

# ARK-3360F

**Intel® Atom™ N450/D510 with  
3 GbE, Isolated COM & wide range power  
Fanless Box PC**



**susiAccess**



**FCC**



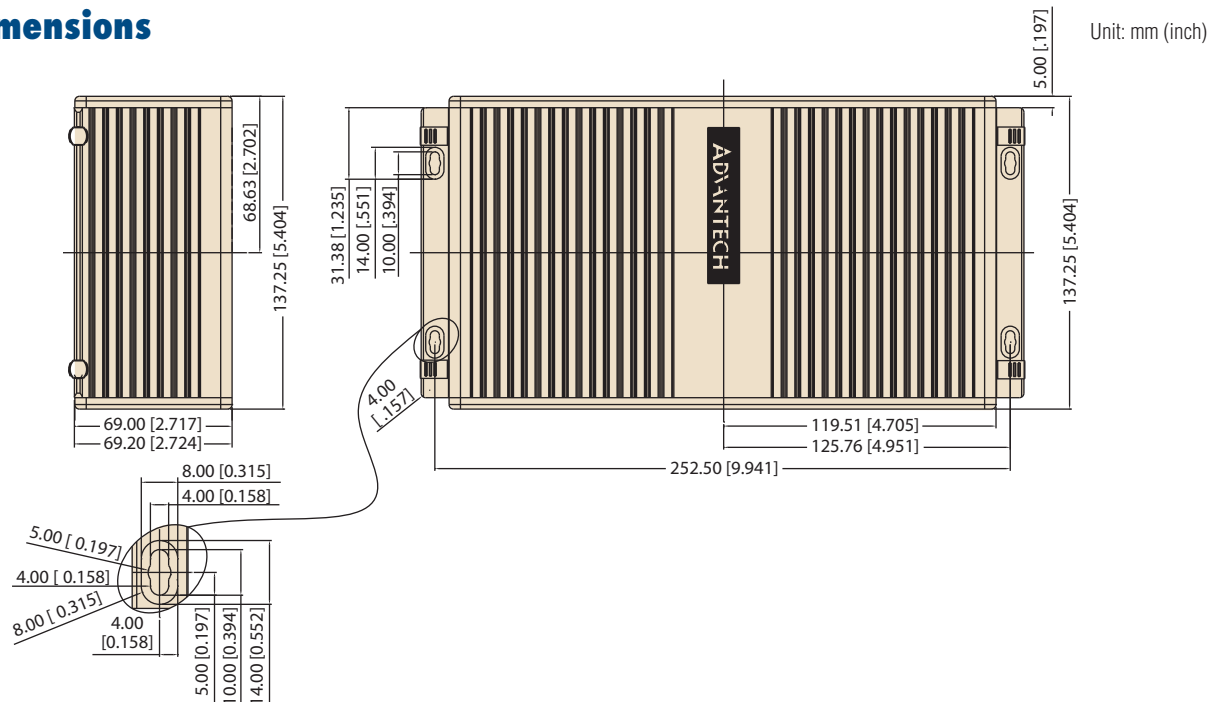
## Features

- Intel® Atom™ N450/D510 1.66 GHz Embedded Box PC
- Mini PCIe and Mini PCI expansion for communication module, i.e. HSDPA, WLAN
- Supports 12 ~ 24 V wide range DC input
- Supports up to 3 x GbE, 6 x USB 2.0 and 6 x COMs ports
- Serial ports support RS-485 auto flow control and isolation (up to 7.5Kv)
- Easy integration, easy maintenance, and wide input voltage range
- Supports SUSIAccess and Embedded Software APIs

