

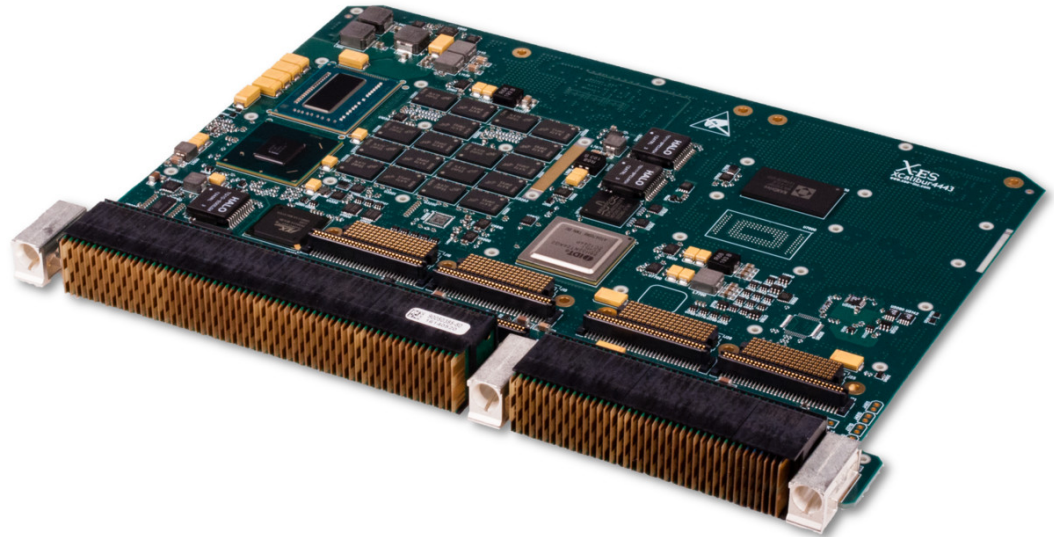
XCalibur4443

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 interfaces from switch to XMC sites
- › Four x4 (or two x8) PCI Express Gen2 interfaces from switch to backplane
- › One DVI-D/HDMI graphics port on backplane
- › 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



XCalibur4443

The XCalibur4443 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 XCalibur4443 delivers enhanced performance and efficiency for today's network information processing and embedded computing applications.

The XCalibur4443 provides 16 GB of DDR3 ECC SDRAM in two channels, two XMC/PrPMC slots, 32 MB of NOR flash, and up to 64 GB of SATA NAND flash over two drives. The XCalibur4443 also supports four Gigabit Ethernet ports, a DVI-D/HDMI graphics port, audio, I²C, XMC and PMC I/O, and RS-232/422/485 serial ports out the backplane.

The XCalibur4443 is a conduction-cooled design compliant with the Two-Level Maintenance (2LM) standard defined in VITA 48.2 Type 1. The XCalibur4443 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

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 interfaces to P1
- Two 1000BASE-BX Ethernet ports to P4
- Two 10/100/1000BASE-T Ethernet ports to P4
- XMC and PMC I/O to P3, P4, P5, P6, mapping P3w1P4-P64s+X12d+X8d

PrPMC

- PCI-X (64/32-bit, 100/66 MHz)
- PCI (64/32-bit, 66/33 MHz)

XMC

- x4 PCI Express Gen2 interfaces to J15 and J25

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 and PMC I/O
- Four USB 2.0 ports
- One DVI-D/HDMI graphics port
- 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.

