ARK-3532D

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

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
- 12-36V_{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

Specifications

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
	ECC memory support (support by CPU)	YES	NO	NO	NO	YES	NO
	Chipset	W480E					
	BIOS	AMI EFI 256Mbit					
Memory	Technology	DDR4 2933 MHz					
	Max. Capacity	64 GB					
	Socket	2 x 260-pin SO-DIMM					
Graphics	Chipset	Intel® UHD Graphics 630					
	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 PCIex4 + 2 Slot PCI + 1 Slot PCIex16 Suggest maximum power consumption 10W for each slot Support add-on card power consumption up to 120W for PCIe*16 slot If add-on card power consumption over 30W , an external adapter (must need be 12V with LOCKABLE DC JACK , and more than 120W) and AMO-3509 is required to use in ARK-3532D 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	12-36V					
	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)	197.2 x 204 x 230 mm					
	Weight	6.41Kg					
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.

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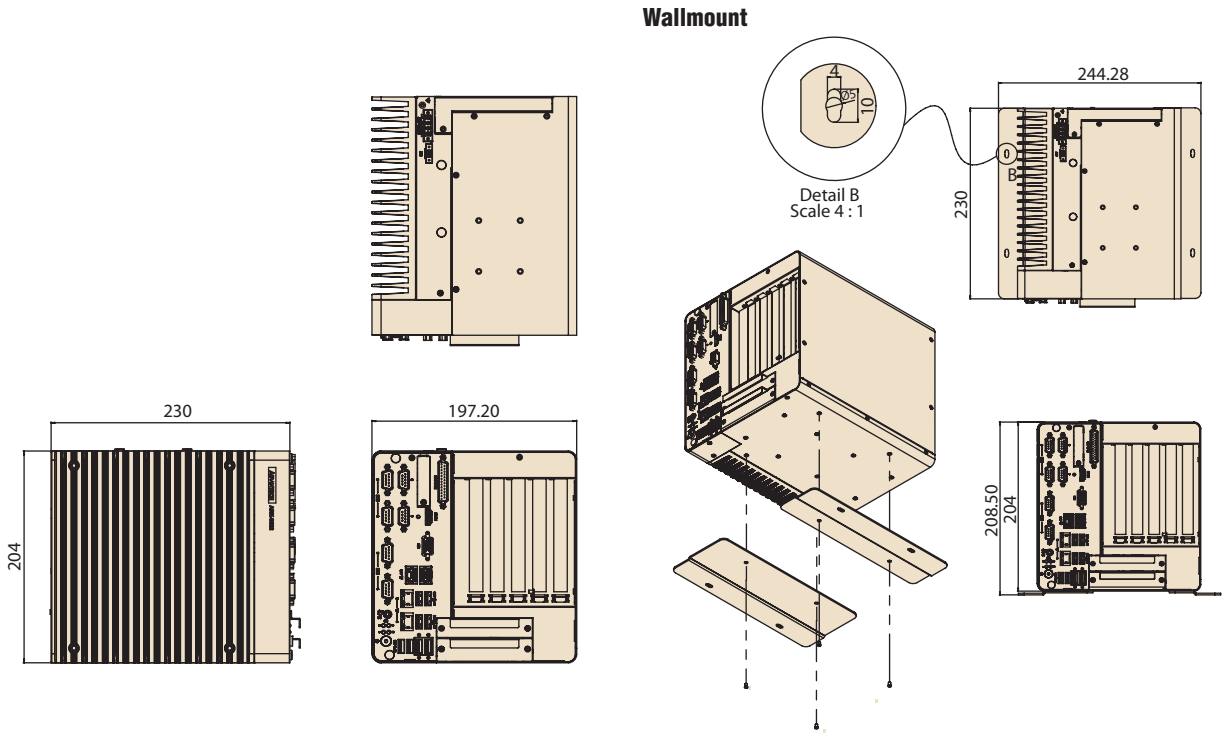
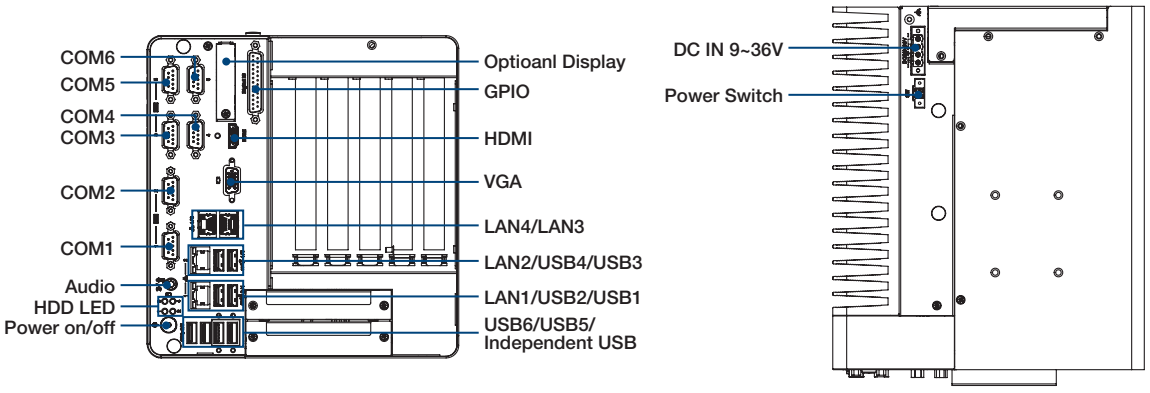
All product specifications are subject to change without notice.

Dimensions

Unit: mm



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	Audio	USB	MiniPCIe	SIM	M.2	DC Input	Expansion
ARK-3532D-00A1	LGA1200 Socket Type	Up to 64GB	4	1	1	1	2	4	Mic-in or Line-out	8	1	1	1	12-36V	PCIex4 + 2PCI + PCIe x 16

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

Packing List

Part Number	Description
-	ARK-3532D Unit
-	User Manual (Simplified Chinese)
-	China RoHS
-	Desk mounting kit
36WSWPDOBUND11	WISE-DeviceOn
36WSWPDOBD0211	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-3532D Optional Expansion Kit for add-on Cards

Part Number	Description
AMO-3509	ARK-3532D fan kit

Optional adapter for AMO-3509

Part Number	Description
XARK-DPS-150AB-15	ADP A/D 100-240V 150W 12V C14 LOCKABLE DC JACK

Support add-on card power consumption up to 120W for PCIe*16 slot

If add-on card power consumption over 30W , an external adapter (must need be 12V with LOCKABLE DC JACK , and more than 120W) and AMO-3509 is required to use in ARK-3532D for power and thermal solutions

ARK-3532D 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-3532D 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