PrAMC QorIQ P2040 and P2041

AMC711

KEY FEATURES

- Single-width, mid-height (option for full-height) per AMC.0
- Processor AMC with Freescale™ QorIQ P2040 or P2041
- PCIe Gen2 on ports 4-11 for P2040/P2041
  - For P2041 option for XAUI on Ports 8-11
- Configurable as Host (Root Complex) or Agent
- Up to 8GBytes of DDR-III memory with ECC
- Dual GbE per AMC.2 specification on ports 0 and 1
- Dual GbE on the front panel
- 32Mbytes of NOR Flash
- 8Mbytes of SPI Flash and 512KB of I2C Flash
- 256 Mbytes of NAND Flash
- Up to 32GB FLASH via SDHC for storage
- IPMI 2.0 compliant
- RoHS compliant
- OS support for Linux and VxWorks

The AMC711 is a Processor AMC (PrAMC) in a single-width, mid-height AdvancedMC™ (AMC) form factor based on the Freescale P2040 or P2041. The module follows the AMC.1 and AMC.2 specifications. The PCIe interface is configurable as Host or Agent mode and it interfaces as dual x4 (ports 4-7 and 8-11). The P2041 has option to have ports 8-11 as XAUI (10GbE). The AMC711 has up to 8GBytes of DDR-III memory with ECC.

The AMC711 can provide single 10GbE via ports 8-11 with the P2041 option.

The AMC711 has Serial Over LAN (SOL) with a true hardware Random Number Generator.

The module provides Dual GbE to the rear per AMC.2 specification on ports 0 and 1. It has a dual GbE to the front.

VadaTech can modify this product to meet special customer requirements without NRE (minimum order placement is required).
## SPECIFICATIONS

### Architecture

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Single-Width, Mid-Height (Full-Height options)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>2.89 in. (73.5 mm)</td>
</tr>
<tr>
<td>Depth</td>
<td>7.11 in. (180.6 mm)</td>
</tr>
</tbody>
</table>

### Product Type

**AMC Processor**

Freescale P2040 (@ 1.2 GHz) and P2041 (@ 1.5GHz)

### Standards

#### AMC

<table>
<thead>
<tr>
<th>Type</th>
<th>AMC.1 and AMC.2</th>
</tr>
</thead>
</table>

#### Module Management

**IPMI**

IPMI Version 2.0

### PCIe

<table>
<thead>
<tr>
<th>Lanes</th>
<th>Dual PCIe x4 or PCIe x4 and 10GbE (P2041 only)</th>
</tr>
</thead>
</table>

### Configuration

#### Power

- **AMC711**
  - 26W with P2041 @ 1.5GHz

#### Environmental

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Operating Temperature: 0° to 60° C (Air flow requirement is to be greater than 600 LFM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vibration</td>
<td>Operating 9.8 m/s² (1.0G), 5-500Hz</td>
</tr>
<tr>
<td>Shock</td>
<td>Operating 325G/2ms, 160G/1ms</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>5 to 95 percent, non-condensing</td>
</tr>
</tbody>
</table>

#### Front Panel

<table>
<thead>
<tr>
<th>LEDs</th>
<th>IPMI Management Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Activity/Link</td>
</tr>
<tr>
<td></td>
<td>User LED</td>
</tr>
<tr>
<td></td>
<td>Dual RJ-45</td>
</tr>
<tr>
<td></td>
<td>CPU RS-232</td>
</tr>
<tr>
<td></td>
<td>IPMI Management RS-232</td>
</tr>
</tbody>
</table>

#### Mechanical

- Hot Swap Ejector Handle

### Software Support

**Operating Systems**

Linux and VxWorks

### Other

#### MTBF

MIL-217F Handbook > TBD MTTF Hrs.

#### Certifications

Designed to meet FCC, CE and UL certifications where applicable

#### Standards

VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards

#### Compliance

RoHS and NEBS

#### Warranty

Two (2) years

#### Trademarks and Logos

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PrAMC QorIQ P2040 and P2041

**FIGURE 1.** AMC711 Functional Block Diagram

**FIGURE 2.** AMC711 Front Panel
## ORDERING OPTIONS

**AMC711 - ABC - D00 - 0HJ**

### A = CPU Speed
- 1 = P2040 @ 1.2GHz
- 2 = P2041 @ 1.5GHz

### D = DDR-III ECC memory
- 0 = 4 GByte
- 1 = 8 GByte

### B = Ports 8-11
- 0 = PCIe
- 1 = XAUI**

### C = Front Panel
- 1 = Reserved
- 2 = Mid-Height
- 3 = Full-Height

### H = Operating Temp
- 0 = Commercial
- 1 = Industrial

### J = Conformal Coating
- 0 = None
- 1 = Humiseal 1A33 Polyurethane
- 2 = Humiseal 1B31 Acrylic

*For other speed grades contact VadaTech Sales

**Applies only to the P2041 processor