

ARK-2121F

Intel® Celeron® Quad Core J1900 SoC with Multiple I/Os Fanless Box PC



Features

- Intel® Celeron® J1900 Quad Core 2.0 GHz SoC with Turbo boost support
- VGA and HDMI dual independent display
- 6 x COM, 6 x USB, isolated DIO
- 9 ~ 36 V_{DC} wide range power input
- -20 ~ 70° C extend temperature operating
- Mini PCIe expansion with SIM holder for communication module
- mSATA and 1 x 2.5" SATA storage device
- Optional DVI/2nd HDMI/4x GbE by project support
- Internal USB for security dongle



susiAccess iManager



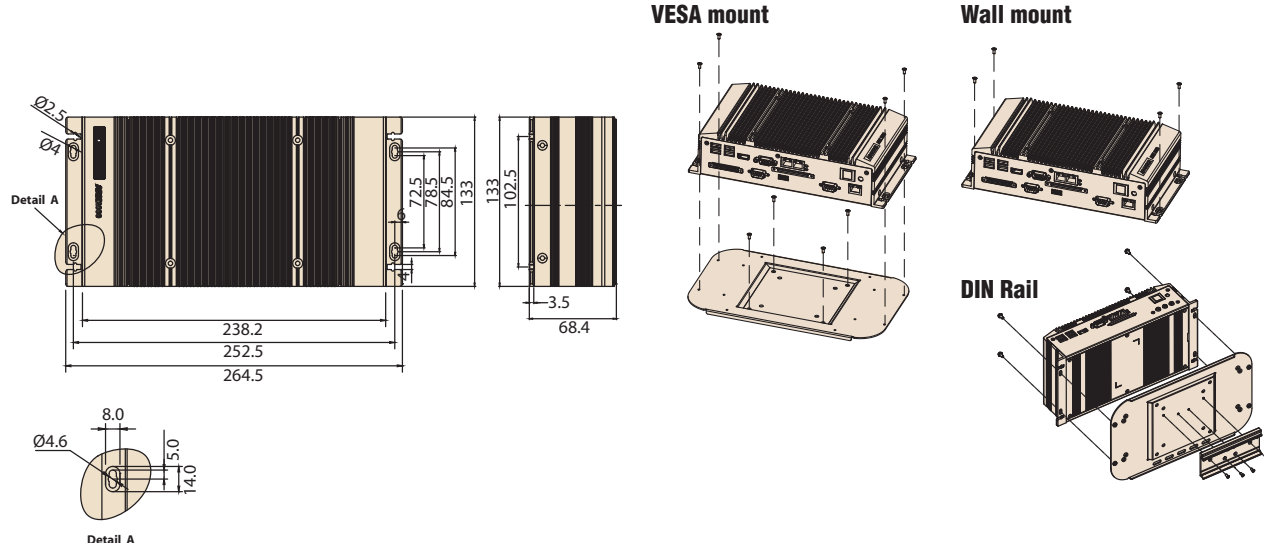
Specifications

| | | ARK-2121F-U0A1E |
|-------------------|----------------------------|---|
| Processor System | CPU | Intel Celeron Processor J1900 Quad Core SoC |
| | Frequency | 2.0 GHz, turbo boost up to 2.42 GHz |
| | L2 Cache | 2 MB |
| | BIOS | AMI EFI |
| Memory | Technology | DDR3L 1333 MHz |
| | Max. Capacity | 8 GB |
| | Socket | 1 x 204-pin SO-DIMM |
| Graphics | Chipset | Intel Celeron J1900 SoC integrated, 7th Gen. Intel Graphic core |
| | Graphic Engine | DirectX 11.1, OCL 1.2, OGL 3.2 Encode: H.264, MPEG2/4, VC1, WMV9 Decode: H.264, MPEG2 |
| | VGA | Up to 2048 x 1152 @ 60Hz |
| | HDMI | 1 HDMI port (default), HDMI 1.4a for HD video playback, 1080P at 60Hz (2nd HDMI support by project only) |
| | DisplayPort* | Up to 2560 x 1600 at 60Hz (by Project only) |
| | DVI-D | Up to 1920 x 1200 at 60Hz (by Project only) |
| Ethernet | Dual Display | Yes, VGA + HDMI |
| | LAN1/LAN2 | 10/100/1000Mbps Intel i210 GbE, support Wake On LAN, optional LAN3/LAN4 support by project |
| Audio | Interface | Realtek ALC888S, High Definition Audio. Line-out, Mic-in, Line-in |
| | Serial Ports | 6 x RS-232/422/485 with auto flow control |
| IO Interface | USB Interface | 1 x USB 3.0, 5 x USB 2.0, 1 x internal USB 2.0 for security dongle |
| | PS/2 | Yes (by project only) |
| | Watchdog timer | 255 levels timer interval, setup by software |
| Other | Digital I/O | 4ch digital input and 4ch digital output with 3kV isolation |
| | Mini PCIe | 2 x full size Mini PCIe (1 with SIM holder) |
| Storage | HDD | Supports one SATA 2.5" HDD Bay (Compatible with 12.5mm height HDD) (Max. Data Transfer Rate 600 MB/s) |
| | mSATA | 1 x full size mSATA socket, with USB signal co-layer |
| Software Support | Microsoft Windows | WES8, Windows 8, WES7, Windows 7 |
| | Linux | Support by project |
| Power Requirement | Power Type | ATX |
| | Power Input Voltage | 9 ~ 36 V _{DC} |
