

# ARK-3440 A2

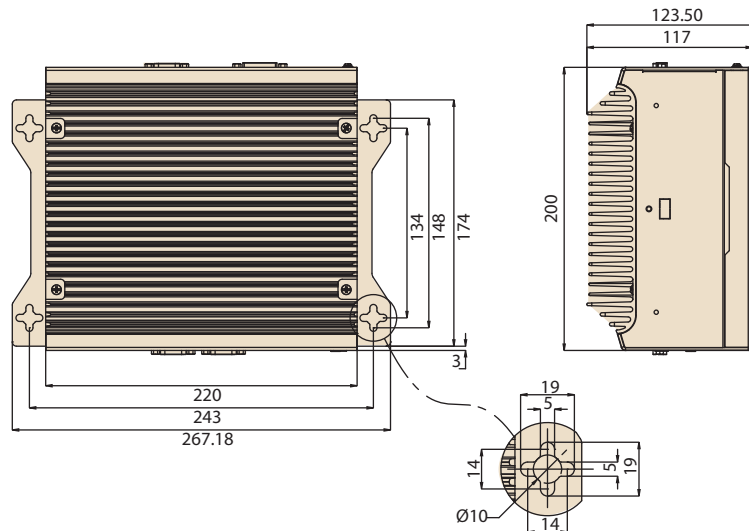
**1st Gen. Intel® Core™ i3/i5/i7 with  
PCI/PCIe Expansion Slots Fanless Box PC**



