The XPedite5500 is an XMC/PrPMC mezzanine module targeting the NXP (formerly Freescale) QorIQ P2020 processor. 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 XPedite5500 features up to 8 GB of DDR3-800 ECC SDRAM. A conventional PCI interface to the PMC connectors provides ample bandwidth to the P2020. Two Gigabit Ethernet ports, a USB 2.0 port, and two RS-232/422/485 serial ports are routed to P14 for additional system flexibility. A detachable front panel provides one Gigabit Ethernet port and two RS-232 serial ports for development.

The XPedite5500 provides a high-performance, feature-rich solution for current and future generations of embedded applications. Additionally, for customers seeking a maximum power of just 8 W, the XPedite5500 can be designed with the NXP QorIQ P1020 processor. Operating system support packages for the XPedite5500 include Wind River VxWorks, QNX Neutrino, Green Hills INTEGRITY-178, and Linux 2.6.
**Processor**
- NXP (formerly Freescale) QorIQ P2020 processor
- Dual/single Power Architecture® e500 cores at up to 1.2 GHz
- 512 kB of shared L2 cache

**Alternate Processor Configurations**
- P1011 processor with one Power Architecture® e500v2 core at up to 800 MHz
- P1020 processor with two Power Architecture® e500v2 cores at up to 800 MHz
- P2010 processor with one Power Architecture® e500v2 core at up to 1.2 GHz

**Memory**
- Up to 8 GB of DDR3-800 SDRAM
- Up to 512 MB of NOR flash (with redundancy)
- Up to 16 GB of NAND flash

**PrPMC Interface**
- 33/66 MHz PCI
- 32-bit bus interface

**P14/P16 XMC/PrPMC Interface**
- Two RS-232/422/485 serial ports
- 3.3 V GPIO
- Two Gigabit Ethernet ports

**Front Panel I/O**
- One Gigabit Ethernet port to P14
- Two RS-232 serial ports to P14
- One USB 2.0 port

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

**Physical Characteristics**
- Air-cooled XMC/PMC form factor
- Dimensions: 149 mm x 74 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**
- Power will vary based on configuration and usage. Please consult factory.

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**Ruggedization Level**

<table>
<thead>
<tr>
<th>Ruggedization Level</th>
<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>
<td>Conduction-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>
<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 (maximum)</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>
<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>