XCalibur1541

End of Life (EOL)

NXP PowerQUICC™ III MPC8572E Processor-Based Conduction- or Air-Cooled 6U VPX Module   Please see XCalibur1740

- ❯ NXP PowerQUICC™ III MPC8572E processor with dual Power Architecture® e500 cores at up to 1.5 GHz

- ❯ 6U VPX module

- ❯ Conduction or air cooling

- ❯ Up to 4 GB DDR2-800 ECC SDRAM in two channels

- ❯ Up to 256 MB of NOR flash (with redundancy)

- ❯ Up to 16 GB of NAND flash

- ❯ Four Gigabit Ethernet ports

- ❯ x8 PCI Express lanes from switch to CPU, J15, and J25

- ❯ Four x4 (x16 total) PCI Express lanes from switch to P1

- ❯ Four SATA ports

- ❯ Three USB 2.0 ports

- ❯ Two RS-232/422/485 serial ports

- ❯ Two XMC/PrPMC interfaces

- ❯ Linux BSP

- ❯ Wind River VxWorks BSP

- ❯ QNX Neutrino BSP

- ❯ Green Hills INTEGRITY BSP
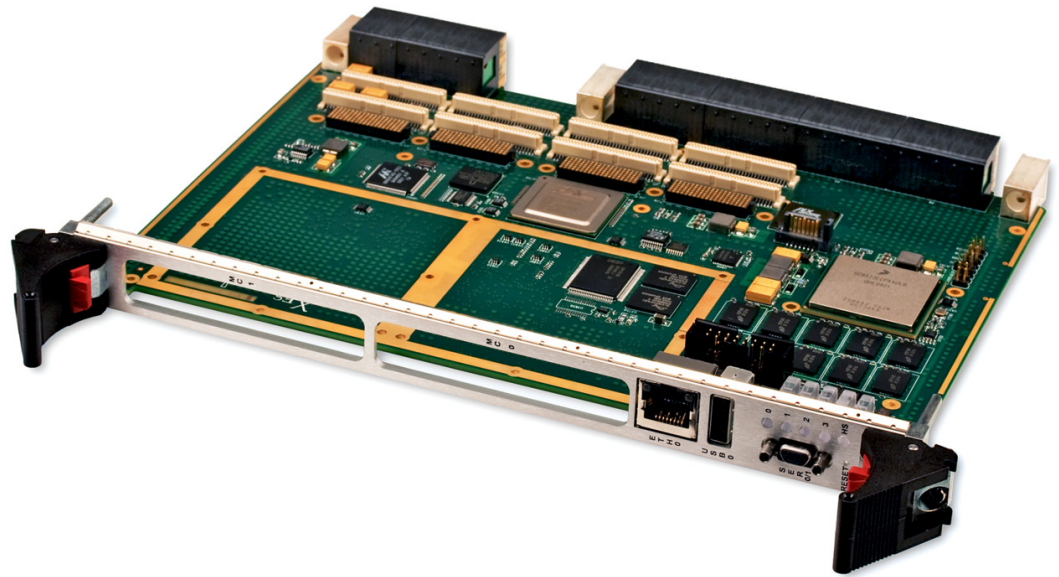
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The XCalibur1541 is a high-performance 6U VPX single board, multiprocessing computer that is ideal for ruggedized systems requiring high bandwidth processing and low power consumption. With dual Power Architecture® e500 cores running at up to 1.5 GHz, the NXP (formerly Freescale) MPC8572E delivers enhanced performance and efficiency for today's embedded computing applications.

The XCalibur1541 provides two separate channels of up to 4 GB DDR2-800 ECC SDRAM, two XMC/PrPMC slots, as well as 256 MB of NOR flash (with redundancy). The XCalibur1541 also supports four Gigabit Ethernet ports, XMC I/O, PMC I/O, and RS-232/422/485 serial ports out the front panel and/or VPX backplane connectors.

The XCalibur1541 is a powerful, feature-rich solution for the next generation of compute intensive embedded applications. Operating system support for Wind River VxWorks, Microsoft Windows, QNX Neutrino, and Linux is available.

