AIR-310

Intel® Core Series 2 & 12th/13th/14th Gen i3/i5/i7/i9 LGA1700 MXM GPU Edge AI System



Features

- Support Intel® Core Series 2 & 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

Specifications

Intel® Core™ Processors Series 2	CPU	Core 9 273PTE	Core 7 253PTE	Core 7 251TE	Core 7 251E	Core 5 223PE	Core 5 223PTE	Core 5 213PTE	Core 5 221E	Core 5 221TE	Core 5 211E	Core 5 211TE	Core 3 201E	Core 3 201TE
	P-core Base Frequency	1.4GHz	1.8GHz	1.4GHz	1.6GHz	2.9GHz	2.3GHz	2.1GHz	2.7GHz	1.8GHz	2.7GHz	1.7GHz	3.6GHz	2.9GHz
	L3 Cache	36MB	33MB	36MB	36MB	24MB	24MB	24MB	24MB	24MB	20MB	20MB	12MB	12MB
	Cores	12	10	24	24	8	8	8	14	14	10	10	4	4
	Processor Base Power	45W	45W	45W	65W	65W	45W	45W	65W	45W	65W	45W	60W	45W
	Chipset	H610E												
	BIOS	AMI EFI 256Mbit												
14th Processor System	CPU	i9-14900/ i9-14900T	i7-14700/ i7-14700T	i5-14500/ i5-14500T	i5-14400/ i5-14400T	i3-14100/ i3-14100T								
	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	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				
	TDP (W)	65W/35W	65W/35W	65W/35W	60W/35W	35W	35W	65W	65W	60W				
12th Processor System	CPU	i9-12900E/ i9-12900TE	i7-12700E/ i7-12700TE	i5-12500E/ i5-12500TE	i3-12100E/ i3-12100TE	G7400E/ G7400TE	G6900E/ 6900TE	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		
	TDP (W)	65W/35W	65W/35W	65W/35W	60W/35W	46W/35W	46W/35W	65W	65W	65W	65W	60W		
Processor System	Chipset	H610E												
	BIOS	AMI EFI 256 Mbit SPI												
Memory	Technology	DDR5 5600 MHz												
	Max. Capacity	64 GB												
	Socket	2 x 262-pin SO-DIMM (Non-ECC)												
GPU	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												
	Memory	GDDR6 4 GB / GDDR6 8GB												

All product specifications are subject to change without notice.

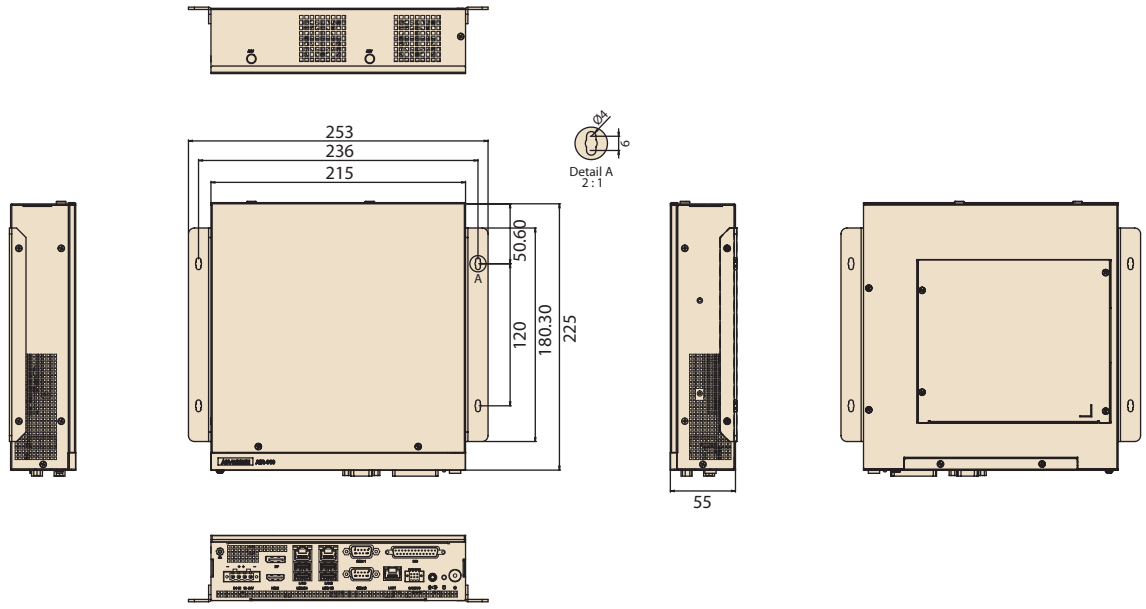
Last updated: 23-Nov-2026

Specifications (Cont.)

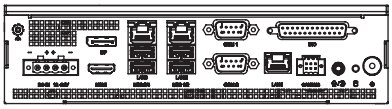
Display	Chipset	Intel® UHD Graphics 770	Intel® UHD Graphics 730
	Graphic Engine	Direct x 12, OpenGL 4.5 HW Encode: H.265/HEVC, H.264/MPEG-4 AVC, MPEG-2, JPEG/MJPEG and VP8. HW Decode: H.265/HEVC, H.264/MPEG-4 AVC, MPEG-2, VC-1/WMV9, JPEG/MJPEG, VP8 and VP9	
	DP	1 x DP++, DP 1.4a, up to 4096 x 2304@60 Hz	
	HDMI	1 HDMI port, HDMI 2.0 for HD video playback, 4096x2160@60Hz	
Ethernet	LAN1	10/100/1000 Mbps Intel I219-LM GbE, support Wake On Lan	
	LAN2, 3	10/100/1000/2500 Mbps Intel I226 GbE, support Wake On Lan	
Audio	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	
Expansions	M.2	1 x 2230 E key for WiFi	
Storage	SSD	1 x 2.5" SATAIII hard drive Bay with Max Height 7mm	
	NVME	1 x M.2 M Key 2280(PCIe Gen3 x4, SATA)	
Software Support	Microsoft Windows	Windows 10 IoT 2021 LTSC/ Windows 11 IoT	
	Linux	Ubuntu Desktop 24.04 LTS 64bit	
Power Requirements	Power Type	AT/ATX	
	Power Input Voltage	12-24V	
	Power Supply	AC to DC, 230W (Optional)	
Power Consumption (CPU/Memory Only)	Typical	33.29W (OS Idle mode)	
	Max.	106.84W (Full Loading)	
Mechanical	Mounting	Desk mounting	
	Dimensions (W x H x D)	215 x 225 x 55 mm	
	Weight	2.5 kg	
Environment	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)	
	EMC	CE/FCC Class B, CCC, BSMI	
	Safety	CB, UL, CCC, BSMI	

Dimensions

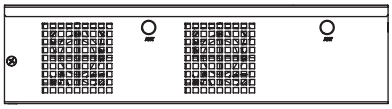
Unit: mm



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

Note: AIR-310-00A1U is barebone SKU, the CPU, memory, storage, MXM GPU Card and MXM GPU heatsink 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