

XCalibur1935

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

- ▶ NXP 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 ECC SDRAM
- ▶ Up to 512 MB of NOR flash (with redundancy)
- ▶ Up to 32 GB of CPU NAND flash
- ▶ NVMe storage (optional)
- ▶ Up to eight 10/100/1000BASE-T Ethernet ports
- ▶ One USB 2.0 port via the front panel (optional)
- ▶ Two RS-232 serial ports via the front/back panel
- ▶ Two XMC/PrPMC interfaces
- ▶ Two-channel 1553 (optional)
- ▶ Wind River VxWorks BSP
- ▶ Linux BSP
- ▶ Green Hills INTEGRITY BSP
- ▶ Contact factory for availability of QNX Neutrino and LynxWorks LynxOS



XCalibur1935

The XCalibur1935 is a high-performance, 6U VME, multiprocessing, single board computer that is ideal for systems requiring high bandwidth processing and low power consumption. It is a design refresh of the XCalibur1931, intended to update obsolete components while maintaining the same functionality and features. With four dual-threaded e6500 cores running at up to 1.8 GHz, each with a 128-bit AltiVec SIMD unit, the XCalibur1935's NXP QorIQ T2080 processor delivers enhanced performance and efficiency for today's embedded computing applications.

The XCalibur1935 provides up to 8 GB of DDR3 ECC SDRAM, two XMC/PrPMC interfaces, and 512 MB of NOR flash (with redundancy). It also supports up to six 10/100/1000BASE-T Ethernet ports, PMC I/O, and RS-232 serial ports via the P2 backplane connectors. The front panel offers two 10/100/1000BASE-T Ethernet ports, RS-232 serial, and an optional USB 2.0 port.

The XCalibur1935 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.



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 ECC SDRAM
- Up to 512 MB of NOR flash (with redundancy)
- Up to 32 GB of NAND flash
- NVMe storage (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
- Up to six 10/100/1000BASE-T Ethernet ports
- PMC I/O
- Two-channel 1553 (optional)

Front Panel I/O

- Two RS-232 serial ports
- One or two 10/100/1000BASE-T Ethernet ports
- One USB 2.0 port (optional)

Software Support

- Wind River VxWorks BSP
- Linux BSP
- 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, 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 5
Cooling Method	Standard Air-Cooled	Conduction-Cooled
Operating Temperature	0 to +55°C ambient †	-40 to +85°C (board rail surface)
Storage Temperature	-40 to +85°C ambient	-55 to +105°C (maximum)
Vibration	0.002 g²/Hz (maximum), 5 to 2000 Hz	0.1 g²/Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth	40 g, 11 ms sawtooth
Humidity	Up to 95% non-condensing	Up to 95% non-condensing

† Contact factory for airflow rate details.

