XChange1004

Dual PrPMC cPCI Carrier Card with PICMG 2.16 Switched Ethernet

- 100 MHz PCI-X cPCI and local bus interfaces
- Autosense system/peripheral slot
- Hot Swap support
- Two backplane Gigabit Ethernet ports
- Complies with PICMG 2.0, 2.1, 2.3, 2.9 and 2.16
- VxWorks BSP
- Linux BSP
- IPMI satellite management controller

The XChange1004 is a 6U CompactPCI dual PMC carrier card with a PICMG 2.16 Gigabit Ethernet interface. The XChange1004 detects if it is a system controller and configures the cPCI bridge to operate in transparent mode. (A PrPMC must be installed on the XChange1004 if it is used in the system slot, since there are no intelligent devices on the XChange1004.) As a peripheral, the cPCI bridge operates in non-transparent mode, which offers address isolation, in addition to electrical isolation.

PICMG 2.1 Hot Swap support allows the XChange1004 to be installed into a live system without disrupting CompactPCI bus activity. In addition, the system management bus support allows the card to be powered down and reset remotely through the PICMG 2.9 IPMI interface. The IPMI interface also allows for the monitoring of voltage and temperature levels on the cards attached to the two PrPMC slots.
**cPCI**
- 66 MHz 64-bit PCI interface to J1 and J2
- PICMG 2.1 (Hot Swap support)
- PICMG 2.3 (PMC I/O to J3 and J5)
- PICMG 2.9 (dedicated IPMI controller)
- PICMG 2.16 (two 10/100/1000BASE-T Ethernet ports)

**PCI-X PMC Slots**
- Maximum aggregate bandwidth of 1 Gbps
- Processor PMC (PrPMC) support
- 10 mm stacking height

**Software Support**
- Linux BSP
- Wind River VxWorks BSP
- Ethernet and IPMI drivers

**Physical**
- 6U cPCI form factor
- 233.35 mm x 160 mm

**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, 0.61 A, 2 W

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