ARK-3530F

Intel®Xeon® E3 / Core™ i3/i5/i7 LGA1151 Modular Expansion Fanless Box PC

Features

- Support Intel® Xeon® / 6th & 7th Gen. Core™ i3/i5/i7 processor
- Triple independent display: VGA + HDMI + Optional Display
- DDR4 SO-DIMM memory support up to 32 GB
- 9-36V power module compatible with all-in-one ordering
- Optional modular design for 2.5" hard drive bays: internal /removable (support up to 4 sets)
- Advantech iDoor module compatible
- Advantech EMIO miniPCIe module compatible with all-in-one ordering

Windows Embedded **WISE-DeviceOn** **SUSI API**

Specifications

Processor System	CPU	E3-1235L V5	i7-7700/i7-6700	i5-7500/i5-6500	i3-7101E
	Frequency	2.0GHz	3.6GHz/3.4GHz	3.4GHz/3.2GHz	3.9GHz
	L3 Cache	8MB	8MB	6MB	3MB
	TDP	25W	65W	65W	54W
	Chipset	C236			
	BIOS	AMI EFI 128Mbit			
Memory	Technology	DDR4 2133 MHz			
	Max. Capacity	32 GB			
	Socket	2 x 260-pin SO-DIMM			
Graphics	Chipset	Intel® HD Graphics 630			
	Graphic Engine	Direct x 12, OpenGL 4.4 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 2.0 for HD video playback, 3840x2160@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 (ARK-3530F-00A2 without Audio)			
Others	Watch dog Timer	255-level timer interval, setup by software			
	TPM	TPM 2.0 (Optional by project support)			
I/O Interface	Serial Port	4 x RS-232/422/485 port with auto flow control; COM 1 support 5V/12V power supply (by jumper)			
	USB	8 x USB 3.0 ports			
	P/S2	1 Port support by cable and bracket (Optional)			
	Optional I/O	16bit DIO or 2 x RS-232 ports			
Expansions	Mini PCIe	2 x Full-size Mini PCIe (2 x support mSATA, 1 x support SIM holder #1)			
	M.2	1 x E key for WiFi Module #1			
	i Door	1 set (Optional)			
	Add-on Card Slot	Maximum card size 110mm (H) x 180mm (L) Suggest maximum power consumption 10W for each slot 2 Slots PCI (Default) 2 Slots PCIex8 (Option AMO-R026) 1 Slots PCIex16 (Option AMO-3507)			
Storage	HDD	2 x 2.5" SATAIII HDD Bay with Max Height 15mm support Intel SW RAID (Up to 4 x 2.5" SATAIII HDD bays by optional 2*AMK-A0028E)			
	mSATA	2 x mSATA socket (Share with Mini PCIe)			
Software Support	Microsoft Windows	Windows 10 (Windows 7 for 6th Gen CPU only)			
	Linux	By Project Support			
Power Requirements	Power Type	AT/ATX			
	Power Input Voltage	9-36V			
	Power Adapter	AC to DC, 150W (Optional)			
Power Consumption (CPU/Memory Only)	Typical	25.68W			
	Max.	88.92W			
Mechanical	Construction	Aluminum housing			
	Mounting	Desk mounting			
	Dimensions (W x H x D)	156.5 x 205 x 230 mm (6.16" x 8.07" x 9.06")			
	Weight	5.87Kg			
Environment	Operating Temperature	25W/35W/65W(only 6th Gen) Processor with extended temp peripherals: -20 ~ 60° C with 0.7m/s air flow Under 73W processor 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(62368), UL(62368), 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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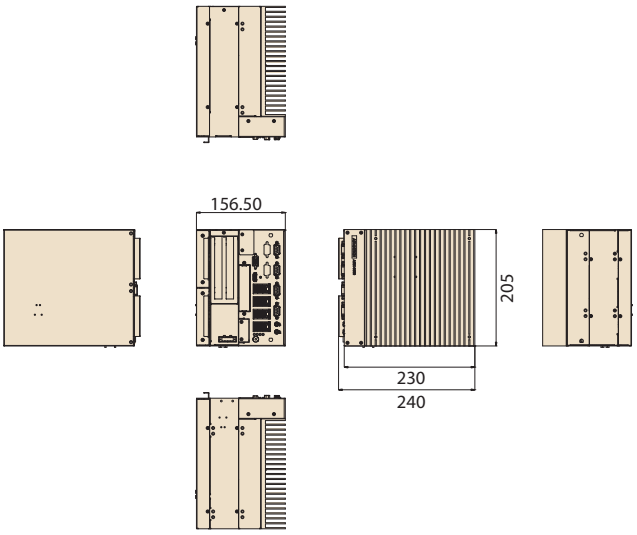
All product specifications are subject to change without notice.

