

AIR-120

AI Inference System with Intel® Atom® Processor and Hailo-8 AI Acceleration Module

NEW



Features

- Intel® Atom™ x7433RE, Processor N97, and Core™ i3-N305
- Empowered by Hailo-8 M.2 AI module up to 26 TOPS
- 2 independent display: HDMI + DP
- Vertical I/O: 2 x LAN, 4x USB, 2 x COM
- Rich AI toolkits for runtime integration and model deployment
- Flexible expansion with 3x M.2:
1 x B key 2280, 1 x B key 3052, 1 x E key 2230
- Suitable for Industrial usage:
-20~60°C wide temperature and 12-24V wide voltage support

WISE-DeviceOn HAILO EdgeAI SDK LISTED CUL US E100001 CE FC

Specifications

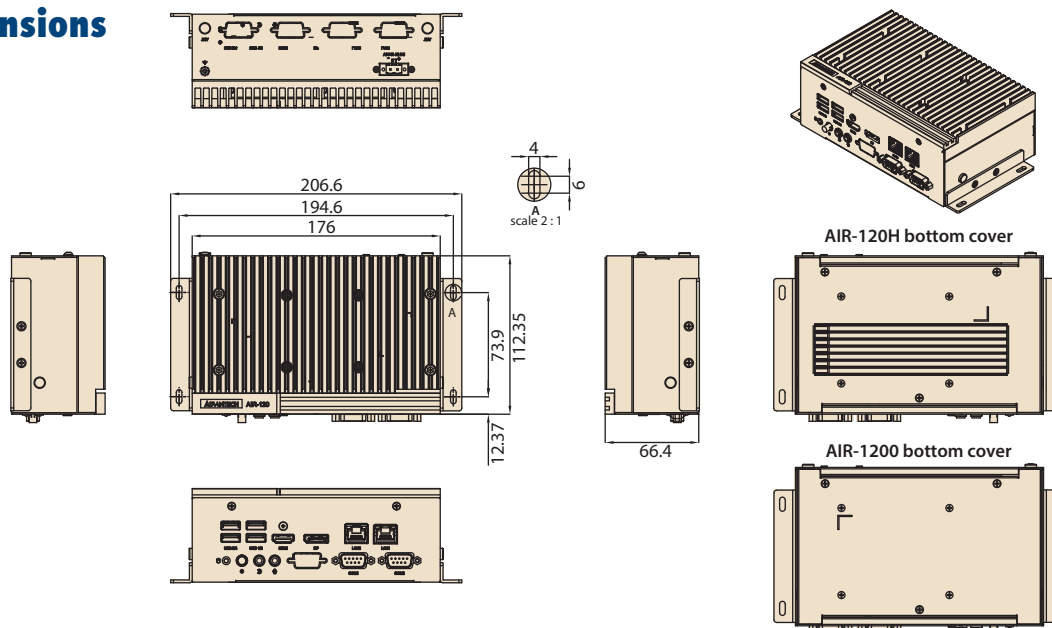
Processor System	CPU	x7433RE	N97	i3-N305
	Frequency	1.5GHz	2.0GHz	1.8GHz
	Max. Frequency	3.4 GHz	3.60 GHz	3.80 GHz
	Core	4	4	8
	CPU TDP	9W	12W	15W
	System Chipset	Integrated in CPU		
Memory	Technology	DDR5 4800 MHz 262 pin SODIMM		
	Capacity	Max. capacity 16GB		
Graphics	Chipset	Intel® UHD Graphics		
	Graphic Engine	DX12, OGL4.0, OCL1.2, HW Encode: HEVC/H265, AVC/H264, VP9 HW Decode: HEVC/H265, AVC/H264, VP9		
		1 x HDMI 2.0, up to 4096 x 2160 x 24bpp@48-60Hz 1 x DP1.4a, up to 4096 x 2304 x 36bpp@60Hz		
Storage	M.2	1x B-Key 2280 (SATA or PCIe x1)		
	SSD	1 x 2.5" SATAIII Drive bay ^{#1}		
I/O Interface	LAN1	100/1000/2500 Intel i226 2.5GbE		
	LAN2	10/100/1000 Intel i210 GbE, support EdgeBMC, Out of Band remote control		
	USB 2.0/USB 3.2	2/2		
	Audio	1 x Mic-in, 1 x Line-out, Realtek ALC888S HD Audio		
	COM	2 x RS-232/422/485 (default COM1, COM2) 2 x RS-232 (optional COM3,COM4)		
	DIO	1 x DB9, 8 bit (optional)		
	CANBus	2 x DB9 for CAN-FD (optional)		
Expansion	M.2	1 x E-Key 2230 (PCIex1, USB2.0) 1 x B-Key 3052 w/ Nano SIM (PCIex2, USB 2.0) ^{#2} 1 x B-Key 2280 (SATA, PCIe x1)		
Trusted Platform Module	TPM 2.0	NPCT764AABYX		
Power Requirement	Power Input Voltage	12-24 V _{DC}		
	Power Type	ATX/AT mode (Default ATX)		
Power Consumption	Typical (OS idle mode)	9.59W	11.93W	12.05W
	Max. (Full load: CPU/Memory Only)	22.87W	29.27W	45.2W
Physical Characteristics	Mounting	Wall Mounting/ Din rail Mounting		
	Dimensions (W x H x D)	176 x 112.35 x 66.4 mm		
	Weight	1.6 kg (3.5 lb)		
Environment	Operating Temperature	-20 ~ 60 °C, with 0.7m/s air flow (With extended temp. peripherals)		
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185°F)		
	Relative Humidity	95% @ 40 °C (non-condensing)		
	Vibration during Operation	3 Grms, IEC60068-2-64, random, 5~500 Hz, 1hr/axis (with Wall Mount)		
	Shock during Operation	30 G, IEC-60068-2-27, half sine, 11 ms duration (with Wall Mount)		
Software Support	Microsoft Windows	Windows 11 IoT 64-bit		
	Linux	Ubuntu 24.04		
Certification	EMC	CE/FCC Class B, Heavy Industry 61000-6-4, 61000-6-2, CCC, BSMI		
	Safety	UL, CB, CCC, BSMI		

