

AI Inference / DeviceEdge

Jetson System AIE-CO21/AIE-CO31 AIE-CN31/AIE-CN41



Features

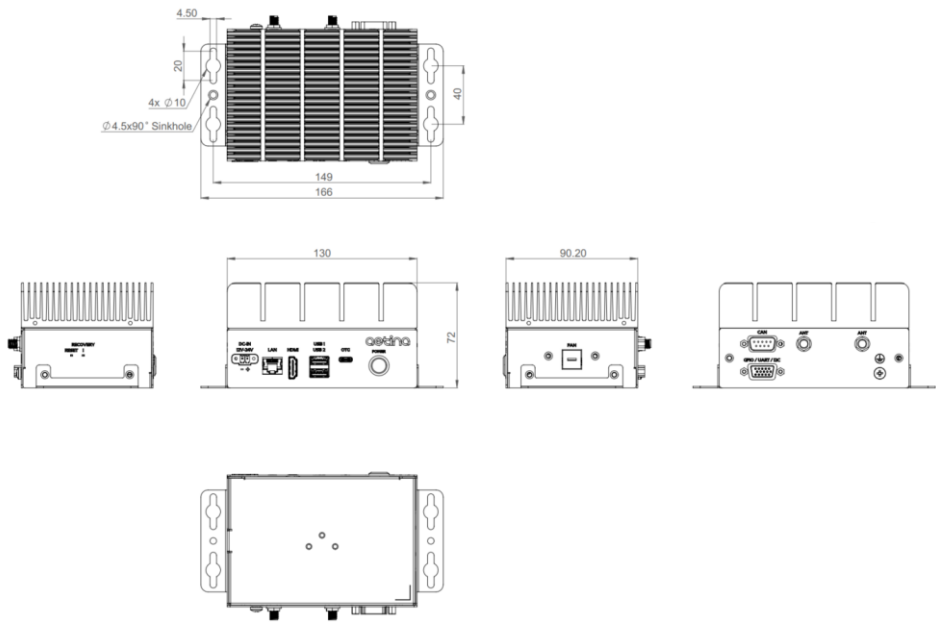
- Supports NVIDIA Jetson Orin Nano/NX Series
- 1 x M.2 E-Key/M-Key (128GB built-in)
- 1 x RJ-45 GbE Port
- Wide Power Input Range 12 to 24 VDC
- Operating temperature -25°C ~ +55°C
- Fanless Design



