AIR-355

Intel® Core™ Ultra Series 3 PTL MXM Type A GPU Edge AI System



Features

- Powered by Intel® Core series 3 Processor (Panther Lake)
- Support MXM 3.1 Type A GPU up to 60W or expansion board for extra 2x M.2 2280 NVMe SSDs.
- Support 2x MIPI over Mini DP cameras or up to 8x GMSL cameras via 2x AMO-MMDP (MIPI over mini DP to GMSL dongle)
- 12-24V wide-range power input & -10~50°C wide operating temperature
- Flexible storage and wireless expansion with 1x M.2 E-Key (Wi-Fi/BT), 1x M.2 B-Key (5G), and 2x M.2 M-Key (1x 2242, 1x 2280).

Specifications

		AIR-355M-47A1U	AIR-355-48A1U	AIR-355-45A1U
Processor System	CPU	Intel® Core™ Ultra 7 - 356H (4Xe)	Intel® Core™ Ultra 7 - 358H (12Xe)	Intel® Core™ Ultra 5 - 325 (4Xe)
	Frequency	1.9GHz up to 4.7GHz	1.9GHz up to 4.8GHz	2.1GHz / up to 4.5GHz
	Core Number	16	16	8
	AI Capacity	Up to 99 TOPS	Up to 180 TOPS	Up to 95 TOPS
	BIOS	AMI EFI 512Mbit		
Memory	Technology	DDR5 6400/7200 MT/s CSODIMM	DDR5 6400/7200 MT/s CSODIMM	DDR5 6400 MT/s CSODIMM
	Max Capacity	Up to 128GB		
	Socket	2x 262-pin CSODIMM (Non-ECC)		
GPU	MXM 3.1 Type A (up to 60W)	Compatible with RTX™ PRO 2000 Blackwell Discrete Mode	NA	
	Cores	3328 CUDA® cores	NA	
	FP32 Performance (TFLOPS)	13.78	NA	
	Memory	GDDR7 8GB	NA	
Ethernet	Interface	RJ-45		
	Speed	4x 10/100/1000/2500 Mbps Intel i226-LM GbE, support Wake On LAN		
Display	HDMI	1x HDMI 2.1 (FRL), Max. resolution 3840 x 2160 (4K) at 60Hz		
	DP	1x DP 1.4a, Max. resolution 3840 x 2160 (4K) at 60Hz		
	Type C DP	1x DP via USB Type C Alt mode: 3840x2160@ 60Hz		
	Triple Display	1x HDMI + 1x DP + 1x Type C DP		
IO Ports	USB Type A	7x USB 3.2 Gen2 Type A 1x USB 2.0 Type A		
	USB Type C	1x USB Type C w/USB4, DP alt mode, 5V/3A		
	CANBus	1x CANBus (DB9 connector)		
	DI/DO	1x 8-bit (DB9 connector)		
	COM	2x RS-232/RS-422/RS-485 (default: RS-232) (DB9 connector)		
	Mini DP (MIPI interface)	1x Mini DP w/MIPI CSI2 D-PHY 2 lane 1x Mini DP w/MIPI CSI2 D-PHY 4 lane		
	Remote Switch	1x 3pin connector		
Audio	Interface	1x Line-out, 1x Mic-in (by Realtek ALC888S)		
Other	TPM	TPM 2.0, on board		
Storage	M.2	1x M.2 2280 M Key (PCIe Gen5 x4) for NVMe (Default) 1x M.2 2242 M Key (PCIe Gen4 x2) for NVMe 2x M.2 2280 M Key (PCIe Gen4 x2) for NVMe (option via M.2 Expansion Board)		
Expansion	M.2	1x M.2 2230 E Key (PCIe Gen3 x1) for Wi-Fi/Bluetooth or 1x M.2 3052 B Key (USB 2.0) for 5G w/ 1x nano SIM holder		
Power	Power Input	12-24V DC input		
	Power Type	ATX/AT, ATX default		
Power Consumption	Typical (OS idle mode)	TBD		
	Max. (Full loading)	TBD		
Environment	Op. Temp	-10~50°C with 0.7m/s air flow		
	Op. Humidity	95% @ 40 °C (non-condensing)		
Mechanical	Dimensions (W x D x H)	215 x 174 x 58.5 mm		
	Weight	2.4 kg		
	Mounting	Wall Mount		
Operating System	Microsoft Windows	Windows 11 IoT Enterprise LTSC		
	Linux	Ubuntu 26.04		
Software Support	Software API	WEDA / Edge AI SDK / SUSI / DeviceOn		
Certifications	EMC/Safety	CE/FCC Class B, CB, UL, CCC and BSMI		

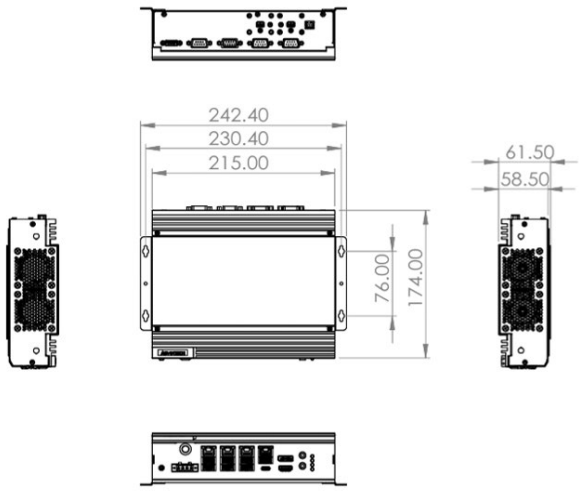
Advantech SUSI is a device management and system monitoring suite for hardware configuration, control, and status monitoring.
SUSI information: https://github.com/ADVANTECH-Corp/SUSI

All product specifications are subject to change without notice.

