

AI Inference / DeviceEdge

Powered by NVIDIA® Jetson™
AIE-CO23/AIE-CO33-S1
AIE-CN33/AIE-CN43-A1
AIE-CN33/AIE-CN43-S1-F



Features

- Supports NVIDIA Jetson Orin Nano / NX Series (Super mode)
- 1 x M.2 B-Key/ E-Key/ M-Key (NVMe 128GB built-in)
- 1 x RJ-45 for GbE
- 2 x IEEE 802.3af GbE PSE Ports
- Power Input Voltage Range 12 to 24 VDC
- Operating temperature Fanless -25°C ~ +55°C (Fan) -25°C ~ +70°C

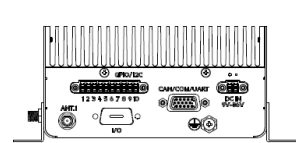
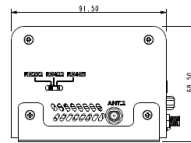
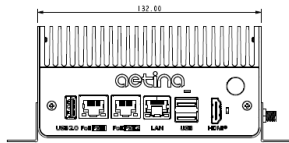
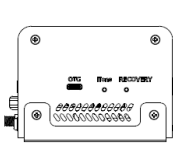
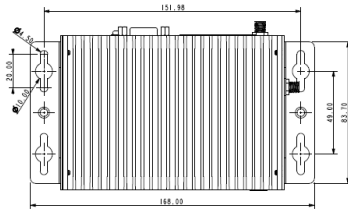


Specifications

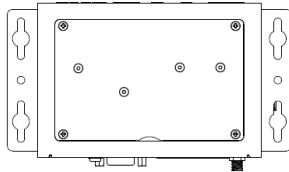
Model Number	AIE-CO23-S1	AIE-CO33-S1	AIE-CN33-A1	AIE-CN43-A1	AIE-CN33-S1-F	AIE-CN43-S1-F
Module Compatibility	NVIDIA Jetson Orin Nano 4GB	NVIDIA Jetson Orin Nano 8GB	NVIDIA Jetson Orin NX 8GB	NVIDIA Jetson Orin NX 16GB	NVIDIA Jetson Orin NX 8GB	NVIDIA Jetson Orin NX 16GB
AI Performance	34 TOPS	67 TOPS	70 TOPS	100 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	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	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 2.0 Type A					
TPM	TPM					
RTC	RTC Battery					
LAN	1 x RJ-45 GbE Ports					
PoE Interface	2 x RJ-45 GbE PSE (IEEE 802.3af compliant, Power Output 15W/Port, Total PSE ports support up to 30W)					
I/O Interfaces	2 x USB 3.2 Gen2 Type A (supports up to 10Gbps shared) 1 x USB 2.0 Gen2 Type A 1 x OTG Type-C					
Expansion	1 x M.2 B-Key 3052 (LTE) 1 x M.2 E-Key 2230 (WiFi/BT) 1 x M.2 M-Key 2242 (NVMe 128GB built-in) 4 x GPIO, 1 x SPI, 2 x I2C, 1 x UART 1 x CAN (Isolation; support CAN FD), 1 x RS-422/485/232 (switch 3-in1)					
MISC. Function	1 x Recovery Button					
Fan	-	-	Externally accessible fan for enhanced system thermal dissipation			
Power Consumption	Idle: 13 W Full Loading: 77* W		Idle: 14 W Full Loading: 78* W		Idle: 16 W Full Loading: 94* W	
*For more test condition information, please refer to user manual						
Power Input / Connector	DC-in 12 to 24 VDC / 2-Pin Terminal Block					
Dimension (W x D x H)	132(H) x 91.5(D) x 68.5(W) mm				132(H) x 91.5(D) x 83.5(W) mm	
Net Weight	0.953 kg (2.1 lb)				1.143 kg (2.52 lb)	

Model Number	AIE-CO23-S1	AIE-CO33-S1	AIE-CN33-A1	AIE-CN43-A1	AIE-CN33-S1-F	AIE-CN43-S1-F
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 ~ +55°C (-13°F ~ +131°F) Storage Temp.: -40°C ~ +85°C (-40°F ~ +185°F) *With full CPU+GPU stressing: System non-throttling at 55C with 25W (Power Mode)			Operating Temp.: -25°C ~ +55°C (-13°F ~ +131°F) Storage Temp.: -40°C ~ +85°C (-40°F ~ +185°F) *With full CPU+GPU stressing: System non-throttling at 65C with 40W (MAXN Mode)		
Humidity	95% @ 40°C (104°F) (non-condensing)					
Software Support	Linux (Support Jetpack 6.2 above)					
Certification	CE / FCC Class A / UKCA					