X-ES
Extreme Engineering Solutions

...Always Fast

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DS90050155-G

Processor

- NXP (formerly Freescale) PowerQUICC™ III MPC8572E processor
- Dual Power Architecture® e500 cores at up to 1.5 GHz
- 1 MB of shared L2 cache

Memory

- Up to 4 GB of DDR2 ECC SDRAM in two channels
- Up to 16 GB of NAND flash
- Up to 256 MB of NOR flash (with redundancy)
- 16 kB I²C EEPROM

PrPMC

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

XMC

- x8 PCIe port to J15 and J25

VPX

- VITA 46.0
- VITA 46.4 (four x4 PCIe lanes to P1)
- VITA 46.7 (four 1000BASE-BX Ethernet ports to P4)
- VITA 46.9 (XMC and PMC I/O to P3, P4, P5, P6, mapping P3w1P4-P64s+X12d+X8d)

IPMI

- Onboard management controller

Software

- Linux BSP
- Wind River VxWorks BSP
- QNX Neutrino BSP
- Greens Hills INTEGRITY BSP
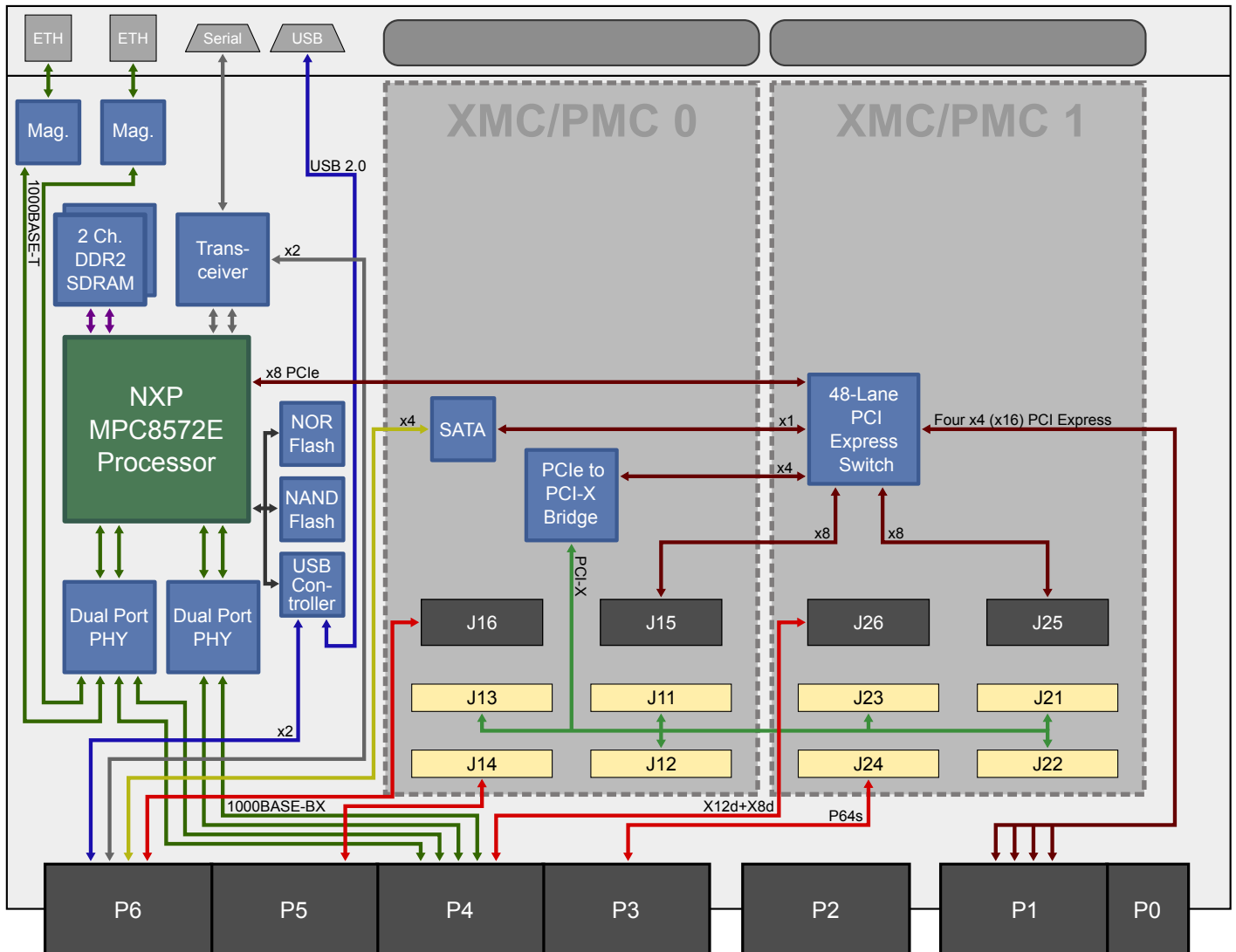
Environmental Requirements

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 g²/Hz (maximum), 5 to 2000 Hz	0.04 g²/Hz (maximum), 5 to 2000 Hz	0.1 g²/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

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