

AI Inference / DeviceEdge

Powered by NVIDIA® Jetson™
AIB-MO22/AIB-MO32-S2
AIB-MN32/AIB-MN42-S2



Features

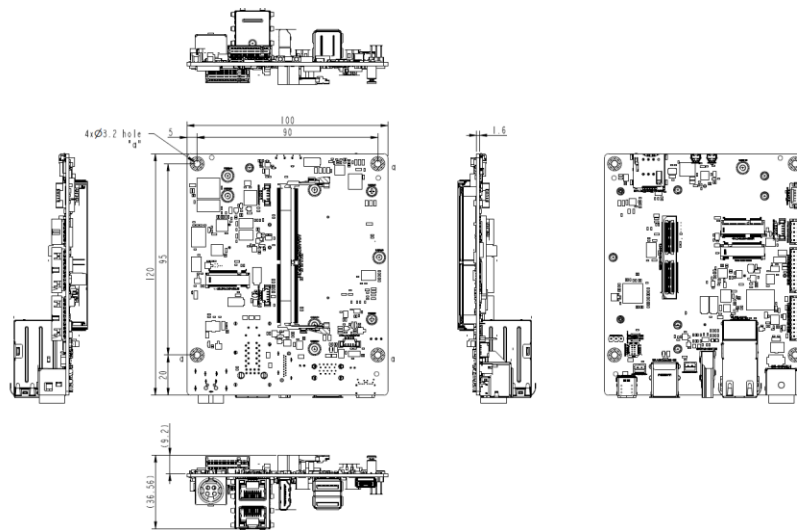
- Supports NVIDIA Jetson Orin Nano™ /Orin™ NX with Super Mode
- 1 x M.2 B-Key/E-Key/M-Key (NVMe 128GB built-in)
- 2 x RJ-45 GbE Ports
- Wide Input Voltage Range 12 to 24 VDC
- Supports OOB (out-of-band) powered by Innodisk (optional)
- Operating temperature -25°C ~ +80°C



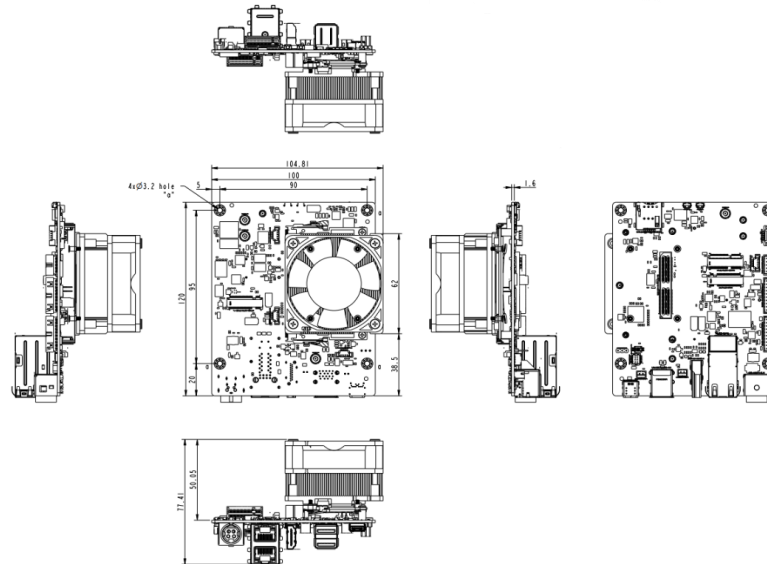
Specifications

Model Number	AIB-MO22-1-S2	AIB-MO32-1-S2	AIB-MN32-1-S2	AIB-MN42-1-S2
Module Compatibility	NVIDIA Jetson Orin Nano with Super Mode 4GB	NVIDIA Jetson Orin Nano with Super Mode 8GB	NVIDIA Jetson Orin NX with Super Mode 8GB	NVIDIA Jetson Orin NX with Super Mode 16GB
AI Performance	34 TOPS	67 TOPS	117 TOPS	157 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 1.5MB L2 + 4MB L3		6-core Arm® Cortex®-A78AE v8.2 64-bit 2MB L2 + 4MB L3	8-core Arm® Cortex®-A78AE v8.2 64-bit 2MB L2 + 4MB L3
Memory	4GB 64-bit LPDDR5 51 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 (NVMe 128GB built-in)			
Display	1 x HDMI Type A (HDMI 1.4)		1 x HDMI Type A (HDMI 2.0)	
Audio	Line-out / Line-in / Mic (optional with daughter board)			
TPM	TPM 2.0			
RTC	RTC Battery BR2032			
Camera Input	1 x 8-Lane MIPI Expansion Connector (120-Pin) Supports GMSL and MIPI cameras (pre-built drivers required) *Refer to Peripheral List			
LAN	2 x RJ-45 GbE Ports			
USB	2 x USB 3.2 Gen2 Type A (supports up to 10Gbps shared) 1 x OTG Type-C			
I/O Interfaces	5 x GPIO, 1 x SPI, 1 x I2S, 3 x I2C, 1 x UART, 1 x UART (Debug Only), 1 x RS-232, 1 x CAN (Isolation; supports CAN FD), 1 x RS-422/485 (2-in1), 1 x microSIM Card Slot			
Expansion	1 x M.2 B-Key 3042/3052 (LTE/4G/5G, with 1PPS function supported at 1.8V / 3.3V) 1 x M.2 E-Key 2230 (WiFi/BT) 1 x M.2 M-Key 2242 (NVMe 128GB built-in)			
MISC. Function	1 x Recovery / 1 x Reset Button			
Power Consumption	Idle: 5.5 W Full Loading: 35.45* W		Idle: 6.4 W Full Loading: 52* W	
	*For more test condition information, please refer to user manual			
Power Input / Connector	DC-in 12 to 24 VDC / 4-Pin DC Jack Power Connector			
Dimension (W x D x H)	120 x 100 x 36.56 mm (4.73 x 3.94 x 1.43 in) without Fansink 120 x 100 x 77.41 mm (4.73 x 3.94 x 3.43 in) with Fansink			
Net Weight	146g (0.32 lb) without Fansink 300g (0.66 lb) with 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) *With full CPU+GPU stressing: System non-throttling at 70C with 40W (MAXN Mode)			
Humidity	95% @ 40°C (104°F) (non-condensing)			
Software Support	Linux (Support NVIDIA JetPack™ 6.2 and above)			
Certification	CE / FCC Class A / UKCA			

