UBC-220

RISC Computing Platforms

NXP ARM® Cortex®-A9 i.MX6 2.5" IoT Gateway

Features
- NXP ARM® Cortex®-A9 i.MX6 Dual Lite 1 GHz processor
- Onboard DDR3 1GB, 800MHz
- 4 GB eMMC Flash Memory
- Dual display HDMI 1920x1080P and single channel 18/24 bit LVDS
- Rich I/O with 1 4-wire RS-232, 1 USB 2.0, 1 USB OTG
- Dual mini-PCIe slots for Wi-Fi/Cellular module support
- Low power consumption, fanless design
- Supports wall mounting, 10x10 VESA and DIN rails

Specifications

Form Factor
- 2.5”Box computer

Processor System
- CPU: NXP ARM® Cortex®-A9 i.MX6 dual-core lite 1 GHz processor
- Technology: DDR3 800 MHz

Memory
- Capacity: 1 GB of onboard DDR3
- Flash: 4 GB of eMMC Flash for OS and 4 MB of NOR Flash for Advantech’s boot loader

Graphics
- HDMI: HDMI with 1920 x 1080 resolution
- LVDS: Single-channel 18/24-bit LVDS
- Graphics Engine: 1 x IPU. OpenGL ES 2.0 for 3D, BitBlt for 2D and OpenVG 1.1
- H/W Video Codec: Decoder: MPEG-4 ASP, H.264 HP, H.263, MPEG-2 MP, MJPEG BP
  Encoder: MPEG-4 SP, H.264 BP, H.263, MJPEG BP

Ethernet
- Chipset: NXP i.MX6 integrated RGMII
- Speed: 1 10/100/1000 Mbps

Watchdog Timer
- Watchdog Timer: From 1~6553s, power on/off 4s

I/O
- USB: 1 x USB 2.0 Type A
- USB OTG: 1 x USB 2.0 OTG
- UART: 1 x 4-wire RS-232

Indicator
- LED: 1 x Green LED for system power
  1 x Green LED (user defined)

Expansion
- Full-Size Mini PCIe: 1
- Half-Size Mini PCIe: 1
- SD Socket: 1
- SIM: 1
- Antenna Socket: 1

Power
- Power Supply Voltage: 12 VDC
- Power Type: DC-in
- Power Consumption: 4.4 Watts (max. load)

Environment
- Operating Temperature: 0~60 °C
- Operating Humidity: 5~95% relative humidity, non-condensing

Mechanical
- Dimensions: 142 x 101 x 30 mm
- Mounting: Wall mount, DIN rail, VESA mount
- Weight: 210 g

Operating System
- Linux: V3.0.35
- Android: V4.3

Certifications
- CE/FCC Class B

All product specifications are subject to change without notice.
Last updated: 10-Mar-2016
**Ordering Information**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Flash</th>
<th>VGA</th>
<th>LVDS</th>
<th>LAN</th>
<th>Serial Port</th>
<th>USB Host</th>
<th>SD</th>
<th>Software</th>
<th>Operating Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>UBC-220DL-MDA1E</td>
<td>NXP i.MX6 dual-core lite, 1 GHz</td>
<td>1 GB</td>
<td>4 GB</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>1 x 4-wire RS-232</td>
<td>1 USB 2.0</td>
<td>1</td>
<td>Linux</td>
<td>0 – 60 °C</td>
</tr>
</tbody>
</table>

**Packing List**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1652006794-01</td>
<td>6-pin terminal block</td>
</tr>
</tbody>
</table>

**Optional Accessories**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>96PSA-A36W12R1</td>
<td>Power Adapter 100-240V 36W 12V</td>
</tr>
<tr>
<td>1700001524</td>
<td>Power cord 3P UL 180cm</td>
</tr>
<tr>
<td>170203183C</td>
<td>Power cord 3P EU 183cm</td>
</tr>
<tr>
<td>170203180A</td>
<td>Power cord 3P UK 183cm</td>
</tr>
<tr>
<td>1700008921</td>
<td>Power cord 3P PSE 183cm</td>
</tr>
<tr>
<td>EWM-W142F01E</td>
<td>802.11 b/g/n, AR9287, 2T2R, full-size mini PCIe</td>
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<tr>
<td>EWM-C105FT02E</td>
<td>HSPA/WCDMA/GPRS cellular module</td>
</tr>
<tr>
<td>1750006043</td>
<td>Cable R/P SMA (M) to MHF 1.32 150 mm (Wi-Fi cable)</td>
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<td>1750000318</td>
<td>EMI antenna 2DBI 2.4 GHz SMA CONN for ARK-3384 (Wi-Fi antenna)</td>
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<tr>
<td>1750006264</td>
<td>Antenna SMA(F)/MHF 15 cm SMALFN8-3150A-00X00R (3G cable)</td>
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<td>1750005865</td>
<td>Antenna, 10.9 cm, 50 ohm, AN8921F-5701SM (3G antenna)</td>
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<tr>
<td>1700021565-01</td>
<td>Debug cable</td>
</tr>
<tr>
<td>SQF-ISDS1-2G-86E</td>
<td>SQFlash SD card SLC 2G (-40 – 85 °C)</td>
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