

AI Inference / DeviceEdge

Jetson Platform AIB-SO21/AIB-SO31 AIB-SN31/AIB-SN41



Features

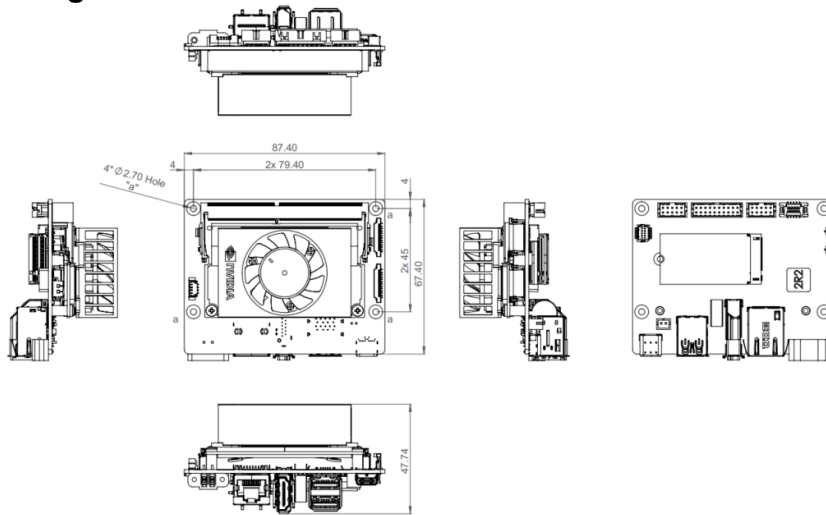
- Support NVIDIA Jetson Orin Nano / NX Series
- Storage supports M.2 2242 NVMe (128GB built-in)
- 1 x M.2 E-Key 2230 slot, 1 x GbE Port
- Wide Power Input Range 12 to 24 VDC
- Operating Temperature -25° C ~ 80° C
- Support OOB (out-of-band) powered by Innodisk (optional)



