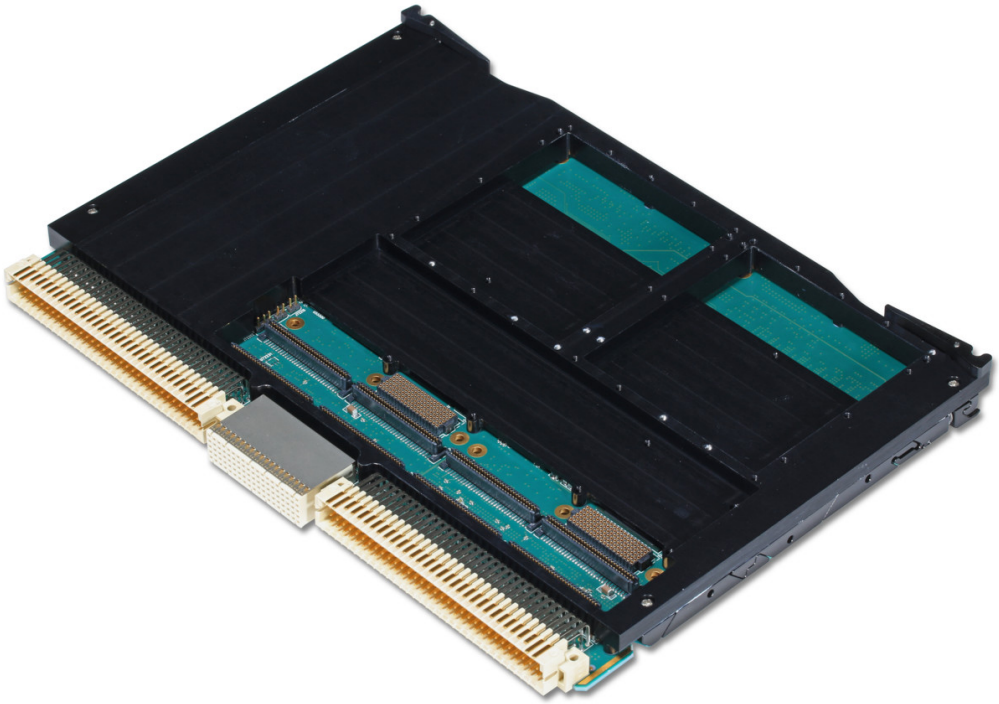
XCalibur4730

Intel® Xeon® D-1700 Processor-Based 6U VME Module with 48 GB of DDR4 and SecureCOTS™

- Supports Intel® Xeon® D-1700 series (formerly Ice Lake-D) processors
- Up to 10 Xeon®-class cores in a single, power-efficient SoC package
- SKUs available with native extended temperature support
- Designed with SecureCOTS™ technology to support enhanced security and trusted computing
- Microsemi® PolarFire™ FPGA with 128 MB SPI flash
- 6U VME module
- 48 GB of DDR4 ECC SDRAM in three channels
- 32 GB of SLC NAND flash
- Two XMC/PMC interfaces
- Three 10/100/1000BASE-T Ethernet ports
- Two USB 2.0 ports
- Two RS-232/422/485 serial ports
- Contact factory for SATA availability
- Wind River VxWorks BSP
- X-ES Enterprise Linux (XEL) BSP
- Contact factory for availability of Green Hills INTEGRITY, QNX Neutrino, and LynuxWorks LynxOS BSPs, as well as Microsoft Windows drivers



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The XCalibur4730 is a secure, high-performance, 6U VME, single board computer based on the Intel® Xeon® D-1700 series (formerly Ice Lake-D) of processors. The XCalibur4730 is an optimal choice for computationally heavy applications requiring maximum data protection.

The XCalibur4730 integrates SecureCOTS™ technology with a Microsemi® PolarFire™ FPGA for hosting custom functions to protect data from being modified or observed and provides an ideal solution when stringent security capabilities are required.

In addition to providing three 10/100/1000BASE-T Ethernet ports, the XCalibur4730 accommodates up to 48 GB of DDR4 ECC SDRAM in three channels and up to 32 GB of onboard SLC NAND flash. The XCalibur4730 provides additional expansion capabilities by including two integrated XMC/PMC sites. These sites each include a x8 PCIe connection to the Intel® Xeon® D processor. Each mezzanine site offers a single PMC connector, providing an I/O connection to the VME backplane connectors in addition to the USB and RS-232/422/485 ports.

Wind River VxWorks and X-ES Enterprise Linux (XEL) Board Support Packages (BSPs) are available.

