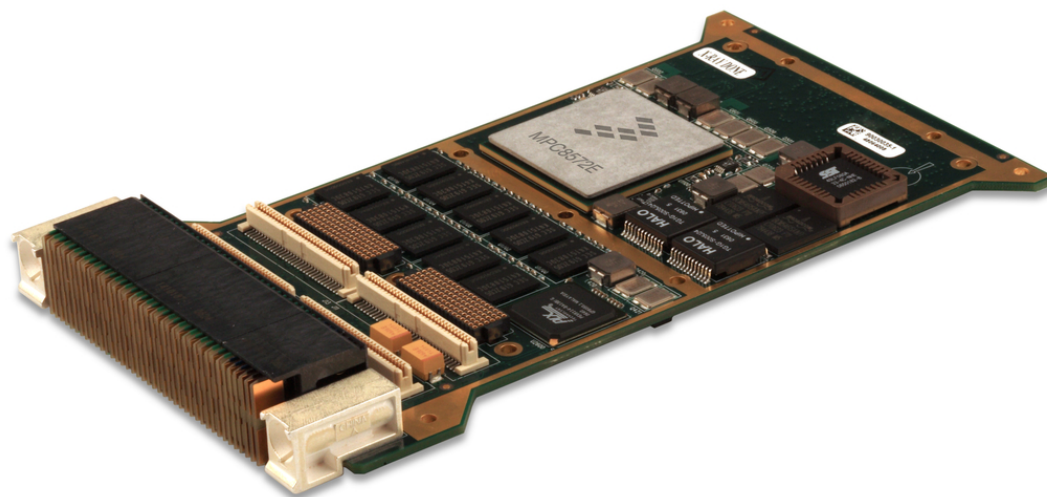


XPedite5370

Freescale Dual-Core MPC8572E PowerQUICC™ III Processor-Based Conduction- or Air-Cooled VPX-REDI Module

- ▶ Freescale MPC8572E PowerQUICC™ III processor with dual PowerPC e500 cores at up to 1.5 GHz
- ▶ VPX (VITA 46) 3U module
- ▶ Ruggedized Enhanced Design Implementation (REDI)
- ▶ Conduction or air cooling
- ▶ x4 PCI Express or Serial RapidIO Fat Pipe P1.A fabric interconnect
- ▶ x4 PCI Express P1.B fabric interconnect
- ▶ Four SERDES Gigabit Ethernet Thin Pipe P1 fabric interconnects
- ▶ Two channels of up to DDR2-800 ECC SDRAM, up to 4 GB (2 GB each)
- ▶ Up to 256 MB of NOR flash (with redundancy)
- ▶ Up to 4 GB of NAND flash
- ▶ Optional dual Gigabit Ethernet out P2
- ▶ XMC or PrPMC interface
- ▶ Up to two RS-232/RS-422/RS-485 serial P2 ports
- ▶ Linux LSP
- ▶ Wind River VxWorks BSP
- ▶ QNX Neutrino BSP
- ▶ Green Hills INTEGRITY BSP



XPedite5370

The XPedite5370 is a high-performance 3U VPX-REDI single-board computer based on the Freescale MPC8572E PowerQUICC III processor. With dual PowerPC e500 cores running at up to 1.5 GHz, the MPC8572E delivers enhanced performance and efficiency for today's embedded computing applications.

The XPedite5370 supports two separate channels of up to 2 GB each of up to DDR2-800 ECC SDRAM, as well as up to 4 GB of NAND flash and up to 256 MB of NOR flash (with redundancy). The XPedite5370 provides the option of utilizing a PCI Express or Serial RapidIO Fat Pipe P1 interconnect, as well as four SERDES Gigabit Ethernet Thin Pipe P1 fabric interconnects. The XPedite5370 also supports dual Gigabit Ethernet, GPIO, I²C, PMC I/O, XMC I/O, and up to two RS-232/RS-422/RS-485 serial ports through the P2 connector.

The XPedite5370 provides a ruggedized, high-performance, feature-rich solution to support the next generation of rugged embedded applications. A Wind River VxWorks Board Support Package (BSP), QNX Neutrino BSP, Green Hills INTEGRITY BSP, and Linux 2.6 LSP are available.

X-ES

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Extreme Engineering Solutions

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PROCESSOR

- Freescale MPC8572E PowerQUICC III processor
- Dual PowerPC e500 cores at up to 1.5 GHz
- 1 MB of shared L2 cache

MEMORY

- Two channels of up to DDR2-800 ECC SDRAM, up to 4 GB (2 GB each)
- Up to 256 MB of NOR flash (with redundancy)
- Up to 4 GB of NAND flash
- 128 KB of NVSRAM

VPX (VITA 46) P1 I/O

- x4 PCI Express or Serial RapidIO to P1.A
- x4 PCI Express to P1.B
- Four SERDES Gigabit Ethernet ports (two when P2 Gigabit Ethernet ports are active)
- X12d XMC P16 I/O

VPX (VITA 46) P2 I/O

- Two Gigabit Ethernet ports (when only two P1 SERDES Gigabit Ethernet ports are active)
- Up to two RS-232/RS-422/RS-485 serial ports
- I²C port
- 3.3V GPIO signals
- P64s PMC P14 I/O

SOFTWARE SUPPORT

- Linux LSP
- Wind River VxWorks BSP
- QNX Neutrino BSP
- Green Hills INTEGRITY BSP

PHYSICAL CHARACTERISTICS

- 3U VPX-REDI conduction- or air-cooled form factor
- Dimensions: 100 mm x 160 mm
- 0.8-in. pitch without solder side cover
- 0.85 and 1.0-in. pitch with solder side cover

ENVIRONMENTAL REQUIREMENTS

Contact factory for appropriate board configuration based on environmental requirements.

- Air-cooled operating temperature: -40 to 70 °C (ambient, with 200-LFM airflow)
- Conduction-cooled operating temperature: -40 to 85 °C (at thermal interface)
- Humidity: 0% to 95% non-condensing
- Storage temperature: -55 to 105 °C

RUGGEDIZATION

- Air-cooled: VITA 47 Class V1 vibration, Class OS1 shock
- Conduction-cooled: VITA 47 Class V3 vibration, Class OS2 shock

POWER REQUIREMENTS

- Maximum power consumption: 35 W (with 1.5-GHz processor), 27 W (with 1.2-GHz processor)