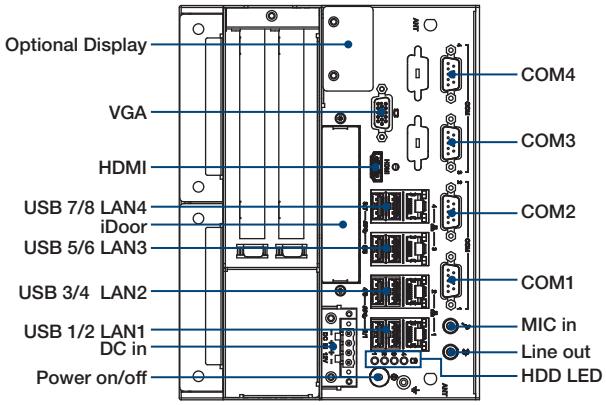
Last updated: 15-Apr-2021

Dimensions

Unit: mm



Front Panel External I/O Mechanical Layout/Drawing



* There is no Mic in and Line out function of ARK-3530F-00A2

Ordering Information

Part No.	CPU	DDR4	Gbe	VGA	HDMI	Option 3rd display module	RS-232/422/485	USB 3.0	MiniPCIe	Audio	SIM	M.2	DC Input	Expansion
ARK-3530F-00A1	LGA1151 Socket Type	Up to 32GB	4	1	1	1	4	8	2	Mic in, Line out	1	1	9-36V	2 x PCI
ARK-3530F-00A2	LGA1151 Socket Type	Up to 32GB	4	1	1	1	4	8	2	N/A	1	1	9-36V	2 x PCI

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

Packing List

Part Number	Description
-	ARK-3530F Unit
-	User Manual (Simplified Chinese)
-	China RoHS
-	Desk mounting kit

Embedded OS

Part Number	Description
20706WX9HS0023	WIN10 IoT LTSC 64bit for Xeon and Core i7
20706WX9VS0026	WIN10 IoT LTSC 64bit for Core i3/i5 and Celeron

ARK-3530 Default SKU Option Items

Optional Item for Default SKU

Part Number	Description
96PSA-A150W19P4-3	AC-to-DC Adapter, DC19V 150W, 0 ~ 40 °C
96PSA-A230W24P4-3	AC to DC adapter, DC 24V 230W, -20 ~ 60 °C
1700028547-01	16bit DIO Cable
1700028548-01	COM5/6 Cable
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

Optional MOS modules for iDoor Expansion

Part Number	Description
MOS-2230-Z1201E	CANBus module, 2-Ch, USB I/F
MOS-2220-X1101E	Parallel LPT module, 1-Ch, USB I/F.
MOS-2220-Z1101E	High Speed Com USB module, 2-Ch, PCIe I/F
MOS-2120-Z1101E	Giga LAN Ethernet module, 1-Ch, PCIe I/F.
MOS-1120Y-0202E	Isolated RS-232, 2-Ch, DB9, PCIe I/F
MOS-1121Y-0202E	Isolated RS-422/485, 2-Ch, DB9, PCIe I/F
MOS-1120Y-1402E	Non-Isolated RS-232, DB37, 4-Ch, PCIe I/F
MOS-1121Y-1402E	Non-Isolated RS-422/485, DB37, 4-Ch, PCIe I/F
MOS-1130Y-0201E	Isolated CANBus, 2-Ch, DB9, PCIe I/F
MOS-1110Y-0101E	Isolated 16 DI/8 DO, 1-Ch, DB37, PCIe I/F
MOS-2110Z-1201E	USB module, 2-Ch, PCIe I/F
MOS-2120-Z1201	Dual Intel I210 GbE LAN iDoor, 2-Ch, PCIe I/F

*Please noted ARK-3530F can support only 1 iDoor.

ARK-3530F Optional HDD expansion Kit (Support up to 2 sets)

Part Number	Description
AMK-A0028E	1 x internal HDD Kit (Max Height 15mm)

Optional Display Module

Part Number	Description
AMO-D001E	DVI-D module (1920x1080)
AMO-D002E	DP module (3840x2160@60Hz)
AMO-D003E	HDMI module (3840x2160@30Hz)

Optional Riser Expansion

Part Number	Description
AMO-R026	2 x PCIex8
AMO-3507	1 x PCIex16 + Fan kit