The XPedite5530 is a high-performance, 3U cPCI, single board computer supporting Freescale QorIQ P1 and P2 processors. With dual Power Architecture e500v2 cores running at up to 1.2 GHz, the P2020 delivers enhanced performance and efficiency for today's network information processing and other embedded computing applications.

Complementing processor performance, the XPedite5530 features up to 8 GB of DDR3-800 ECC SDRAM, multiple PCI Express interfaces, PrPMC/XMC support, up to 256 MB of NOR flash (with redundancy), and up to 32 GB of NAND flash. Two Gigabit Ethernet ports, two RS-232/422/485 ports, and one USB 2.0 port are routed to J2.

The XPedite5530 provides a high-performance, feature-rich solution for current and future generations of embedded applications. Operating system support packages for the XPedite5530 include Wind River VxWorks, Linux, and Green Hills INTEGRITY-178.
**Processor**
- Freescale P2020 processor
- Dual Power Architecture e500v2 cores at up to 1.2 GHz
- 512 kB of shared L2 cache

**Alternate Processor Configuration**
- P1011 processor with one PowerPC e500v2 core at up to 800 MHz
- P1020 processor with two PowerPC e500v2 cores at up to 800 MHz
- P2010 processor with one PowerPC e500v2 core at up to 1.2 GHz

**Memory**
- Up to 8 GB of DDR3-800 ECC SDRAM
- Up to 256 MB of NOR flash (with redundancy)
- Up to 32 GB of NAND flash

**J1 cPCI Interface**
- 32-bit PCI interface operating at 33 or 66 MHz
- System controller capable with onboard clocking and arbitration
- Peripheral slot capable

**J2 cPCI Interface**
- Two 10/100/1000BASE-T Ethernet ports
- Two RS-232/422/485 serial ports
- Four GPIO signals
- One USB 2.0 port

**PrPMC/XMC Site**
- 32-bit, 66 MHz PCI bus (PMC interface)
- x2 PCIe port (XMC interface)

**Front Panel I/O**
- Dual RJ-45 Ethernet, micro-DB-9 RS-232 serial port, and USB 2.0 port available via optional plugover module

**Software**
- Linux BSP
- Wind River VxWorks BSP
- Green Hills INTEGRITY-178 BSP

**Physical Characteristics**
- 3U conduction- or air-cooled CompactPCI form factor
- Dimensions: 100 mm x 160 mm

**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>Cooling Method</th>
<th>Level 1</th>
<th>Level 3</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>0 to +55°C ambient (300 LFM)</td>
<td>-40 to +70°C (600 LFM)</td>
<td>-40 to +85°C (board rail surface)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-40 to +85°C ambient</td>
<td>-55 to +105°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>
<td>0.1 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>
<td>40 g, 11 ms sawtooth</td>
</tr>
<tr>
<td>Humidity</td>
<td>0% to 95% non-condensing</td>
<td>0% to 95% non-condensing</td>
<td>0% to 95% non-condensing</td>
</tr>
</tbody>
</table>