

ARK-2120L

Intel® Atom™ N2600/D2550 High Value Fanless Embedded Box PC with Multiple I/Os

NEW



Features

- Intel® Atom™ N2600 1.6 GHz/D2550 1.86 GHz Fanless Embedded Box PC, DDR3 memory supports up to 4 GB
- VGA and HDMI dual independent display, supports DirectX 9
- Mini PCIe expansion with SIM holder for communication module, i.e. HSDPA, WLAN
- Supports up to 2 x GbE, 6 x USB 2.0 and 4 x COMs ports
- Supports external CFast socket and 1 x 2.5" HDD drive bay
- Lockable DC input jack
- Supports iManager, SUSIAccess and Embedded Software APIs
- IP40

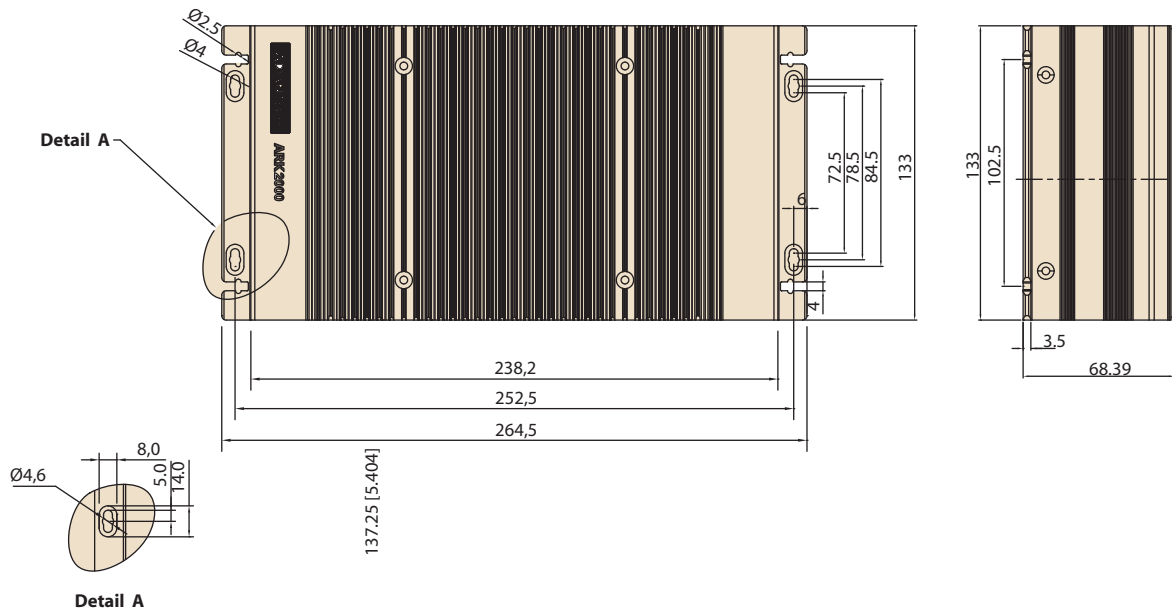


Specifications

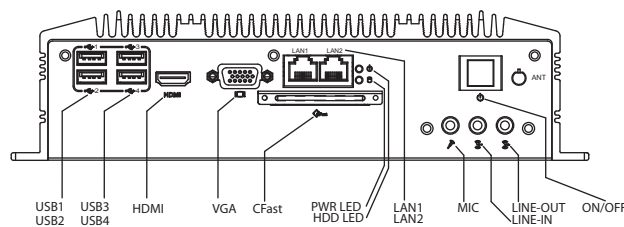
| | | ARK-2120L-S6A1E/ARK-2120L-S8A1E |
|-------------------|----------------------------|---|
| Processor System | CPU | Intel Atom Dual Core N2600 1.6 GHz/D2550 1.86 GHz |
| | Max. Speed | Dual Core 1.6 GHz/1.86 GHz |
| | L2 Cache | 1 MB |
| | System Chipset | Intel Atom N2600/D2550 + Intel NM10 |
| | 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 Hardware decode H/W acceleration: MPEG2 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 |
| | Dual Display | Yes, VGA + HDMI |
| 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 |
| Audio | Interface | Realtek ALC892, High Definition Audio. Line-out, Mic-in, Line-in |
| IO Interface | Serial Ports | 3 x RS-232 ports, 1 x RS-232/422/485 port with auto flow control |
| | USB Interface | 6 x USB ports, USB 2.0 Compliant |
| Other | Digital IO | 8-bits |
| | Watchdog timer | 255 levels timer interval, setup by software |
| Expansion | Mini PCIe | 1 x full size Mini PCIe with SIM holder |
| Storage | HDD | Supports one drive bay for SATA 2.5" HDD (Compatible with 12.5mm height HDD) |
| | SSD | Supports one external CFast socket |
| Software Support | Microsoft Windows | Windows 7, Windows 7 Embedded, XP Professional, XP Embedded, WinCE 7.0 |
| | Linux | Ubuntu |
| Power Requirement | Power Type | AT/ATX |
| | Power Input Voltage | 12 V _{DC} |
| | Minimum Power Input | 12 V, 1.5 A |
| | Power Adapter | AC to DC, DC12 V/3 A, 36 W (Optional) |
| Power Consumption | Typical | 15 Watt (with Intel Atom D2550 at 1.8 GHz) |
| | Max. | 18 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) | 264.5 x 69.2 x 133.0 mm (10.41" x 2.72" x 5.24") |
| | Weight | 2.3 kg (5.07 lb) |
| Environment | Operating Temperature | With extended temperature peripherals: -20 ~ 60° C (-4 ~ 140° F) with 0.7m/s air flow With 2.5-inch hard disk 0 ~ 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 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

