

# ARK-3534B

## Intel® 12<sup>th</sup>&13<sup>th</sup> Gen Core™ i3/i5/i7/i9 LGA1700 Expansion Fanless Box PC

Preliminary



### Features

- Support Intel® 12<sup>th</sup>&13<sup>th</sup> Gen. Core™ i3/i5/i7/i9 processor
- Triple independent display: HDMI + HDMI + Optional Display
- DDR5 SO-DIMM memory support up to 64 GB
- 9-36V<sub>DC</sub> wide range power input
- Up to 3sets 2.5" hard drive bays
- Support up to 4GbE, 8USB, 8COM, 16bit DIO, 2CANBus, TPM2.0
- SUSI API, WISE-DeviceOn, McAfee and Acronis bundled



WISE-DeviceOn SUSI API



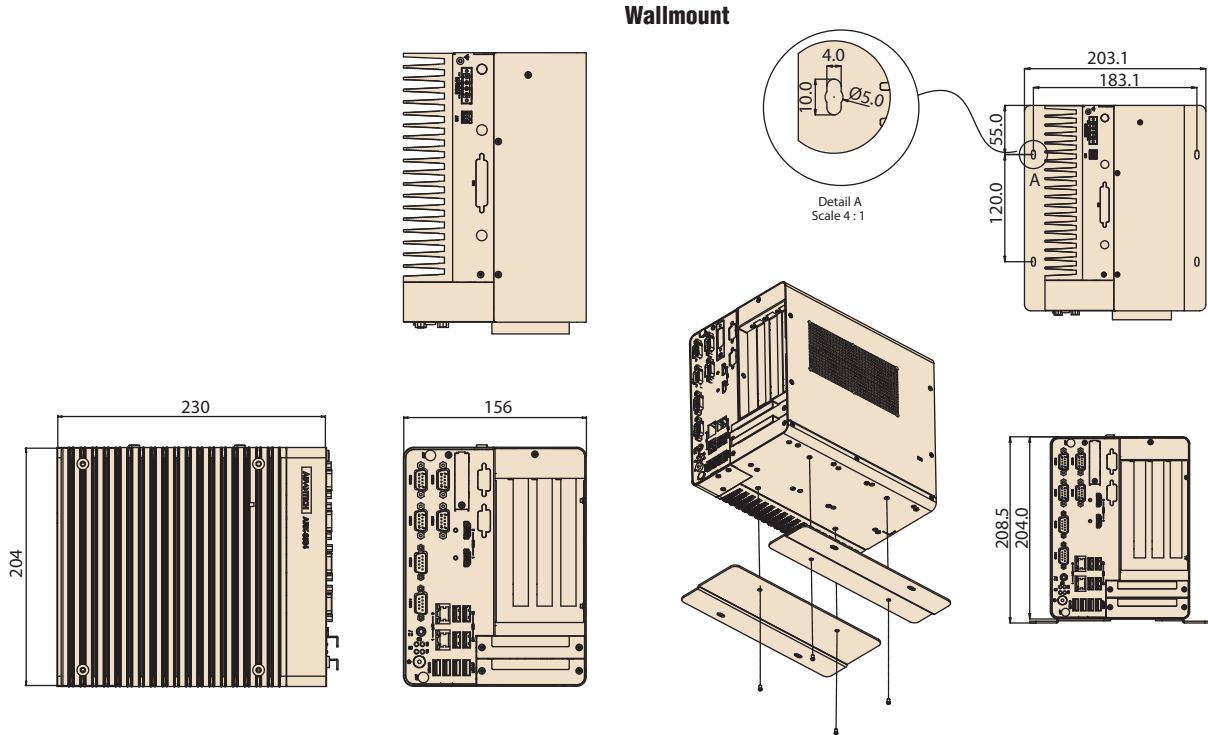
### Specifications

	CPU	i9-13900E	i7-13700E	i5-13500E	i3-13100E	i9-12900E	i7-12700E	i5-12500E	i3-12100E	G6900E	
Processor System	CPU	i9-13900E	i7-13700E	i5-13500E	i3-13100E	i9-12900E	i7-12700E	i5-12500E	i3-12100E	G6900E	
	Frequency	1.3-5.2GHz	1.3-5.1GHz	1.5-4.6GHz	3.3-4.4GHz	1.7-5.0GHz	1.6-4.8GHz	2.9-4.5GHz	3.2-4.2GHz	3.0GHz	
	L3 Cache	36MB	30MB	24MB	12MB	30MB	25MB	18MB	12MB	4MB	
	Cores	24	16	14	4	16	12	6	4	2	
	TDP	65W	65W	65W	60W	65W	65W	65W	60W	46W	
BIOS	Chipset	H610E (R680E support by project)									
	BIOS	AMI EFI 256Mbit									
Memory	Technology	DDR5 4800 MHz									
	Max. Capacity	64 GB									
	Socket	2 x 262-pin SO-DIMM									
Graphics	Chipset	Intel® UHD Graphics 770									
	Graphic Engine	DirectX 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									
	HDMI	2 HDMI port, HDMI 2.0 for HD video playback, 4096x2160@60Hz									
	Optional 3rd Display module	DVI-D / DP / HDMI Display Port									
	Triple Display	HDMI+HDMI + 3rd display module									
Ethernet	LAN1	10/100/1000 Mbps Intel i219-LM GbE, support Wake On Lan									
	LAN2	10/100/1000/2500 Mbps Intel i225-V 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 (by optional AMO-I029)									
I/O Interface	Serial Port	4 x RS-232/422/485 port with auto flow control, 2 x RS-232 (additional COM7/8 2 x RS-232 by optional cable)									
	USB	4 x USB 3.2 (2 x Gen2, 2 x Gen1), 4 x USB 2.0									
	DIO	16bit DIO (by optional cable)									
Expansions	CANBus	2 ports by optional cable									
	M.2	1 x M.2. 2230 E key and 1 x M.2 2280 B key with SIM holder #1									
	Add-on Card Slot	1 Slot PCIe4 + 1 Slot PCIe16 (If card power consumption over 30W for add-on cards, please bundled with AMO-3508 kit for power and thermal solutions)									
Storage	Maximum card size	110mm (H) x 180mm (L)									
	HDD	2 x 2.5" SATAIII 15mm height HDD bay(Up to 3 x 2.5" SATAIII HDD bays)									
Software Support	NVME	1 x PCIe2 (Share with M.2 2280 B key)									
