

AIR-310

Intel® Core™ 12th/13th/14th Gen i3/i5/i7/i9 LGA1700 MXM GPU Edge AI System

NEW



Specifications

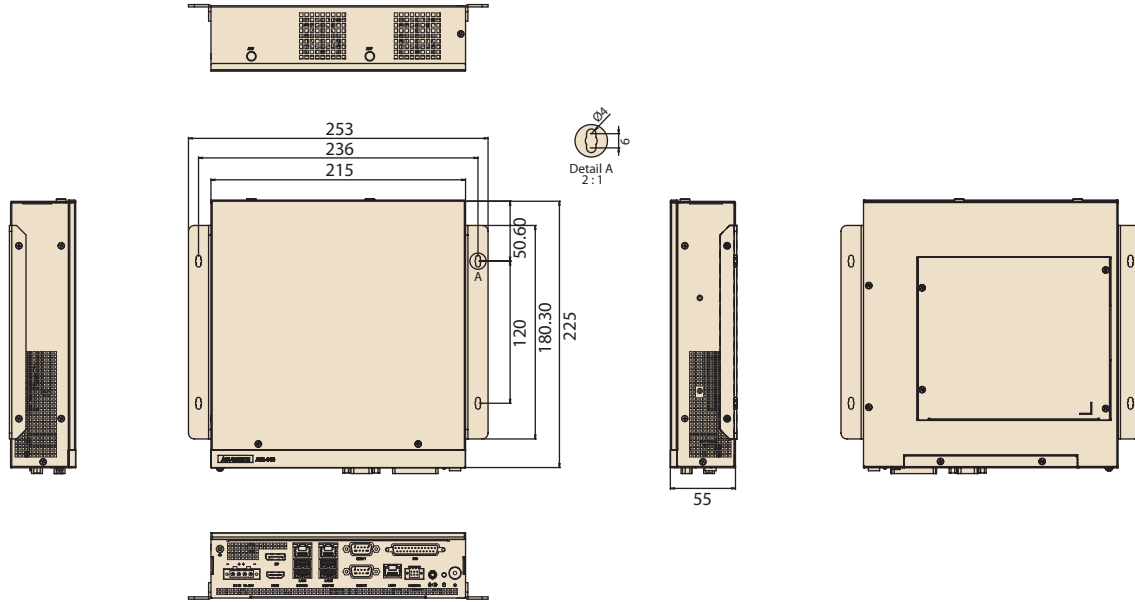
Features

- Support Intel® 12th/13th/14th Gen. Core™ i3/i5/i7/i9 processor up to 65W
- DDR5 SO-DIMM memory support up to 64 GB
- Dual display: HDMI + DP
- Support MXM 3.1 Type A GPU card up to 60W
- Support 2 x 2.5GbE, 16-bit DIO, 2 x CANBus, TPM 2.0
- Qualified for Edge AI SDK

