AN110 with NX Module

Features

- This product is a small, powerful computer for embedded applications and AI IoT that delivers the power of modern AI.
- The Camera Serial Interface (CSI) is based on MIPI CSI 2.0 standard specification can support up to 2xFull HD or 1x 4K camera.
- Suitable for NVR (Single Machine), Entry-level home robot and smart gateway.

Specifications

NANO Processor

- NVIDIA® Jetson Xavier™ NX processing
- GPU: 384-core NVIDIA Volta™ GPU with 48 Tensor Cores
- CPU: 6-core NVIDIA Carmel ARM®v8.2 64-bit
      CPU 6MB L2 + 4MB L3
- Memory: 8 GB 128-bit LPDDR4
- Storage: 16GB eMMC 5.1
- Performance: 14 TOPS (INT8) at 10W
            21 TOPS (INT8) at 15W
- Dimension: 69.6 x 45mm(260-pin SO-DIMM connector)

AN110 Board Dimension

- 87.4 x 67.4mm

I/O Interface

- 1x HDMI Type A
- 1x RJ-45 for GbE
- 2x USB3.2 Gen1 Type A
- 1x USB2.0 Micro AB
- 1x Micro SD
- 1x FPC Camera connector(15pins/MIPI CSI 2Lanes)
- 1x FPC Camera connector(36pins/MIPI CSI 4Lanes)
- 1x Front Panel
- 1x RS-232 / 2 x UART / 1 x I2C / 5 x GPIO / 1x SPI
- 1x DC-in 12V (2 Pin Euroblock)
- 1x eDP (12V)
- 1x M.2 E key 2230

