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

**ARK-3530F**

**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

**Specifications**

**NEW**

**LISTED**

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RoHS

**COMPLIANT**

**2002/95/EC**

*E180881*

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| --- | --- | --- | --- | --- | --- |
| Processor System | CPU | E3-1235L V5 | i7-7700/i7-6700 | i5-7500 | i3-7101E |
| Frequency | 2.0GHz | 3.6GHz/3.4GHz | 3.4GHz | 3.9GHz |
| L3 Cache | 8MB | 8MB | 6MB | 3MB |
| TDP | 25W | 65W | 65W | 54W |
| Chipset | C236 |
| BIOS | AMI EFI 127Mbit |
| 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 4.4HW 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 |
| 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) |
| M.2 1 x E key for WiFi |
| 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 (Support by project) |
| Storage | HDD | 2 x 2.5" SATAIII HDD Bay with Max Height 15mm (Support Up to 4 x 2.5" SATAIII HDD Bay by Optional 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, UL, CCC, BSMI |

###  Fanless Embedded Box PCs

All product specifications are subject to change without notice. Last updated: 28-Mar-2019

MIC in Line out HDD LED

COM1

USB 3/4 LAN2

USB 1/2 LAN1

DC in

Power on/off

COM2

HDMI

USB 7/8 LAN4

iDoor USB 5/6 LAN3

COM3

VGA

COM4

Optional Display

**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-3530F-00A1 | LGA1151Socket Type | Up to 32GB | 4 | 1 | 1 | 1 | 4 | 8 | 2 | 1 | 1 | 9-36V | 2 x PCI |

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

# Packing List

**Embedded OS**

230

240

156.50

Unit: mm

**Dimensions**

205

|  |  |
| --- | --- |
| **Part Number** | **Description** |
| - | ARK-3530F Unit |
| - | User Manual (Simplified Chinese) |
| - | China RoHS |

|  |  |
| --- | --- |
| **Part Number** | **Description** |
| 20706WX6HS0006 | WIN10 IoT LTSB 64bit for Xeon and Core i7 |
| 20706WX6VS0012 | WIN10 IoT LTSB 64bit for Core i3/i5 and Celeron |

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# ARK-3530 Default SKU Option Items

## Optional Item for Default SKU

|  |  |
| --- | --- |
| **Part Number** | **Description** |
| 96PSA-A150W19P4-1 | AC-to-DC Adapter, DC19V 150W, 0 ~ 40 °C |
| 96PSA-A220W24P4-1 | AC to DC adapter, DC 24V 220W, -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)

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

## Optional Display Module

|  |  |
| --- | --- |
| **Part Number** | **Description** |
| AMO-D001E | DVI-D module |
| AMO-D002E | DP module |
| AMO-D003E | HDMI module |

**Optional Riser Expansion**

|  |  |
| --- | --- |
| **Part Number** | **Description** |
| AMO-R026 | 2 x PCIex8 |

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