

ARK-20

Intel® Atom™ Dual Core D2550 with Multiple I/Os Fanless Box PC



Features

- Intel® Atom™ Dual Core D2550 1.86 GHz, 2 GB DDR3 memory built-in
- 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 Intel GbE, 6 x USB 2.0 and 4 x COMs ports
- 1 x 500GB 2.5" SATA HDD built-in
- Supports iManager, SUSIAccess and Embedded Software APIs



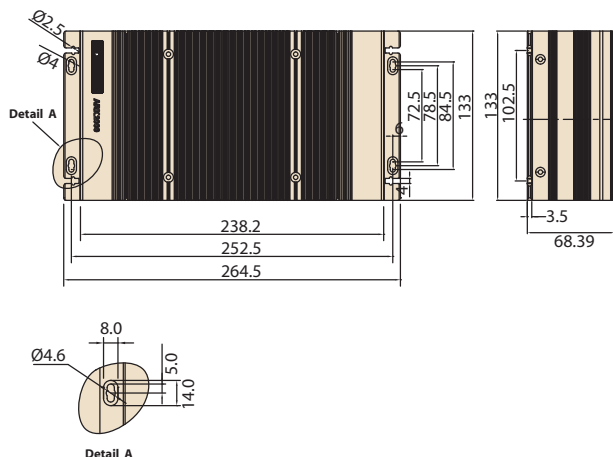
susiAccess iManager



Specifications

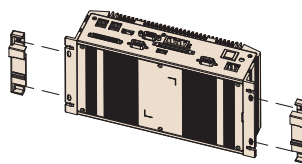
| | | ARK-20-S8A1E |
|-------------------|----------------------------|---|
| Processor System | CPU | Intel Atom D2550 |
| | Frequency | 1.86 GHz (Dual Core) |
| | L2 Cache | 1 MB |
| | System Chipset | Intel Atom D2550 + Intel NM10 |
| | BIOS | AMI EFI 16Mbit |
| Memory | Technology | 2 GB memory built-in |
| Graphics | Chipset | Intel Atom 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 GbE, support Wake On Lan |
| | LAN2 | 10/100/1000 Mbps Intel 82583V GbE, 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 programmable general purpose input/output |
| | Watchdog timer | 255 levels timer interval, setup by software |
| Expansion | Mini PCIe | 1 x full size Mini PCIe with SIM holder |
| Storage | HDD | 500 GB 2.5" HDD built-in |
| | SSD | Supports one external CFast socket |
| Software Support | Microsoft Windows | Windows 7, Windows 7 Embedded (XP Professional & XP Embedded support by project) |
| | Linux | buntu v12.04 |
| Power Requirement | Power Type | AT/ATX |
| | Power Input Voltage | 12 ~ 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 |
| Power Consumption | Typical | 8.9 Watt (with Intel Atom D2550 at 1.8 GHz) |
| | Max. | 11 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 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

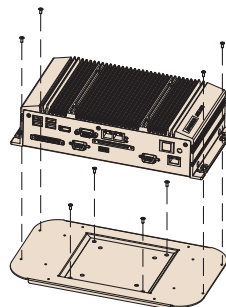


DIN Rail

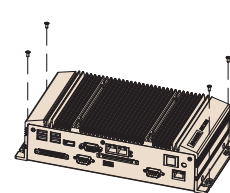
Unit: mm



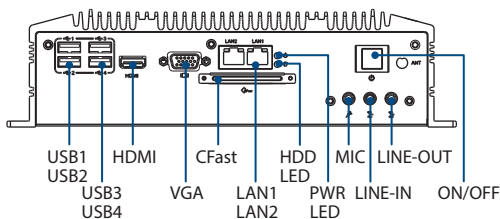
VESA mount



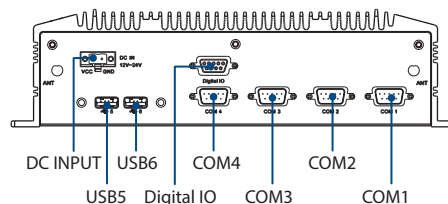
Wall mount



Front Panel External I/O Mechanical Layout/Drawing



Rear Panel External I/O Mechanical Layout/Drawing



Ordering Information

| Part No. | CPU | VGA | HDMI/DP | GbE | USB 2.0 | RS-232 | RS-232/422/485 | DIO | Audio | Full-size MiniPCle | SIM | CFast | 2.5" SATA II HDD Bay | Power Input | Operating Temp. |
|--------------|---------------------------|-----|---------|-----|---------|--------|----------------|--------|-----------------------|--------------------|-----|-------|----------------------|-------------------------------|-----------------|
| ARK-20-S8A1E | Intel Atom D2550 1.86 GHz | Yes | Yes | 2 | 6 | 3 | 1 | 8-bits | Lin-out, Line-in, MIC | 1 | 1 | 1 | 1 | DC 12V-24V 2-pin phoenix head | 0 ~ 45° C |

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

Packing List

| Part Number | Description |
|--------------|--|
| ARK-20-S8A1E | 1 x ARK-20 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 |
| 1757003659 | AC-to-DC Adapter, DC19 V/3.42 A 65 W, with Phoenix Power Plug, 0 ~ 40° C for Home and Office Use |

Embedded OS

| Part Number | Description |
|-------------|------------------------------------|
| 2070013063 | Image WES7E SP1 x32 ENG/GER/JPN/CT |

Optional Items

| Part Number | Description |
|-------------|--|
| 1700001947 | Power cable 2-pin 180 cm, USA type (For adapter 1757003659) |
| 1700001948 | Power cable 2-pin 180 cm, Europe type (For adapter 1757003659) |
| 1700001949 | Power cable 2-pin 180 cm, UK type (For adapter 1757003659) |
| 1700002141 | Power cable 2-pin 180 cm, PSE type (For adapter 1757003659) |
| AMK-V004E | VESA mounting bracket |
| AMK-R004E | DIN-rail mounting kit |