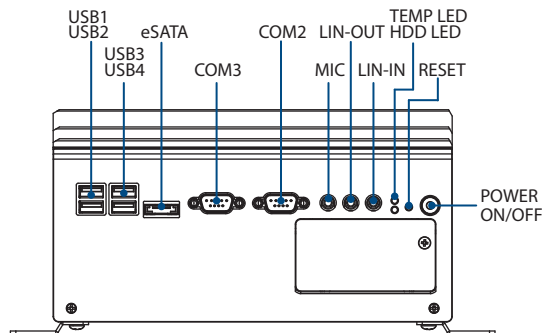
## Specifications

|                   |                                    |                                                                                                                                                                                                                                    |                                |                                |
|-------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|
| Processor System  | CPU                                | Intel Core i7 610E (Dual Core)                                                                                                                                                                                                     | Intel Core i5 520E (Dual Core) | Intel Core i3 330E (Dual Core) |
|                   | Frequency                          | 2.53 GHz                                                                                                                                                                                                                           | 2.4 GHz                        | 2.13 GHz                       |
|                   | L2 Cache                           | 4MB                                                                                                                                                                                                                                | 3MB                            | 3MB                            |
|                   | System Chipset                     | Intel QM57                                                                                                                                                                                                                         |                                |                                |
|                   | BIOS                               | AMI 16 Mbit SPI BIOS                                                                                                                                                                                                               |                                |                                |
| Memory            | Technology                         | DDR3 1066 MHz                                                                                                                                                                                                                      |                                |                                |
|                   | Max. Capacity                      | 8 GB                                                                                                                                                                                                                               |                                |                                |
|                   | Socket                             | 2 x 204-pin SO-DIMM                                                                                                                                                                                                                |                                |                                |
| Graphics          | Chipset                            | Integrated graphics built in Intel QM57                                                                                                                                                                                            |                                |                                |
|                   | Interface                          | VGA: up to 2048 x 1536 (By DVI-I to VGA adaptor)                                                                                                                                                                                   |                                |                                |
|                   |                                    | DVI-D: up to 1920 x 1200                                                                                                                                                                                                           |                                |                                |
| Ethernet          | LAN 1                              | 10/100/1000 Mbps, Intel 82577LM, support Wake On LAN                                                                                                                                                                               |                                |                                |
|                   |                                    | 10/100/1000 Mbps, Intel 82583V, support Wake On LAN                                                                                                                                                                                |                                |                                |
|                   | LAN 2                              | 10/100/1000 Mbps, Intel 82583V, support Wake On LAN                                                                                                                                                                                |                                |                                |
| Audio             | Amplifier                          | -                                                                                                                                                                                                                                  |                                |                                |
|                   | Interface                          | Line-in, Line-out, Mic-in                                                                                                                                                                                                          |                                |                                |
| IO interface      | Serial Interface                   | 2 x RS232, 1 x RS232/422/485 (w/auto flow control)                                                                                                                                                                                 |                                |                                |
|                   | USB Interface                      | 6 x USB ports, compliant with USB 2.0                                                                                                                                                                                              |                                |                                |
|                   | Parallel Port                      | Supports D-sub 25-pin connector (optional)                                                                                                                                                                                         |                                |                                |
|                   | Digital I/O                        | -                                                                                                                                                                                                                                  |                                |                                |
| Expansion         | PCI/PCIe Slot                      | 1 Slot PCI and 1 Slot PCIe x1 (default);<br>2 Slots PCIe x1 (optional); 2 Slots PCI (optional) ; 1 Slot PCI and 1 Slot PCIe x4 (optional)<br>Supports maximum dimension of 167 mm (width) x 106 mm (length) for expansion PC board |                                |                                |
|                   | Mini PCIe                          | 2 x Mini PCIe                                                                                                                                                                                                                      |                                |                                |
| Storage           | HDD                                | Supports 2 x SATA 2.5" HDD Bays (Max. Data Transfer Rate 300 MB/s)<br>(Internal bay: up to 12.8mm height, Removable bay: up to 9.5mm height)                                                                                       |                                |                                |
|                   | SSD                                | Supports CompactFlash socket for type I/II CompactFlash disk                                                                                                                                                                       |                                |                                |
| Software Support  | Microsoft Windows                  | Windows 7, XP Professional, XP Embedded                                                                                                                                                                                            |                                |                                |
|                   | Linux                              | Fedora 14                                                                                                                                                                                                                          |                                |                                |
| Power Requirement | Power Type                         | AT/ATX                                                                                                                                                                                                                             |                                |                                |
|                   | Power Input Voltage                | 9 V <sub>DC</sub> ~ 34 V <sub>DC</sub>                                                                                                                                                                                             |                                |                                |
|                   | Minimum Power Input                | DC 9-34V @ 6.0-1.5A                                                                                                                                                                                                                |                                |                                |
| Power Consumption | Power Adapter                      | AC to DC, DC19V/7.89A, 150W (Optional)                                                                                                                                                                                             |                                |                                |
|                   | Typical                            | 17.1 W                                                                                                                                                                                                                             |                                |                                |
| Mechanical        | Max.                               | 53 W                                                                                                                                                                                                                               |                                |                                |
|                   | Construction                       | Aluminum housing                                                                                                                                                                                                                   |                                |                                |
|                   | Mounting                           | Desk/wall-mounting                                                                                                                                                                                                                 |                                |                                |
|                   | Dimensions (W x H x D)             | 220 mm x 117 mm x 200 mm (8.66" x 4.61" x 7.87")                                                                                                                                                                                   |                                |                                |
| Environment       | Weight                             | 4 kg (8.8 lb)                                                                                                                                                                                                                      |                                |                                |
|                   | Operating Temperature              | With extended temperature peripherals CompactFlash disk: 0 ~ 50° C, with 0.7m/sec air flow<br>With extended temperature memory and consumer grade 2.5-inch hard disk on internal drive bay 0 ~ 45° C, with 0.7m/sec air flow       |                                |                                |
|                   | Storage Temperature                | -40 ~ 85° C (-40~185°F)                                                                                                                                                                                                            |                                |                                |
|                   | Relative Humidity                  | 95% @ 40° C (non-condensing)                                                                                                                                                                                                       |                                |                                |
|                   | Vibration Loading During Operation | With CompactFlash disk: 5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis.<br>With 2.5-inch hard disk: 1 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis.                                          |                                |                                |
|                   | Shock During Operation             | With CompactFlash disk: 50 G, IEC 60068-2-27, half sine, 11 ms duration<br>With hard disk: 20 G, IEC 60068-2-27, half sine, 11 ms duration                                                                                         |                                |                                |
|                   | EMC                                | CE/FCC Class A, CCC, BSMI                                                                                                                                                                                                          |                                |                                |
|                   | Safety Certifications              | UL, CCC, BSMI                                                                                                                                                                                                                      |                                |                                |

