MILBOX-XV
RUGGEDIZED AGX XAVIER COMPUTER

HIGHLIGHTS

› NVIDIA Jetson AGX Xavier Processor

› Supercomputer performance in Military PC form

› AI Ready for deep neural networks (32 TOPS)

› Process 32 Full-HD video streams with Deepstream SDK

› Up to 64 GB 256-bit LPDDR4x RAM

› 4K Video Encode/Decode

› Rich IO options (4xRS232/4xRS422/2xCAN)

› High Speed Interfaces (4xGigabit Ethernet, USB 3.1)

› Low power operation (<60 Watts)

MILBOX-XV is the perfect computing platform for businesses that need high-performance and reliability in challenging environments. The NVIDIA Jetson AGX Xavier system-on-module, featuring an eight- core ARM CPU, 32 GB of RAM, and an NVIDIA Volta GPU, ensures top-notch processor performance. Its fanless design guarantees reliable operation in dusty or dirty environments, and it can handle extreme temperatures, shock, and vibration.

With its multiple I/O ports, including 4x Gigabit Ethernet, USB 3.0, HDMI, 4x RS-232, and 4x RS-422, the MILBOX-XV is an ideal solution for businesses that need to connect to various devices and sensors. MILBOX-XV's rugged design makes it suitable for military, industrial, and outdoor applications, and its processor performance ensures that your business can handle even the most demanding tasks.

Upgrade your business with the MILBOX-XV, a powerful computing platform that guarantees reliability and top-notch performance even in the toughest environments.

TECHNICAL SPECIFICATIONS
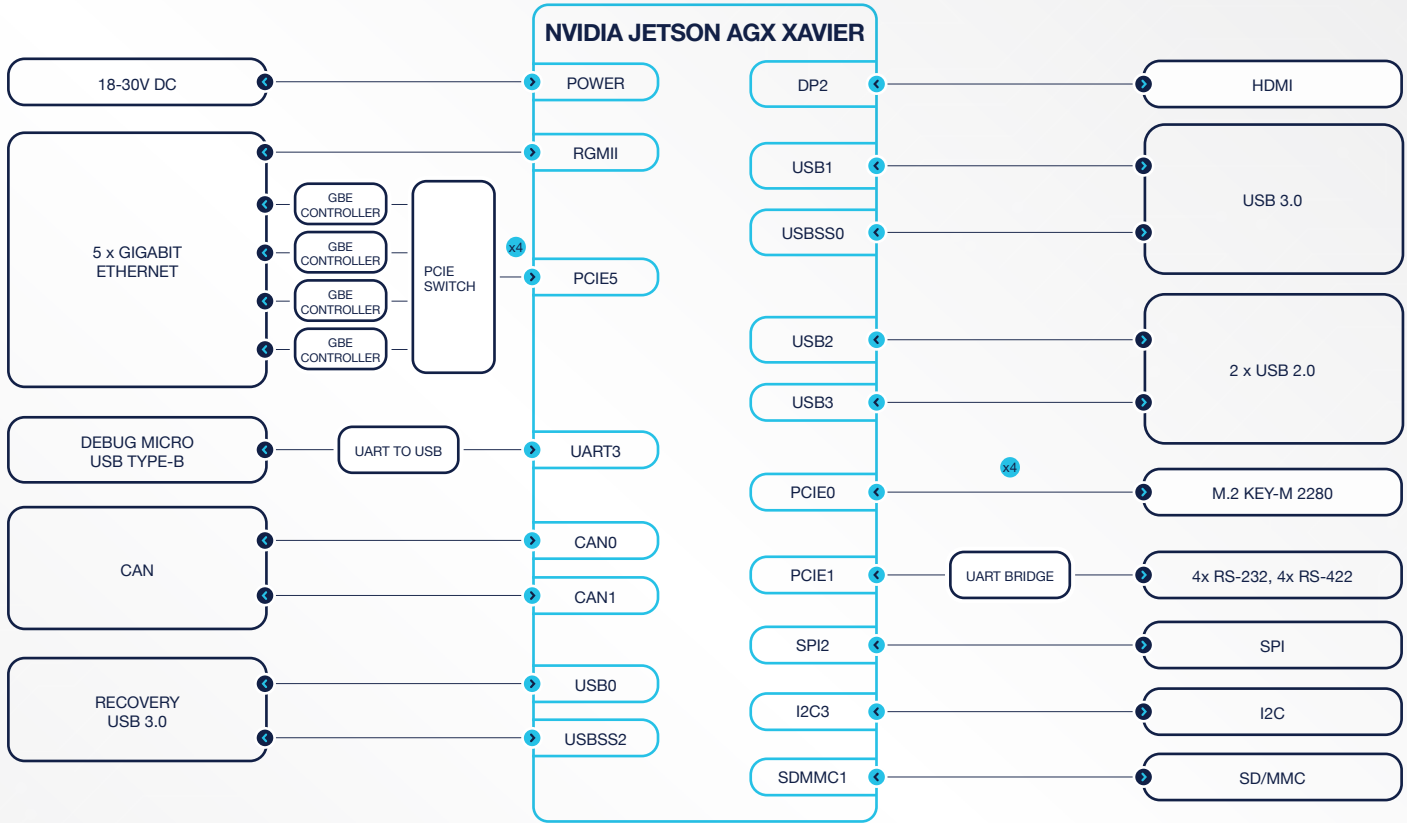
Supported Modules	NVIDIA Jetson AGX Xavier 32GB NVIDIA Jetson AGX Xavier 64GB NVIDIA Jetson AGX Xavier Industrial 32GB
Memory	32 / 64 GB 256-bit LPDDR4x
Graphics Interfaces	1x HDMI
Interfaces	4x Gigabit Ethernet 1x USB 3.1 2x USB 2.0 1x USB 2.0 (Serial Console) 2x CAN Bus 4x RS232 4x RS422
Wireless Communication	None
Power Supply	18-32 VDC (28 VDC Nominal)
Extension Sockets	None
Mass Storage	32 / 64 GB eMMC 5.1 Flash 1x M.2 Key-M SSD Slot
Ambient Conditions	-25°C ... +70°C (-40°C for Industrial Module)
Form Factor / Dimensions	210 mm x 296 mm x 92 mm 4750 grams
Operating Systems	Ubuntu Linux 18.04 / 20.04
Standards	MIL-STD-1275/704, MIL-STD-810 MIL-STD-461, IP67
JetPack Support	JetPack 4.x (4.4.1 / 4.5 / 4.5.1 / 4.6 / 4.6.1/ 4.6.2 / 4.6.3) JetPack 5.x (5.0.2 / 5.1)

