

# ARK-2120F

## Intel® Atom™ N2600/D2550 High Value Fanless Embedded Box PC with 3 GbE and 6 COM

**NEW**



### Features

- Intel® Atom™ N2600 1.6 GHz/D2550 1.86 GHz Fanless Embedded Box PC, DDR3 memory supports up to 4 GB
- VGA, HDMI, 48-bit LVDS, support dual independent display and DirectX 9
- Mini PCIe expansion with SIM holder for communication module, i.e. HSDPA, WLAN
- Supports up to 3 x GbE, 5 x USB 2.0 and 6 x COMs ports
- Supports external CFast socket and 1 x 2.5" HDD drive bay
- Supports 12 ~ 24V wide range DC input
- Supports iManager, SUSIAccess and Embedded Software APIs
- IP40

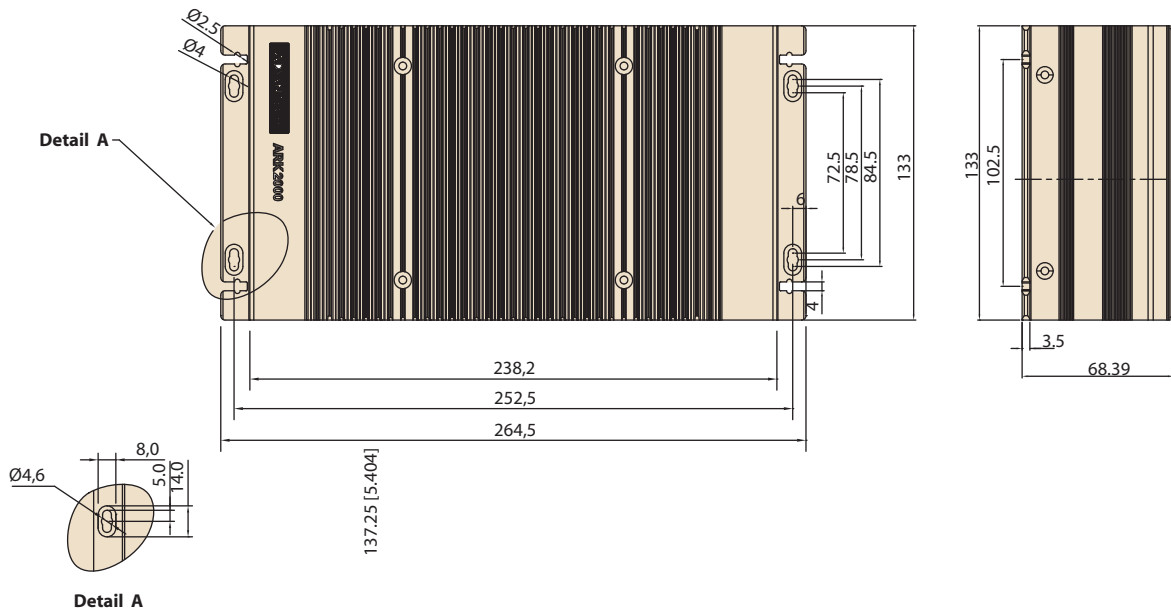


### Specifications

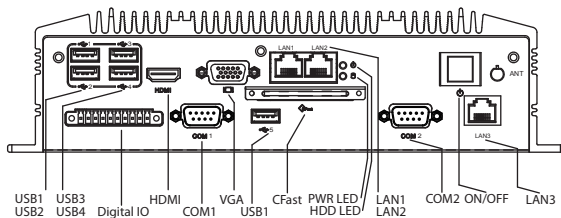
|                   |                            | ARK-2120F-S6A1E/ARK-2120F-S8A1E   |
|-------------------|----------------------------|---|
| Processor System  | CPU                        | Intel Atom Dual Core N2600 1.6 GHz/D2550 1.86 GHz   |
|                   | Max. Speed                 | Dual Core 1.6 GHz/1.86 GHz  |
|                   | L2 Cache                   | 1 MB  |
|                   | System Chipset             | Intel Atom N2600/D2550 + Intel NM10   |
|                   | BIOS                       | AMI EFI 16Mbit  |
| Memory            | Technology                 | DDR3 1066 MHz (D2550), DDR3 800 MHz (N2600)   |
|                   | Max. Capacity              | 4 GB  |
|                   | Socket                     | 1 x 204-pin SO-DIMM   |
| Graphics          | Chipset                    | Intel Atom N2600/D2550  |
|                   | Graphic Engine             | DirectX 9 and OpenGL3.0 support<br>Hardware decode H/W acceleration: MPEG2<br>H/W Decode/Acceleration: H.264/VC1/WMV9                           |
|                   | VGA                        | Up to 1920 x 1200   |
|                   | HDMI                       | Supports 1920 x 1200, Max data rate: up to 1.65 Gb/s, Supports HDMI v1.3 Up to 1080p support  |
|                   | LVDS                       | Supports 48-bit LVDS, up to 1600 x 1200 (N2600), 2560 x 1600 (D2550)  |
|                   | Dual Display               | Yes, (VGA + HDMI, VGA + LVDS, HDMI + LVDS)  |
| Ethernet          | LAN1                       | 10/100/1000 Mbps Intel 82583V Ethernet controller, support Wake On Lan  |
|                   | LAN2                       | 10/100/1000 Mbps Intel 82583V Ethernet controller, support Wake On Lan  |
|                   | LAN3                       | 10/100/1000 Mbps Intel 82583V Ethernet controller, support Wake On Lan  |
| Audio             | Interface                  | Realtek ALC892, High Definition Audio. Line-out, Mic-in, Line-in  |
| IO Interface      | Serial Ports               | 2 x RS-232 ports, 4 x RS-232/422/485 port with auto flow control (by BIOS setting)  |
|                   | USB Interface              | 5 x USB ports, USB 2.0 Compliant  |
| Others            | Digital IO                 | 8-bit   |
|                   | watchdog timer             | 255 levels timer interval, setup by software  |
| Expansion         | Mini PCIe                  | 1 x full size Mini PCIe with SIM holder   |
|                   | HDD                        | Supports one drive bay for SATA 2.5" HDD (Compatible with 12.5mm height HDD)  |
| Storage           | SSD                        | Supports one external CFast socket  |
