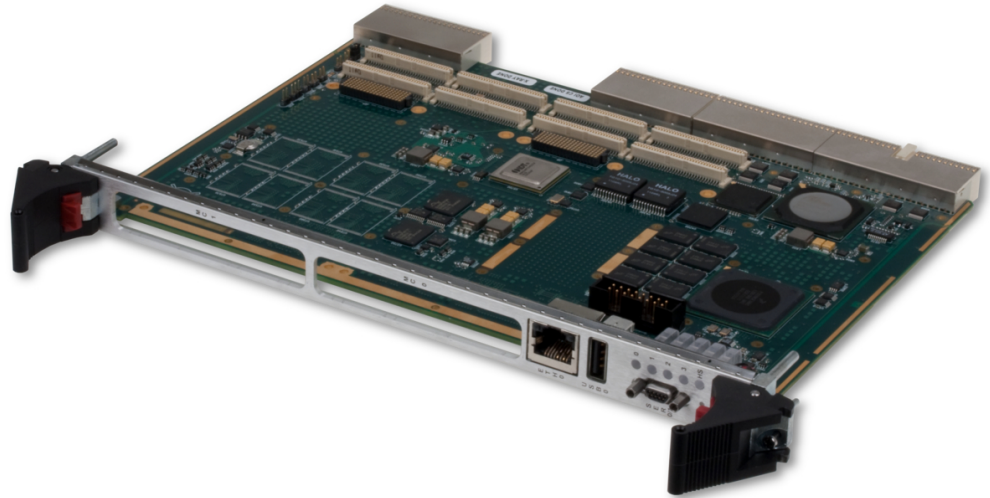


XCalibur1700

Freescale QorIQ P2020 Processor-Based Conduction- or Air-Cooled 6U cPCI Module

- ▶ Freescale QorIQ P2020 processor with dual PowerPC e500 cores at up to 1.2 GHz
- ▶ Conduction or air cooling
- ▶ Up to 8 GB DDR3-800 ECC SDRAM
- ▶ Up to 512 MB of NOR flash (with redundancy)
- ▶ Up to 32 GB of CPU NAND flash
- ▶ Up to 128 GB SATA NAND flash (optional)
- ▶ Three Gigabit Ethernet ports
- ▶ x4 PCI Express to XMC sites
- ▶ Two SATA 3.0 Gb/s ports to J5
- ▶ One USB 2.0 port
- ▶ Two RS-232/422/485 serial ports
- ▶ Two PrPMC/XMC interfaces
- ▶ Linux BSP
- ▶ Wind River VxWorks BSP
- ▶ QNX Neutrino BSP
- ▶ Green Hills INTEGRITY-178 BSP



XCalibur1700

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.

X-ES

Extreme Engineering Solutions

...Always Fast

Extreme Engineering Solutions

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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

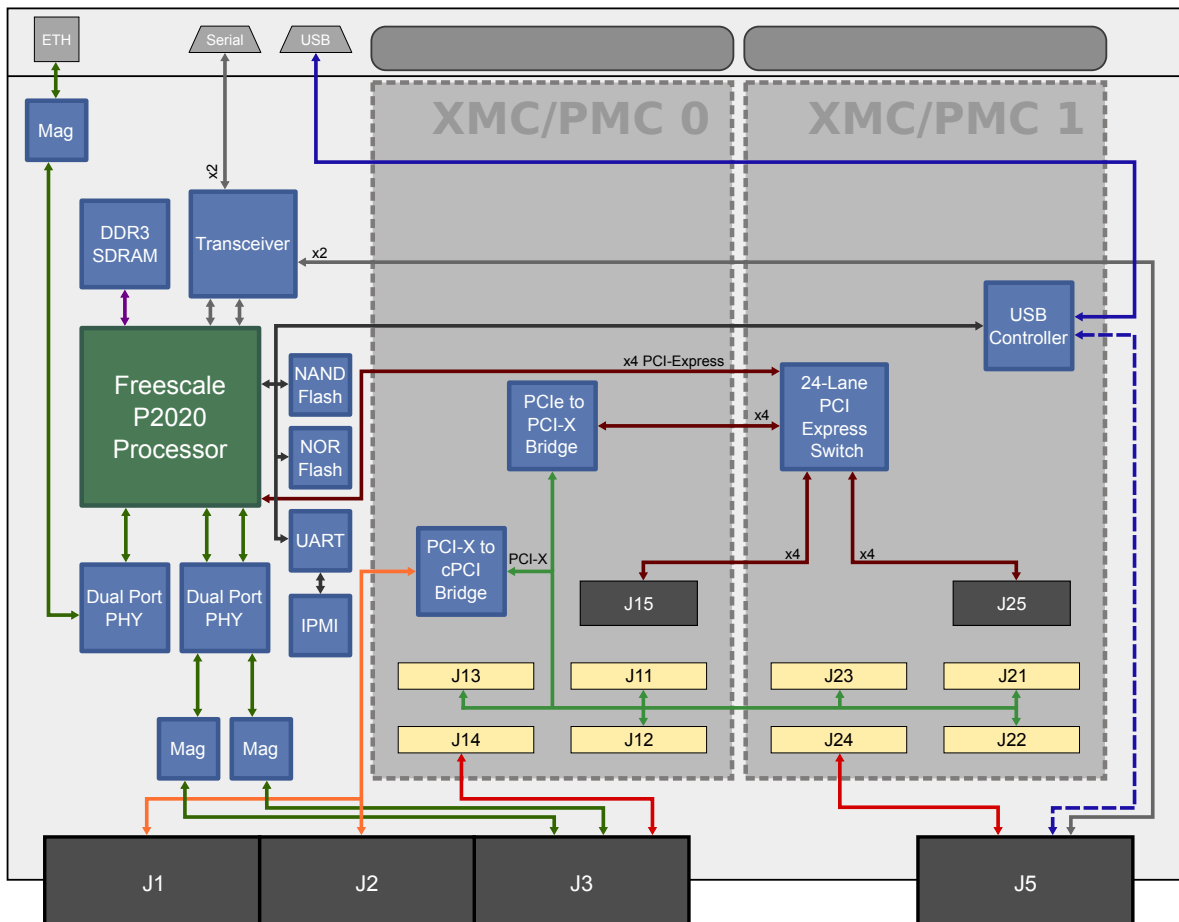
Contact factory for appropriate board configuration based on environmental requirements.

- 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.

Ruggedization Level	Level 1	Level 3	Level 5
Cooling Method	Standard Air-Cooled	Rugged Air-Cooled	Conduction-Cooled
Operating Temperature	0 to +55°C ambient (300 LFM)	-40 to +70°C (600 LFM)	-40 to +85°C (board rail surface)
Storage Temperature	-40 to +85°C ambient	-55 to +105°C ambient	-55 to +105°C ambient
Vibration	0.002 g ² /Hz, 5 to 2000 Hz	0.04 g ² /Hz (maximum), 5 to 2000 Hz	0.1 g ² /Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth	30 g, 11 ms sawtooth	40 g, 11 ms sawtooth
Humidity	0% to 95% non-condensing	0% to 95% non-condensing	0% to 95% non-condensing



XCalibur1700