	Microsoft Windows	Windows 10									
Power Requirements	Linux	By Project Support									
	Power Type	AT/ATX									
	Power Input Voltage	9-36V									
Power Consumption (CPU/Memory Only)	Power Adapter	AC to DC, 230W (Optional)									
	Typical	56.1W									
Mechanical	Max.	92.4W									
	Construction	Aluminum housing									
	Mounting	Desk mounting									
	Dimensions (W x H x D)	156 x 204 x 230 mm									
	Weight	5.705Kg									
Environment	Operating Temperature	Up to 65W processor with extended temp peripherals: -20 ~ 60° C with 0.7m/s air flow with HDD: 0 ~ 40° C with 0.7m/s air flow									
	Storage Temperature	-40 ~ 85° C									
	Relative Humidity	95% @ 40° C (non-condensing)									
	Vibration During Operation	With SSD: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis.									
	Shock During Operation	With SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration									
	EMC	CE/FCC Class B, CCC, BSMI									
Safety	CB, UL, CCC, BSMI										

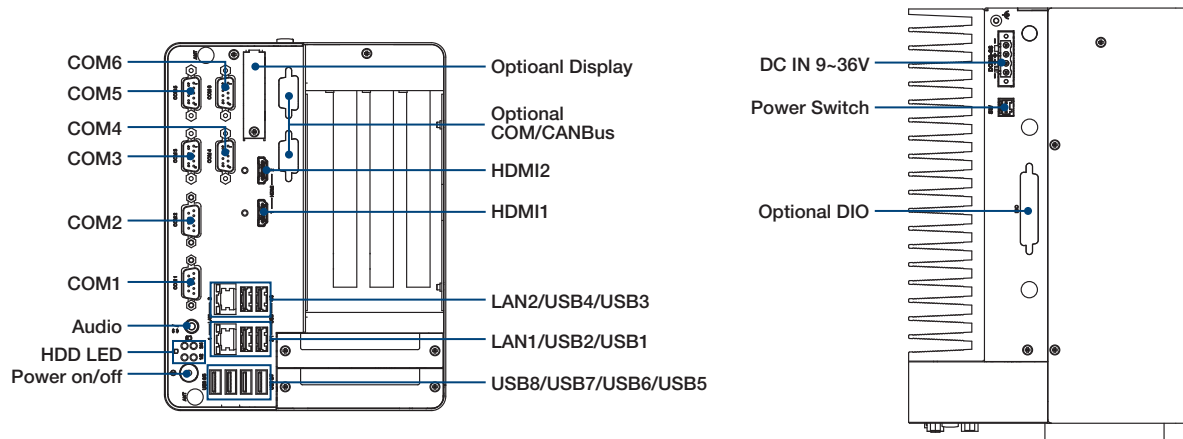
#1 SIM holder and M.2 slot are hardware interfaces for wireless communication integration only. System level RF certification is not available.

Dimensions

Unit: mm



External I/O Mechanical Layout/Drawing



## Ordering Information

Part No.	CPU	DDR5	Gbe	HDMI	Option 3rd display module	RS-232	RS-232/422/485	USB	M.2 B key	SIM	M.2 E Key	DC Input	Expansion
ARK-3534B-00A1	LGA1700 Socket Type	Up to 64GB	2	2	1	Up to 4	4	8	1	1	1	9-36V	PCIex4 + PCIex16

Note: CPU/Memory/Storage and operating system bundled by request.

## Packing List

Part Number	Description
-	ARK-3534B Unit
-	User Manual (Simplified Chinese)
-	China RoHS
-	Desk mounting kit
36WSWPD0BUND11	WISE-DeviceOn
36WSWPD0BD0211	McAfee Application Control Lite/Acronis Backup 11.7 for Windows PC

## Embedded OS

Part Number	Description
TBD	

## ARK-3534B Optional Expansion Kit for add-on Cards

Part Number	Description
AMO-3508	ARK-3534B/C fan kit
AMO-3508A	ARK-3534B/C fan kit for Nvidia A2 Tensor

\*Please add this kit once the add-on card power consumption over than 30Watts

## ARK-3534B Default SKU Option Items

### 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
1702031801	Power cable 3-pin 183cm, UK type
1700000237	Power cable, 3-Pin 183cm, PSE type

## ARK-3534B Optional HDD expansion Kit

Part Number	Description
1700033651-01	SATA cable for 3rd HDD/SSD

### Optional Display Module

Part Number	Description
AMO-D001E	DVI-D module
AMO-D002E	DP module
AMO-D003E	HDMI module

### Optional TPM Module

Part Number	Description
AMO-I029	TPM 2.0 Infineon SLB9670V2.0