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ARK-3532B

Fanless Embedded Box PC for 10th Gen. Intel®Xeon® W / Core™ i3/i5/i7/i9

LGA1200 Expansion Processor and W480E Chipset



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ARK-3532B

Intel® 10th Gen Xeon® W / Core™ i LGA1200 Expansion Fanless Box PC

Preliminary



Features

- Support Intel® 10th Gen. Xeon® W and Core™ i3/i5/i7/i9 processor
- Triple independent display: VGA + HDMI + Optional Display
- DDR4 SO-DIMM ECC/non-ECC memory support up to 64 GB
- 9-36V_{DC} wide range power input
- Up to 4sets 2.5" hard drive bays, support Intel® SW RAID
- Support 4GbE, 8USB, 6COM, 16bit DIO, TPM2.0
- SUSI API, WISE-DeviceOn, McAfee and Acronis bundled
- 2 x Independent USB 3.0 with lockable design



WISE-DeviceOn SUSI API



Specifications

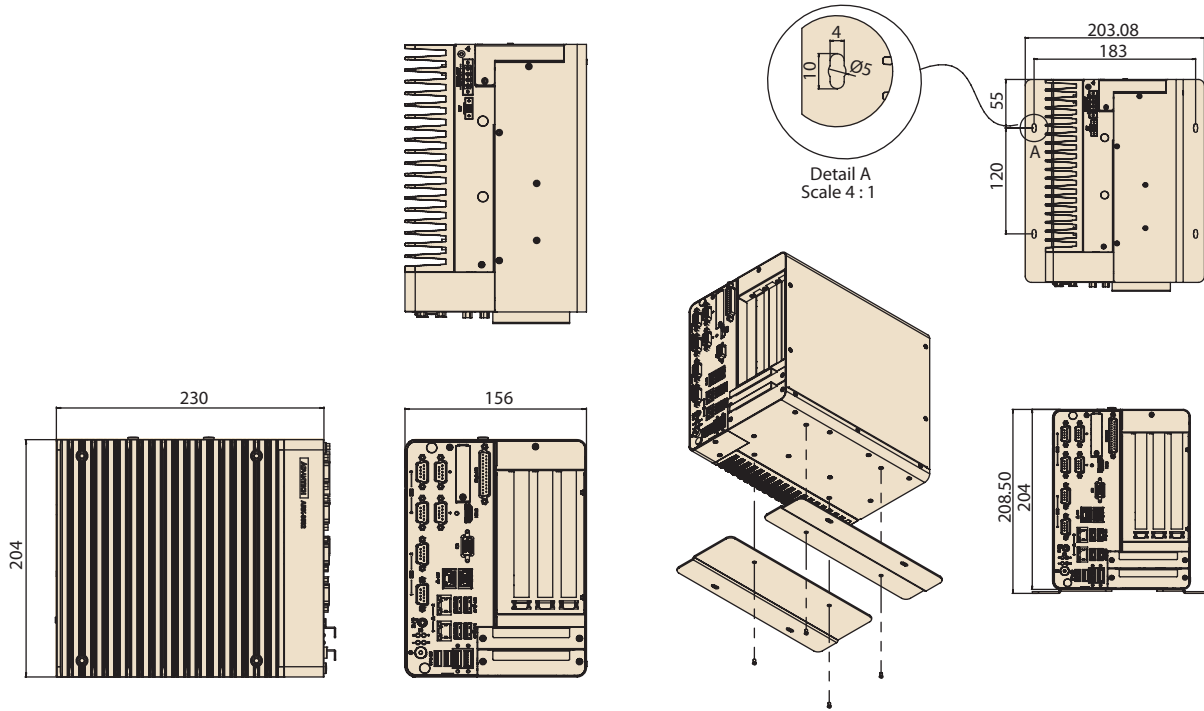
		W-1290TE	i9-10900E	i7-10700E	i5-10500E	i3-10100E	G5900E	
Processor System	CPU	W-1290TE	i9-10900E	i7-10700E	i5-10500E	i3-10100E	G5900E	
	Frequency	1.8-4.5GHz	2.8-4.7GHz	2.9-4.5GHz	3.1-4.2GHz	3.2-3.8GHz	3.2GHz	
	L3 Cache	20MB	20MB	16MB	12MB	6MB	2MB	
	Cores	10	10	8	6	4	2	
	TDP	35W	65W	65W	65W	65W	65W	
	Chipset	W480E						
	BIOS	AMI EFI 256Mbit						
Memory	Technology	DDR4 2933 MHz						
	Max. Capacity	64 GB						
	Socket	2 x 260-pin SO-DIMM						
	Chipset	Intel® UHD Graphics 630						
Graphics	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						
	VGA	1920x1200@60Hz						
	HDMI	1 HDMI port, HDMI 1.4 for HD video playback, 4096x2160@30Hz						
	Optional 3rd Display module	DVI-D / DP / HDMI Display Port						
	Triple Display	VGA+HDMI + 3rd display module						
Ethernet	LAN1	10/100/1000 Mbps Intel I219-LM GbE, support Wake On Lan						
	LAN2, 3, 4	10/100/1000 Mbps Intel I210 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; COM3 support 5V/12V power supply (by jumper)						
	USB	4 x USB 3.2 (10Gbs), 2 x USB 3.0, 2 x Independent USB 3.0						
	GPIO	16bit GPIO						
Expansions	Mini PCIe	1 x Full-size Mini PCIe (1 x support mSATA, 1 x support SIM holder) #1						
	M.2	1 x E key for WiFi #1						
	Add-on Card Slot	1 Slot PCIe4 + 1 Slot PCIe16 Suggest maximum power consumption 10W for each slot If card power consumption over 30W for add-on cards, an external 120W (12V 10A) adapter and AMO-3508 is required to use in ARK-3532B for power and thermal solutions						
	Maximum card size	110mm (H) x 180mm (L)						
Storage	HDD	2 x 2.5" SATAIII 15mm height HDD bay support Intel SW RAID (Up to 4 x 2.5" SATAIII HDD bays by optional AMK-A0035)						
	mSATA	1 x mSATA socket (Share with Mini PCIe)						
Software Support	Microsoft Windows	Windows 10						
	Linux	By Project Support						
Power Requirements	Power Type	AT/ATX						
	Power Input Voltage	9-36V						
	Power Adapter	AC to DC, 230W (Optional)						
Power Consumption (CPU/Memory Only)	Typical	30W						
	Max.	64.8W						
Mechanical	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.