System & Mounting Dimensions



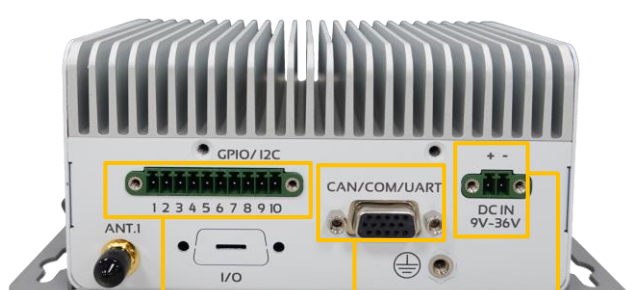
SCALE: 0.500



I/O Mechanical Layout

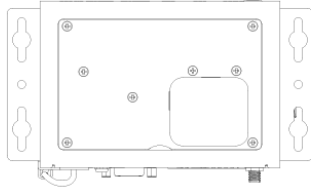
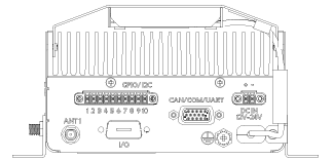
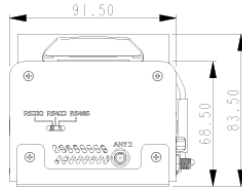
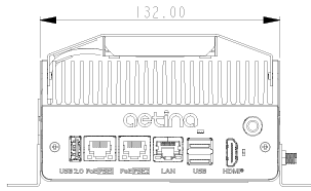
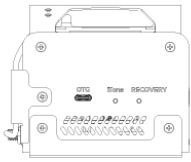
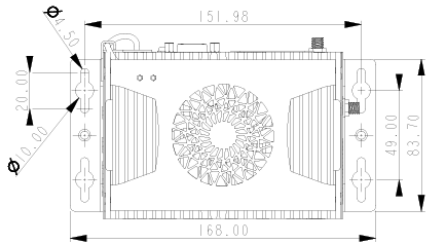


USB 2.0 2 x GbE PoE PSE 1 x GbE LAN 2 x USB 3.2 HDMI

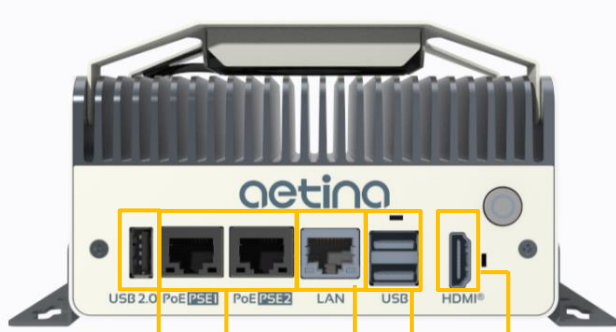


4 x GPIO, 2 x I2C 1 x Isolation CAN FD 12-24VDC
 1 x RS/232/RS422/RS485 1 x UART

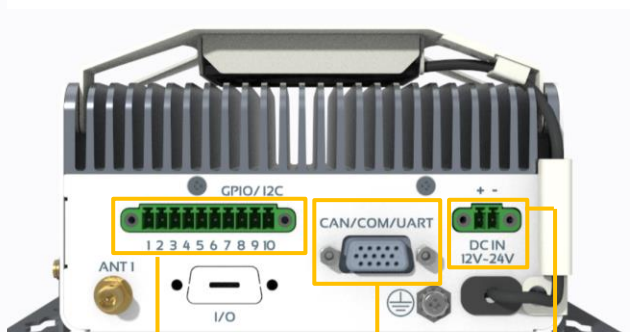
System & Mounting Dimensions



I/O Mechanical Layout With Fan



USB 2.0 2 x GbE PoE PSE 1 x GbE LAN 2 x USB 3.2 HDMI



4 x GPIO, 2 x 12C 1 x Isolation CAN FD 12-24VDC
 1 x RS/232/RS422/RS485 1 x UART

Ordering Information

Model name	Description
AIE-CO23-1-S1	Orin Nano 4GB, 1 x HDMI, 1 x GbE, 2 x PoE, 3 x USB, 128GB SSD, E/M Key, 12to 24 VDC input, -25°C ~ +55°C
AIE-CO33-1-S1	Orin Nano 8GB, 1 x HDMI, 1 x GbE, 2 x PoE, 3 x USB, 128GB SSD, E/M Key, 12 to 24 VDC input, -25°C ~ +55°C
AIE-CN33-1-A1	Orin NX 8GB, 1 x HDMI, 1 x GbE, 2 x PoE, 3 x USB, 128GB SSD, E/M Key, 12 to 24 VDC input, -25°C ~ +55°C
AIE-CN43-1-A1	Orin NX 16GB, 1 x HDMI, 1 x GbE, 2 x PoE, 3 x USB, 128GB SSD, E/M Key, 12 to 24 VDC input, -25°C ~ +55°C
AIE-CN33-1-S1-F	Orin NX 8GB, 1 x HDMI, 1 x GbE, 2 x PoE, 3 x USB, 128GB SSD, E/M Key, Fankit, 12 to 24 VDC input, -25°C ~ +70°C
AIE-CN43-1-S1-F	Orin NX 16GB, 1 x HDMI, 1 x GbE, 2 x PoE, 3 x USB, 128GB SSD, E/M Key, Fankit, 12 to 24 VDC input, -25°C ~ +70°C

Packing List

Item/Part Number	Description
92-CECO23-R000	AIE-CO23-1-S1 System w/ Orin Nano 4GB
92-CECO33-R001	AIE-CO33-1-S1 System w/ Orin Nano 8GB
92-CECN33-R000	AIE-CN33-1-A1 System w/ Orin NX 8GB
92-CECN43-R000	AIE-CN43-1-A1 System w/ Orin NX 16GB
92-CECN33-J001	AIE-CN33-1-S1-F System w/ Fankit ,Orin NX 8GB
92-CECN43-J001	AIE-CN43-1-S1-F System w/ Fankit, Orin NX 16GB
53-0FG160-1200	100-240V 138W 12V 11.5A power adaptor
3301000130N001	BRACKET WALL MOUNT
55-2ECN33-Z000	FANKIT (Fan SKU only)

Accessories (Optional)

Part Number	Description
32-010000-0005	US power cord
32-010000-0006	EU power cord
32-010000-0008	JP power cord
3102000037N000	UK power cord
3201000051S000	PLUG RETENTION CLAMP
3301000130N001	BRACKET WALL MOUNT
3301000160N000	BRACKET DIN-RAIL
55-2ECN33-Z000	FANKIT PACKAGE