

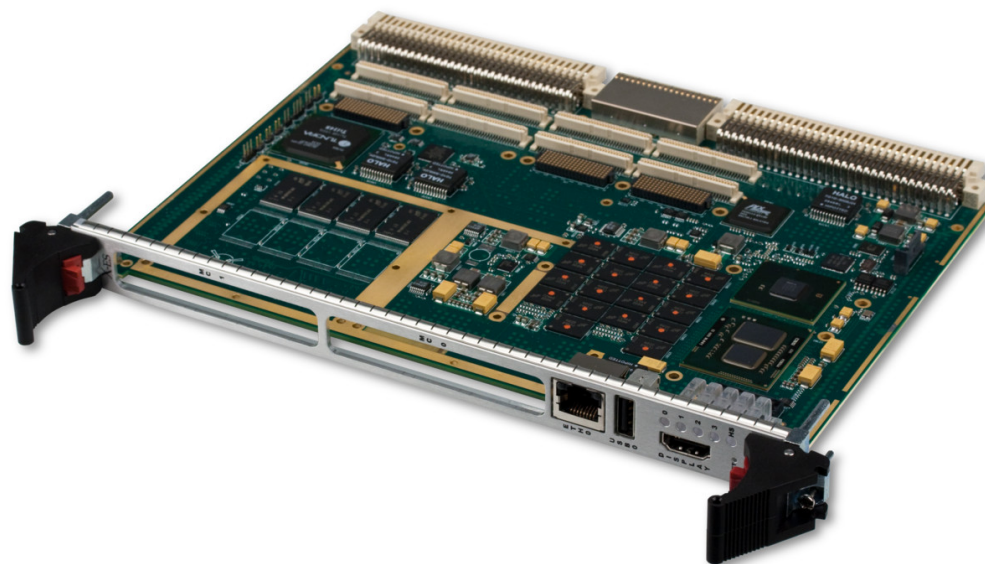
XCalibur4331

End of Life

Intel® Core™ i7 Processor-Based Conduction- or Air-Cooled 6U VME Module

Please contact X-ES Sales

- ▶ Intel® Core™ i7-610E, -620LE, -620UE, and -660UE processors
- ▶ Dual-core with Hyper-Threading Technology
- ▶ 6U VME module
- ▶ Conduction or air cooling
- ▶ Up to 8 GB of DDR3-1066 ECC SDRAM in two channels
- ▶ 32 MB of NOR boot flash
- ▶ Up to 128 GB of NAND flash
- ▶ Four Gigabit Ethernet ports
- ▶ Two x8 Gen2 at 2.5 GT/s PCI Express lanes from CPU to XMC sites
- ▶ Two DVI graphics ports
- ▶ Three USB 2.0 ports (one front panel and two backplane)
- ▶ Two RS-232/422/485 serial ports
- ▶ Two XMC/PrPMC interfaces
- ▶ Wind River VxWorks BSP
- ▶ Linux BSP
- ▶ Microsoft Windows drivers
- ▶ Contact factory for availability of GHS INTEGRITY BSP, QNX Neutrino BSP, and LynxWorks LynxOS BSP



XCalibur4331

The XCalibur4331 is a high-performance, 6U VME, multiprocessing, single board computer that is ideal for ruggedized systems requiring high-bandwidth processing and low power consumption. With the Intel® Core™ i7 processor, the XCalibur4331 delivers enhanced performance and efficiency for today's network information processing and embedded computing applications.

The XCalibur4331 provides up to 8 GB of DDR3-1066 ECC SDRAM in two channels, two XMC/PrPMC slots, 32 MB of NOR flash, and up to 128 GB of NAND flash. The XCalibur4331 also supports four Gigabit Ethernet ports, two DVI graphics ports, I²C, XMC I/O, PMC I/O, and RS-232/422/485 serial ports out the front/back panel.

The XCalibur4331 is a powerful, feature-rich solution for the next generation of compute-intensive embedded applications. Operating system support for Wind River VxWorks, QNX Neutrino, Linux Board Support Packages (BSPs) is available, as well as Microsoft Windows drivers.

X-ES

Extreme Engineering Solutions

...Always Fast

Extreme Engineering Solutions

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Processor

- Intel® Core™ i7 processor operating at 2.53, 2.0, 1.06, or 1.33 GHz
- Dual-core with Hyper-Threading Technology
- Intel® QM57 chipset
- Dual-channel integrated memory controller
- Integrated graphics controller
- 4 MB of shared cache

Memory

- Up to 8 GB of DDR3-1066 ECC SDRAM in two channels
- 32 MB of NOR flash
- Up to 128 GB of NAND flash
- 16 kB I²C 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)

Graphics

- Integrated high-performance 3D graphics controller
- DVI-D routed to P0 on PMC 1 I/O pins (optional)

