

ARK-3534D

Intel® 12th&13th Gen i3/i5/i7/i9 LGA1700 Expansion Fanless Box PC

Preliminary



Features

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



WISE-DeviceOn SUSI API



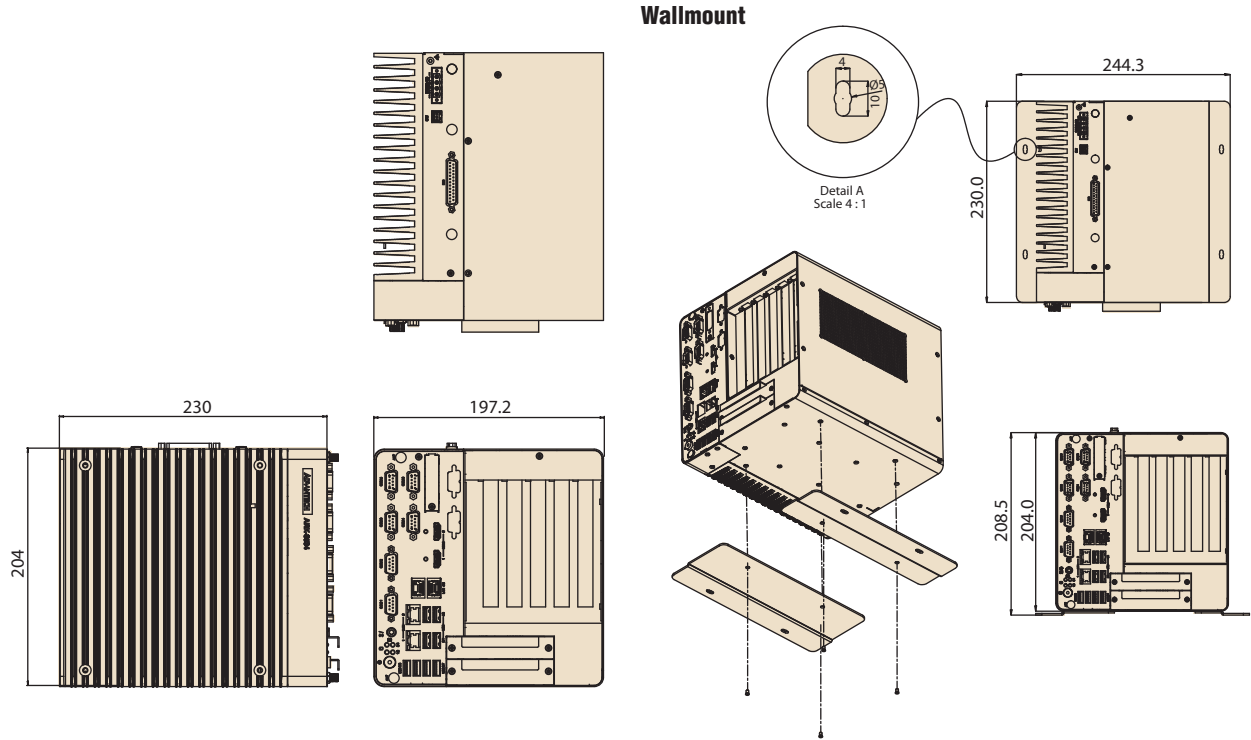
Specifications

		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	
	Chipset	R680E									
Memory	BIOS	AMI EFI 256Mbit									
	Technology	DDR5 4800 MHz									
	Max. Capacity	64 GB									
Graphics	Socket	2 x 262-pin ECC/nonECC SO-DIMM									
	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									
Ethernet	Optional 3rd Display module	DVI-D / DP / HDMI Display Port									
	Triple Display	HDMI+HDMI + 3rd display module									
	LAN1	10/100/1000 Mbps Intel i219-LM GbE, support Wake On Lan									
Audio	LAN2/3/4	10/100/1000/2500 Mbps Intel i225-LM GbE, support Wake On Lan									
	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	8 x USB 3.2 (4 x Gen2, 4 x Gen1)									
	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	2 Slot PCI + 1 Slot PCIe4 + 1 Slot PCIe16 (If card power consumption over 30W for add-on cards, please bundled with AMO-3509 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 support Intel SW RAID (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)	197.2 x 204 x 230 mm									
	Weight	6.41 Kg									
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									

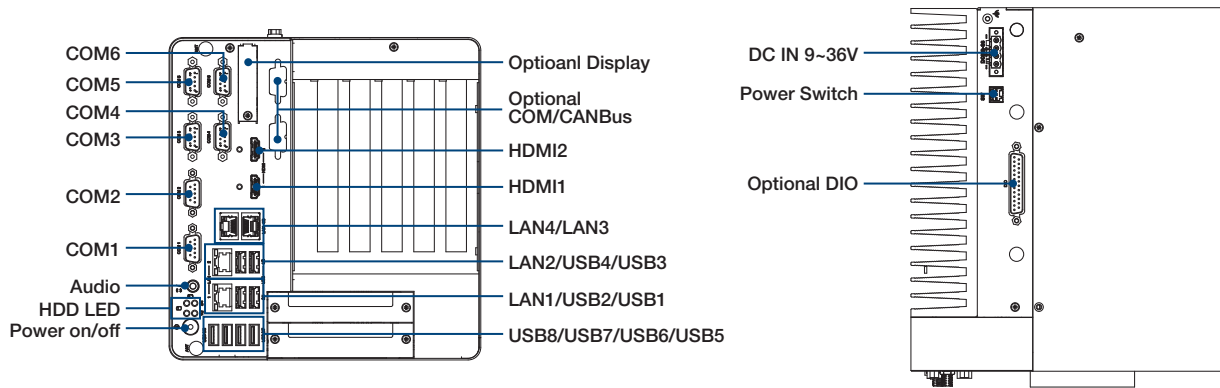
#1 SIM holder and M.2 slot are hardware interfaces for wireless communication integration only. System level RF certification is not available.

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-3534D-00A1	LGA1700 Socket Type	Up to 64GB	4	2	1	Up to 4	4	8	1	1	1	9-36V	PCIex4 + 2PCI + PCIex16

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

Packing List

Part Number	Description
-	ARK-3534D 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-3534D Optional Expansion Kit for add-on Cards

Part Number	Description
AMO-3509	ARK-3534D fan kit
AMO-3509A	ARK-3534D fan kit for Nvidia A2 tensor

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

ARK-3534D 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-3534D Optional HDD expansion Cable

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