NVIDIA Jetson AGX Orin carrier board

X232:
dual 10G Ethernet

AUVIDEA
audio video media

compact 10G Ethernet



Overview

The X232 is a high performance and extendable carrier board for the NVIDIA Jetson AGX Orin.

This board features the new RTL8127 chip, offering a compact 10G solution with high performance and low power requirements.

There is also the opportunity to add a flexible extension board. An example is the M280, which features 4 M.2 Key M slots (4x PCIe x4).

Connection of multiple Jetson Orin modules via PCIe x8 or 10GbE is possible.

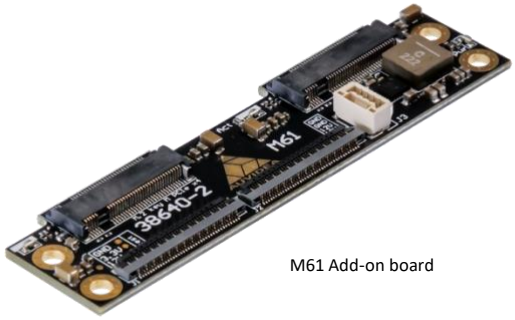
The X232 features an industrial strength design and is commercially deployable in any volume.

Features

- Interfaces backwards compatible to the X231 Jetson AGX Orin platform
- Easily migrate your existing Jetson AGX Xavier/Jetson AGX Orin
- Production volume is easily scalable as only readily available components are used
- CSI-2 extension connector
- Crypto chip to protect your software investment
- Custom configurations are be available on request
- Designed and manufactured in Germany



M208P Add-on board



M61 Add-on board

Technical Specifications

Feature	Description
Module compatibility	NVIDIA Jetson AGX Orin Module
Operating voltage	24V – 48V
Power modes	Up to 50W
HDMI out	✓ (J11)
USB 2.0	✓ (micro USB, OTG, J32)
USB 3.2	2x (type A, J15)
10GbE	2x RJ45 RTL8127 PCIex1 Gen4 (J4, J22)
PCIe x8	Dual PCIe x8 connector (J24)
M.2	Key M 2280 NVME (PCIe x4) Gen4
CAN	1x (with transceiver) 1x (RX/TX: with external transceiver)
UART	✓ (J10 Debug only)
I2C	2x (J7, J36)
CSI-2	All 16 lanes on extension connector (J28)
MCU	✓
Crypto chip	ATSH204A
Autoflashing	✓
Debug port	✓
Fan connector	✓ (12V, PWM)
RGB LED	✓ (GPIO controlled)
RTC	✓
Overvoltage protection	✓
Reverse voltage protection	✓
Hot swap controller	✓
Size	104.6mm x 125mm

Add-on modules

SKU	Part	
70857-F	M208F	3x M.2 Key E (USB 2.0) 1x M.2 Key B (LTE) 4x 4-Lane CSI port 2x FPC (PCIe x4)
70857-L	M208L	3x M.2 Key E (USB 2.0) 1x M.2 Key B (LTE) 4x 4-Lane CSI port 2x OCuLink (PCIe x4)
70857-P	M208P	3x M.2 Key E (USB 2.0) 1x M.2 Key B (USB2.0, LTE dual SIM) 4x 4-Lane CSI port 2x PCIe x8 (x16 slots)
70859	M61 Companion to M208F	Base for removable SSD 2x PCIe x4
70863	M280	4x 4-Lane M.2 Key M (PCIe x4) 4x 4-Lane OCuLink (PCIe x4) 2x 120 pin PCIe x8 (connector to carrier board)

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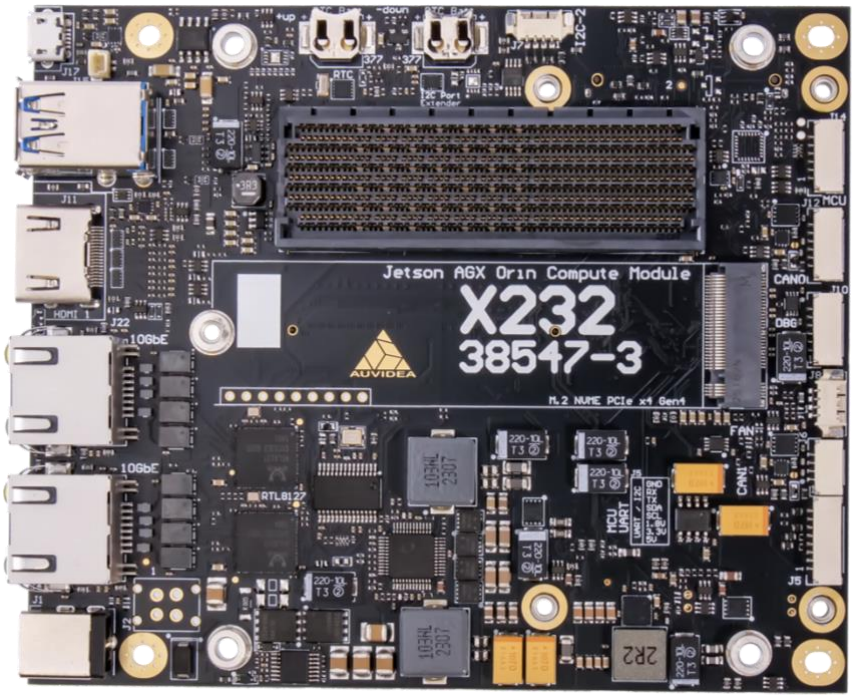
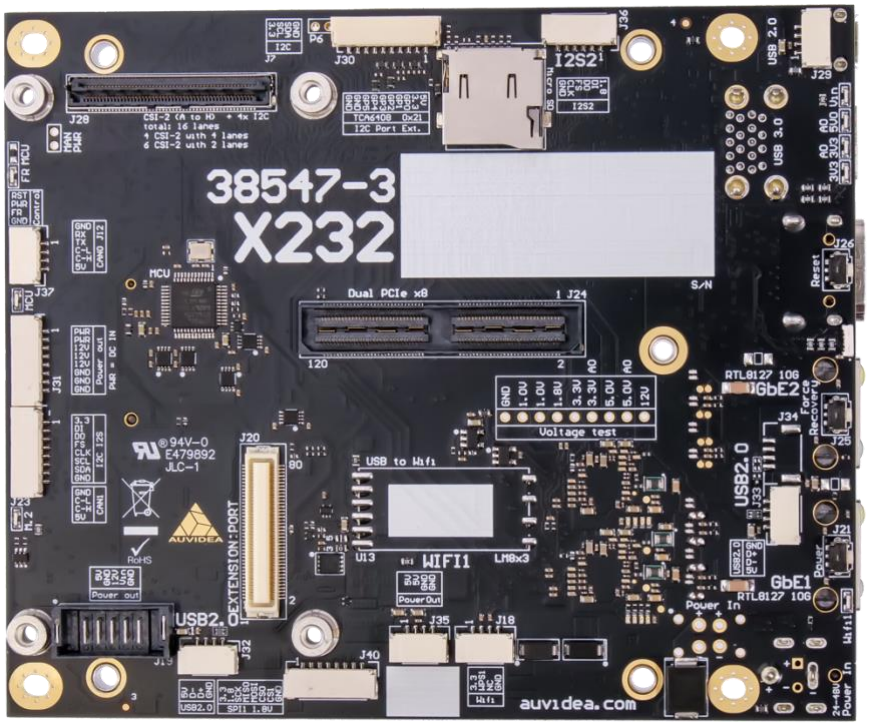
X232: dual 10G Ethernet

X232 top



X232 bottom



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