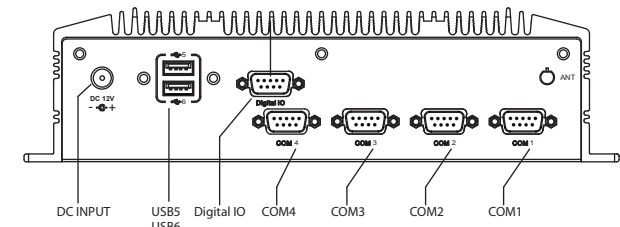
Unit: mm (inch)



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 |
| 1700020143 | 1 x Cable for RS-422/485 mode of COM2 |

Ordering Information

| Part Number | Description |
|-----------------|--|
| ARK-2120L-S6A1E | Intel Atom N2600 1.6 GHz, w/HDMI, VGA, 2 x GBE, 6 x USB2.0, 4 x COM, DIO, Audio, MiniPCIe |
| ARK-2120L-S8A1E | Intel Atom D2550 1.86 GHz, w/HDMI, VGA, 2 x GBE, 6 x USB2.0, 4 x COM, DIO, Audio, MiniPCIe |

Optional Items

| Part Number | Description |
|----------------|--|
| 1757004096-01 | AC-to-DC Adapter, DC 12V/3A 36W, 0 ~ 40° C for Home and Office Use |
| 1700001524 | Power cable 3-pin 180 cm, USA type |
| 170203180A | Power cable 3-pin 180 cm, UK type |
| 170203183C | Power cable 3-pin 180 cm, Europe type |
| 1700008921 | Power cable 3-pin 180 cm, PSE |
| 1960025333N00N | VESA mounting bracket |
| 9666K10000E | DIN-rail mounting kit |

Embedded OS

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

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

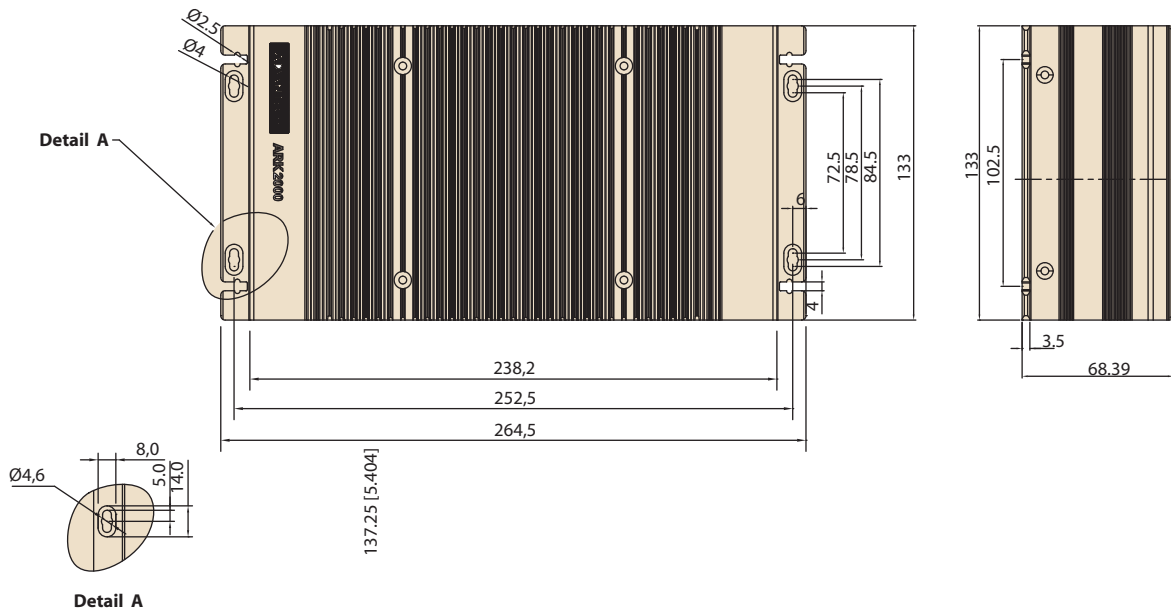


Specifications

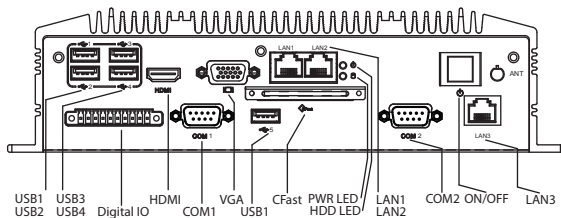
| | | ARK-2120F-S6A1E/ARK-2120F-S8A1E |
|-----------------------|----------------------------|---|
| Processor System | CPU | Intel Atom Dual Core N2600 1.6 GHz/D2550 1.86 GHz |
| | Max. Speed | Dual Core 1.6 GHz/1.86 GHz |
| | L2 Cache | 1 MB |
| | System Chipset | Intel Atom N2600/D2550 + Intel NM10 |
| | 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 Hardware decode H/W acceleration: MPEG2 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 _{DC} ~ 24 V _{DC} |
| | 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 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

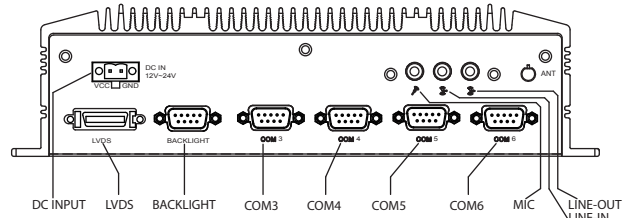
Unit: mm (inch)



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 |