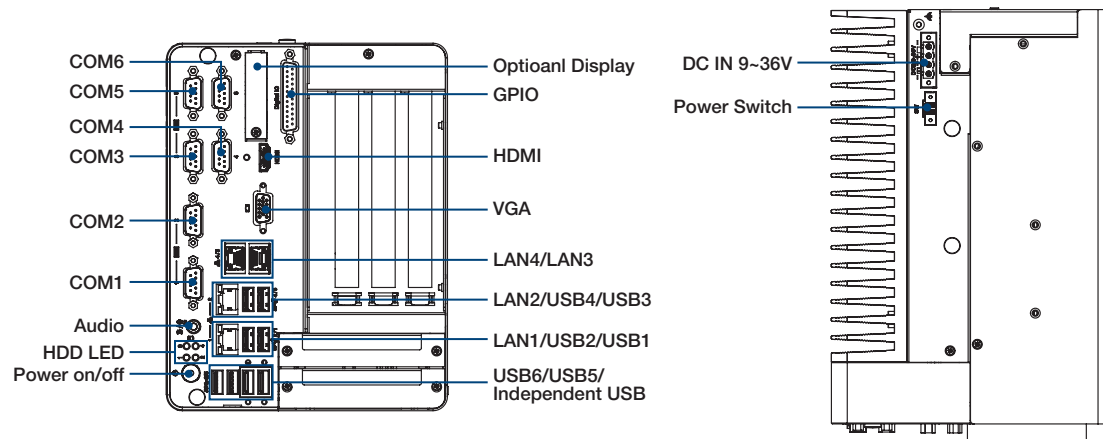
Dimensions

Unit: mm

Wallmount



External I/O Mechanical Layout/Drawing



Ordering Information

Part No.	CPU	DDR4	Gbe	VGA	HDMI	Option 3rd display module	RS-232	RS-232/422/485	USB	MiniPCIe	SIM	M.2	DC Input	Expansion
ARK-3532B-00A1	LGA1200 Socket Type	Up to 64GB	4	1	1	1	2	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-3532B Unit
-	User Manual (Simplified Chinese)
-	China RoHS
-	Desk mounting kit
36WSWPDOBUND11	WISE-DeviceOn
36WSWPDOB0211	McAfee Application Control Lite/Acronis Backup 11.7 for Windows PC

Embedded OS

Part Number	Description
20706WX9HS0125	Windows 10 IoT Enterprise 2019 LTSC 64bit for Xeon/Core i9/Core i7
20706WX9VS0129	Windows 10 IoT Enterprise 2019 LTSC 64bit for Celeron/Core i5/Core i3

ARK-3532B Optional Expansion Kit for add-on Cards

Part Number	Description
AMO-3508	ARK-3532B/C fan kit

If card power consumption over 30W for add-on cards, an external 120W (12V 10A) adapter and AMO-3508 is required to use in ARK-3532B for power and thermal solutions

ARK-3532B 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-3532B Optional HDD expansion Kit

Part Number	Description
AMK-A0035	2 x internal HDD bays kit (Max Height 15mm)

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

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