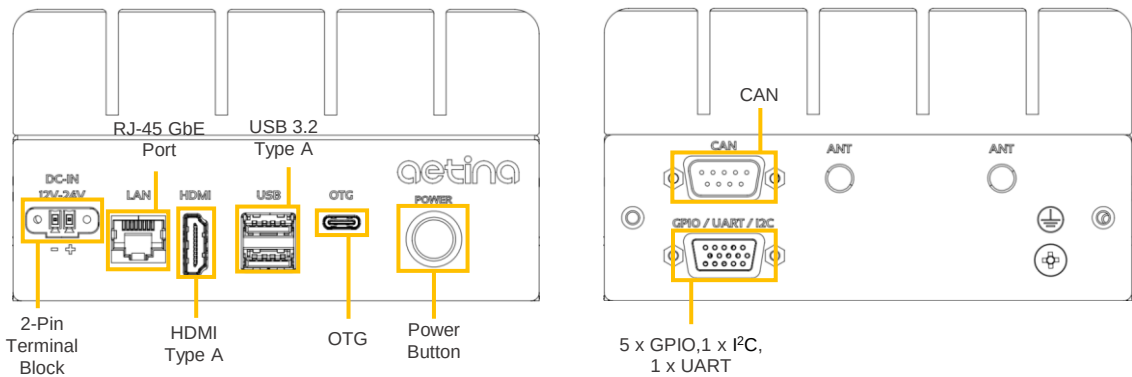
Specifications

Model Number	AIE-CO21 / AIE-CO31		AIE-CN31 / AIE-CN41
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 1.5MB L2 + 4MB L3		6-core Arm® Cortex®-A78AE v8.2 64-bit 1.5MB L2 + 4MB L3 8-core Arm® Cortex®-A78AE v8.2 64-bit 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		
RTC	With super capacitor, battery (optional)		
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 UART, 1 x I2C, 1 x CAN (Isolation)		
Expansion	1 x M.2 E-Key 2230 (WiFi/BT, PCIe/USB 2.0) 1 x NVMe M.2 M-Key 2242 (128GB built-in)		1 x M.2 E-Key 2230 (WiFi/BT, PCIe/USB 2.0) 1 x NVMe M.2 M-Key 2242 (128GB built-in)
MISC. Function	1 x Power Button, 1 x Recovery Button, 1 x Reset Button 1 x CAN 2.0b with isolation		
Power Input /Connector	DC-in 12-24 VDC / 2-Pin Terminal Block		
Power consumption	Idle: 3.4 W Full Loading: 25.08* W		Idle: 3.7 W Full Loading: 35.5* W
	*For more test condition information, please refer to user manual		
Dimension (W x D x H)	130 x 90.2 x 72 mm (5.11 x 3.55 x 2.83 in)		
Mounting	Wall Mount / Din Rail (optional)		
Net Weight	0.927 kg (2.044 lb)		
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)		
Humidity	95% @ 40°C (104°F) (non-condensing)		
OS Support	Ubuntu 20.04		
Certification	CE / FCC Class A / UKCA		

System & Mounting Dimensions



I/O Mechanical Layout



Ordering Information

Model name	Description
AIE-CO21-1-A1	Orin Nano 4GB, 1 x HDMI, 1 x GbE, 2 x USB, 128GB SSD, E/M Key, 12 to 24 VDC input, -25°C ~ +55°C
AIE-CO31-1-A1	Orin Nano 8GB, 1 x HDMI, 1 x GbE, 2 x USB, 128GB SSD, E/M Key, 12 to 24 VDC input, -25°C ~ +55°C
AIE-CN31-1-A1	Orin NX 8GB, 1 x HDMI, 1 x GbE, 2 x USB, 128GB SSD, E/M Key, 12 to 24 VDC input, -25°C ~ +55°C
AIE-CN41-1-A1	Orin NX 16GB, 1 x HDMI, 1 x GbE, 2 x USB, 128GB SSD, E/M Key, 12 to 24 VDC input, -25°C ~ +55°C

Packing List

Item/Part Number	Description
AIE-CO21	AIE-CO21 system w/ Orin Nano 4GB
AIE-CO31	AIE-CO31 system w/ Orin Nano 8GB
AIE-CN31	AIE-CN31 system w/ Orin NX 8GB
AIE-CN41	AIE-CN41 system w/ Orin NX 16GB
53-0F0000-0002	100-240V 60W 12V 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
3102000037N000	UK power cord

Peripheral (Optional)

[Download the List](#)



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Features

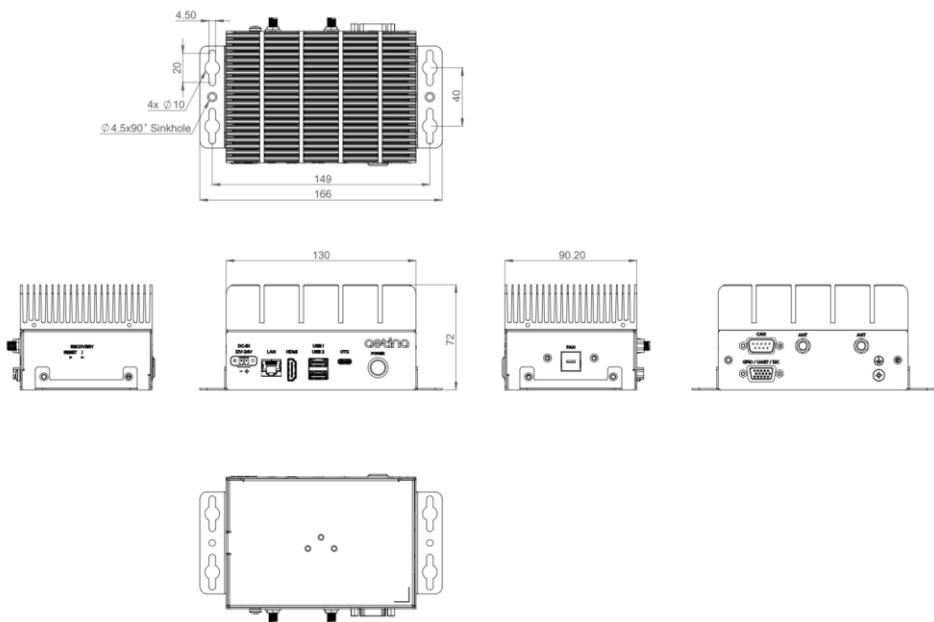
- Supports NVIDIA Jetson Orin Nano Super Mode
- 1 x M.2 E-Key/M-Key (128GB built-in)
- 1 x RJ-45 GbE Port
- Wide Power Input Range 12 to 24 VDC
- Operating temperature -25°C ~ +55°C
- Fanless Design