#1 The AIR-120H SKU does not support the 2.5" SATA SSD because of the thermal heatsink design.

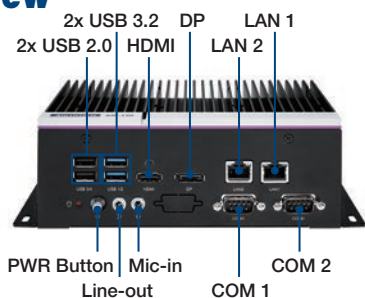
#2 For the AIR-120H SKU, the M.2 B-Key 3052 slot is by default bundled with the Hailo AI module.

Dimensions

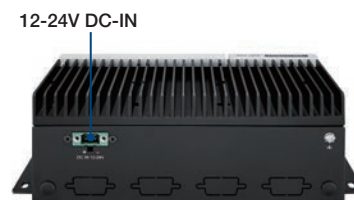
Unit: mm



Front View



Rear View



Ordering Information

Part No.	CPU	M.2 B Key 3052	M.2 B Key 2280	M.2 E Key 2230	2.5" SATA SSD	HDMI	DP	LAN	COM	DIO	CANBus	USB	Operating Temperature	Made in
AIR-120H-B0A1E	N97	Built-in Halo-8 AI module	1	1	Not support	1	1	2	2 x RS232/422/485, 2 x RS232 (Optional)	1 (optional)	2 (optional)	2x USB 3.2 2x USB 2.0	-20~60°C	China
AIR-120H-S8A1E	i3-N305													
AIR-120H-B5A1E	x7433RE													
AIR-1200-B0A1E	N97													
AIR-1200-S8A1E	i3-N305	1	1	1	1	1	1	2	2 x RS232/422/485, 2 x RS232 (Optional)	1 (optional)	2 (optional)	2x USB 3.2 2x USB 2.0	-20~60°C	Taiwan
AIR-1200-B5A1E	x7433RE													
AIR-120H-B0A1U	N97													
AIR-120H-S8A1U	i3-N305													
AIR-120H-B5A1U	x7433RE	Built-in Halo-8 AI module	1	1	Not support	1	1	2	2 x RS232/422/485, 2 x RS232 (Optional)	1 (optional)	2 (optional)	2x USB 3.2 2x USB 2.0	-20~60°C	Taiwan
AIR-1200-B0A1U	N97													
AIR-1200-S8A1U	i3-N305													
AIR-1200-B5A1U	x7433RE													

Packing List

Part Number	Description
-	1 x AIR-120 unit
1960052226N004	2 x Wallmount
2006R12000	1 x User manual (Simplified Chinese)
36WSWPD0BUND11	1 x WISE-DeviceOn Package
1652000099	1x Phoenix connector counterpart
1960110006N000	M.2 Bracket

Optional Items

Part Number	Description
1700035775-01	DB9 Cable for COM3/COM4
1700030518-01	DB9 Cable for CAN-FD
1700035814-01	DB9 Cable for DIO
XARK-ADP-90MDH	90W Power Adaptor (19V DC in)
1700001524	Power Cable 3-pin 180cm, USA type
170203183C	Power Cable 3-pin 180cm, Europe type
170203180A	Power Cable 3-pin 180cm, UK type
1700008921	Power Cable 3-pin PSE Mark 183cm

Embedded OS

Part Number	Description
20706WLE1S0075	Windows 11 IoT Ent. LTSC 2024 64bit for ATOM x7433RE & N97
20706WLV1S0075	Windows 11 IoT Ent. LTSC 2024 64bit for Core i3
20706U24DS0013	Ubuntu Desktop 24.04 LTS 64bit