X-ES
Extreme Engineering Solutions

"Fast, Flexible, Customer-Focused Embedded Solutions"

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® Xeon® D-1700 series (formerly Ice Lake-D) processor
- Up to 10 Xeon®-class cores in a single, power-efficient SoC package
- SKUs available with native extended temperature support

Memory

- 48 GB of DDR4 ECC SDRAM in three channels
- 32 GB of SLC NAND flash
- 64 MB NOR boot flash
- 64 kB EEPROM

Security and Management

- Microsemi® PolarFire™ FPGA with 128 MB SPI flash
- Designed with SecureCOTS™ technology to support enhanced security and trusted computing
- System voltage monitor, power-on/reset control, non-volatile write-protection control
- Trusted Platform Module (TPM)

VME

- VME64 (VITA 1-1994 R2002)
- VME64x (VITA 1.1-1997 R2003)
- 2eSST (VITA 1.5-2003)
- Ethernet on VME64x (VITA 31.1-2003)
- PMC I/O on VME (VITA 35-2000)

XMC

- x8 PCI Express Gen3-capable interface to J15 and J25

Rear Panel I/O

- Three 10/100/1000BASE-T Ethernet ports
- Two USB 2.0 ports
- Two RS-232/422/485 serial ports
- PMC I/O

Software Support

- UEFI firmware
- Wind River VxWorks BSP
- X-ES Enterprise Linux (XEL) BSP
- Contact factory for availability of Green Hills INTEGRITY, QNX Neutrino, and LynuxWorks LynxOS BSPs, as well as Microsoft Windows drivers

Physical Characteristics

- Contact factory for details

Environmental Requirements

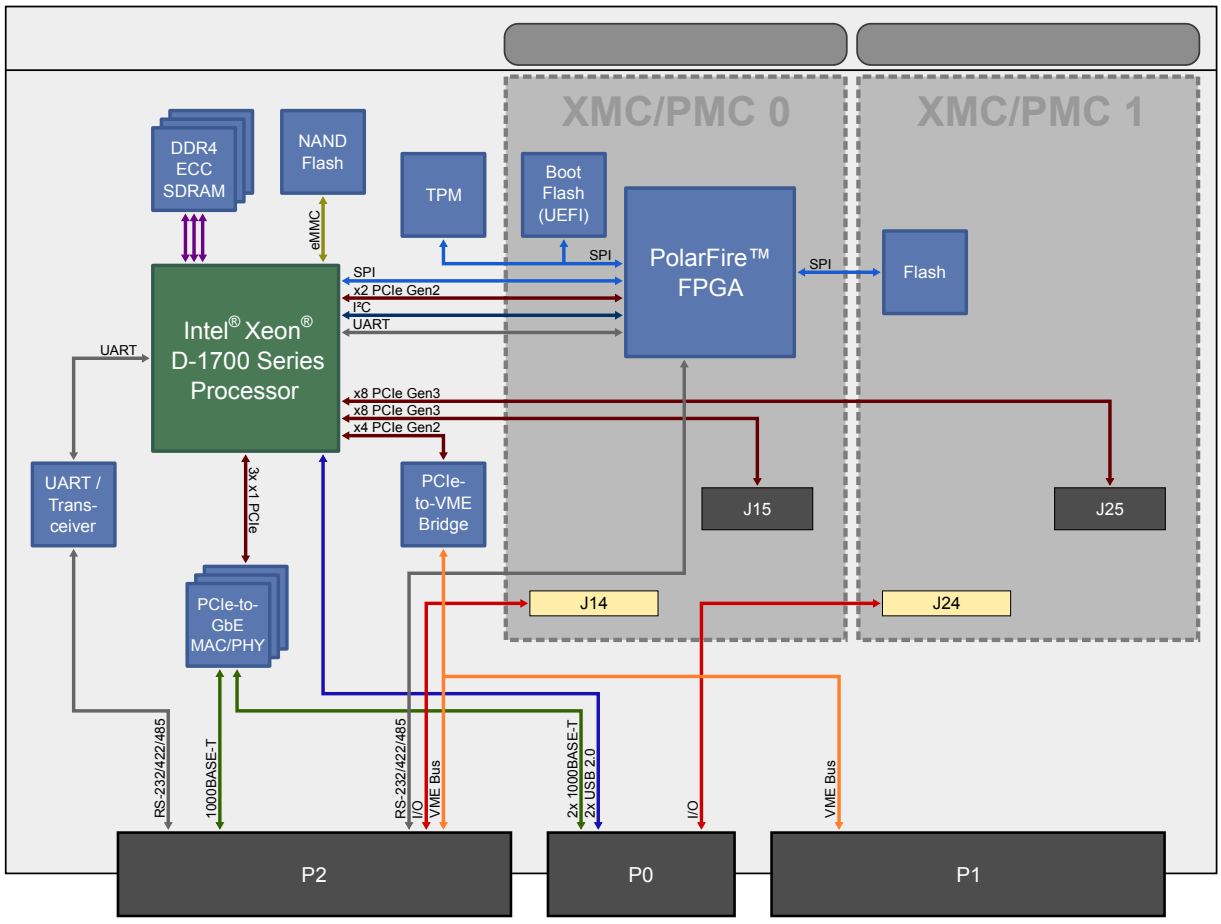
Contact factory for appropriate board configuration based on environmental requirements

- Supported ruggedization levels (see chart below): 5
- Conformal coating available as an ordering option
- Thermal performance will vary based on CPU frequency and application

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



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