XPedite7570

End of Life

5th Generation Intel® Core™ i7 Broadwell-H Processor-Based Conduction- or Air-Cooled 3U VPX-REDI Module   Please contact X-ES Sales

- ❱ Supports 5th generation (Broadwell-H) and 4th generation (Haswell) Intel® Core™ i7 processors

- ❱ 3U VPX (VITA 46) module

- ❱ OpenVPX™ standards based

- ❱ Ruggedized Enhanced Design Implementation (REDI) per VITA 48

- ❱ Conduction or air cooling

- ❱ Up to 8 GB of DDR3 ECC SDRAM in two channels

- ❱ Up to 32 GB of NAND flash

- ❱ XMC/PMC interface

- ❱ Two PCI Express Fat Pipe P1 fabric interconnects

- ❱ Four Gigabit Ethernet ports

- ❱ Two USB 2.0 ports

- ❱ Four SATA ports

- ❱ Two HDMI/DVI-D or Dual-Mode DisplayPort interfaces

- ❱ One XMC (P16) SATA port for storage mezzanine

- ❱ Intel® vPro™/AMT support

- ❱ Wind River VxWorks BSP

- ❱ Linux BSP

- ❱ Microsoft Windows drivers

- ❱ Contact factory for availability of Green Hills INTEGRITY, QNX Neutrino, and LynuxWorks LynxOS BSPs

XPedite7570

The XPedite7570 is a high-performance, 3U VPX-REDI, single board computer based on the 5th generation Intel® Core™ i7 Broadwell-H processor. The XPedite7570 maximizes network performance with four Gigabit Ethernet interfaces, configured as two 1000BASE-BX/KX (SerDes) ports and two 10/100/1000BASE-T ports. An integrated PCI Express switch with Non-Transparent Bridging support enables direct communication with other Intel® processors, eliminating the need for a separate switch module within the system and further reducing SWaP-C for the system integrator.

The XPedite7570 provides superior growth and expansion capabilities by including an XMC or PMC site with full 10 mm I/O envelope support, while maintaining a 0.8 in. VPX slot pitch and providing the system integrator with a plethora of COTS options for additional I/O, storage, or processing, all while minimizing total system SWaP-C. Additionally, the XPedite7570 provides significant maintenance and diagnostics advantages by including optimized Two-Level Maintenance (2LM) metalwork and enabling the remote configuration and management capabilities of Intel® vPro™ with Intel® Active Management Technology (Intel® AMT) support. The XPedite7570 leverages Intel® Iris™ Pro graphics for graphics-intensive applications and serves as a general-purpose GPU for demanding data processing applications.

The XPedite7570 accommodates up to 8 GB of DDR3 ECC SDRAM in two channels to support memory-intensive applications. The XPedite7570 also hosts numerous I/O ports, including PCI Express, Gigabit Ethernet, USB, SATA, graphics, and RS-232/422/485 through the backplane connectors. Wind River VxWorks and Linux Board Support Packages (BSPs) are available, as well as Microsoft Windows drivers.

X-ES
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...Always Fast

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Processor

- 5th generation Intel® Core™ i7 (Broadwell-H)
- 4th generation Intel® Core™ i7 (Haswell)
- Integrated high-performance 3D graphics controller
- Up to Intel® Iris™ Pro Graphics 6200

Memory

- Up to 8 GB of DDR3 ECC SDRAM in two channels
- Up to 32 GB of NAND flash
- 64 MB NOR boot flash
- 64 kB EEPROM

XMC/PrPMC Site

- 32-bit, 33/66 MHz PCI bus (PMC interface)
- x8 PCI Express Gen3-capable port (XMC interface)
- One SATA port capable of 6 Gb/s (XMC interface)

VPX (VITA 46) P0 I/O

- I²C port

VPX (VITA 46) P1 I/O

- x4 PCI Express Fat Pipe interface to P1.A
- x4 PCI Express Fat Pipe interface to P1.B
- Two 1000BASE-BX Gigabit Ethernet ports
- XMC P16 I/O, mapping P1w9-X12d per VITA 46.9

VPX (VITA 46) P2 I/O

- Two 10/100/1000BASE-T Gigabit Ethernet ports
- Four SATA ports capable of 6 Gb/s
- Two USB 2.0 ports
- Two HDMI/DVI-D or Dual-Mode DisplayPort interfaces
- Up to two RS-232/422/485 serial ports
- 3.3 V GPIO signals

Additional Features

- Non-volatile memory write protection
- Optional Trusted Platform Module (TPM)
- IEEE 1588 support on three Gigabit Ethernet ports
- Intel® Active Management Technology (AMT) supported by Intel® vPro™ Technology

Software Support

- Wind River VxWorks BSP
- Linux BSP
- Microsoft Windows drivers
- Contact factory for availability of Green Hills INTEGRITY, QNX Neutrino, and LynuxWorks LynxOS BSPs

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 in. and 1.0 in. pitch with solder-side cover
- Optional Two-Level Maintenance (2LM) metalwork (1.0 in. pitch)

Environmental Requirements

Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 5
- Conformal coating available as an ordering option
- Thermal performance will vary based on CPU frequency and application
- Contact X-ES for air-cooled development options

Power Requirements

- Power will vary based on configuration and usage. Please consult factory.

Ruggedization Level	Level 5
Cooling Method	Conduction-Cooled
Operating Temperature	-40 to +85°C (board rail surface)
Storage Temperature	-55 to +105°C (maximum)
Vibration	0.1 g²/Hz (maximum), 5 to 2000 Hz
Shock	40 g, 11 ms sawtooth
Humidity	Up to 95% non-condensing

bsi. ISO 9001 Quality Management