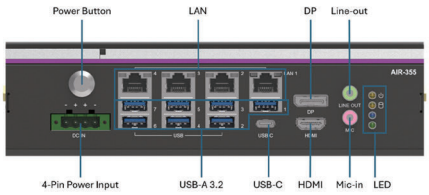
Last updated: 11-Nov-2026

Dimensions

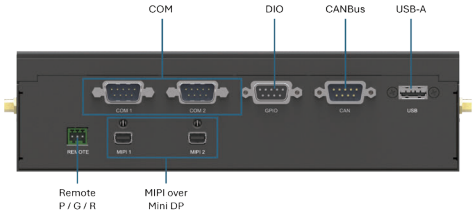
Unit: mm



Front Panel I/O Placement



Back Panel I/O Placement



Ordering Information

Part No.	CPU	RAM	GPU	LAN	HDMI	DP	USB Type A	USB Type C	CANBus	DIO	COM	MIPI over Mini DP	M.2 B	M.2 E	M.2 M	SIM	Option Module
AIR-355M-48A1U	Ultra 7 356H	2 socket (up to 128G)	MXM 3.1 Type A	4	1	1	7x USB3.2 1x USB2.0	1	1	1	2	2	1	1	1x 2280 1x 2242	1	5G/WiFi
AIR-355-48A1U	Ultra 7 358H	2 socket (up to 128G)	Not Available	4	1	1	7x USB3.2 1x USB2.0	1	1	1	2	2	1	1	1x 2280 1x 2242	1	5G/WiFi
AIR-355-45A1U	Ultra 5 325	2 socket (up to 128G)	Not Available	4	1	1	7x USB3.2 1x USB2.0	1	1	1	2	2	1	1	1x 2280 1x 2242	1	5G/WiFi

Packing List

Part Number	Description	Quantity
-	AIR-355 Unit	1
-	Wall mount kit for AIR-355	1
1652003234	Power in plug	1
1652008227-01	Remote plug	1
96PSA-A230W24P4-3	ADP A/D 100-240V 230W 24V C14 TERMINAL BLOCK 4P (for non-MXM configuration)	1
96PSA-A330W24P4-3	A/D 100-240V 330W 24V C14 TERMINAL BLOCK 4P (for MXM configuration)	1

Embedded OS

Part Number	Description
20706WLE1S0162	W11 24EL AIR-355 64b 24H2 ENU
20706WLH1S0161	W11 24HL AIR-355 64b 24H2 ENU
20706WLV1S0161	W11 24VL AIR-355 64b 24H2 ENU
20706U26DS0003	UbuntuD AIR-355 64b 26.04 ENU

Optional

Part Number	Description
1702002600	Power Cord UL 3P 10A 125V 183cm (US)
1702002605	Power Cord EU 3P 10A 250V 183cm (EU)
1702031801	Power Cord BSI 3P 10A 250V 183cm (UK)
1700000237	Power Cord PSE 3P 12A 125V 183cm (Japan)
1700013977	Power Cord CCC 3P 10A 250V 200cm 90° (China)
SKY-MXM-2000B-8HDA	RTX PRO 2000 Blackwell MXM 8GB Discrete mode
1970006414T001	SKY-MXM-2000A/B Heatsink for AIR-355
AIW-173BQ-GI1	Qualcomm Wi-Fi 7 M.2 2230 E Key
1751000620-01	1x Cable Ant. L300mm for WIFI
1751000648-01	1x Cable Ant. L100mm for WIFI
1751000460-01*2	1x Antenna for WIFI
AIW-356DQ-N01	Qualcomm 5G M.2 3052 B-Key
1751000623-01*3	1x Cable Ant. L300mm for 5G
1751000649-01	1x Cable Ant. L100mm for 5G
1750009372-01*4	1x Antenna for 5G
AMO-3551	MXM2M2 Expansion Kit for AIR-355
AMO-MMDP	MIPI over Mini DP to GMSL Dongle
1751000758-01	GMSL Mini Fakra*1 to Fakra*4 Cable
1751000759-01	GMSL 1m Cable
1751000760-01	GMSL 3m Cable
1751000804-01	GMSL 3m Cable
1751000805-01	GMSL 15m Cable
1700036905-01	MIPI over Mini DP Camera Cable 1m
1700036906-01	MIPI over Mini DP Camera Cable 1.5m

Edge AI SDK — *Edge AI Inference Deployment and Hardware Validation*

Inference Kit | Production-Ready AI Inference on Edge Devices

Provides a unified and hardware-aligned runtime for deploying and validating AI inference on edge devices

It simplifies integration across CPUs, GPUs, and AI accelerators while enabling performance benchmarking and compatibility verification on target hardware.Designed for production use, Inference Kit helps hardware partners ensure stable, scalable, and repeatable AI deployment across product lines.



Benefits and Features

Unified Inference Runtime

- Consistent inference across CPUs, GPUs, and accelerators
- Vendor-optimized runtime integration
- Built-in UnieInfra acceleration framework
- Optimized inference pipelines and runtime efficiency

Hardware Validation

- Benchmarking on target devices
- OS and accelerator compatibility validation
- Performance and stability verification

Production-Ready Deployment

- Stable, long-running inference operation
- System monitoring and observability support
- Designed for scalable edge deployment

Global Customer Support

- System reliability certification
- Inference computing enablement
- Edge-to-cloud scalability collaboration

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