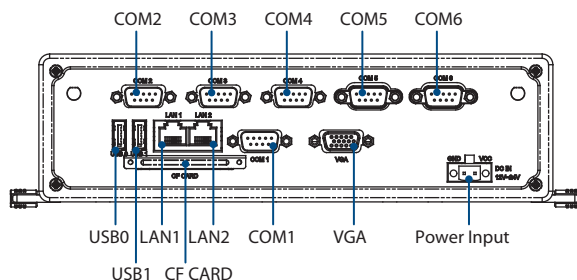
## Specifications

|                   |                                    | ARK-3360F-N4A1E                                                                                                                                                                           | ARK-3360F-D5A1E             |
|-------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Processor System  | CPU                                | Intel Atom N450 (Single Core)                                                                                                                                                             | Intel Atom D510 (Dual Core) |
|                   | Frequency                          | 1.66GHz                                                                                                                                                                                   | 1.66GHz                     |
|                   | L2 Cache                           | 512KB                                                                                                                                                                                     | 1MB                         |
|                   | System Chipset                     | Intel ICH8-M                                                                                                                                                                              |                             |
|                   | Front Side Bus                     | 667 MHz                                                                                                                                                                                   |                             |
|                   | BIOS                               | AMI 16 Mbit Flash BIOS                                                                                                                                                                    |                             |
| Memory            | Technology                         | DDR2 667 MHz                                                                                                                                                                              |                             |
|                   | Max. Capacity                      | 2 GB                                                                                                                                                                                      |                             |
|                   | Socket                             | 1 x 200-pin SO-DIMM                                                                                                                                                                       |                             |
| Graphics          | Chipset                            | Intel 3.5 Gen Integrated Graphic Engine                                                                                                                                                   |                             |
|                   | Interface                          | VGA: N450 up to 1400 x 1050, D510 up to 2048 x 1536<br>18-bit LVDS interface (Optional)                                                                                                   |                             |
| Ethernet          | LAN 1                              | 10/100/1000 Mbps Intel 82567V GbE, support Wake On LAN                                                                                                                                    |                             |
|                   | LAN 2                              | 10/100/1000 Mbps Intel 82583V GbE, support Wake On LAN                                                                                                                                    |                             |
|                   | LAN 3                              | 10/100/1000 Mbps Intel 82541PI GbE, support Wake On LAN                                                                                                                                   |                             |
| Audio             | Amplifier                          | -                                                                                                                                                                                         |                             |
|                   | Interface                          | Line-in, Line-out, Mic-in                                                                                                                                                                 |                             |
| IO interface      | Serial Interface                   | 1 x RS-232, 3 x RS-232/422/485, 2 x RS-422/485 with 7.5Kv isolation protection & auto flow control                                                                                        |                             |
|                   | USB Interface                      | 6 x USB ports, Compliant with USB 2.0                                                                                                                                                     |                             |
| Other             | Digital I/O                        | 8-bits                                                                                                                                                                                    |                             |
|                   | Watchdog timer                     | 255-level timer interval, setup by software                                                                                                                                               |                             |
| Expansion         | Mini PCI                           | 1 x Mini PCI                                                                                                                                                                              |                             |
|                   | Mini PCIe                          | 1 x full-size Mini PCIe                                                                                                                                                                   |                             |
| Storage           | HDD                                | Supports 1 x SATA 2.5" HDD Bay (support 9.5 mm height only)                                                                                                                               |                             |
|                   | SSD                                | Supports CompactFlash socket for type I/II CompactFlash disk                                                                                                                              |                             |
| Software Support  | Microsoft Windows                  | Windows 7, XP Professional, XP Embedded, WinCE 6.0                                                                                                                                        |                             |
|                   | Linux                              | Ubuntu 10.04                                                                                                                                                                              |                             |
| Power Requirement | Power Type                         | AT/ATX                                                                                                                                                                                    |                             |
|                   | Power Input Voltage                | 12 V <sub>DC</sub> ~ 24 V <sub>DC</sub>                                                                                                                                                   |                             |
|                   | Minimum Power Input                | 12V-24 V, 3.0A-1.5A                                                                                                                                                                       |                             |
|                   | Power Adapter                      | AC to DC, DC19 V/3.42 A, 65 W(Optional)                                                                                                                                                   |                             |
| Power Consumption | Typical                            | 12.12 W (with Intel Atom D510 at 1.66 GHz)                                                                                                                                                |                             |
|                   | Max.                               | 14.96 W (with Intel Atom D510 at 1.66 GHz)                                                                                                                                                |                             |
| Mechanical        | Construction                       | Aluminum housing                                                                                                                                                                          |                             |
|                   | Mounting                           | DIN-rail mounting, Desk/wall-mounting                                                                                                                                                     |                             |
|                   | Dimensions (W x H x D)             | 264.5 mm x 69.2 mm x 137.25 mm (10.41" x 2.72" x 5.4")                                                                                                                                    |                             |
|                   | Weight                             | 2 kg (4.4 lb)                                                                                                                                                                             |                             |
| Environment       | Operating Temperature              | With extended temperature peripherals: -20 ~ 60° C (32 ~ 140° F), with 0.7m/s air flow<br>With 2.5-inch hard disk 0 to 45° C (32 ~ 112° F), with 0.7m/s 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, KC                                                                                                                                                             |                             |
|                   | Safety Certifications              | UL, CCC, BSMI, KC                                                                                                                                                                         |                             |

