

AI Inference / DeviceEdge

Jetson System AIE-KO22/AIE-KO32 AIE-KN32/AIE-KN42



Features

- Supports NVIDIA Jetson Orin Nano/NX Series
- 1 x M.2 B-Key/E-Key/M-Key (128GB built-in)
- 2 x RJ-45 GbE Ports
- Wide Input Voltage Range 12 to 24 VDC
- Operating temperature -25°C ~ +70°C

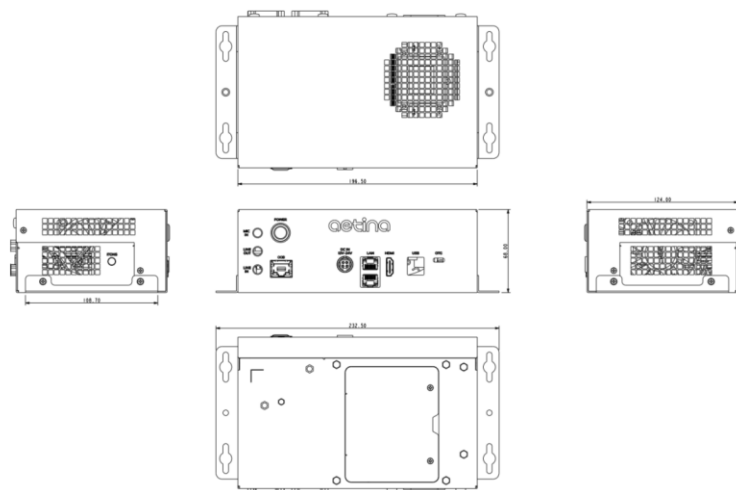
*Preliminary



Specifications

Model Number	AIE-KO22 / AIE-KO32	AIE-KN32 / AIE-KN42
Module Compatibility	NVIDIA Jetson Orin Nano 4/8G	NVIDIA Jetson Orin NX 8/16GB
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 (NVMe 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)	
LAN	2 x RJ-45 GbE Ports	
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 I ² C, 1 x RS-232, 1 x RS-422/485, 1 x CAN (isolation), 1 x OOB (optional)	
Expansion	1 x M.2 B-Key 3042/3052 (LTE/4G/5G, USB 3.2/USB 2.0) 1 x M.2 E-Key 2230 (WiFi/BT, PCIe/USB 2.0) 1 x M.2 M-Key 2242 (NVMe 128GB built-in)	
MISC. Function	1 x Power Button / Recovery Button / Reset Button 1 x RS-232, 1 x RS-422/485, 1 x CAN 2.0b with isolation	
Power Input /Connector	DC-in 12-24VDC / 4-Pin DC Jack Power Connector	
Power consumption	Idle: 8.5 W Full Loading: 28.95* W	Idle: 9.4 W Full Loading: 38.45* W
	*For more test condition information, please refer to user manual	
Dimension (W x D x H)	196.5 x 124 x 68 mm (7.73 x 4.88 x 2.67 in)	
Mounting	Wall Mount / Din Rail (optional)	
Net Weight	TBC kg (TBC 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 ~ +70°C (-13°F ~ +158°F) Storage Temp.: -25°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	

System & Mounting Dimensions



I/O Mechanical Layout



Ordering Information

Model name	Description
AIE-KO22-1-A1	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 ~ +70°C operating temp.
AIE-KO32-1-A1	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 ~ +70°C operating temp.
AIE-KN32-1-A1	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 ~ +70°C operating temp.
AIE-KN42-1-A1	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 ~ +70°C operating temp.

Packing List

Item/Part Number	Description
AIE-KO22	AIE-KO22 system w/ Orin Nano 4GB
AIE-KO32	AIE-KO32 system w/ Orin Nano 8GB
AIE-KN32	AIE-KN32 system w/ Orin NX 8GB
AIE-KN42	AIE-KN42 system w/ Orin NX 16GB
53-0F0000-0003	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

Peripheral (Optional)

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