Defense

Aerospace

Marine

Transportation

NVIDIA PREFERRED PARTNER

MILBOX-xv
RUGGEDIZED AGX XAVIER COMPUTER

BLOCK DIAGRAM

NVIDIA JETSON AGX XAVIER

- 18-30V DC → POWER
- 5 x GIGABIT ETHERNET → GBE CONTROLLER (x4) → PCIE SWITCH → RGMII / PCIE5 (x4)
- DEBUG MICRO USB TYPE-B → UART TO USB → UART3
- CAN → CAN0 / CAN1
- RECOVERY USB 3.0 → USB0 / USBSS2

- DP2 → HDMI
- USB1 / USBSS0 → USB 3.0
- USB2 / USB3 → 2 x USB 2.0
- PCIE0 (x4) → M.2 KEY-M 2280
- PCIE1 → UART BRIDGE → 4x RS-232, 4x RS-422
- SPI2 → SPI
- I2C3 → I2C
- SDMMC1 → SD/MMC

ORDERING INFORMATION

Part Number	Description
MILBOXXV-32S-000	MILBOARD-XV carrier board without SOM
MILBOXXV-32S-002	MILBOARD-XV carrier board with 32GB AGX Xavier SOM
MILBOXXV-32S-004	MILBOARD-XV carrier board with 32GB AGX Xavier Industrial SOM
MILBOXXV-32S-008	MILBOARD-XV carrier board with 64GB AGX Xavier SOM
MILBOXXV-32S-016	MILBOX-XV Ruggedized Computer with AGX Xavier 32GB and 2000GB SSD
MILBOXXV-32I-000	MILBOX-XV Ruggedized Computer with AGX Xavier Industrial 32GB
MILBOXXV-32I-002	MILBOX-XV Ruggedized Computer with AGX Xavier Industrial 32GB and 250GB SSD
MILBOXXV-32I-004	MILBOX-XV Ruggedized Computer with AGX Xavier Industrial 32GB and 500GB SSD
MILBOXXV-32I-008	MILBOX-XV Ruggedized Computer with AGX Xavier Industrial 32GB and 1000GB SSD
MILBOXXV-32I-016	MILBOX-XV Ruggedized Computer with AGX Xavier Industrial 32GB and 2000GB SSD
MILBOXXV-32I-032	MILBOX-XV Ruggedized Computer with AGX Xavier Industrial 32GB and 8000GB SSD
MILBOXXV-64S-000	MILBOX-XV Ruggedized Computer with AGX Xavier 64GB
MILBOXXV-64S-002	MILBOX-XV Ruggedized Computer with AGX Xavier 64GB and 250GB SSD
MILBOXXV-64S-004	MILBOX-XV Ruggedized Computer with AGX Xavier 64GB and 500GB SSD
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