Operating Temperature

- -20°C ~ +55°C (Board Standard temperature)
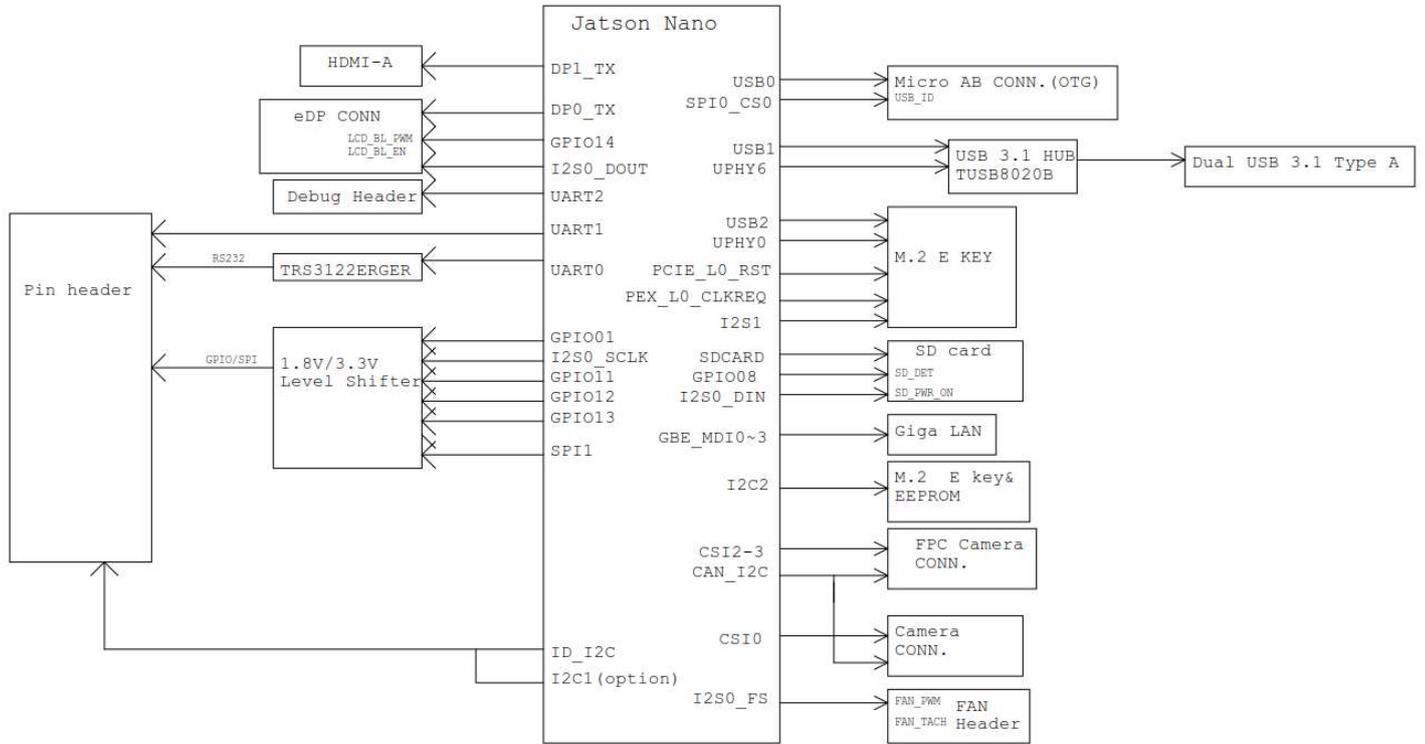
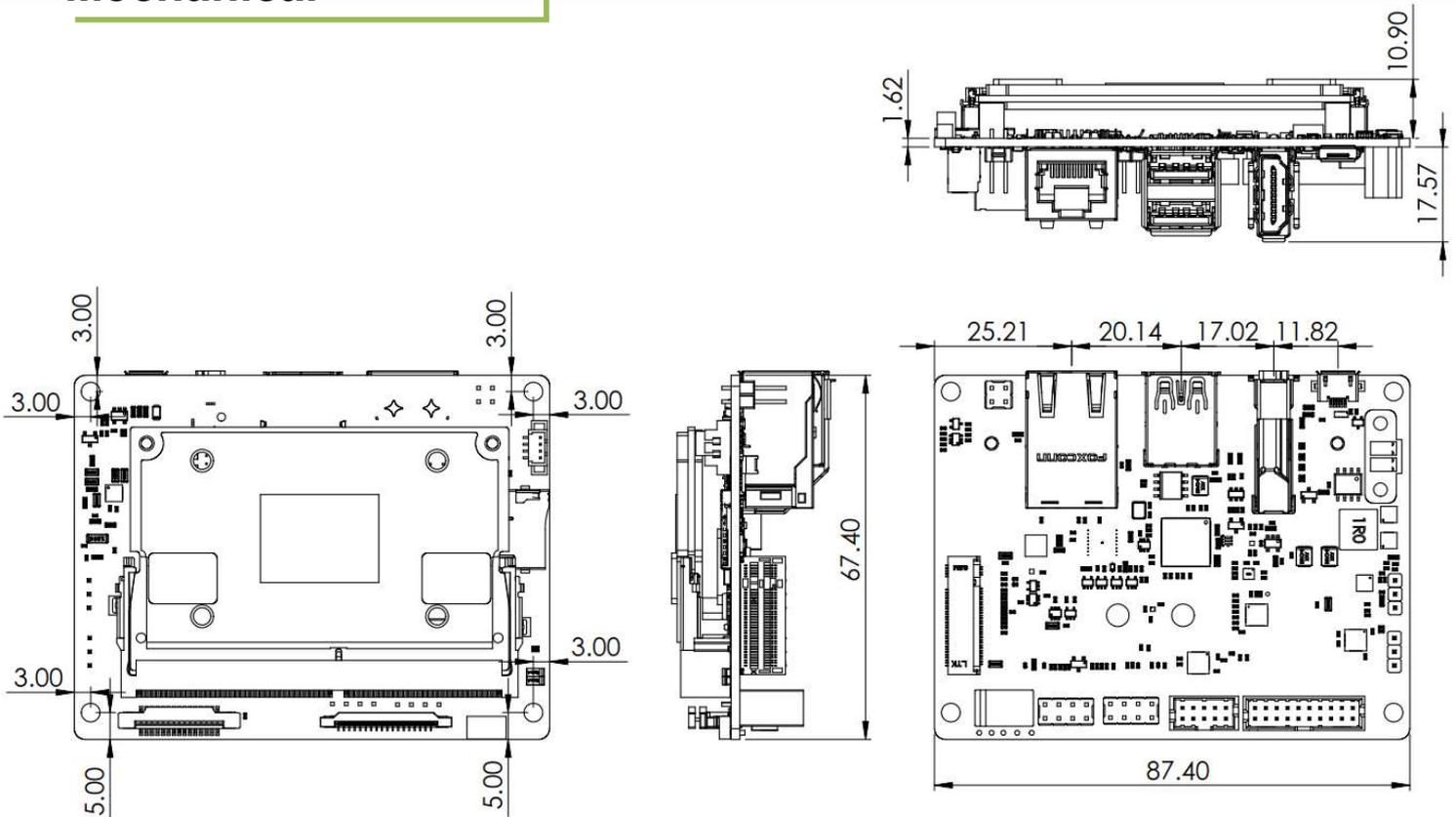### Operating Humidity

