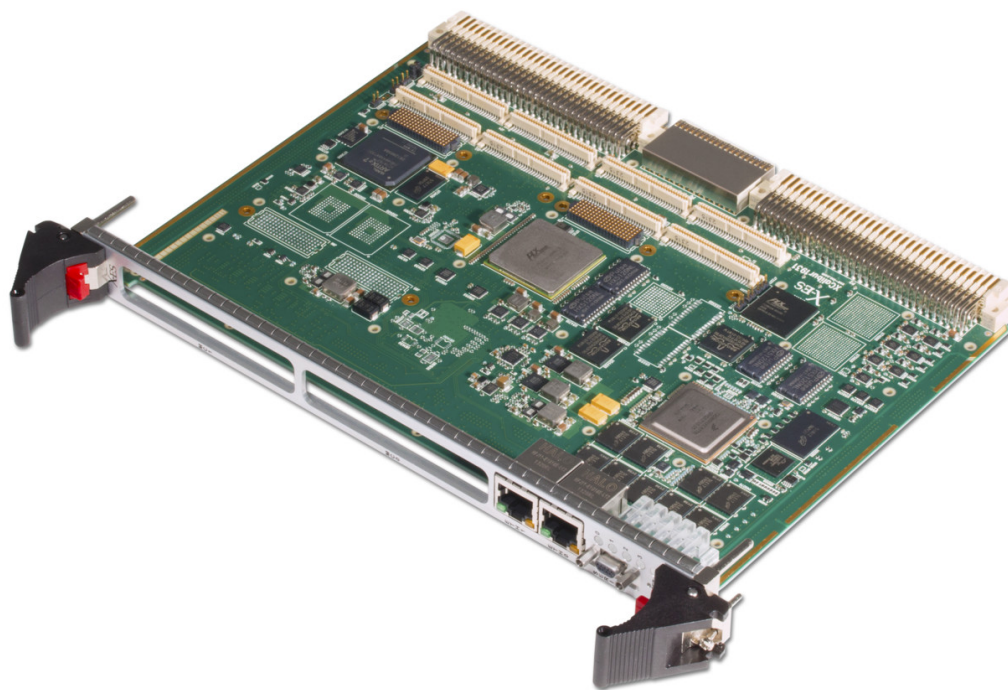


# XCalibur1931

NXP QorIQ T2080 Processor-Based Conduction- or Air-Cooled 6U VME Module with Eight Gigabit Ethernet Ports

- ▶ NXP (formerly Freescale) QorIQ T2080 processor with four dual-threaded e6500 cores at up to 1.8 GHz
- ▶ 6U VME 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 eight Gigabit Ethernet ports
- ▶ One USB 2.0 port out the front panel (optional)
- ▶ Two RS-232 serial ports out the front/back panel
- ▶ Two RS-232/422/485 serial ports with handshaking out the back panel
- ▶ Two XMC/PrPMC interfaces
- ▶ Two channel 1553 (optional)
- ▶ NXP hypervisor support for secure partitioning
- ▶ Wind River VxWorks BSP
- ▶ Linux BSP
- ▶ Green Hills INTEGRITY BSP
- ▶ Contact factory for availability of QNX Neutrino and LynuxWorks LynxOS



## XCalibur1931

The XCalibur1931 is a high-performance, 6U VME, multiprocessing, single board computer that is ideal for systems requiring high bandwidth processing and low power consumption. With four dual-threaded e6500 cores running at up to 1.8 GHz, each with a 128-bit AltiVec SIMD unit, the T2080 delivers enhanced performance and efficiency for today's embedded computing applications.

The XCalibur1931 provides up to 8 GB of DDR3-1866 ECC SDRAM, two XMC/PrPMC interfaces, and 512 MB of NOR flash (with redundancy). The XCalibur1931 also supports up to six Gigabit Ethernet ports, PMC I/O, and RS-232/422/485 serial ports out the P2 backplane connectors. The front panel supports two Gigabit Ethernet ports, RS-232 serial, and an optional USB 2.0 port.

The XCalibur1931 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

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*...Always Fast*

### Extreme Engineering Solutions

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**Processor**

- NXP 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)

**VME**

- VME64 (VITA 1-1994 R2002)
- VME64x (VITA 1.1-1997 R2003)
- 2eSST (VITA 1.5-2003)
- Ethernet on VME64x (VITA 31.1-2003)
- PMC I/O on VME (VITA 35-2000)

**XMC/PrPMC**

- PCI-X (64/32-bit, 100/66 MHz)
- PCI (64/32-bit, 66/33 MHz)

**Back Panel**

- Two RS-232 serial ports
- Two RS-232/422/485 serial ports with handshaking
- Up to six Gigabit Ethernet ports
- PMC I/O
- Two channel 1553 (optional)

**Front Panel I/O**

- Two RS-232 serial ports
- One or two Gigabit Ethernet ports
- One USB 2.0 port (optional)

**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
- Contact factory for availability of QNX Neutrino and LinuxWorks LynxOS BSPs

**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

