NVIDIA Jetson carrier boards

New Carrier boards for the NVIDIA® Jetson™ Nano™, Xavier™ NX and TX2

Dual CPU system (TX2 & Nano/Xavier NX)

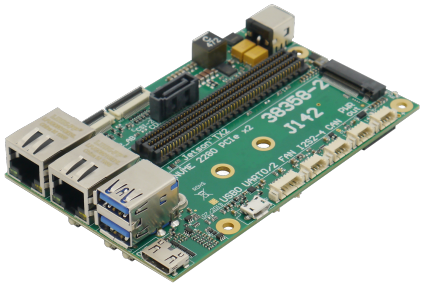
This new dual architecture is designed for applications where a single compute module does not offer sufficient performance. It is flexible as it allows to mix different kinds of modules. The picture shows a dual Nano/ TX2 system.

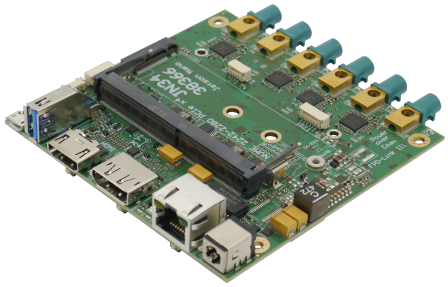
- integrated 5 port GbE switch to inter-connect the two compute modules. 1 GbE RJ45 port is externally available. 2 spare GbE ports for internal expansion.
- optional supercap UPS to support a graceful power down in the case of a sudden power loss
- each module features M.2 NVME PCIe x4 slot for local storage of large inferencing models
- Xavier NX ready
- optionally available in passively cooled aluminum case

J142 carrier board for TX2

This is a new version of the popular J140 carrier board.
It features 2 full speed GbE ports for GigE Vision cameras.
New is:

- dual native USB 3.0 type A ports (for USB3 Vison cameras)
- 12V to 48V power in





Cable extension for MIPI CSI-2 cameras

All Jetson compute module feature multiple MIPI CSI-2 interfaces for low overhead connection of high resolution cameras.
The FPD-Link III interface overcomes the major short coming of the CSI-2 interface - its short cable length.

- JN34 carrier features 6 FPD-Link III interfaces
- supports Nano today (Xavier NX is planned)
- FPD-Link III supports CSI-2 over coax cable
- up to 15m cable length
- Power over Coax

Design and manufacturing

- designed and manufactured in Germany
- in-house fully automated production line with 3D AOI
- special configuration possible with minimum purchase of 25 pcs (reduced costs by not populating certain components and interfaces - please ask for a quote)
- design services: you architect your custom carrier board and Auvidea handels design and production - please ask for a quote

embeddedworld2020
Exhibition&Conference
... it's a smarter world

Please see our products with the following partners:

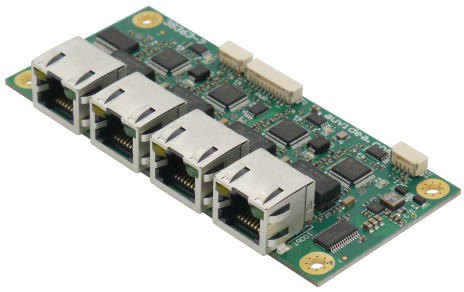
- **Silicon Highway**: carrier boards and live demo
  hall 2 booth 631
- **Allied Vision**: carrier board with MIPI CSI-2 cameras
  hall 2 booth 540

Carrier	J142	JN34	dual TX2/Nano system
CPU module	NVIDIA Jetson TX2	NVIDIA Jetson Nano	J180: NVIDIA Jetson TX2 JN80: Nano (Xavier NX)
display	mini HDMI	HDMI and Display Port	2x HDMI (one each)
CSI-2	3x (four lane)	6x FPD-Link III (Fakra) with power over coax	1x (4 lanes) for J180 (TX2) 2x (4 lanes) and 2x (2 lanes) for JN80 (Nano/Xavier NX)
USB 3.0	2x (up to 900mA)	1x (up to 900mA)	2x (up to 900mA) (one each)
USB 2.0	-	1x (internal expansion)	1x (internal expansion) for JN80
micro USB	automatic flashing	automatic flashing	automatic flashing
network	2x GbE	GbE	GbE (plus 2 spare internal GbE)
POE	-	-	-
M.2 storage	M.2 NVME PCIe x2 2280	M.2 NVME PCIe x4 2230-2280	2x M.2 NVME PCIe x4 2230-2280
IMU	MPU 9250 9 axis sensor	MPU 9250 9 axis sensor	-
UPS option	-	-	optional UPS supercaps
UART	UART0 and UART2	UART1 and UART2	JN80: UART0 and UART1 J180: UART0 and UART2
peripheral interfaces	SPI, I2C, GPIO and switches	SPI, I2C, GPIO and switches	JN80: I2S, I2C, GPIO and switches J180: CAN, SPI, I2S, I2C, GPIO, switches
fan	4 pin picoblade	4 pin picoblade	J180: 4 pin picoblade
power	12V to 48V	12V to 48V	12V to 48V
size	68mm x 110mm	103.5mm x 104.6mm	104.6mm x 150mm
aluminum case	-	passively cooled (optional)	passively cooled (optional)
list price	€299 net (plus VAT)	€499 net (plus VAT)	€1,199 net (plus VAT)
production	in production	in production	March 2020

USB 2.0 to 4x 100bT Ethernet adapter

Add-on module for Auvidea carrier boards. It provides 4 separate USB Ethernet controllers for network security. 4 network IP cameras may be connected and powered.

- integrates one quad USB 2.0 hub and four USB 2.0 to Ethernet controllers (AX88772CLF)
- 4 integrated Ethernet controllers with 4 “eth” devices each with its unique network settings like IP address, subnet mask and MAC address
- best network protection when connecting to IP network cameras
- each Ethernet port supports up to 100Mbit (ideal for H.264/H.265 network IP cameras
- cameras are powered via PoE+ PSE (power sourcing equipment)
- 3 Ethernet connector options:
  - 4x RJ45
  - 4x IX industrial
  - 4x JST GH connectors for IP67 systems



Auvidea GmbH
Kellerberg 3
D-86920 Denklingen
Germany

www.auvidea.com
sales@auvidea.com
Tel: +49 8243 7714 622
Skype: auvidea