PrPMC

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

XMC

- x8 Gen2 at 2.5 GT/s PCI Express port to J15 and J25

Front Panel I/O (Optional)

- One HDMI video interface
- One 10/100/1000BASE-T Ethernet port
- One USB 2.0 port
- General-purpose LEDs

Back Panel

- Two RS-232/422/485 serial ports
- Three 10/100/1000BASE-T Ethernet ports
- Four SATA ports capable of 3.0 Gb/s
- PMC I/O
- Two USB 2.0 ports

Software Support

- Wind River VxWorks BSP
- Linux BSP
- Microsoft Windows drivers
- GHS INTEGRITY BSP (contact factory)
- QNX Neutrino BSP (contact factory)
- LinuxWorks LynxOS BSP (contact factory)

Environmental Requirements

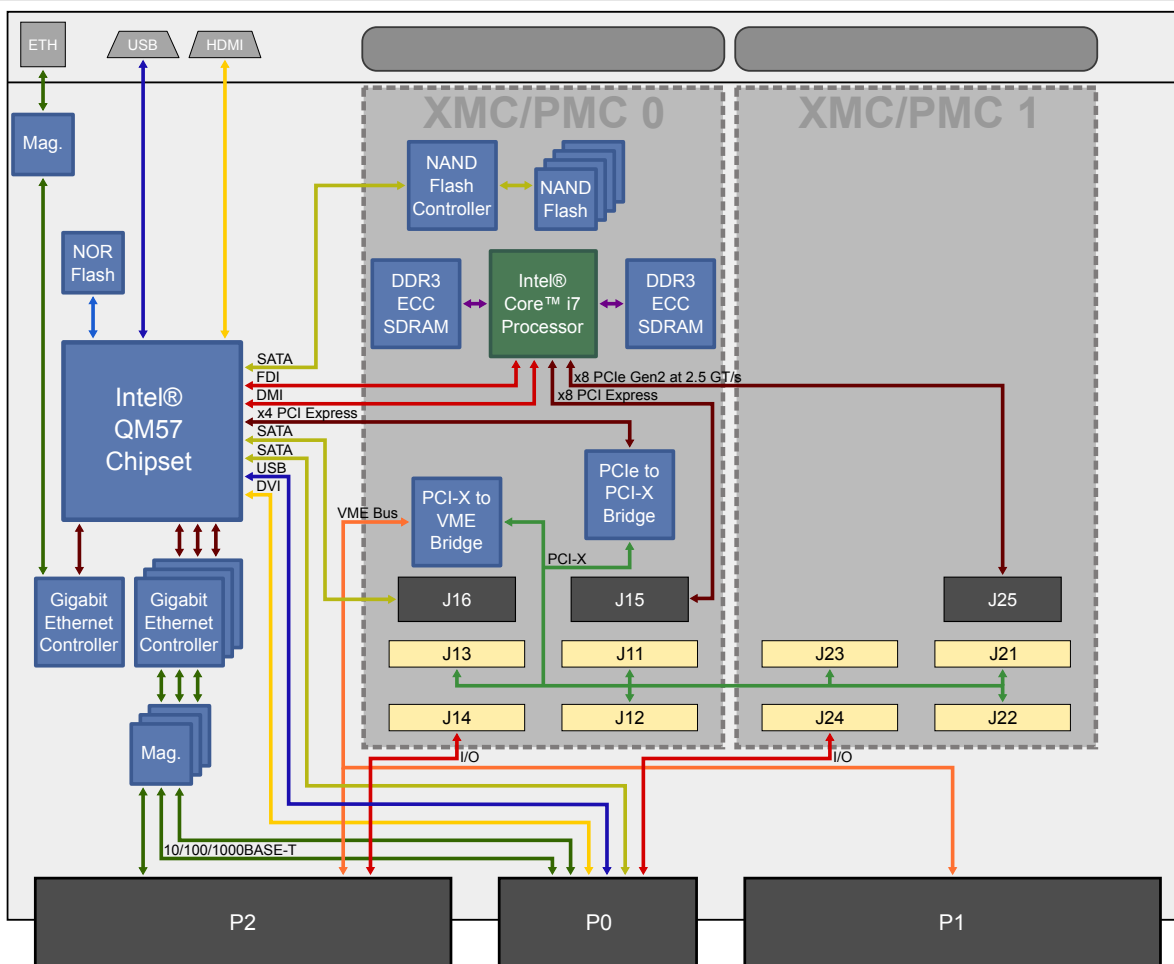
Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 1, 3, 5
- Conformal coating available as an ordering option

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 (300 LFM)	-40 to +70°C (600 LFM)	-40 to +85°C (board rail surface)
Storage Temperature	-40 to +85°C ambient	-55 to +105°C ambient	-55 to +105°C ambient
Vibration	0.002 g ² /Hz, 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



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