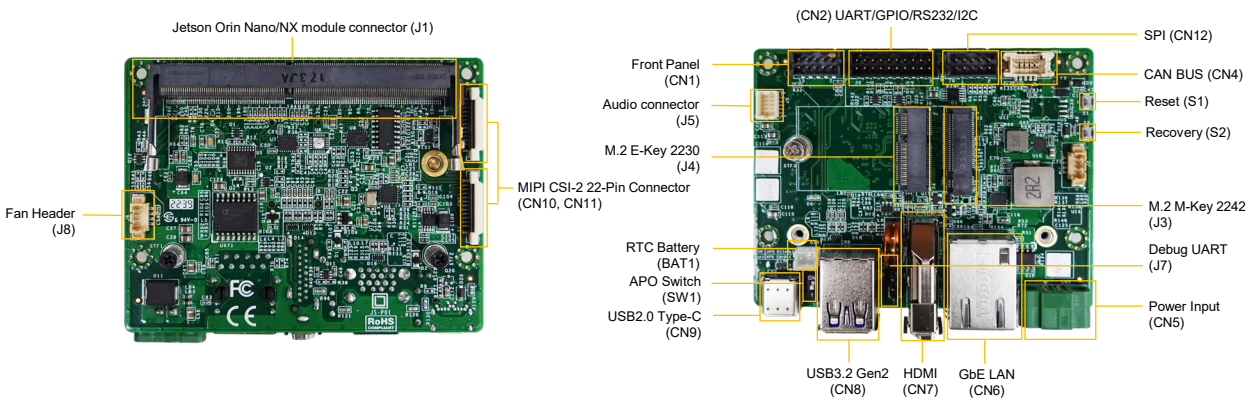
Specifications

Model Number	AIB-SO21/SO31	AIB-SN31/SN41
Module Compatibility	NVIDIA Jetson Orin Nano 4/8G	NVIDIA Jetson Orin NX 8/16G
AI Performance	20/40 TOPS	70/100 TOPS
GPU	512 Core NVIDIA Ampere, with 16 Tensor Cores 1024 Core NVIDIA Ampere, with 32 Tensor Cores	1024 Core NVIDIA Ampere, with 32 Tensor Cores
CPU	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3 8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3
Memory	4GB 64-bit LPDDR5 34 GB/s 8GB 128-bit LPDDR5 68 GB/s	8GB 128-bit LPDDR5 102.4 GB/s 16GB 128-bit LPDDR5 102.4 GB/s
Storage	1 x M.2 M-Key 2242 (128GB built-in)	
Display	1 x HDMI 2.0 Type A	
Audio	Line-out/Line-in/Mic (optional with daughter board)	
RTC	With super capacitor, battery (optional)	
MIPI Camera Input	2 x 4-Lane MIPI CSI-2 22-Pin Connector	
LAN	1 x RJ-45 GbE Port	
USB	2 x USB 3.2 Gen2 Type A 1 x OTG Type-C	
I/O Interfaces	5 x GPIO, 1 x I2C, 1 x I2S, 1 x RS-232, 1 x UART, 1 x UART (Debug Only), 1 x SPI, 1 x CAN (Isolation)	
Expansion	1 x M.2 E-Key 2230 (support PCIe x1 Gen3, USB 2.0) 1 x M.2 M-Key 2242 (128GB built-in)	1 x M.2 E-Key 2230 (support PCIe x1 Gen3, USB 2.0) 1 x M.2 M-Key 2242 (128GB built-in)
MISC. Function	1 x Power / Recovery / Reset Button	
Power Consumption	Idle: 5.5 W Full Loading: 27.25* W	Idle: 4.6 W Full Loading: 37.25* W
	*For more test condition information, please refer to user manual	
Power Input / Connector	DC-in 12-24VDC / 2-Pin Terminal Block	
Dimension (W x D x H)	87.4 x 67.4 x 28.45 mm (3.44 x 2.65 x 1.12 in)	
Net Weight	0.144 kg (0.32 lb) w/ Fansink	
Vibration	1 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis	
Shock	10 G, IEC 60068-2-27, half sine, 11 ms duration	
Temperature	Operating Temp.: -25° C ~ 80° C (-13° F ~ 176° F) / Storage Temp.: -40° C ~ 85° C (-40° F ~ 185° F)	
Humidity	95% @ 40°C Related Humidity, Non-condensing	
OS Support	Ubuntu 20.04	
Certification	CE/FCC Class A, IEC 62368	

System & Mounting Dimensions



Carrier Board Layout



Ordering Information

Model name	Description
AIB-SO21-1-A1	With Orin Nano 4G, 1 x HDMI, 2 x USB-A, 1 x USB-C (OTG only), 1 x RJ-45 GbE, 12 to 24 VDC input, -20° C ~ 80° C
AIB-SO31-1-A1	With Orin Nano 8G, 1 x HDMI, 2 x USB-A, 1 x USB-C (OTG only), 1 x RJ-45 GbE, 12 to 24 VDC input, -20° C ~ 80° C
AIB-SN31-1-A1	With Orin NX 8G, 1 x HDMI, 2 x USB-A, 1 x USB-C (OTG only), 1 x RJ-45 GbE, 12 to 24 VDC input, -20° C ~ 80° C
AIB-SN41-1-A1	With Orin NX 16G, 1 x HDMI, 2 x USB-A, 1 x USB-C (OTG only), 1 x RJ-45 GbE, 12 to 24 VDC input, -20° C ~ 80° C

Packing List

Item/Part Number	Description
AIB-SO21	AIB-SO21 carrier board w/ Orin Nano 4GB
AIB-SO31	AIB-SO31 carrier board w/ Orin Nano 8GB
AIB-SN31	AIB-SN31 carrier board w/ Orin NX 8GB
AIB-SN41	AIB-SN41 carrier board w/ Orin NX 16GB
53-0FG160-1200	85~264V 138W 12V 11.5A power adaptor

Accessories (Optional)

Part Number	Description
32-010000-0005	US power cord
32-010000-0006	EU power cord
32-010000-0008	JP power cord

Peripheral (Optional)

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