JN30

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audio video media

Carrier board for the NVIDIA® Jetson™ Nano™
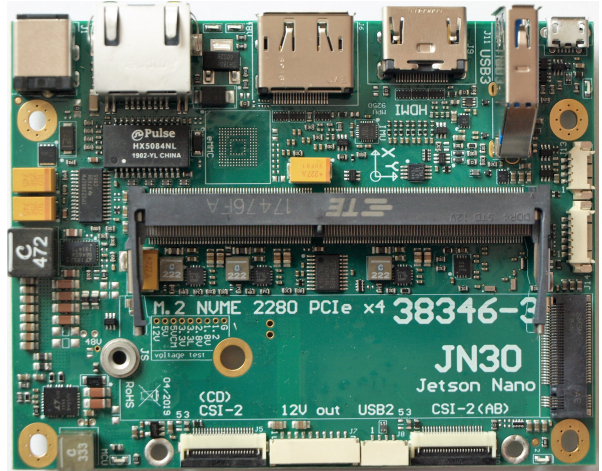### compact and low cost

Jetson Nano specific

This new JN30 carrier board turns the Jetson Nano compute module into a super mini computer. The Nano offers very high computational (quad core ARM® Cortex®-A57 with up to 1.43 GHz) and graphical (NVIDIA Maxwell™ with 128 CUDA cores) processing performance in a tiny form factor.
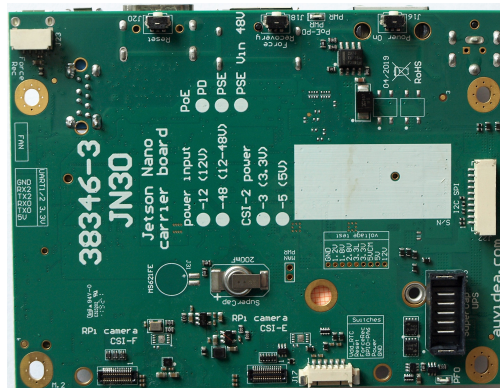
JN30

- easy aluminum case integration
- easy flashing: just connect a USB OTG cable
- high performance storage: M.2 NVME PCIe x4
- 2 versions support either Nano dev kit module (with SD card - 38346-3) or Nano production module (with eMMC - 38346-4)

Applications

- industrial AI computers
- digital signage systems

Carrier	Nano dev kit	JN30-LC	JN30-PSE	JN30-PD
CPU module	NVIDIA Jetson Nano	NVIDIA Jetson Nano (SD/eMMC)	NVIDIA Jetson Nano (SD/eMMC)	NVIDIA Jetson Nano (SD/eMMC)
display 1	HDMI	HDMI	HDMI	HDMI
display 2	Display Port	-	Display Port	Display Port
CSI-2	1 four lane	2 four lane	2 four lane and 2 two lane	2 four lane and 2 two lane
USB 3.0	4 (shared via USB 3.0 hub)	1	1	1
USB 2.0	-	1 (4 with optional USB module)	1 (4 with optional USB module)	1 (4 with optional USB module)
micro USB	manual flashing	automatic flashing	automatic flashing	automatic flashing
network	GbE	GbE	GbE with PoE PSE (15 watts)	GbE with PoE PD (class 4)
POE			PSE to power connected device	PD to be powered by network
M.2 storage	-	-	M.2 MVME PCIe x4 2260/2280	M.2 MVME PCIe x4 2260/2280
IMU	-	-	MPU 9250 9 axis sensor	MPU 9250 9 axis sensor
supercap option	-	-	for graceful power down	for graceful power down
UART		UART1 and UART 2	UART1 and UART 2	UART1 and UART 2
GPIOs	40 pin header	-	SPI, I2C, GPIO and switches	SPI, I2C, GPIO and switches
fan	4 pin fan header	4 pin picoblade (for TX1/TX2 fan)	4 pin picoblade (for TX1/TX2 fan)	4 pin picoblade (for TX1/TX2 fan)
power	5V 2A	12V 1A	12V to 48V	12V to 48V
size	79mm x 100mm	80mm x 104.6mm	80mm x 104.6mm	80mm x 104.6mm
aluminum case	-	passively cooled optional	passively cooled optional	passively cooled optional
components	on both sides	on top side only (flat bottom)	on both sides	on both sides
price (1 pc)		€99 net (plus VAT)	€179 net (plus VAT)	€179 net (plus VAT)
price (100 pcs)		€79 net (plus VAT)	€149 net (plus VAT)	€149 net (plus VAT)
Production		April 2019	April 2019	June 2019

bottom view

Options

Flexible design and manufacturing

- designed and manufactured in Germany
- in-house fully automated production line with 3D AOI
- 3 standard versions: JN30-LC, JN30-PSE and JN30-PD
- special configuration possible with minimum purchase of 25 pcs (display port, M.2, PoE, 48V power in, supercap option, 2 RPi camera module connectors, SPI, I2C, switches, etc.)
- design services: you architect your custom carrier board and Auvidea designs and produces it - please ask for a quote
- a more compact version of the JN30 is planned

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