

ARK-3535

AMD Ryzen™ Embedded 8000 Series Processor Fanless Box PC



Features

- Support AMD Ryzen™ 8640U/8845HS Processor
- DDR5-5600 SO-DIMM memory support up to 96GB
- Tripl displays with 2 x HDMI2.1 + 1 x Type C (DP ALT mode)
- M.2 E Key and B Key for wireless connectivity
- Up to 1 x GbE, 3 x 2.5 GbE, 6 x COM, 8 x USB, 16-bit GPIO, 2 x CANBus
- TPM on board
- 2 x 2.5" SATA storage device
- -20 ~ 50 °C extended operating temperature



Specifications

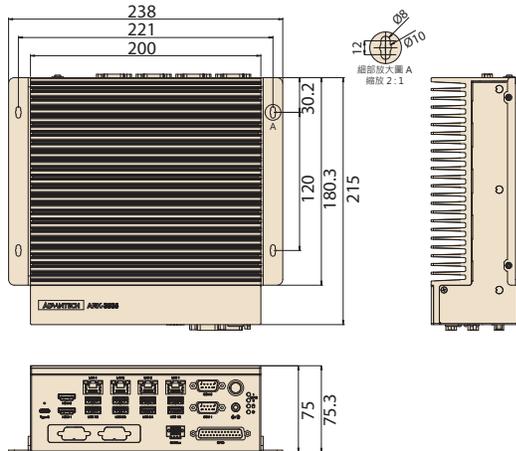
Processor System	CPU	Ryzen 5 Pro 8640U	Ryzen 7 Pro 8845HS
	Frequency	3.5-4.9Ghz	3.8-5.1Ghz
	Core Number	6	8
	TDP	28W	45W
	BIOS	AMI EFI 256 Mbit	
	AI Capacity	31 TOPS	38 TOPS
Memory	Technology	DDR5 5600 MHz	
	Max capacity	Up to 96G	
	Socket	2 x 262 pin SO-DIMM (ECC support)	
Graphics	Chipset	AMD Radeon RDNA3 Graphics	
	HDMI 2.1	Up to 3840x2160@ 60Hz	
	Type C(Alt)	Up to 3840x2160@ 60Hz	
	Triple Display	HDMI x 2 + Type C(Alt) x 1	
Ethernet	LAN1/2/3	10/100/1000/2500 Mbps Intel i226V LAN, support Wake On Lan	
	LAN4	10/100/1000 Mbps Intel i210IT GbE, support OOB by EdgeBMC	
Audio	Interface	Realtek ALC888S, Mic-in/Line-out(Switch by BIOS)	
I/O Interface	Serial Ports	6x, (2x RS232/422/485 + 4x RS232/485), COM1/COM2 support High speed COM	
	USB Ports Type A	8x (4 x USB3.2, 2 x Gen2x1, 2xGen1x1+ 4 x USD2.0)	
	USB Port Type C	1x USB4, DP ALT mode, 15W	
	GPIO	16-bit GPIO	
	CANBus	2	
	Remote Switch	1x 4pin connector	
	Antenna holes	6x (3x left, 3x right)	
Expansion	M.2	1x Key B 2280 PCIe Gen4 x2, USB3.2, with nano SIM holder ^{#1} 1x Key E 2230 PCIe Gen3 x2, USB2.0	
	Add-on Card Slot	1 Slot PCIe x16 (by optional AMO-3511 with PCIe x8 signal)	
Storage	SSD	2 x 2.5" SATAIII Max. 9.5mm height HDD bays	
	M.2	1x Key B 2280 PCIe Gen4 x2 1x Key E 2230 PCIe Gen3 x2	
Other	WatchDog Timer	255 levels timer interval, setup by software	
	TPM 2.0	NPCT764AABYX FW7.2.3.1 (On board)	
Software Support	Microsoft Windows	Windows 11	
	Linux	Ubuntu 24.04	
Power Requirement	Power Type	ATX/AT	
	Power Input Voltage	9-36 V _{dc}	
	Power Adapter	230W AC to DC (Option)	
Power Consumption	Typical (OS idle mode)	10.8W	9.12W
	Max. (Full loading)	74.4W	94.08W
Mechanical	Construction	Aluminum top + metal bottom	
	Mounting	Wall Mounting Kit	
	Dimensions (W x H x D)	200 x 75 x 215 mm	
	Weight	3.285Kg	
Environment	Operating Temperature	With extended temp. peripherals: -20 ~ 50° C with 0.7m/s air flow	
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185°F)	
	Relative Humidity	95% @ 40 °C (non-condensing)	
	Vibration during Operation	With SSD: 3 Grms, IEC60068-2-64, random, 5-500 Hz, 1hr/axis (with Wall Mount and SSD)	
	Shock during Operation	With SSD: 30 G, IEC-60068-2-27, half sine, 11 ms duration (with Wall Mount and SSD)	
	EMC	CE/FCC Class B, CCC, UKCA	
Safety	UL, CB, CCC, BSMI		

#1 SIM holder and M.2 slot are hardware interfaces for wireless communication integration only. System level RF certification is not available.