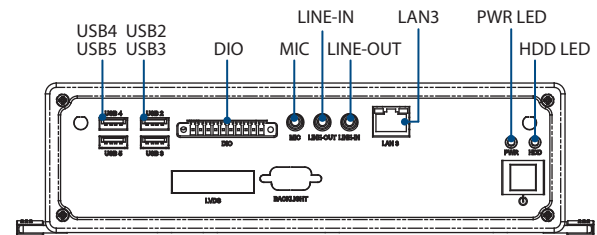
## Dimensions



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



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



## Ordering Information

| Part No.        | CPU                      | VGA | GbE | USB 2.0 | RS-232 | RS-232/422/485 | RS-422/485               | DIO    | Audio                 | Full-size MiniPCIe | CF | 2.5" SATAII HDD Bay | Power Input             | Operation Temp. |
|-----------------|--------------------------|-----|-----|---------|--------|----------------|--------------------------|--------|-----------------------|--------------------|----|---------------------|-------------------------|-----------------|
| ARK-3360F-N4A1E | Intel Atom N450 1.66 GHz | Yes | 3   | 6       | 1      | 3              | 2 (with 7.5KV isolation) | 8-bits | Lin-out, Line-in, MIC | 1                  | 1  | 1                   | DC 12V Lockable DC Jack | -20 ~ 60° C     |
| ARK-3360F-D5A1E | Intel Atom D510 1.66 GHz | Yes | 3   | 6       | 1      | 3              | 2 (with 7.5KV isolation) | 8-bits | Lin-out, Line-in, MIC | 1                  | 1  | 1                   | DC 12V Lockable DC Jack | -20 ~ 60° C     |

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

## Packing List

| Part Number | Description                          |
|-------------|--------------------------------------|
| -           | 1 x ARK-3360 Unit                    |
| -           | 1 x Driver/Utility CD/Manual         |
| -           | 1 x User Manual (Simplified Chinese) |
| 1700009001  | 1 x 2-pin Phoenix DC power connector |

## Embedded OS

| Part Number | Description            |
|-------------|------------------------|
| 2070009030  | XPE WES2009 V4.0 ENG   |
| 2070009031  | XPE WES2009 V4.0 MUI24 |
| 2070009835  | WES7E V5.0 ENG         |

## Optional Items

| Part Number      | Description                                                   |
|------------------|---------------------------------------------------------------|
| 96PSA-A65W19P2-2 | AC-to-DC Adapter, DC19 V/3.42 A 65 W, with Phoenix Power Plug |
| 96PSA-A90W19P2-1 | AC-to-DC Adapter, DC 12V/4.73A 90W                            |
| 1700008921       | Power cable 3-Pin 180cm, with PSE                             |
| 170203180A       | Power cable 3-Pin 180cm, UK type                              |
| 170203183C       | Power cable 3-Pin 180cm, EU type                              |
| 1700001524       | Power cable 3-Pin 180cm, USA type                             |
| 1960025333N011   | VESA mounting bracket                                         |
| 9666K10000E      | DIN-rail mounting kit                                         |