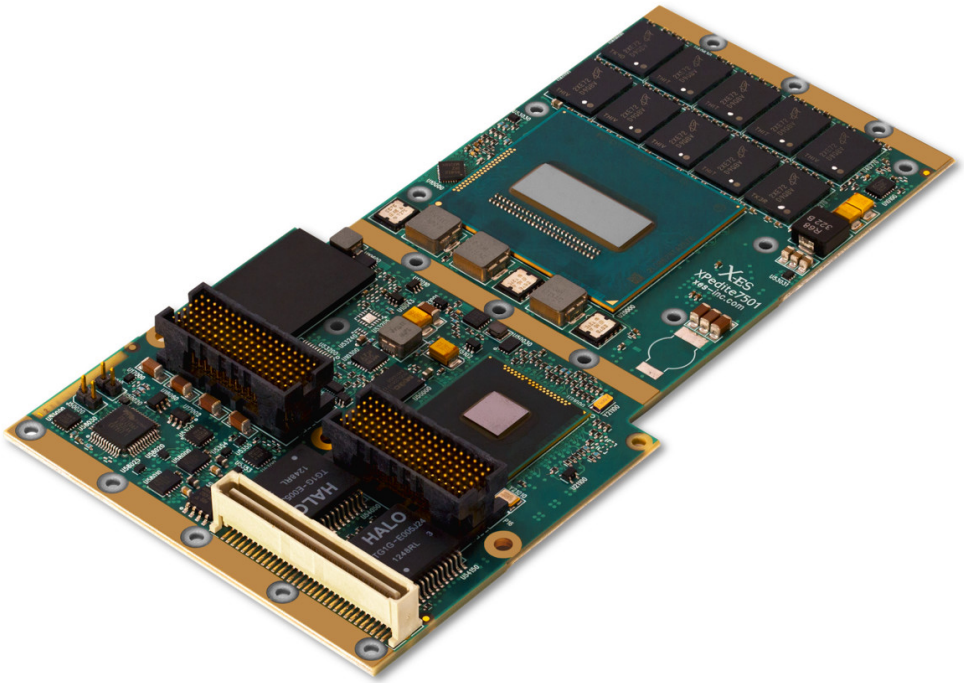
XPedite7501

End Of Life

5th Generation Intel® Core™ i7 Broadwell-H Processor-Based Conduction- or Air-Cooled XMC Module

Please contact X-ES Sales

- Supports 5th generation (Broadwell-H) and 4th generation (Haswell) Intel® Core™ i7 processors
- XMC (VITA 42) module
- Conduction or air cooling
- Up to 8 GB of DDR3 ECC SDRAM in two channels
- Up to 32 GB of NAND flash
- Two x4 or one x8 PCI Express Gen3-capable P15 XMC interface
- One x4 PCI Express P16 XMC interface
- Two Gigabit Ethernet ports
- Four USB 2.0 ports
- Two SATA ports
- Two RS-232/422/485 serial ports
- HDMI/DVI-D or Dual-Mode DisplayPort interface
- 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



XPedite7501

The XPedite7501 is a high-performance, low-power, XMC module based on the 5th generation Intel® Core™ i7 Broadwell-H processor. With up to three PCI Express Gen3-capable ports and two Gigabit Ethernet ports, the XPedite7501 is ideal for high-bandwidth data processing applications. Floating-Point-intensive applications such as radar, image processing, and signals intelligence will benefit from the performance boost provided by the Intel® Advanced Vector Extensions 2.0 (Intel® AVX2).

The XPedite7501 accommodates up to 8 GB of DDR3 ECC SDRAM in two channels to support memory-intensive applications and hosts numerous I/O ports, including Gigabit Ethernet, USB, SATA, graphics, and RS-232/422/485. The XPedite7501 leverages Intel® Iris™ Pro graphics for graphics-intensive applications and serves as a general-purpose GPU for demanding data processing applications.

Wind River VxWorks and Linux Board Support Packages (BSPs) are available, as well as Microsoft Windows drivers.

X-ES
Extreme Engineering Solutions

...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

P14 PMC Interface

- Two USB 2.0 ports
- Two RS-232/422/485 ports
- Two 10/100/1000BASE-T Ethernet ports
- Four 3.3 V GPIO signals

P15 XMC Interface

- One x8 or two x4 PCI Express Gen3-capable links
- Four 3.3 V GPIO signals

P16 XMC Interface

- HDMI/DVI-D or Dual-Mode DisplayPort
- Two USB 2.0 ports
- Two SATA ports capable of 6 Gb/s
- One x4 PCI Express Gen3-capable link

Additional Features

- Non-volatile memory write protection
- Optional Trusted Platform Module (TPM)
- IEEE 1588 support on one Gigabit Ethernet port
- 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

- XMC form factor
- Dimensions: 149 mm x 74 mm, 10 mm stacking height

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
- Thermal performance will vary based on CPU frequency and application

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 †	-40 to +70°C ambient †	-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	Up to 95% non-condensing	Up to 95% non-condensing	Up to 95% non-condensing

† Contact factory for airflow rate details.