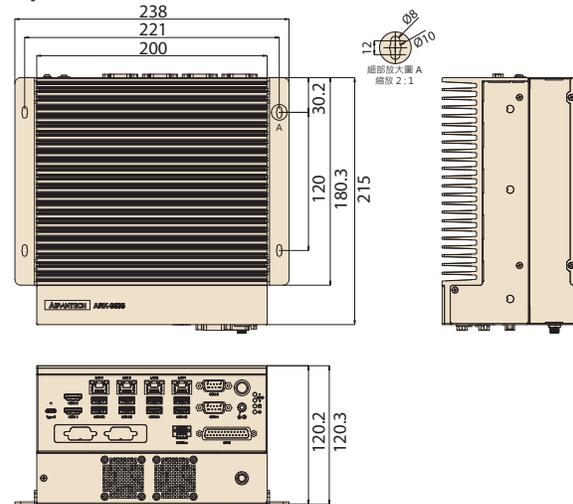
Dimensions

Unit: mm

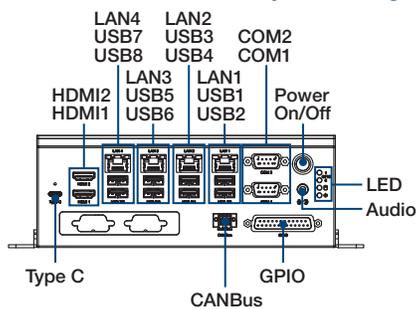
Wall Mount



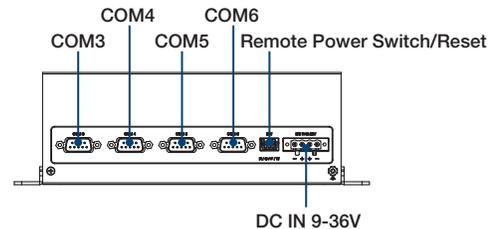
Expansion



Front Panel External I/O Mechanical Layout/Drawing



Top Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part No.	CPU	DDR5	HDMI	LAN	COM	USB Type-A	USB Type-C	M.2 B	M.2 E	Audio
ARK-3535-T5A1	8640U	Up to 96G	2	4	6	4 x USB 3.2, 4 x USB 2.0	1	1	1	Mic in/Line out
ARK-3535-T8A1	8845HS	Up to 96G	2	4	6	4 x USB 3.2, 4 x USB 2.0	1	1	1	Mic in/Line out
ARK-3535-T5A1U*	8640U	Up to 96G	2	4	6	4 x USB 3.2, 4 x USB 2.0	1	1	1	Mic in/Line out
ARK-3535-T8A1U*	8845HS	Up to 96G	2	4	6	4 x USB 3.2, 4 x USB 2.0	1	1	1	Mic in/Line out

*P/N withalphabet "U" as suffix are Made in Made in TW

Packing List

Part Number	Description
-	ARK-3535 Unit
2006353510	User Manual (Simplified Chinese)
-	China RoHS
-	Mounting kit
36WSWPD0BUND11	WISE-DeviceOn
36WSWPD0B0211	Trellix Application Control Lite/Acronis Backup 11.7 for Windows PC

Embedded OS

Part Number	Description
TBD	Win 11
TBD	Ubuntu

Optional Item for Default SKU

Part Number	Description
96PSA-A230W24P4-3	AC to DC adapter, DC 24V 230W, -20 ~ 60 °C
1702002600	Power cable 3-pin 183cm, USA type
1702002605	Power cable 3-pin 183cm, EU type
1700032693-11	Power cable 3-pin 183cm, UK type
1700000237	Power cable, 3-Pin 183cm, PSE type
1700001714	Power cable, 3-Pin 183cm, BSMI type
1960103315N010	M.2 Bracket (for 3052 device on M.2 B key)
1960103315N020	M.2 Bracket (for 2242 device on M.2 B key)

Optional Expansion Kit for add-on Cards

Part Number	Description
AMO-3511	ARK-3535 expansion kit for 1*PClex8 to 1*PClex16 (Signal x 8)

Optional Item for M.2 Thermal Kit

Part Number	Description
AMK-A0058	Thermal kit of ARK-3535 for B key 5G or Hailo AI
AMK-A0061	Thermal kit of ARK-3535 for E key