XPedite7370

End of Life

Intel® Core™ i7 Processor-Based Conduction- or Air-Cooled 3U VPX-REDI Module

Please contact X-ES Sales

- Intel® Core™ i7-610E, -620LE, -660UE, and -620UE processors
- Dual-core with Hyper-Threading Technology
- 3U VPX (VITA 46) module
- OpenVPX standards-based
- Ruggedized Enhanced Design Implementation (REDI) per VITA 48
- Conduction or air cooling
- Up to 4 GB of DDR3-1066 ECC SDRAM in two channels
- 32 MB of NOR boot flash
- Up to 16 GB of NAND flash
- XMC/PrPMC interface with rear and front panel I/O support
- Two PCI Express P1 fabric interconnects
- Two 10/100/1000BASE-T or 1000BASE-BX Ethernet ports (optional)
- Two rear panel USB 2.0 high-speed ports (optional)
- Two rear panel SATA ports (optional)
- Two rear panel RS-232/422/485 serial ports
- Two rear panel DVI graphics ports
- Wind River VxWorks BSP
- Linux BSP
- Microsoft Windows drivers
- Contact factory for availability of GHS INTEGRITY BSP, QNX Neutrino BSP, and LynuxWorks LynxOS BSP

XPedite7370

The XPedite7370 is a high-performance, low-power, 3U VPX-REDI, single board computer based on the Intel® Core™ i7 processor and Intel® QM57 chipset. With two PCI Express P1 interconnects and two Gigabit Ethernet ports, the XPedite7370 is ideal for the high-bandwidth and processing-intensive applications of today's military and avionics applications.

The XPedite7370 accommodates up to 4 GB of DDR3-1066 ECC SDRAM in two channels to support memory-intensive applications. The XPedite7370 also hosts numerous I/O ports including Gigabit Ethernet, USB 2.0, SATA, graphics, and RS-232/422/485 through the backplane connectors.

The XPedite7370 can be used in either the system slot or peripheral slot of a VPX backplane. Operating system support for Wind River VxWorks, QNX Neutrino, and Linux Board Support Packages (BSPs) is available, as well as Microsoft Windows drivers.

X-ES
Extreme Engineering Solutions

...Always Fast

Extreme Engineering Solutions
9901 Silicon Prairie Parkway • Verona, WI 53593
Phone: 608.833.1155 • Fax: 608.827.6171
sales@xes-inc.com • https://www.xes-inc.com

Processor

- Intel® Core™ i7 processor operating at 2.53, 2.0, 1.33, or 1.06 GHz
- Dual-core with Hyper-Threading Technology
- Intel® QM57 chipset
- Dual-channel integrated memory controller
- Integrated graphics controller
- 4 MB of shared cache

Memory

- Up to 4 GB of DDR3-1066 ECC SDRAM in two channels
- 32 MB of NOR boot flash
- Up to 16 GB of NAND flash

Graphics

- Integrated high-performance 3D graphics controller
- Dual DVI-D

XMC/PrPMC Site

- 32-bit, 33 MHz PCI bus (PMC interface)
- x8 PCIe port (XMC interface)
- X12d P16 I/O support

VPX (VITA 46) P0 I/O

- I²C port

VPX (VITA 46) P1 I/O

- x4 PCI Express interface to P1.A
- x4 PCI Express interface to P1.B
- Two 1000BASE-BX Gigabit Ethernet ports (or one 10/100/1000BASE-T port to P1 and one port to P2)
- X12d XMC P16 I/O

VPX (VITA 46) P2 I/O

- One 10/100/1000BASE-T Ethernet port (optional)
- Two SATA ports capable of 3 Gb/s (optional)
- Two USB 2.0 ports (optional)
- Up to two RS-232/422/485 serial ports
- 3.3 V GPIO signals (optional)
- Two DVI graphics ports (optional)
- One audio port

Software Support

- Wind River VxWorks BSP
- Linux BSP
- Microsoft Windows drivers
- GHS INTEGRITY BSP (contact factory)
- QNX Neutrino BSP (contact factory)
- LynuxWorks LynxOS BSP (contact factory)

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.

- 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