Fanless Embedded Box PCs

Features

- Intel® Atom E3825 Dual Core 1.33 GHz & E3845 Quad Core 1.91 GHz SoC
- 4 PoE Ports to Support Mainstream IP Cameras
- Isolated COM ports and DIO
- Diversity Communication Abilities, ex. WWAN, WLAN
- Built-in GPS and G-Sensor for GIS application
- Intelligent Vehicle Power Ignition
- 9 – 36 Vdc* Wide Power Input w/isolation
- 1 x Removable 2.5" drive bay
- Supports iManager, SUSIAccess and Embedded Software APIs

Specifications

CPU
- ARK-2121V: Intel Atom E3845 QC SoC
- ARK-2121V-S9A1E: Intel Atom E3825 DC SoC

Frequency
- 1.91 GHz
- 1.33 GHz

L2 Cache
- 2 MB
- 1 MB

Memory
- DDR3L 1333 MHz max. capacity
- 8 GB

Graphics
- Intel Gen7 Graphics
- DirectX11, OpenGL3.2, OpenCL1.1

Audio
- Main System Realtek ALC888S, High Definition Audio (HD), Line-in, Line out, Mic-in

Ethernet
- LAN #1: 10/100/1000 Mbps, support Wake on LAN
- LAN #2: 10/100/1000 Mbps, support Wake on LAN

I/O Interface
- USB: 3 x USB 2.0 & 1 x USB3.0
- Serial Ports: 2 x RS-232/422/485 ports w/ 3KV isolation
- Optional COM or CANBus: 2 x DB9 connectors for RS-232/422/485 signal (Default) or CANBus 2.0A/B (Module option)
- Other: 6 x DI & 2 x DO w/ 3KV isolation

Other
- 1 x removable 2.5" drive bay (Max 9.5mm height)
- Supports Windows WES8, WES7, Windows 8, Windows 7
- Linux Support by project

Power Requirement
- Power Input Voltage*: 9 ~ 36 Vdc w/isolation

Environment
- Operating Temperature: -30~60° C with 0.7m/s air flow
- Storage Temperature: -40~85° C (-40~185° F)

Regulation
- CE/FCC Class A, CCC, BSMI
- Safety: UL, CCC, BSMI, L-Mark (E13)

* Power Input Constraint at low voltage: 9–10.9V.
ARK-2121V

Dimensions

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Intel CPU</th>
<th>RAM</th>
<th>2.5&quot; Drive</th>
<th>mSATA</th>
<th>Display</th>
<th>GbE</th>
<th>PoE</th>
<th>USB</th>
<th>DIO</th>
<th>Optional CDM or CANBus</th>
<th>RS-232/422/485</th>
<th>MiniPCIe</th>
<th>SIM Holder</th>
<th>Power Input</th>
<th>Operating Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARK-2121V-S3A1E</td>
<td>Intel Atom E3825 DC</td>
<td>Up to 8GB</td>
<td>1</td>
<td>1</td>
<td>1 x HDMI</td>
<td>1 x VGA</td>
<td>2</td>
<td>3</td>
<td>USB2</td>
<td>2</td>
<td>2 x RS-232/422/485 or 2 x CANBus</td>
<td>2</td>
<td>4 x Full Size</td>
<td>2</td>
<td>9 - 36 Vdc</td>
</tr>
<tr>
<td>ARK-2121V-S9A1E</td>
<td>Intel Atom E3845 QC</td>
<td>1.91 GHz</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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Packing List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>1 x ARK-2121 Unit</td>
</tr>
<tr>
<td>-</td>
<td>1 x Driver/Utility CD/Manual</td>
</tr>
<tr>
<td>-</td>
<td>1 x User Manual (Simplified Chinese)</td>
</tr>
<tr>
<td>1652000049</td>
<td>3-pole phoenix power block 3.81mm</td>
</tr>
<tr>
<td>1750001782</td>
<td>1 x GPS antenna Active with 5M SMA cable</td>
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<tr>
<td>1652003235</td>
<td>10-Pin DIO plug in block</td>
</tr>
</tbody>
</table>

Optional Items

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBC</td>
<td>AC-to-DC Adapter with Phoenix Power Plug, 0 ~ 40°C for Home and Office Use</td>
</tr>
<tr>
<td>1700001524</td>
<td>Power Cable 3-pin 180cm, USA type</td>
</tr>
<tr>
<td>170203183C</td>
<td>Power Cable 3-pin 183cm, Europe type</td>
</tr>
<tr>
<td>170203180A</td>
<td>Power Cable 3-pin 183cm, UK type</td>
</tr>
<tr>
<td>AMK-V004E</td>
<td>VESA mounting kit</td>
</tr>
<tr>
<td>AMK-R004E</td>
<td>DIN-rail mounting kit</td>
</tr>
</tbody>
</table>

Embedded OS

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBC</td>
<td>WE58 OS image</td>
</tr>
<tr>
<td>TBC</td>
<td>WE57 OS image</td>
</tr>
</tbody>
</table>

*Default BIOS is supported for 64-bit OS installation, BIOS 32-bit OS is supported by project.