| | Minimum Power Input | 12 V, 1.5 A |
| | Power Adapter | AC to DC, DC19 V/3.42 A, 65 W (Optional) |
| Power Consumption | Typical | 8.4W |
| | Max. | 16.2W |
| Mechanical | Construction | Aluminum housing |
| | Mounting | Din-Rail mounting, Desk/wall-mounting, VESA mounting |
| | Dimensions (W x H x D) | 264.5 x 68.4 x 133.0 mm (10.41" x 2.69" x 5.24") |
| | Weight | 2.3 kg (5.07 lb) |
| Environment | Operating Temperature | With extended temperature peripherals: -20 ~ 70° C (-4 ~ 158° 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: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis. |
| | Shock During Operation | With SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration |
| | EMC | CE/FCC Class A, CCC, BSMI |
| | Safety Certifications | UL, CB, CCC, BSMI |

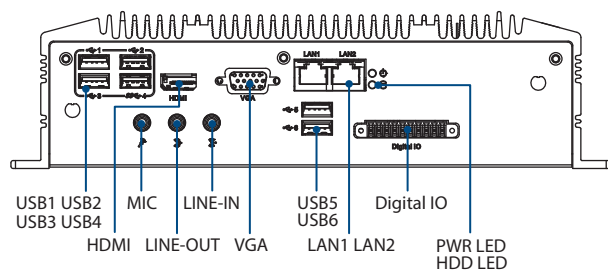
* DisplayPort is supported by project only.

Dimensions

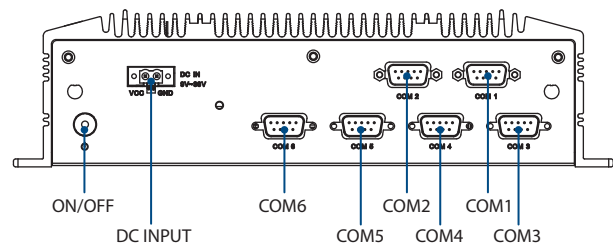
Unit: mm



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 | USB 3.0 | RS-232/422/485 | Audio | Full-size MiniPCle | SIM | mSATA | 2.5" SATA II HDD Bay | Power Input | Operating Temp. |
|-----------------|----------------------------|-----|----------|-----|---------|---------|----------------|-----------------------|--------------------|-----|-------|----------------------|------------------------|-----------------|
| ARK-2121F-U0A1E | Intel Celeron J1900 2.0GHz | Yes | Yes | 2 | 5 | 1 | 6 | Lin-out, Line-in, MIC | 2 | 1 | 1 | 1 | 9 ~ 36 V _{DC} | -20 ~ 70° C |

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

*DP is support by project only.

Packing List

| Part Number | Description |
|----------------|---|
| - | 1 x ARK-2121 Unit |
| - | 1 x User Manual (Simplified Chinese) |
| - | 1 x China RoHS |
| 1700009001 | 1x 2-pin Phoenix to DC-Jack power cable |
| 1960069484N000 | 2 x LAN clip |

Embedded OS

| Part Number | Description |
|-------------|--------------------------|
| 2070013717 | WES7E 64bit ENG/JP/TC/SC |
| 2070013716 | WES8E 64bit ENG/JP/TC/SC |

Optional Items

| Part Number | Description |
|------------------|---|
| 96PSA-A65W19P2-2 | AC-to-DC Adapter, DC 19V/3.42A 65W, 0 ~ 40° C for Home and Office Use |
| 1700001524 | Power cable 3-pin 183cm, USA type |
| 170203183C | Power cable 3-pin 183cm, EU type |
| 170203180A | Power cable 3-pin 183cm, UK type |
| AMK-V004E | VESA mounting kit |
| AMK-R004E | DIN-rail mounting kit |
| 1652003235 | 10pin DIO Plug in block |