XCalibur1200

Single/Dual NXP MPC7447A/7448 Processor-Based Air-Cooled 6U cPCI Module with PICMG 2.16 Ethernet

The XCalibur1200 is a 6U CompactPCI single board computer with a PICMG 2.16 Gigabit Ethernet backplane interface and dual NXP (formerly Freescale) MPC7447A/7448 1.4 GHz processors. It is well-suited for telecom, industrial, and general computing applications.

The XCalibur1200 provides a highly-configurable processing platform. Two SO-DIMM DDR SDRAM sockets provide up to 1 GB of local memory. An optional CompactFlash interface accepts up to 1 GB of non-volatile memory. Two PCI-X PrPMC slots are available for high bandwidth I/O.

Hot Swap support allows the XCalibur1200 to be installed into a live system without disrupting CompactPCI bus activity. In addition, system management bus support allows the card to be powered down and reset remotely through the IPMI interface.

For the system designer, the XCalibur1200 provides a feature-rich solution to support the next generation of embedded applications.
Processor
- Single/dual NXP Power Architecture® MPC7447A/7448 processors
- 1.40 GHz max processor speed
- 133 MHz bus speed
- 32 kB L1 instruction/data caches
- Up to 1 MB L2 cache

Memory
- Dual DDR SO-DIMM SDRAM
- Up to 144 MB soldered NOR flash
- 512 kB socketed NOR flash
- 512 byte SEEPROM

cPCI
- Operates in system or peripheral slot (jumper selectable)
- PICMG 2.1 (Hot Swap support)
- PICMG 2.3 (routes PMC I/O to P3 and P5)
- PICMG 2.9 (dedicated IPMI controller)
- PICMG 2.16 (two 10/100/1000 BASE-T Ethernet ports)

PCI-X PMC Slots
- Maximum aggregate bandwidth of 1 Gb/s
- Processor PMC (PrPMC) support

Software Support
- Linux BSP
- Wind River VxWorks BSP
- QNX Neutrino BSP
- Greens Hills INTEGRITY BSP
- Ethernet and IPMI drivers

Environmental Requirements
Contact factory for appropriate board configuration based on environmental requirements.
- Supported ruggedization levels (see chart below): 1
- Conformal coating available as an ordering option

Power Requirements
- 3.3 V, 3.8 A, 12.54 W
- 5 V, 1.95 A, 9.75 W

Ruggedization Level

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 3</th>
<th>Level 5</th>
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</thead>
<tbody>
<tr>
<td>Cooling Method</td>
<td>Standard Air-Cooled</td>
<td>Rugged Air-Cooled</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0 to +55°C ambient (300 LFM)</td>
<td>-40 to +70°C (600 LFM)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-40 to +85°C ambient</td>
<td>-55 to +105°C ambient</td>
</tr>
<tr>
<td>Vibration</td>
<td>0.002 g²/Hz (maximum), 5 to 2000 Hz</td>
<td>0.04 g²/Hz (maximum), 5 to 2000 Hz</td>
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<tr>
<td>Shock</td>
<td>20 g, 11 ms sawtooth</td>
<td>30 g, 11 ms sawtooth</td>
</tr>
<tr>
<td>Humidity</td>
<td>0% to 95% non-condensing</td>
<td>0% to 95% non-condensing</td>
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