

ARK-3535

AMD Ryzen™ Embedded 8000 Series Processor Expansion Fanless Box PC

Preliminary



Features

- Support AMD Ryzen™ 8640U/8845HS Processor
- DDR5-5600 SO-DIMM memory support up to 96G
- Tripl displays with 2 x 4K HDMI + 1 x 4K Type C(Alt)
- M.2 E Key and B Key for wireless module installation
- Up to 4 x Intel GbE, 6 x COM, 8 x USB, 16-bit DIO, 2 x CANBus
- TPM on board for system security
- 2 x 2.5" SATA storage device
- -40 ~ 50 °C extended operating temperature



WISE-DeviceOn

SUSI API



Specifications

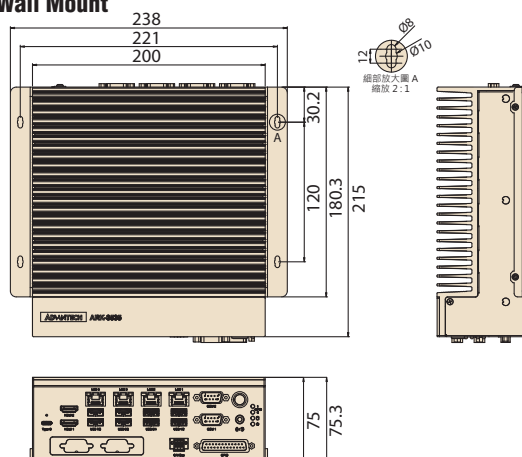
Processor System	CPU	Ryzen 5 Pro 8640U	Ryzen 7 Pro 8845HS
	Frequency	3.5-4.9Ghz	3.8-5.1Ghz
	Core Number	6	8
	BIOS	AMI EFI 256 Mbit	
Memory	Technology	DDR5 5600 MHz	
	Max capacity	Up to 96G	
	Socket	2 x 262 pin SO-DIMM (no support ECC)	
Graphics	Chipset	AMD Radeon RDNA3 Graphics	
	HDMI	Up to 3840x2160@ 60Hz	
	DP	Up to 3840x2160@ 60Hz	
	Triple Display	HDMI x 2 + DP 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	
Audio	Interface	Realtek ALC888S, Mic-in/Line-out(Switch by BIOS)	
I/O Interface	Seriell Ports	6x (2x RS232/422/485 + 4x RS232/485	
	USB Ports Type A	8x (4x USB3.2, 4x USB2.0)	
	USB Port Type C	1x USB4, Alt mode, 15W	
	GPIO	16-bit Programmable DIO	
	CANBus	2x, 2 signal in 1 6P connector	
	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 Gen4 x2, USB2.0	
Storage	HDD	2 x 2.5" SATAIII 9.5mm height HDD bays	
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 10/11	
	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)	TBD	
	Max. (Full loading)	TBD	
Mechanical	Construction	Aluminum top + metal bottom	
	Mounting	Wall Mounting Kit	
	Dimensions (W x H x D)	200 x 75 x 215 mm	
	Weight	TBD	
Environment	Operating Temperature	With extended temp. peripherals: -40 ~ 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, UKCA	

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

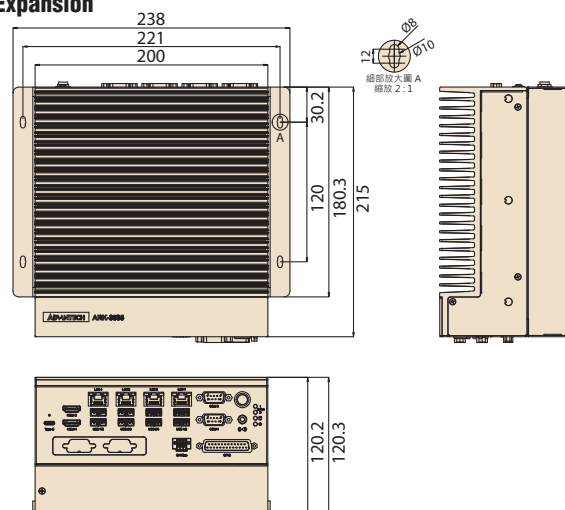
Dimensions

Unit: mm

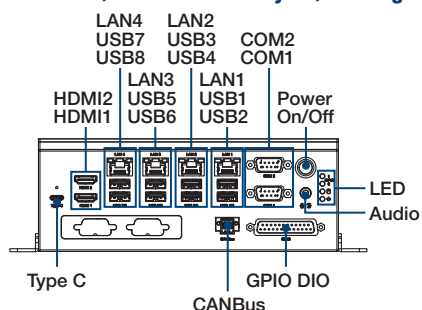
Wall Mount



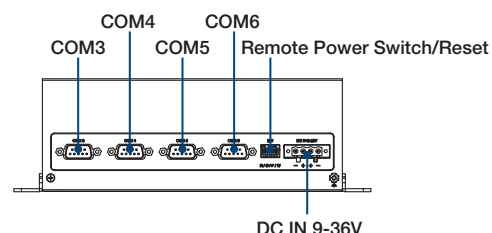
Expansion



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 withalphet "U" as suffix are Made in Made in TW

Packing List

Part Number	Description
-	1 x ARK-3535 Unit
-	1 x User Manual (Simplified Chinese)
-	China RoHS
-	Mounting kit
36WSWPDOBUND11	WISE-DeviceOn
36WSWPDOB0211	Trellix Application Control Lite/Acronis Backup 11.7 for Windows PC

Embedded OS

Part Number	Description
TBD	Win 10
TBD	Win 11
TBD	Ubuntu

ARK-3535 Optional Expansion Kit

Part Number	Description
AM0-3511	ARK-3535 expansion kit for 1* PCIe x8

Optional Items

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)