

# ARK-3530L

## 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
- Option 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
- Advantech ARK Plus AMO-3xxx series module compatible



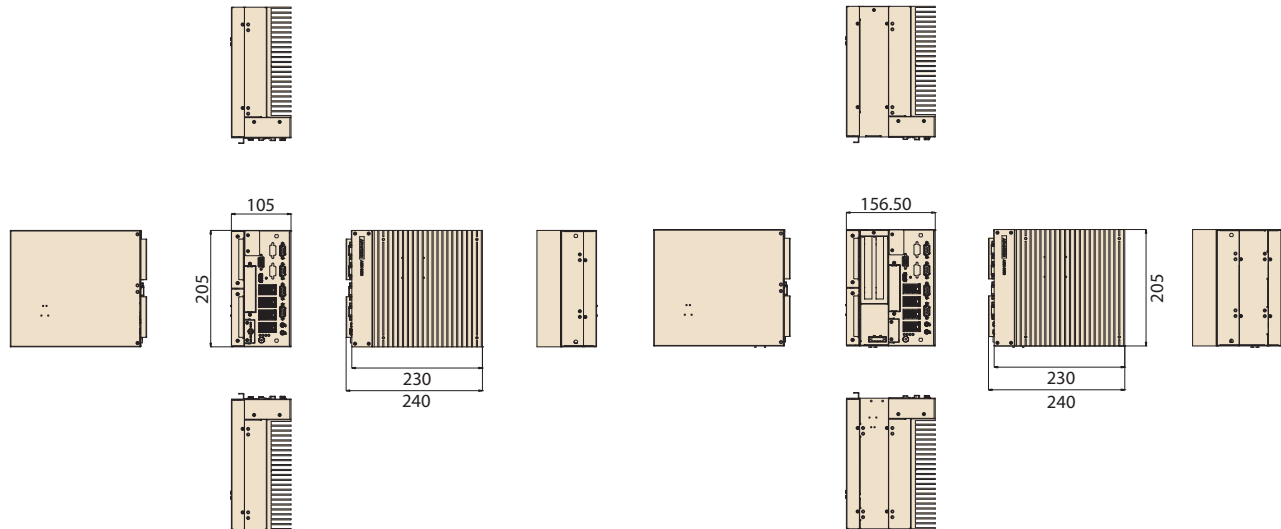
### Specifications

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			
Ethernet	LAN1	10/100/1000 Mbps Intel I219-LM GbE, support Wake On Lan			
	LAN2	10/100/1000 Mbps Intel I210 GbE, support Wake On Lan			
Audio	Interface	Realtek ALC888S, High Definition Audio, Line-out, Mic-in			
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)			
	ARK Plus	AMO-3505E 2 slot Riser card for 2 x PCI, AMO-3506E 2 slot Riser card for 2 x PCIe8, AMO-3507 1 slot PCIe16+Fan kit			
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	12V (9-36V as optional)			
	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)	105 x 205 x 230 mm (4.13" x 8.07" x 9.06")			
	Weight	5.1Kg			
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				

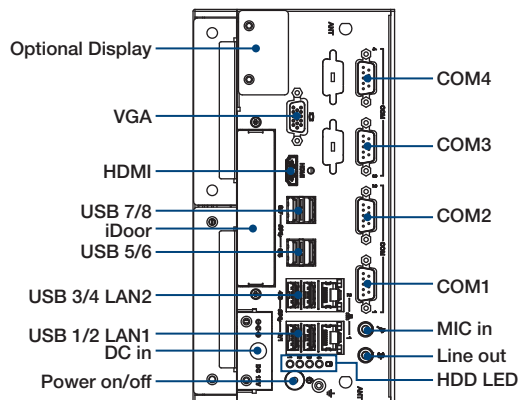
#1 SIM holder and M.2 slot are hardware interfaces for wireless communication integration only. System level RF certification is not available.

## Dimensions

Unit: mm



## Front Panel External I/O Mechanical Layout/Drawing



## Ordering Information

Part No.	CPU	DDR4	GbE	VGA	HDMI	Option 3rd display module	RS-232/422/485	USB 3.0	MiniPCIe	SIM	M.2	DC Input	Expansion
ARK-3530L-00A1	LGA1151 Socket Type	Up to 32GB	2	1	1	1	4	8	2	1	1	12V	Optional

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

## Packing List

Part Number	Description
-	ARK-3530L 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
XARK-DPS-150AB-15	AC-to-DC Adapter, DC12V 150W
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-3530L can support only 1 iDoor.

### Optional 9-36V DC Power Module

Part Number	Description
AMO-P010E	9-36V DC input power module for ARK-3530L
96PSA-A150W19P4-3	AC-to-DC Adapter, DC19V 150W, 0 ~ 40° C (for AMO-P010E)
96PSA-A230W24P4-3	AC to DC adapter, DC 24V 230W, -20 ~ 60° C (For AMO-P010E)
1702002600	Power cable 3-pin 183cm, USA type
1702002605	Power cable 3-pin 183cm, EU type
1702031801	Power cable 3-pin 183cm, UK type

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

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

\* Choose either AMO-P010E or AMK-A0028E

### Optional Display Module

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

## ARK Plus Extended Modules

### AMO-3505E

#### 2 Slots Riser Card Expansion Module: 2 x PCI

### Specifications

General	
Add on card support	2 Slot for 2xPCI Max Card size: 110 mm(H) x 180 mm (L) Max Power consumption: 10W for each slot
HDD/SSD	NA
Mechanical	
System Dimension	155 x 205 x 230 mm

### Ordering Information

P/N	Description
AMO-3505E	2 Slot Riser Card (2xPCI)

### AMO-3506E

#### 2 Slots Riser Card Expansion Module: 2 x PCIe8

### Specifications

General	
Add on card support	2 Slot for 2 x PCIe8 Max Card size: 110 mm(H) x 180 mm (L) Max Power consumption: 10W for each slot
HDD/SSD	NA
Mechanical	
System Dimension	155 x 205 x 230 mm

### Ordering Information

P/N	Description
AMO-3506E	2 Slot Riser Card (2 x PCIe8)

### AMO-3507E

#### 1 Slot Riser Card Expansion Module: 1 x PCIe16

### Specifications

General	
Add on card support	1 Slot for 1 x PCIe16 Max Card size: 110 mm(H) x 180 mm (L) Max Power consumption: 120W with additional power input
HDD/SSD	NA
Mechanical	
System Dimension	155 x 205 x 230 mm

### Ordering Information

P/N	Description
AMO-3507	1 Slot Riser Card (1 x PCIe16)
XARK-DPS-150AB-15	150W 12V Adapter for additional expansion card power