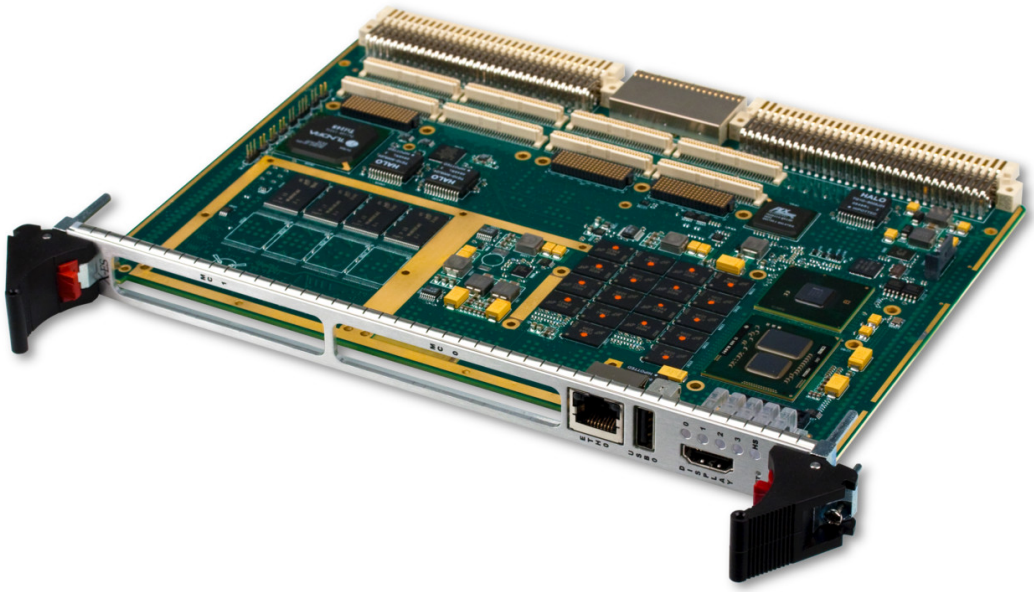
# XCalibur4331

**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 LynuxWorks 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*

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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)
- LynuxWorks LynxOS BSP (contact factory)

## Environmental Requirements

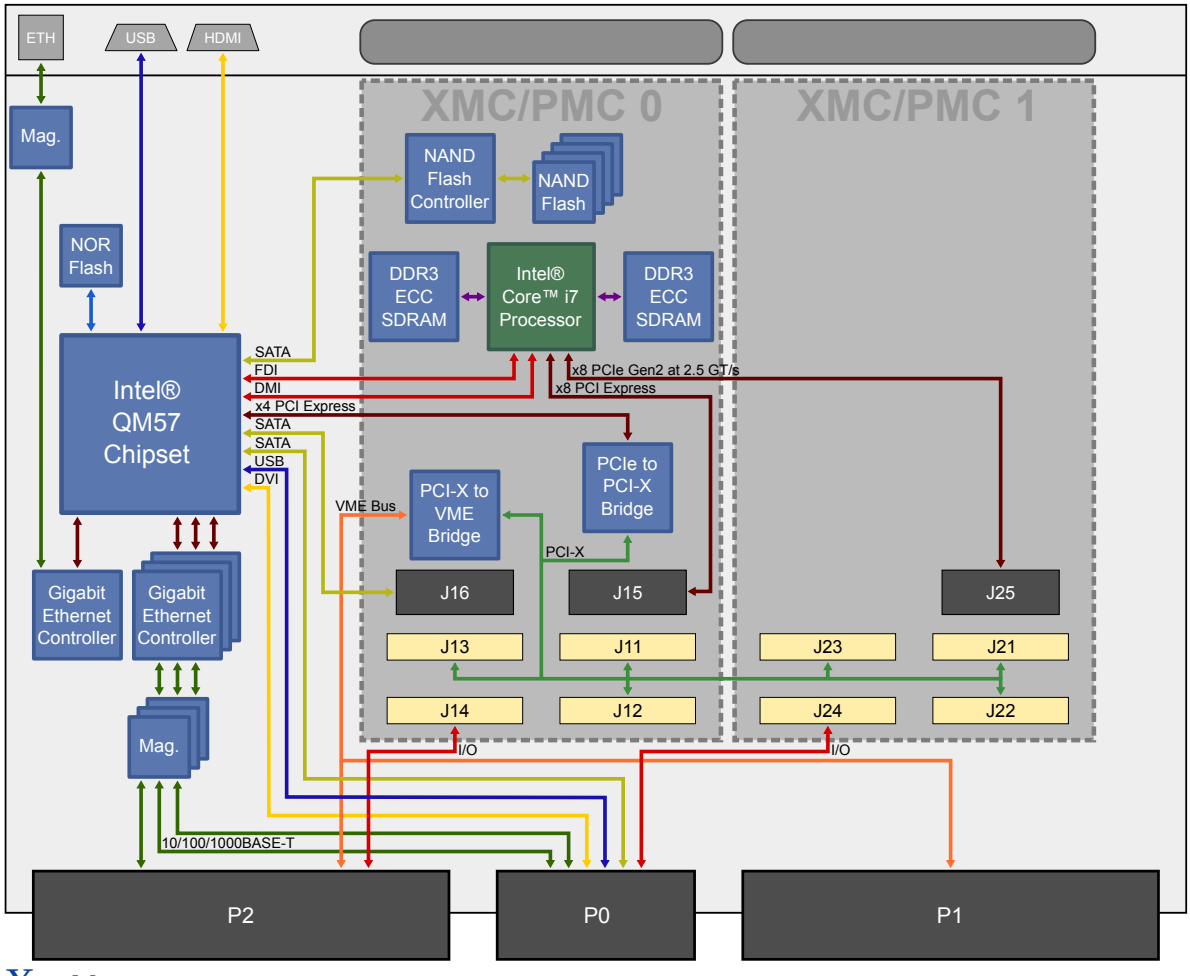
Contact factory for appropriate board configuration based on environmental requirements.

- 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 (maximum) |
| **Vibration** | 0.002 g²/Hz (maximum), 5 to 2000 Hz | 0.04 g²/Hz (maximum), 5 to 2000 Hz | 0.1 g²/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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