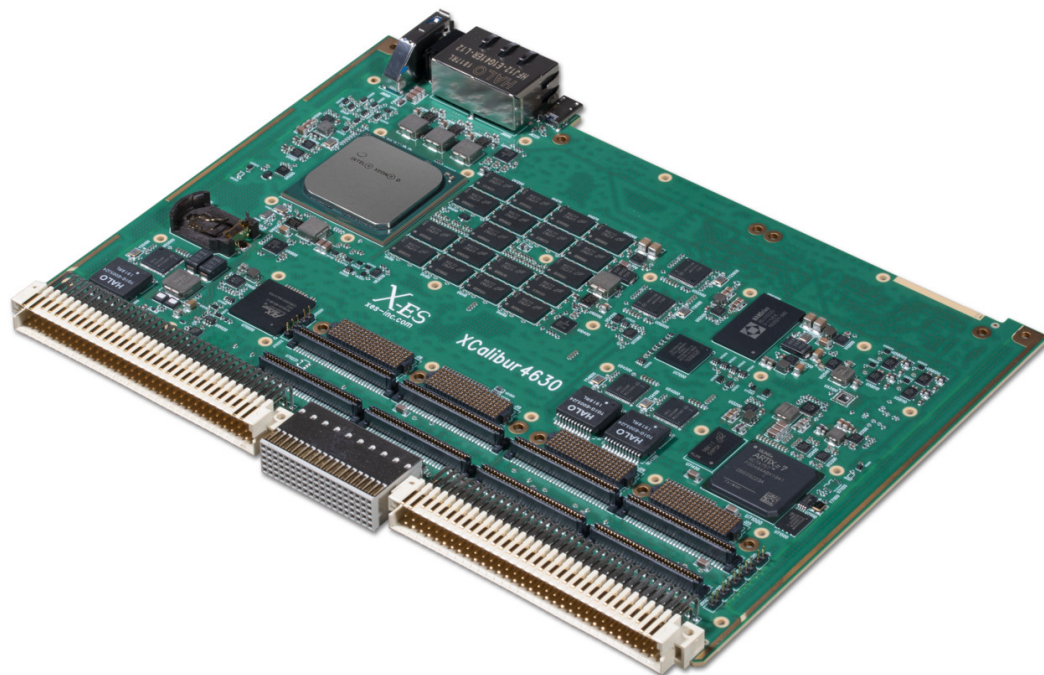


XCalibur4630

Intel® Xeon® D-1500 Family Processor-Based Conduction- or Air-Cooled 6U VME Module

- ▶ Supports Intel® Xeon® D-1500 family processors (formerly Broadwell-DE)
- ▶ 6U VME module
- ▶ Conduction or air cooling
- ▶ Up to 16 Xeon®-class cores in a single, power-efficient SoC package
- ▶ 4, 8, or 12 core SKUs available with native extended temperature support
- ▶ Up to 32 GB of DDR4 ECC SDRAM in two channels
- ▶ Up to 64 GB of NAND flash
- ▶ Up to five Gigabit Ethernet ports
- ▶ Two XMC/PMC interfaces
- ▶ One USB 3.0 port and up to three USB 2.0 ports
- ▶ Three SATA ports
- ▶ Four RS-232/422/485 serial ports
- ▶ Wind River VxWorks BSP
- ▶ X-ES Enterprise Linux (XEL) BSP
- ▶ Contact factory for availability of Green Hills INTEGRITY, QNX Neutrino, and LynuxWorks BSPs, as well as Microsoft Windows drivers



XCalibur4630

The XCalibur4630 is a high-performance 6U VME single board computer that is ideal for ruggedized systems requiring high-bandwidth processing and low power consumption. With the Intel® Xeon® D-1500 family of processors, the XCalibur4630 delivers enhanced performance and efficiency for today's network information processing and embedded computing applications.

The XCalibur4630 provides up to 32 GB DDR4 ECC SDRAM in two separate channels, two XMC/PrPMC slots, and up to 64 GB of NAND flash. The XCalibur4630 also hosts numerous I/O ports, including Gigabit Ethernet, USB 2.0 and USB 3.0, SATA, mezzanine I/O, and RS-232/422/485 through the backplane connectors and Gigabit Ethernet and USB 2.0 or 3.0 to an optional front panel.

The XCalibur4630 is a powerful, feature-rich solution for the next generation of compute-intensive embedded applications. Wind River VxWorks and X-ES Enterprise Linux Board Support Packages (BSPs) are available.

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® Xeon® D-1500 family processors (formerly Broadwell-DE)
- Up to 16 Xeon®-class cores in a single, power-efficient SoC package
- 4, 8, or 12 core SKUs available with native extended temperature support

Memory

- Up to 32 GB of DDR4 ECC SDRAM in two channels
- Up to 64 GB of NAND flash
- 32 MB NOR boot flash
- 64 kB EEPROM

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/PrPMC

- PCI-X (64/32-bit, 100/66 MHz)
- PCI (64/32-bit, 66/33 MHz)
- x8 PCI Express Gen3-capable port
- One SATA port capable of 6 Gb/s to J16
- One SATA port capable of 6 Gb/s to J26

Front Panel I/O (Optional)

- Two 10/100/1000BASE-T Ethernet ports
- One USB 3.0 port
- One USB 2.0 port for USB-to-UART
- General-purpose LEDs

Rear Panel I/O

- Three 10/100/1000BASE-T Ethernet ports
- One SATA port capable of 3 Gb/s
- Two USB 2.0 ports
- Four RS-232/422/485 serial ports
- PMC I/O

Additional Features

- Non-volatile memory write protection
- Optional Trusted Platform Module (TPM)
- Optional VITA 38-2003 IPMI Controller (IPMC)
- IEEE 1588 support on five Gigabit Ethernet ports

Physical Characteristics

- 6U VME conduction- or air-cooled form factor
- Dimensions: 233 mm x 160 mm

Software Support

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

Environmental Requirements

Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 1, 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 5
Cooling Method	Standard Air-Cooled	Conduction-Cooled
Operating Temperature	0 to +55°C ambient †	-40 to +85°C (board rail surface)
Storage Temperature	-40 to +85°C ambient	-55 to +105°C (maximum)
Vibration	0.002 g ² /Hz (maximum), 5 to 2000 Hz	0.1 g ² /Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth	40 g, 11 ms sawtooth
Humidity	Up to 95% non-condensing	Up to 95% non-condensing

† Contact factory for airflow rate details.

