The XCalibur1700 is a high-performance 6U CompactPCI single board, multiprocessing computer that is ideal for ruggedized systems requiring high bandwidth processing and low power consumption. With dual PowerPC e500 cores running at up to 1.2 GHz, the P2020 delivers enhanced performance and efficiency for today's embedded computing applications.

The XCalibur1700 provides up to 8 GB DDR3-800 ECC SDRAM, two PrPMC/XMC slots, as well as 512 MB of NOR flash (with redundancy). The XCalibur1700 also supports three Gigabit Ethernet ports, I²C, PMC I/O, XMC I/O, and RS-232/422/485 serial ports out the front panel or J5 connector.

The XCalibur1700 is a powerful, feature-rich solution for the next generation of compute-intensive embedded applications. For customers seeking a lower power option the XCalibur1700 can be designed with the Freescale P1020 processor offering a reduction of approximately 7 W. Operating system support for Wind River VxWorks, Green Hills INTEGRITY-178, QNX Neutrino, and Linux is available.
### Processor
- Freescale QorIQ P2020 processor
- Dual PowerPC e500 cores at up to 1.2 GHz
- 512 kB of shared L2 cache

### Memory
- Up to 8 GB DDR3-800 ECC SDRAM
- Up to 512 MB of NOR flash (with redundancy)
- Up to 32 GB of NAND flash
- Up to 128 GB SATA NAND flash (optional)

### 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)

### PrPMC/XMC
- PCI-X (64/32-bit, 100/66 MHz)
- PCI (64/32-bit, 66/33 MHz)
- x4 PCI Express to J15 and J25 (XMC)

### Front Panel
- Two RS-232 serial ports
- One Gigabit Ethernet port
- One USB port
- General purpose LEDs

### Back Panel
- Two RS-232/485 serial ports
- Two Gigabit Ethernet ports
- Two SATA ports
- PMC I/O
- One USB 2.0 port (optional)

### Software Support
- Linux BSP
- Wind River VxWorks BSP
- QNX Neutrino BSP
- Greens Hills INTEGRITY-178 BSP

### Environmental Requirements
- Contact factory for appropriate board configuration based on environmental requirements.
- Supported ruggedization levels (see chart below): 1, 3, 5
- Conformal coating available as an ordering option

### Power Requirements
- Power will vary based on configuration and usage. Please consult factory.

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**Ruggedization Level**

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 3</th>
<th>Level 5</th>
</tr>
</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, 5 to 2000 Hz</td>
<td>0.04 g²/Hz (maximum), 5 to 2000 Hz</td>
</tr>
<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>
</tr>
</tbody>
</table>