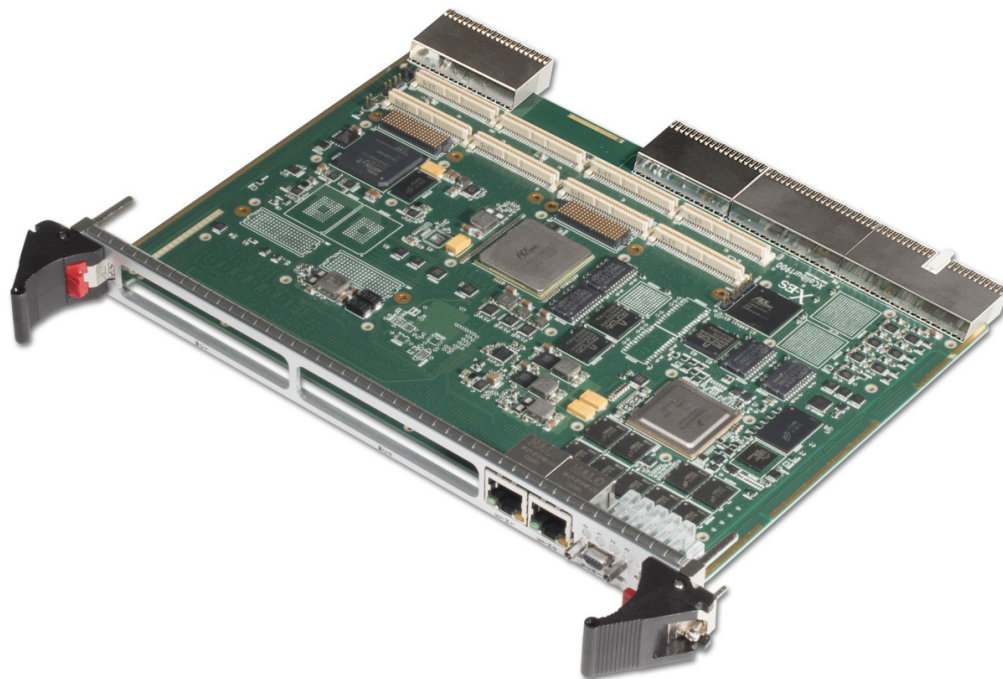


# XCalibur1900

NXP QorIQ T2080 Processor-Based Conduction or Air-Cooled 6U cPCI Module

- ▶ NXP QorIQ T2080 processor with four dual-threaded e6500 cores at up to 1.8 GHz
- ▶ 6U CompactPCI module
- ▶ Conduction or air cooling
- ▶ Up to 8 GB DDR3-1866 ECC SDRAM
- ▶ Up to 512 MB of NOR flash (with redundancy)
- ▶ Up to 32 GB of CPU NAND flash
- ▶ Up to 64 GB of SATA NAND flash (optional)
- ▶ Three Gigabit Ethernet ports
- ▶ x8 PCI Express to XMC sites
- ▶ Two SATA ports
- ▶ Two USB 2.0 ports
- ▶ Two RS-232/422/485 serial ports
- ▶ One 10GBASE-T to front panel using I/O mezzanine card (optional)
- ▶ Two XMC/PrPMC interfaces
- ▶ NXP hypervisor support for secure partitioning
- ▶ Linux BSP
- ▶ Wind River VxWorks BSP
- ▶ Green Hills INTEGRITY BSP



## XCalibur1900

The XCalibur1900 is a high-performance, 6U cPCI, single board computer supporting an NXP (formerly Freescale) QorIQ T2080 processor.

The XCalibur1900 provides up to 8 GB of DDR3-1866 ECC SDRAM, two XMC/PrPMC slots, and 512 MB of NOR flash (with redundancy). The XCalibur1900 supports three Gigabit Ethernet ports, PMC I/O, USB 2.0, SATA ports capable of 3 Gb/s, and RS-232/422/485 serial ports out backplane connectors, and Gigabit Ethernet, USB 2.0, and RS-232 serial out the front panel. One 10GBASE-T port to front panel using I/O mezzanine card is also optionally supported.

The XCalibur1900 is a powerful, feature-rich solution for the next generation of compute-intensive embedded applications. Wind River VxWorks, Linux, and Green Hills INTEGRITY Board Support Packages (BSPs) are available. Wind River VxWorks and Linux BSPs may optionally be paired with the NXP hypervisor software to facilitate secure partitioning.

# X-ES

Extreme Engineering Solutions

*...Always Fast*

### Extreme Engineering Solutions

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**Processor**

- NXP (formerly Freescale) QorIQ T2080 processor
- Four dual-threaded e6500 cores at up to 1.8 GHz
- 2 MB of shared L2 cache

**Memory**

- Up to 8 GB of DDR3-1866 ECC SDRAM
- Up to 512 MB of NOR flash (with redundancy)
- Up to 32 GB of NAND flash
- Up to 64 GB of SATA NAND flash (optional)

**cPCI**

- 66 MHz 32-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)

**XMC/PrPMC**

- PCI-X (64/32-bit, 100/66 MHz)
- PCI (64/32-bit, 66/33 MHz)
- x8 PCI Express port to J15 and J25 (XMC)

**Front Panel (Optional)**

- Two RS-232 serial ports
- One Gigabit Ethernet port
- One USB 2.0 port
- One 10GBASE-T port to front panel using I/O mezzanine card
- General-purpose LEDs

**Back Panel**

- Two RS-232/422/485 serial ports
- Two Gigabit Ethernet ports
- Two SATA ports capable of 3 Gb/s
- Up to two USB 2.0 ports
- PMC I/O

**IPMI**

- Onboard management controller

**Software Support**

- Wind River VxWorks BSP with optional NXP hypervisor support for secure partitioning
- Linux BSP with optional NXP hypervisor support for secure partitioning
- Green 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 (maximum)
Vibration	0.002 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz	0.04 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz	0.1 g <sup>2</sup> /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

