

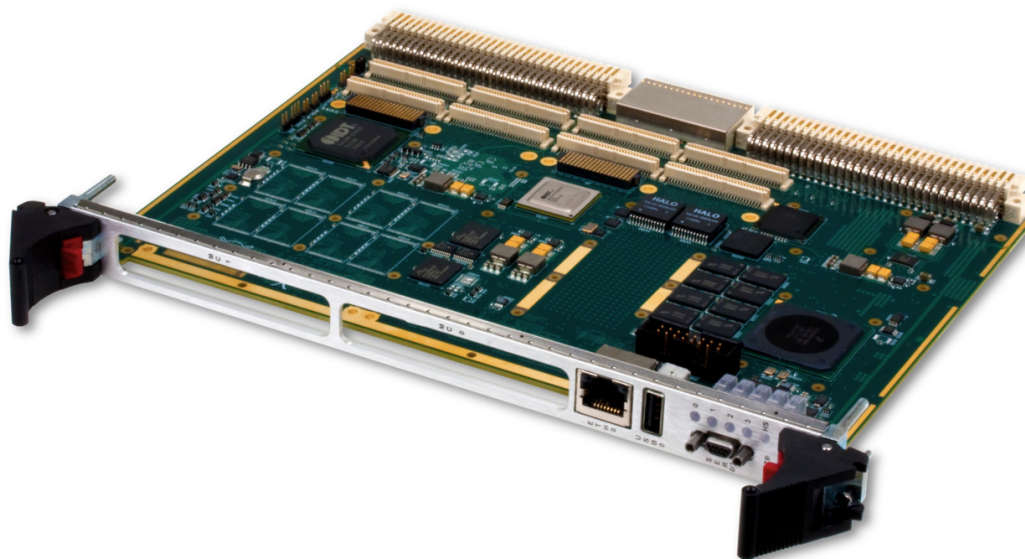
XCalibur1730

End of Life

NXP QorIQ P2020 Processor-Based Conduction- or Air-Cooled 6U VME Module

Please contact X-ES Sales

- ▶ NXP QorIQ P2020 processor with dual Power Architecture® e500v2 cores at up to 1.2 GHz (alternate processors P1011, P1020, P2010)
- ▶ 6U VME module
- ▶ 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
- ▶ Three Gigabit Ethernet ports
- ▶ x4 PCI Express to XMC sites
- ▶ One USB 2.0 port
- ▶ Two RS-232/422/485 serial ports
- ▶ Two XMC/PrPMC interfaces
- ▶ Linux BSP
- ▶ Wind River VxWorks BSP
- ▶ QNX Neutrino BSP
- ▶ Green Hills INTEGRITY-178 BSP



XCalibur1730

The XCalibur1730 is a high-performance, multiprocessing, 6U VME, single board computer that is ideal for ruggedized systems requiring high-bandwidth processing and low power consumption. With dual Power Architecture® e500v2 cores running at up to 1.2 GHz, the NXP (formerly Freescale) QorIQ P2020 delivers enhanced performance and efficiency for today's embedded computing applications.

The XCalibur1730 provides up to 8 GB of DDR3-800 ECC SDRAM, two XMC/PrPMC slots, and 512 MB of NOR flash (with redundancy). The XCalibur1730 also supports three Gigabit Ethernet ports, PMC I/O, and two RS-232/422/485 serial ports out the P2 backplane connectors, and Gigabit Ethernet, RS-232/422/485 serial, and USB 2.0 out the front panel.

The XCalibur1730 is a powerful, feature-rich solution for the next generation of compute-intensive embedded applications. For customers seeking a lower power option, the XCalibur1730 can be designed with the NXP QorIQ 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

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...Always Fast

Extreme Engineering Solutions

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Processor

- NXP (formerly Freescale) QorIQ P2020 processor
- Dual Power Architecture® e500v2 cores at up to 1.2 GHz
- 512 kB of shared L2 cache

Alternate Processor Configuration

- 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 ECC SDRAM
- Up to 512 MB of NOR flash (with redundancy)
- Up to 32 GB of NAND flash

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)
- x4 PCIe port to P15 and P25 (XMC)

Front Panel

- Two RS-232/422/485 serial ports
- One Gigabit Ethernet port
- One USB 2.0 port
- General purpose LEDs

Back Panel

- Two RS-232/422/485 serial ports
- Two Gigabit Ethernet ports
- PMC I/O
- One USB 2.0 port (optional)

Software

- 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 (maximum)
Vibration	0.002 g ² /Hz (maximum), 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