- 10% ~ 90%

Storage Temperature

- -40°C ~ +85°C

Block Diagram

Jatson Nano block diagram

HDMI-A ← DP1_TX	USB0 → Micro AB CONN.(OTG) USB_ID	
eDP CONN ← DP0_TX, GPIO14 (LCD_BL_PWM), I2S0_DOUT (LCD_BL_EN)	USB1 → USB 3.1 HUB TUSB8020B → Dual USB 3.1 Type A	
Debug Header ← UART2	UPHY6	
Pin header ← UART1	USB2, UPHY0 → M.2 E KEY	
TRS3122ERGER ← UART0 (RS232)	PCIE_L0_RST, PEX_L0_CLKREQ, I2S1	
1.8V/3.3V Level Shifter ← GPIO01, I2S0_SCLK, GPIO11, GPIO12, GPIO13, SPI1 (GPIO/SPI)	SDCARD → SD card (SD_DET), GPIO08 (SD_PWR_ON), I2S0_DIN	
	GBE_MDI0~3 → Giga LAN	
	I2C2 → M.2 E key& EEPROM	
	CSI2-3, CAN_I2C → FPC Camera CONN.	
ID_I2C, I2C1(option)	CSI0 → Camera CONN.	
	I2S0_FS → FAN_PWM, FAN_TACH, FAN Header	

Mechanical

Ordering Information

Product name	Description
AN110-XNX-FN01	AN110 Carrier + NX Module including I/O Cables, Standard temp -25°C to +80°C
AN110-XNX-EN02	AN110 + NX Module + FANsink + I/O Cables + Power Adapter + US Power Cord -20°C to +55°C
AN110-XNX-EN03	AN110 + NX Module + FANsink + I/O Cables + Power Adapter + EU Power Cord -20°C to +55°C
AN110-XNX-EN70	AN110 + NX Module + Chassis + Power Adapter -20°C to +55°C

Accessory (Optional)

Product name	Description
7W8000000040	US Power Cord SVT 18AWG Cable 1800mm Black 105 °C
7W8000000050	EU Power Cord H05VV-F 0.75mm2/3G SL-6+SL-3 Cable 1800mm Black
9Z3BC0000020	100-240V 60W 12V 5A Adapter
9Z1254328010	FANsink

FANsink

12V/5A 60W Adapter

AVL List

MIPI CAMERA						
Vendor	Sensor	Frame rate	Sensor Size	Shutter	Resolution	Pixel Size
APPRO	SONY CMOS IMX290	30fps/60fps	1/2.8"	Rolling	2M(1920x1080)	2.9um x 2.9um
APPRO	SONY CMOS IMX334	30fps	1/1.8"	Rolling	4K(3840x2160)	2.0um x 2.0um
APPRO	SONY CMOS IMX179	3280x2464 x15fps 1920z1080 x30fps	1/3.2"	Rolling	8M(3280x2464)	1.4um x 1.4um

M.2 Device				
Vendor	Product	Function	Form factor	Description
Intel	Intel 8265NGW	WiFi/BT	M.2 E Key	Dual Band Wireless-AC M.2 2230 Device