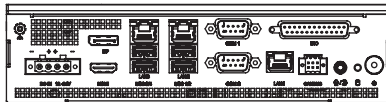
	CPU	i9-14900/i9-14900T	i7-14700/i7-14700T	i5-14500/i5-14500T	i5-14400/i5-14400T	i3-14100/i3-14100T						
14th Processor System	Core Number (Performance and Efficient core)	8P+16E	8P+12E	6P+8E	6P+4E	4P						
	Max. Speed	5.8/5.5GHz	5.4/5.2GHz	5.0GHz/4.8GHz	4.7GHz/4.5GHz	4.7GHz/4.4GHz						
	Smart cache	36M	33M	24M	20M	12M						
	TDP (W)	65W/35W	65W/35W	65W/35W	65W/35W	60W/35W						
13th Processor System	CPU	i9-13900E/i9-13900TE	i7-13700E/i7-13700TE	i5-13500E/i5-13500TE	i3-13100E/i3-13100TE	i9-13900	i7-13700	i5-13500	i5-13400	i3-13100		
	Core Number (Performance and Efficient core)	8P+16E	8P+8E	6P+8E	4P+0E	8P+16E	8P+8E	6P+8E	6P+4E	4P+0E		
	Max. Speed	5.20GHz/5.00GHz	5.10 GHz/4.80 GHz	4.60 GHz/4.50 GHz	4.40 GHz/4.10 GHz	5.60 GHz	5.20 GHz	4.80 GHz	4.80 GHz	4.50 GHz		
	Intel Smart Cache	36MB/ 36MB	30MB/ 30MB	24MB/ 24MB	12MB/ 12MB	36MB	30MB	24MB	20MB	12MB		
12th Processor System	CPU	i9-12900E/i9-12900TE	i7-12700E/i7-12700TE	i5-12500E/i5-12500TE	i3-12100E/i3-12100TE	G7400E/G7400TE	G6900E/G6900TE	i9-12900	i7-12700	i5-12500	i5-12400	i3-12100
	Core Number (Performance and Efficient core)	8P+8E	8P+4E	6P+0E	4P+0E	2P+0E	2P+0E	8P+8E	8P+4E	6P+0E	6P+0E	4P+0E
	Max. Speed	5.0GHz/4.8GHz	4.8GHz/4.7GHz	4.5GHz/4.3GHz	4.2GHz/4.0GHz	3.6GHz/3.0GHz	3.0GHz/2.4GHz	5.10GHz	4.9GHz	4.6GHz	4.4GHz	4.3GHz
	Intel Smart Cache	30MB/ 30MB	25MB/ 25MB	18MB/ 18MB	12MB/ 12MB	6MB/6MB	4MB/4MB	30MB	25MB	18MB	18MB	12MB
Processor System	Chipset	H610E										
	BIOS	AMI EFI 256 Mbit SPI										
Memory	Technology	DDR5 5600 MHz										
	Max. Capacity	64 GB										
GPU	Socket	2 x 262-pin SO-DIMM (Non-ECC)										
	MXM3.1 Type A	Compatible with Intel Arc A370M/Quadro® A2000										
	Cores	8 Xe-cores/ 2560 CUDA® cores										
	FP32 Performance (TFLOPS)	4.198 / 8.25										
Display	Memory	GDDR6 4 GB / GDDR6 8GB										
	Chipset	Intel® UHD Graphics 770										Intel® UHD Graphics 730
	Graphic Engine	Direct x 12, OpenGL 4.5 HW Encode: H.265/HEVC, H.264/MPEG-4 AVC, MPEG-2, JPEG/MJPEG and VP8. HW Decode: H.265/HEVC, H.264/MPEG-4 AVC, MPEG-2, VC-1/WMV9, JPEG/MJPEG, VP8 and VP9										
	DP	1 x DP++, DP 1.4a, up to 4096 x 2304@60 Hz										
Ethernet	HDMI	1 HDMI port, HDMI 2.0 for HD video playback, 4096x2160@60Hz										
	LAN1	10/100/1000 Mbps Intel I219-LM GbE, support Wake On Lan										
Audio	LAN2_3	10/100/1000/2500 Mbps Intel I226 GbE, support Wake On Lan										
	Interface	Realtek ALC888S, High Definition Audio, Line-out/Mic-in (switch)										
Others	Watch dog Timer	255-level timer interval, setup by software										
	TPM	TPM 2.0										
I/O Interface	Serial Port	2 x RS-232/422/485 port with auto flow control										
	USB	4 x USB 3.2 (Gen2 x 1, 5G)										
	DIO	16bit DIO										
	CANBus	2										
Storage	Expansions	M.2	1 x 2230 E key for WiFi									
	SSD	1 x 2.5" SATAIII hard drive Bay with Max Height 7mm										
Software Support	NVME	1 x M.2 M Key 2280/PCIe Gen3 x4, SATA)										
	Microsoft Windows	Windows 10 IoT 2021 LTSC/ Windows 11 IoT										
Power Requirements	Linux	Ubuntu Desktop 24.04 LTS 64bit										
	Power Type	AT/ATX										
Power Consumption (CPU/Memory Only)	Power Input Voltage	12-24V										
	Power Supply	AC to DC, 230W (Optional)										
Mechanical	Typical	33.29W (OS idle mode)										
	Max.	106.84W (Full Loading)										
	Mounting	Desk mounting										
	Dimensions (W x H x D)	215 x 225 x 55 mm										
Environment	Weight	2.5 kg										
	Operating Temperature	Without MXM and with extended temp peripherals: -20 ~ 55 °C with 0.7m/s air flow With MXM and extended temp peripherals: 0 ~ 50 °C with 0.7m/s air flow										
	Vibration During Operation	With SSD/MXM: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis.										
	Shock During Operation	With SSD/MXM: 30 G, IEC 60068-2-27, half sine, 11 ms duration										
	Storage Temperature	-40 ~ 85 °C										
	Relative Humidity	95% @ 40 °C (non-condensing)										
Safety	EMC	CE/FCC Class B, CCC, BSMI										
	Safety	CB, UL, CCC, BSMI										