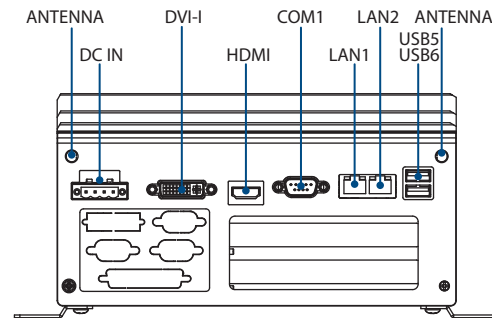
## Dimensions



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



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



## Ordering Information

| Part No.        | CPU                            | L2 Cache | HDMI | DVI-I | GbE | RS-232/422/485 | RS-232 | USB 2.0 | MiniPCIe | DC input               | Expansion         |
|-----------------|--------------------------------|----------|------|-------|-----|----------------|--------|---------|----------|------------------------|-------------------|
| ARK-3440F-U5A2E | Intel Core i7 610E<br>2.53 GHz | 4 MB     |      |       |     |                |        |         |          |                        |                   |
| ARK-3440F-U4A2E | Intel Core i5 520E<br>2.4 GHz  | 3 MB     | Yes  | Yes   | 2   | 1              | 2      | 6       | 2        | 9 ~ 34 V <sub>DC</sub> | 1 PCIe x1 + 1 PCI |
| ARK-3440F-U1A2E | Intel Core i3 330E<br>2.13 GHz | 3 MB     |      |       |     |                |        |         |          |                        |                   |

Note: Memory, storage and operating system bundled by request.

## Packing List

| Part Number    | Description                          |
|----------------|--------------------------------------|
| -              | 1 x ARK-3440 Unit                    |
| -              | 1 x Driver/Utility CD/Manual         |
| 1960014487T00C | 2 x desk/wall mount plate            |
| 1652003234     | 1 x 4-pin Phoenix DC power connector |
| 1654009744     | 1 x DVI-I to CRT connector           |
| 1990020592N001 | 1x HDD thermal pad                   |
| 1990020828N001 | 1 x CPU thermal grease pad           |

## Embedded OS

| Part Number | Description                          |
|-------------|--------------------------------------|
| 2070009811  | WES2009 ARK-3440 ENG_FRE_GER_ITA_SPA |
| 2070009812  | WES2009 ARK-3440 ENG_CHT_CHS_JPN     |
| 2070011270  | WES7E ARK-3440 ENG 32 bit            |

## Optional Items

| Part Number   | Description                                                                                      |
|---------------|--------------------------------------------------------------------------------------------------|
| 1757002161    | AC-to-DC adapter, DC19 V/7.89A 150 W, with phoenix power plug, 0 ~ 40° C for home and office Use |
| 1757004529-01 | AC-to-DC Adapter, DC 19V/6.84A 130W, -20 ~ +70° C                                                |
| 1702002600    | Power cable 3-pin 180cm, USA type, for 1757002161 and 1757004529-01                              |
| 1700004713    | CABLE DVI-I to DVI-D and CRT                                                                     |
| 1702002605    | Power cable 3-pin 180cm, EU type, for 1757002161 and 1757004529-01                               |
| 1702031801    | Power cable 3-pin 180cm, UK type, for 1757002161 and 1757004529-01                               |
| 1700018187    | LPT cable 2 x 130-2.0/D-SUB 25P(F) 20 cm for ARK-3440                                            |
| 1700008871    | COM Cable D-SUB 9P(M)/IDE#2 10P-2.0 20 cm                                                        |
| AMO-R010E     | 2 slot riser card, 1 x PCIe x1 + 1 x PCI                                                         |
| AMO-R009E     | 2 slot riser card, 2 x PCIe x1                                                                   |
| AMO-R013E     | 2 slot riser card, 2 x PCI                                                                       |
| AMO-R014E     | 2 slot riser card, 1 x PCI + 1 x PCIe x4 with BIOS V2.01 (P/N: 1420032188)                       |