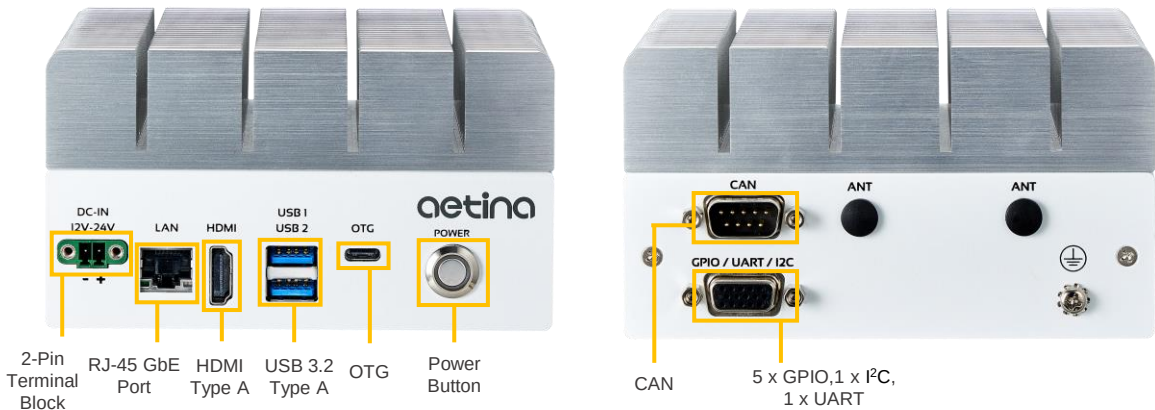
Specifications

Model Number	AIE-CO21	AIE-CO31
Module Compatibility	NVIDIA Jetson Orin Nano 4GB	NVIDIA Jetson Orin Nano 8GB
AI Performance	34 TOPS	67 TOPS
GPU	512 Core NVIDIA Ampere, with 16 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	
Memory	4GB 64-bit LPDDR5 51 GB/s	8GB 128-bit LPDDR5 68 GB/s
Storage	1 x M.2 M-Key 2242 (128GB built-in)	
Display	1 x HDMI 2.0 Type A	
RTC	With super capacitor, battery (optional)	
LAN	1 x RJ-45 GbE Port	
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 UART, 1 x I²C, 1 x CAN (Isolation)	
Expansion	1 x M.2 E-Key 2230 (WiFi/BT) 1 x M.2 M-Key 2242 (NVMe 128GB built-in)	
MISC. Function	1 x Power Button, 1 x Recovery Button, 1 x Reset Button 1 x CAN 2.0b with isolation	
Power Input / Connector	DC-in 12-24 VDC / 2-Pin Terminal Block	
Power consumption	Idle: 6.4 W Full Loading: 40* W	
	*For more test condition information, please refer to user manual	
Dimension (W x D x H)	130 x 90.2 x 72 mm (5.11 x 3.55 x 2.83 in)	
Mounting	Wall Mount (optional) / Din Rail (optional)	
Net Weight	0.927 kg (2.044 lb)	
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) with 0.5 m/s air flow Storage Temp.: -40°C ~ +85°C (-40°F ~ +185°F)	
Humidity	95% @ 40°C (104°F) (non-condensing)	
OS Support	Ubuntu 20.04	
Certification	CE / FCC Class A / UKCA	

System & Mounting Dimensions



I/O Mechanical Layout



Ordering Information

Model name	Description
AIE-CO21-1-S1	Orin Nano 4GB, 1 x HDMI, 1 x GbE, 2 x USB, 128GB SSD, E/M Key, 12 to 24 VDC input, -25°C ~ +55°C
AIE-CO31-1-S1	Orin Nano 8GB, 1 x HDMI, 1 x GbE, 2 x USB, 128GB SSD, E/M Key, 12 to 24 VDC input, -25°C ~ +55°C

Packing List

Item/Part Number	Description
92-CECO21-R004	AIE-CO21 system w/ Orin Nano 4GB
92-CECO31-R005	AIE-CO31 system w/ Orin Nano 8GB
53-0F0000-0002	100-240V 60W 12V 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
3102000037N000	UK power cord
55-BECN31-Z000	Wall Mount Kit
55-AECN31-Z000	Din Rail Kit

Peripheral (Optional)

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