Dimensions

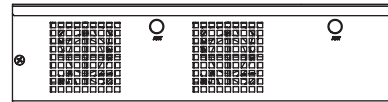
Unit: mm



Front View



Rear View



Ordering Information

Part No.	CPU	MXM	DDR5	Display	LAN	COM	USB	M.2	SSD	Operating Temperature
AIR-310-00A1U	LGA1700 Socket Type	1x MXM3.1 Type A	Up to 64GB	2	3	2	4	1 x M.2 E key 1 x M.2 M Key	1 x 2.5" SSD	-20 ~ 55 °C
AIR-310-005A1U	LGA1700 Socket Type	EAI-2100	Up to 64GB	2	3	2	4	1 x M.2 E key 1 x M.2 M Key	1 x 2.5" SSD	0 ~ 50 °C

Note: AIR-310-00A1U is barebone SKU, the CPU, memory, storage, MXM GPU Card and MXM GPU heatsink are not included.
AIR-310-005A1U is built-in with EAI-2100 GPU card, but the CPU, memory, storage are not included.

Packing List

Part Number	Description
-	AIR-310 Unit
1960093556N011	Mounting Kit
2006031000	User Manual (Simplified Chinese)
1652008233-01	Terminal Plug 6P for CANBus
1652003234	PLUG-IN BLOCK 4P for DC in

Embedded OS

Part Number	Description
20706WX1HS0112	WIN10 IoT LTSC 21H2 64bit for i7/i9
20706WX1VS0112	WIN10 IoT LTSC 21H2 64bit for i3/i5
20706U24DS0002	img UbuntuD AIR-310 64b 24.04 ENU
20706WLH1S0024	WIN11 IoT LTSC 24H2 64bit for i7/i9
20706WLV1S0024	WIN11 IoT LTSC 24H2 64bit for i3/i5

AIR-310 Option Items

Optional Item for Default SKU

Part Number	Description
SKY-MXM-A500-4SHA	Quadro A500 MXM 4GB MS Hybrid mode Type A
SKY-MXM-T1000-4HHB	Quadro T1000 MXM 4GB MS Hybrid mode Type A
SKY-MXM-A1000-4HHA	Quadro A1000 MXM 4GB Ms Hybrid mode Type A
SKY-MXM-2000A-8SHA	Quadro 2000 Ada MXM 8GB MS Hybrid mode Type A
1702002600	Power cable 3-pin 183cm, USA type
1702002605	Power cable 3-pin 183cm, EU type
1702031801	Power cable 3-pin 183cm, UK type
1700000237	Power cable, 3-Pin 183cm, PSE type
96PSA-A230W24P4-3	AC to DC adapter, DC 24V 230W, -20 ~ 40 °C
AMK-A0050	MXM Heatsink for EAI-2100/SKY-MXM-A2000
EAI-2100-00A1	Intel Arc A370M Embedded MXM GPU Card
SKY-MXM-A2000-8SHA	Quadro A2000 MXM GPU Card MS Hybrid mode