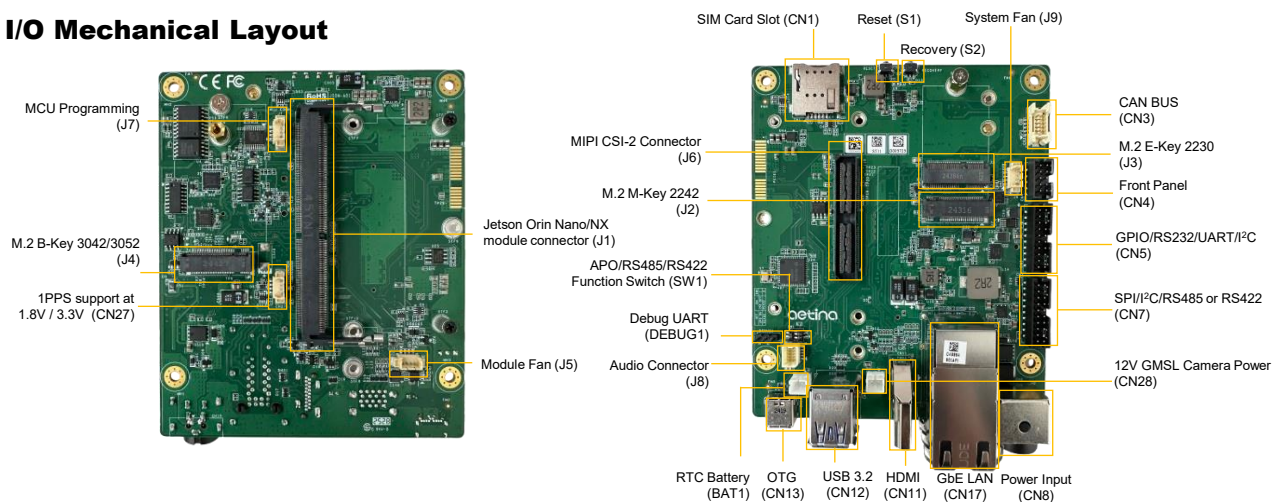
System & Mounting Dimensions Without Fansink



System & Mounting Dimensions With Fansink



I/O Mechanical Layout



Ordering Information

Model name	Description
AIB-MO22-1-S2	NVIDIA Jetson Orin Nano 4GB, 1 x HDMI, 2 x GbE, 2 x USB, 128GB SSD, B/E/M Key, 12 to 24 VDC input, -25°C ~ +80°C
AIB-MO32-1-S2	NVIDIA Jetson Orin Nano 8GB, 1 x HDMI, 2 x GbE, 2 x USB, 128GB SSD, B/E/M Key, 12 to 24 VDC input, -25°C ~ +80°C
AIB-MN32-1-S2	NVIDIA Jetson Orin NX 8GB, 1 x HDMI, 2 x GbE, 2 x USB, 128GB SSD, B/E/M Key, 12 to 24 VDC input, -25°C ~ +80°C
AIB-MN42-1-S2	NVIDIA Jetson Orin NX 16GB, 1 x HDMI, 2 x GbE, 2 x USB, 128GB SSD, B/E/M Key, 12 to 24 VDC input, -25°C ~ +80°C

Packing List

Item/Part Number	Description
92-6BMO22-4004	AIB-MO22-S2 carrier board w/ NVIDIA Jetson Orin Nano 4GB
92-6BMO32-4006	AIB-MO32-S2 carrier board w/ NVIDIA Jetson Orin Nano 8GB
92-6BMN32-4003	AIB-MN32-S2 carrier board w/ NVIDIA Jetson Orin NX 8GB
92-6BMN42-4004	AIB-MN42-S2 carrier board w/ NVIDIA Jetson Orin NX 16GB
53-0FG160-1200	100-240V 138W 12V 11.5A power adaptor
20-100000-0003	Battery wire Panasonic BR2032 3V/200mA L=45mm
31-080000-0006	Front Panel Cable
3102000076N000	2 X 10P Housing to Dupont Function Cable
3102000078N000	2 x 5P CAN Function Cable

Accessories (Optional)

Part Number	Description
3102000153N000	US power cord
32-010000-0006	EU power cord
32-010000-0008	JP power cord
3102000037N000	UK power cord