

ARK-3534D

Intel® Core™ 12th&13th Gen i3/i5/i7/i9 LGA1700 Expansion Fanless Box PC

NEW



Features

- Support Intel® Core™ 12th&13th Gen. i3/i5/i7/i9 processor
- Triple independent display: HDMI + HDMI + Optional Display
- DDR5 SO-DIMM ECC/non-ECC memory support up to 64 GB
- 9-36V_{DC} wide range power input
- Up to 3sets 2.5" hard drive bays, support Intel® SW RAID
- Support up to 4GbE, 8USB, 8COM, 16bit DIO, 2CANBus, TPM2.0
- SUSI API, WISE-DeviceOn, McAfee and Acronis bundled



WISE-DeviceOn SUSI API



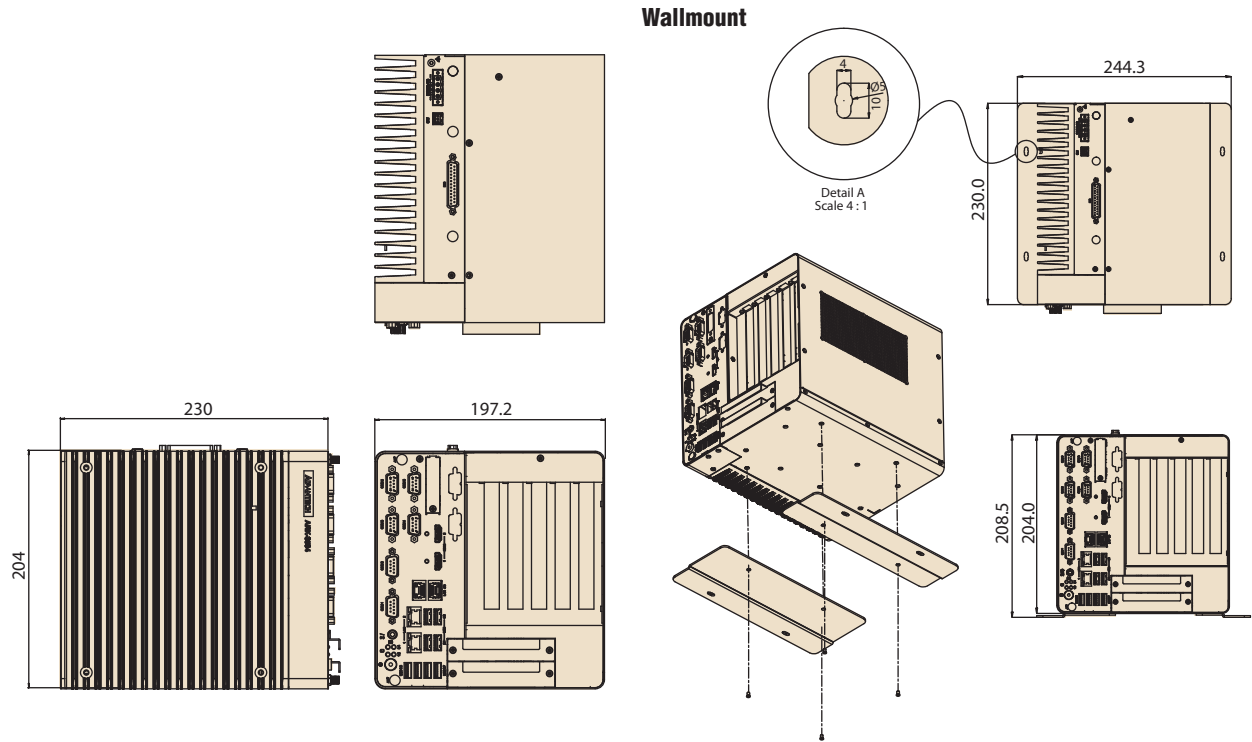
Specifications

| | CPU | i9-13900E | i7-13700E | i5-13500E | i3-13100E | i9-12900E | i7-12700E | i5-12500E | i3-12100E | G6900E | |
|-------------------------------------|-----------------------------|---|------------|------------|------------|------------|------------|------------|------------|--------|--|
| Processor System | Frequency | 1.3-5.2GHz | 1.3-5.1GHz | 1.5-4.6GHz | 3.3-4.4GHz | 1.7-5.0GHz | 1.6-4.8GHz | 2.9-4.5GHz | 3.2-4.2GHz | 3.0GHz | |
| | L3 Cache | 36MB | 30MB | 24MB | 12MB | 30MB | 25MB | 18MB | 12MB | 4MB | |
| | Cores | 24 | 16 | 14 | 4 | 16 | 12 | 6 | 4 | 2 | |
| | TDP | 65W | 65W | 65W | 60W | 65W | 65W | 65W | 60W | 46W | |
| | Chipset | R680E | | | | | | | | | |
| | BIOS | AMI EFI 256Mbit | | | | | | | | | |
| | Technology | DDR5 4800 MHz | | | | | | | | | |
| Memory | Max. Capacity | 64 GB | | | | | | | | | |
| | Socket | 2 x 262-pin ECC/nonECC SO-DIMM | | | | | | | | | |
| | Chipset | Intel® UHD Graphics 770 | | | | | | | | | |
| 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 | | | | | | | | | |
| | HDMI | 2 HDMI port, HDMI 2.0 for HD video playback, 4096x2160@60Hz | | | | | | | | | |
| | Optional 3rd Display module | DVI-D / DP / HDMI Display Port | | | | | | | | | |
| | Triple Display | HDMI+HDMI + 3rd display module | | | | | | | | | |
| Ethernet | LAN1 | 10/100/1000 Mbps Intel i219-LM GbE, support Wake On Lan | | | | | | | | | |
| | LAN2/3/4 | 10/100/1000/2500 Mbps Intel i225-LM 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 (additional COM7/8 2 x RS-232 by optional cable) | | | | | | | | | |
| | USB | 8 x USB 3.2 (4 x Gen2, 4 x Gen1) 1 x Internal USB2.0 (Optional) | | | | | | | | | |
| | DIO | 16bit DIO (by optional cable) | | | | | | | | | |
| | CANBus | 2 ports by optional cable | | | | | | | | | |
| Expansions | M.2 | 1 x M2, 2230 E key and 1 x M.2 2280 B key with SIM holder #1 | | | | | | | | | |
| | Add-on Card Slot | 2 Slot PCI + 1 Slot PCIe4 + 1 Slot PCIe16 (if card power consumption over 30W for add-on cards, please bundled with AMO-3509 kit for power and thermal solutions) | | | | | | | | | |
| | Maximum card size | 110mm (H) x 180mm (L) | | | | | | | | | |
| | HDD | 2 x 2.5" SATAIII 15mm height HDD bay support Intel SW RAID (Up to 3 x 2.5" SATAIII HDD bays) | | | | | | | | | |
