

XPedite7371

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, -620UE, and -660UE 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



XPedite7371

The XPedite7371 is a high-performance, low-power, 3U VPX-REDI, single board computer based on the Intel® Core™ i7 processor. With two PCI Express P1 interconnects and two Gigabit Ethernet ports, the XPedite7371 is ideal for the high-bandwidth and processing-intensive applications of today's military and avionics applications.

The XPedite7371 accommodates up to 4 GB of DDR3 ECC SDRAM in two channels to support memory-intensive applications. The XPedite7371 also hosts numerous I/O ports including Gigabit Ethernet, USB 2.0, SATA, graphics, and RS-232/422/485 through the backplane connectors.

The XPedite7371 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

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Processor

- Intel® Core™ i7 processor operating at 2.53, 2.0, 1.06, or 1.33 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

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)
- Two DVI graphics ports
- One audio port

VPX (VITA 46) P2 I/O

- One 10/100/1000BASE-T Ethernet port (optional)
- Two SATA ports capable of 3.0 Gb/s (optional)
- Two USB 2.0 ports (optional)
- Up to two RS-232/422/485 serial ports
- 3.3 V GPIO signals (optional)
- P64s PMC P14 I/O

XMC/PrPMC Site

- 32-bit, 33 MHz PCI bus (PMC interface)
- x8 PCIe port (XMC interface)
- P64s PMC P14 I/O

Software Support

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