|                   | Microsoft Windows          | Windows 7, Windows 7 Embedded, XP Professional, XP Embedded, WinCE 7.0  |
| Software Support  | Linux                      | Ubuntu  |
|                   | Power Type                 | AT/ATX  |
| Power Requirement | Power Input Voltage        | 12 V <sub>DC</sub> ~ 24 V <sub>DC</sub>   |
|                   | Minimum Power Input        | 12 V ~ 24 V, 3.0 A ~ 1.5 A  |
|                   | Power Adapter              | AC to DC, DC19 V/3.42 A, 65 W (Optional)  |
| Power Consumption | Typical                    | 16 Watt (with Intel Atom D2550 at 1.8 GHz)  |
|                   | Max.                       | 19 Watt (with Intel Atom D2550 at 1.8 GHz)  |
| Mechanical        | Construction               | Aluminum housing  |
|                   | Mounting                   | Din-Rail mounting, Desk/wall-mounting, VESA mounting  |
|                   | Dimensions (W x H x D)     | 264.50 x 68.39 x 133.0 mm (10.41" x 2.69" x 5.24")  |
|                   | Weight                     | 2.5 kg (5.51 lb)  |
| Environment       | Operating Temperature      | With extended temperature peripherals: -20 ~ 60° C (-4 ~ 140° F) with air flow<br>With 2.5-inch hard disk 0 ~ 45° C (32 ~ 112° F) with air flow |
|                   | Storage Temperature        | -40 ~ 85° C (-40 ~ 185° F)  |
|                   | Relative Humidity          | 95% @ 40° C (non-condensing)  |
|                   | Vibration During Operation | With SSD: 5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis.  |
|                   | Shock During Operation     | With SSD: 50 G, IEC 60068-2-27, half sine, 11 ms duration   |
|                   | EMC                        | CE/FCC Class A, CCC, BSMI   |
|                   | Safety Certifications      | UL, CCC, BSMI   |

## Dimensions

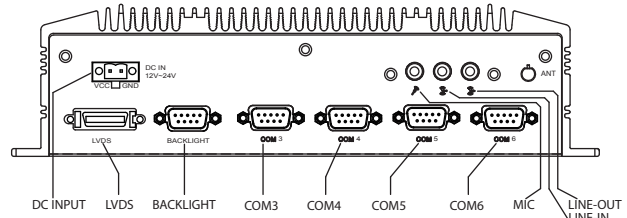
Unit: mm (inch)



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



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



## Packing List

| Part Number | Description                              |
|-------------|--|
| -           | 1 x ARK-2120 Unit                        |
| -           | 1 x Utility CD                           |
| -           | 1 x User Manual (Simplified Chinese)     |
| -           | 1 x China RoHS                           |
| 1700009001  | 1 x 2-pin Phoenix to DC-Jack power cable |

## Ordering Information

| Part Number     | Description  |
|-----------------|--|
| ARK-2120F-S6A1E | Intel Atom N2600 1.6 GHz, w/HDMI, VGA, LVDS, 3 x GBE, 5 x USB2.0, 6 x COM, DIO, Audio, MiniPCIe  |
| ARK-2120F-S8A1E | Intel Atom D2550 1.86 GHz, w/HDMI, VGA, LVDS, 3 x GBE, 5 x USB2.0, 6 x COM, DIO, Audio, MiniPCIe |

## Optional Items

| Part Number    | Description  |
|----------------|--|
| 1757003659     | AC-to-DC Adapter, DC19 V/3.42 A 65 W, with Phoenix Power Plug, 0 ~ 40° C for Home and Office Use |
| 1700001947     | Power cable 2-pin 180 cm, USA for ARK-338X   |
| 1700001948     | Power cable 2-pin 180 cm, Europe for ARK-338X  |
| 1700001949     | Power cable 2-pin 180 cm, UK for ARK-338X  |
| 1960025333N00N | VESA mounting bracket  |
| 9666K10000E    | DIN-rail mounting kit  |

## Embedded OS

| Part Number | Description                   |
|-------------|-------------------------------|
| 2070011152  | Image WES7E SP1 x32 V5.1 ATIP |