

AI Inference / DeviceEdge

Jetson System AIE-KX11/12/21/22



*Preliminary

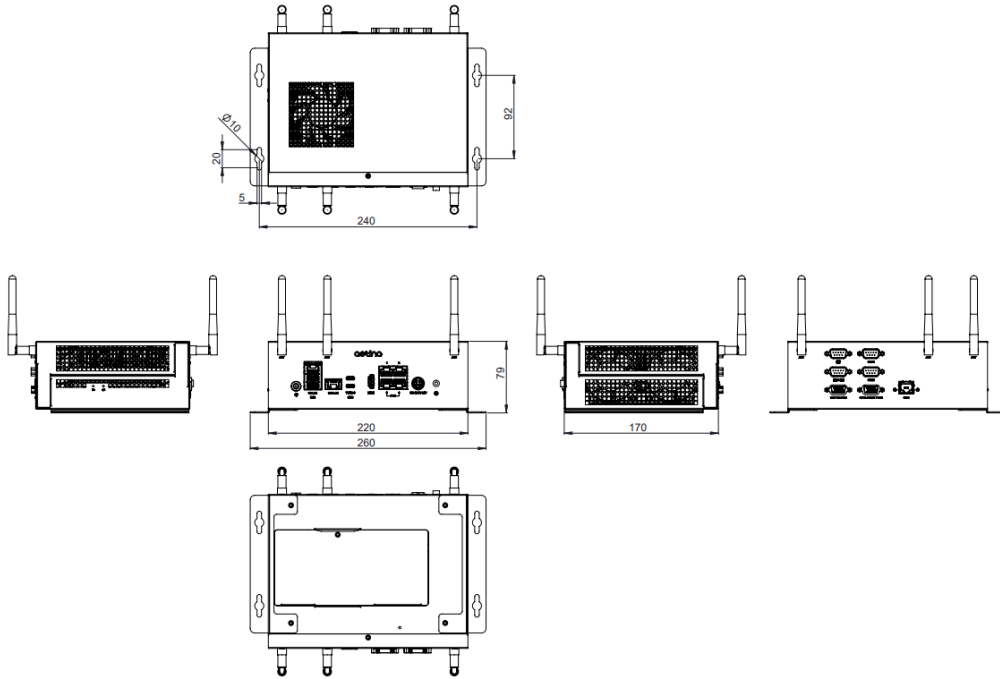
Features

- Supports NVIDIA® Jetson AGX Orin™ 32GB/64GB module
- Up to 275 TOPS AI performance
- Wide Power Input Range 9 to 36VDC
- 1 x B-Key/1 x E-Key/1 x M-Key slot
- 1 x GbE, 1 x 10GbE, and 2/4 x IEEE 802.3af GbE PSE ports
- Supports Innodisk Out-of-Band Remote Management Module
- Operating Temperature -25°C ~ +70°C

Specifications

Model Number	AIE-KX11/AIE-KX12	AIE-KX21/AIE-KX22
Module Compatibility	NVIDIA Jetson AGX ORIN 32GB	NVIDIA Jetson AGX ORIN 64GB
AI Performance	200 TOPS	275 TOPS
GPU	1792-core NVIDIA Ampere GPU with 56 Tensor Cores	2048-core NVIDIA Ampere GPU with 64 Tensor Cores
CPU	8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	12-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 3MB L2 + 6MB L3
Memory	32 GB 256-bit LPDDR5 204.8 GB/s	64GB 256-bit LPDDR5 204.8 GB/s
Storage	64GB eMMC 5.1	
Display	1 x HDMI Type A	
TPM	TPM v2.0	
RTC	Yes	
Audio	HDMI Integrated	
Camera Input	1x 16-Lane MIPI Expansion Connector, Compatible With AGX ORIN Development Kit	
LAN	1 x RJ-45 GbE ports, 1 x RJ-45 10GbE port, 2/4 x RJ-45 IEEE802.3af GbE PSE ports	
USB	2 x USB 3.2 Gen1 Type A, 1 x USB 2.0 (DB-15), 1 x USB Type-C (OTG only), 1 x USB Type-C USB 3.2 Gen 1	
I/O Interfaces	5V power supply (5 Watt), 12V power supply (5 Watt), 2 x I2C, 1 x I2S, 1 x SPI, 5 x GPIO	
Expansion	1 x M.2 B-Key 3042/3052 (LTE/5G - USB3) w/ micro sim holder: cellular function 1 x M.2 E-Key 2230 (PCIe/USB2): WIFI/BT function 1 x M.2 M-Key (NVMe) 2280: storage 1 x microSD slot	
MISC. Function	1 x Power/Recovery/Reset button 2 x UART, 1 x UART3 (Debug only) 1 x RS-232, 1x RS-422 / RS-485 2 x CAN 2.0b	
Power Consumption	TBD	
Power Input / Connector	DC-in 9 to 36 VDC / 4-pin DC Jack & 6-pin ATX Power Connector	
Dimension (W x D x H)	260 x 170 x 79 mm	
Net Weight	TBD	
Vibration	10 G, IEC 60068-2-27, half sine, 11 ms duration	
Shock	1 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis	
Temperature	Operating Temp.: -25°C ~ +70°C (-13°F~176°F) / Storage Temp.: -25°C ~ +80°C (-13°F ~176°F)	
Humidity	95% @ 40°C Related Humidity, Non-condensing	
OS Support	Ubuntu 20.04	
Certification	CE/FCC Class A, IEC 62368	

System & Mounting Dimensions



Ordering Information

Model name	Description
AIE-KX11-1-A1	AGX ORIN 32GB + carrier board + FAN + chassis + power adaptor + US power cord with 2 PSE ports, -25°C to +70°C
AIE-KX11-2-A1	AGX ORIN 32GB + carrier board + FAN + chassis + power adaptor + EU power cord with 2 PSE ports, -25°C to +70°C
AIE-KX12-1-A1	AGX ORIN 32GB + carrier board + FAN + chassis + power adaptor + US power cord with 4 PSE ports, -25°C to +70°C
AIE-KX12-2-A1	AGX ORIN 32GB + carrier board + FAN + chassis + power adaptor + EU power cord with 4 PSE ports, -25°C to +70°C
AIE-KX21-1-A1	AGX ORIN 64GB + carrier board + FAN + chassis + power adaptor + US power cord with 2 PSE ports, -25°C to +70°C
AIE-KX21-2-A1	AGX ORIN 64GB + carrier board + FAN + chassis + power adaptor + EU power cord with 2 PSE ports, -25°C to +70°C
AIE-KX22-1-A1	AGX ORIN 64GB + carrier board + FAN + chassis + power adaptor + US power cord with 4 PSE ports, -25°C to +70°C
AIE-KX22-2-A1	AGX ORIN 64GB + carrier board + FAN + chassis + power adaptor + EU power cord with 4 PSE ports, -25°C to +70°C

Accessory (Optional)

Part No.	Description
53-0GA210-0000	Intel AX210 M.2 2230 E/A-KEY WIFI 6E BLUETOOTH WITH CABLE*2 AND ANTENNA*2 -40~85°C