| Storage | NVME | 1 x PCIe2 (Share with M.2 2280 B key) | | | | | | | | | |
| | Microsoft Windows | Windows 10 | | | | | | | | | |
| Software Support | Linux | By Project Support | | | | | | | | | |
| | Power Type | AT/ATX | | | | | | | | | |
| Power Requirements | Power Input Voltage | 9-36V | | | | | | | | | |
| | Power Adapter | AC to DC, 230W (Optional) | | | | | | | | | |
| Power Consumption (CPU/Memory Only) | Typical | 56.1W | | | | | | | | | |
| | Max. | 92.4W | | | | | | | | | |
| Mechanical | Construction | Aluminum housing | | | | | | | | | |
| | Mounting | Desk mounting | | | | | | | | | |
| | Dimensions (W x H x D) | 197.2 x 204 x 230 mm | | | | | | | | | |
| | Weight | 6.41 Kg | | | | | | | | | |
| 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 | | | | | | | | | | |

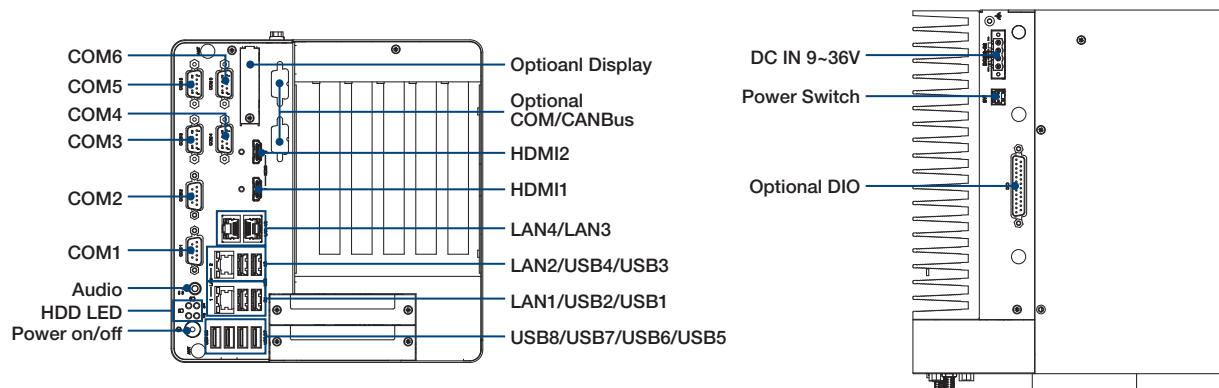
#1 SIM holder and M.2 slot are hardware interfaces for wireless communication integration only. System level RF certification is not available.

Dimensions

Unit: mm



External I/O Mechanical Layout/Drawing



Ordering Information

| Part No. | CPU | DDR5 | Gbe | HDMI | Option 3rd display module | RS-232 | RS-232/422/485 | USB | M.2 B key | SIM | M.2 E Key | DC Input | Expansion |
|----------------|---------------------|------------|-----|------|---------------------------|---------|----------------|-----|-----------|-----|-----------|----------|-------------------------|
| ARK-3534D-00A1 | LGA1700 Socket Type | Up to 64GB | 4 | 2 | 1 | Up to 4 | 4 | 8 | 1 | 1 | 1 | 9-36V | PCIex4 + 2PCI + PCIex16 |

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

Packing List

| Part Number | Description |
|----------------|--|
| - | ARK-3534D 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 |
|----------------|-------------------------------------|
| 20706WX1HS0034 | WIN10 IoT LTSC 21H2 64bit for i7/i9 |
| 20706WX1VS0034 | WIN10 IoT LTSC 21H2 64bit for i3/i5 |

ARK-3534D Optional Expansion Kit for add-on Cards

| Part Number | Description |
|-------------------|--|
| AMO-3509 | ARK-3534D fan kit |
| AMO-3509A | ARK-3534D fan kit for Nvidia A2 tensor |
| XARK-DPS-150AB-15 | Additional Power for add-on cards over 30Watts |

*Please add this kit once the add-on card power consumption over than 30Watts

ARK-3534D 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 |
| 1700031864-01 | 16bits DIO Cable(CN : GPIO01) |
| 1700026760-21 | Internal USB Cable(CN : USB9) |
| 1700029565-11 | COM7/8 cable (add screws 193A200001*2) |
| 1700030518-01 | 1 Port CANBus (add screws 193A200001*2) |

ARK-3534D Optional HDD expansion Cable

| Part Number | Description |
|---------------|---|
| 1700033651-01 | SATA cable for 3rd HDD/SSD (Screws 19310305CO*4pcs) |

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 |