
	CAN1	SPI2	SPI
RTC (1220 BATTERY)	PMIC BBAT	I2C3	I2C
RECOVERY USB 3.0	USB0	SDMMC1	SD/MMC
	USBSS2		

x4

FOR ORDERING

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Forecr OÜ (Technopol Office)
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