

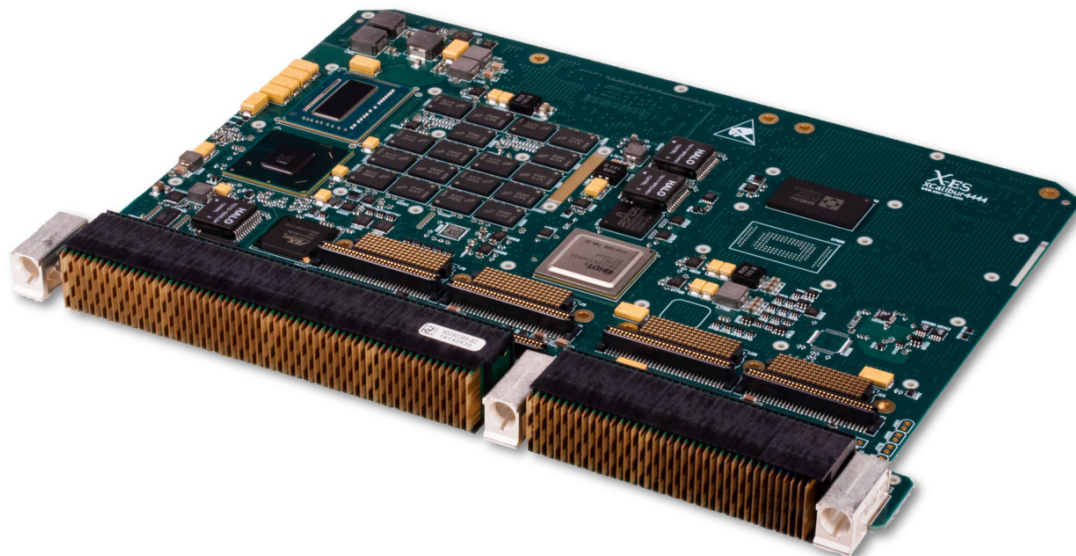
XCalibur4444

End of Life

Intel® Core™ i7 Processor-Based Conduction-Cooled 6U VPX Module

Please contact X-ES Sales

- ▶ Supports 3rd generation Intel® Core™ i7 processors
- ▶ Quad- or dual-core processor with Intel® Hyper-Threading Technology
- ▶ 6U VPX module
- ▶ VITA 46.11 Tier 1 and Tier 2 IPMI Controller (IPMC)
- ▶ Compatible with multiple VITA 65 OpenVPX™ slot profiles
- ▶ Conduction-cooled
- ▶ Up to 16 GB of DDR3 ECC SDRAM in two channels
- ▶ 32 MB of NOR boot flash
- ▶ Up to 64 GB of SATA NAND flash over two drives
- ▶ Four Gigabit Ethernet ports
- ▶ x4 PCI Express Gen2 lanes from switch to XMC sites
- ▶ Four x4 (or two x8) PCI Express Gen2 lanes from switch to backplane
- ▶ One DVI-D/HDMI graphics port
- ▶ Four SATA ports on backplane
- ▶ Four USB 2.0 ports on backplane
- ▶ Two RS-232/422/485 serial ports
- ▶ Wind River VxWorks BSP
- ▶ Linux BSP
- ▶ Microsoft Windows drivers
- ▶ Contact factory for availability of Green Hills INTEGRITY, QNX Neutrino, and LynuxWorks LynxOS BSPs



XCalibur4444

The XCalibur4444 is a high-performance, multiprocessing, 6U VPX, single board computer that is ideal for ruggedized systems requiring high-bandwidth processing and low power consumption. Using the 3rd generation Intel® Core™ i7 processor, the XCalibur4444 delivers enhanced performance and efficiency for today's network information processing and embedded computing applications.

The XCalibur4444 provides 16 GB of DDR3 ECC SDRAM in two channels, two XMC slots, 32 MB of NOR flash, and up to 64 GB of SATA NAND flash over two drives. The XCalibur4444 also supports four Gigabit Ethernet ports, a DVI-D/HDMI graphics port, audio, I²C, XMC I/O, and RS-232/422/485 serial ports out the backplane.

The XCalibur4444 is a conduction-cooled design compliant with the Two-Level Maintenance (2LM) standard defined in VITA 48.2 Type 1. The XCalibur4444 is a powerful, feature-rich solution for the next generation of compute-intensive embedded 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

Extreme Engineering Solutions

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Processor

- Quad- or dual-core Intel® Core™ i7
- Intel® Turbo Boost Technology
- Intel® Hyper-Threading Technology
- AVX instruction set extensions
- Integrated with Intel® QM67 chipset
- Dual-channel integrated memory controller
- Integrated high-performance 3D graphics controller

Quad-Core Processor Configurations

- Core™ i7-3612QE: 2.1 GHz, 6 MB cache
- Core™ i7-3615QE: 2.3 GHz, 6 MB cache

Dual-Core Processor Configurations

- Core™ i7-3555LE: 2.5 GHz, 4 MB cache
- Core™ i7-3517UE: 1.7 GHz, 4 MB cache

Memory

- Up to 16 GB of DDR3 ECC SDRAM in two channels
- 32 MB of NOR flash
- Up to 64 GB of SATA NAND flash over two drives
- 16 kB I²C EEPROM

XMC

- x4 PCI Express Gen2 interfaces to J15 and J25

Graphics

- Integrated high-performance 3D graphics controller
- DVI-D/HDMI to back panel

VPX

- VITA 46.11 (System Management on VPX)
- Compliant to the VITA 48.2 Type 1, Two-Level Maintenance (2LM) standard
- OpenVPX™ (VITA 65)
- Four x4 PCI Express Gen2 lanes to P1
- Two 1000BASE-BX Ethernet ports to P4
- Two 10/100/1000BASE-T Ethernet ports to P4
- XMC I/O to P3, P4, P5, P6, mapping X38s+X12d+X8d

Back Panel

- Two RS-232/422/485 serial ports
- Two 10/100/1000BASE-T Ethernet ports
- Two 1000BASE-BX Ethernet ports
- Four SATA ports capable of 3 Gb/s
- XMC I/O
- Four USB 2.0 ports
- One DVI-D/HDMI graphics port
- Four x4 PCI Express Gen2 lanes to P1
- Intel® High Definition Audio port (optional)

Security and Management

- Baseboard Management Controller (IPMI)
- VITA 46.11 Tier 1 and Tier 2 IPMI Controller (IPMC)
- Trusted Platform Module (TPM) (optional)
- Non-volatile memory write protection

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

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

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 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

† Contact factory for airflow rate details.

