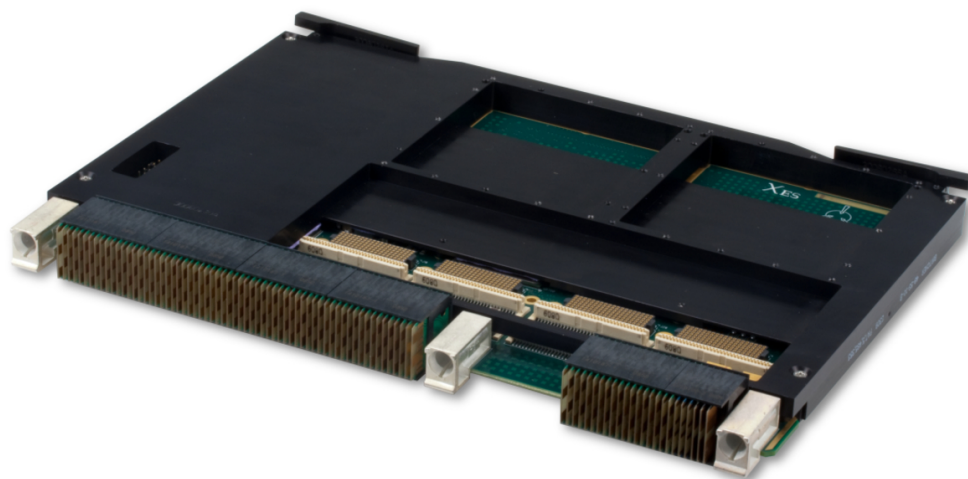


XCalibur4341

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

- ▶ Intel Core i7-610E, -620LE, and -620UE processors
- ▶ Dual-core with hyper-threading technology
- ▶ VPX 6U module
- ▶ OpenVPX standards based
- ▶ Conduction or air cooling
- ▶ Two channels of up to 16 GB (8 GB each) DDR3-1066 ECC SDRAM
- ▶ 32 MB NOR boot flash
- ▶ Up to 128 GB of NAND flash
- ▶ Five Gigabit Ethernet ports
- ▶ x8 Gen2 PCI Express lanes from switch to CPU and XMC sites
- ▶ Four x4 Gen2 PCI Express lanes from switch to backplane
- ▶ Two DVI graphics ports
- ▶ Audio line in/out port
- ▶ Four SATA 3.0 ports on backplane
- ▶ Three USB 2.0 ports (one to front panel and two to backplane)
- ▶ Two RS-232/RS-422/RS-485 serial ports
- ▶ Two PrPMC/PrXMC interfaces
- ▶ Linux BSP
- ▶ Wind River VxWorks BSP
- ▶ QNX Neutrino BSP
- ▶ Green Hills INTEGRITY BSP
- ▶ Windows drivers



XCalibur4341

The XCalibur4341 is a high-performance 6U VPX single board, multiprocessing computer that is ideal for ruggedized systems requiring high bandwidth processing and low power consumption. With the Intel Core i7 processor and Intel QM57 chipset, the XCalibur4341 delivers enhanced performance and efficiency for today's network information processing and embedded computing applications.

The XCalibur4341 provides two separate channels of up to 16 GB (8 GB each) DDR3-1066 ECC SDRAM, two PrPMC/PrXMC slots, 32 MB of NOR flash and up to 128 GB of NAND flash. The XCalibur4341 also supports five Gigabit Ethernet ports, two DVI graphics ports, audio, I²C, PMC I/O, XMC I/O, and RS-232/RS-422/RS-485 serial ports out the front panel and/or backplane connector.

The XCalibur4341 is a powerful, feature-rich solution for the next generation of compute intensive embedded applications. Operating system support for Wind River VxWorks, Windows, QNX Neutrino, and Linux is available.

X-ES

Extreme Engineering Solutions

...Always Fast

Extreme Engineering Solutions

3225 Deming Way, Suite 120 • Middleton, WI 53562
 Phone: 608.833.1155 • Fax: 608.827.6171
 sales@xes-inc.com • <http://www.xes-inc.com>

Processor

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

Memory

- Two channels of DDR3-1066 ECC SDRAM, up to 16 GB (8 GB each)
- 32 MB of NOR flash
- Up to 128 GB of NAND flash
- 16 kB I²C EEPROM

Graphics

- Integrated high performance 3D graphics controller
- Dual DVI-D (one to front panel, one to P6)

VPX

- VITA 46.0
- VITA 46.4 (Four x4 Gen2 PCIe lanes to P1)
- VITA 46.7 (Four 1000BASE-BX Ethernet ports to P4)
- VITA 46.9 (PMC and XMC 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

- x8 Gen2 PCIe port to P15 and P25
- One SATA port to P26

Front Panel I/O (Optional)

- HDMI video
- One 10/100/1000BASE-T Ethernet port
- USB 2.0
- General purpose LEDs
- I/O routed to optional XMC slot adapter for development

Back Panel

- Two RS-232/RS-485 serial ports
- Two 10/100/1000BASE-T Ethernet ports
- Two 1000BASE-BX Ethernet ports
- Four SATA ports
- PMC I/O
- Four USB 2.0 ports
- Audio line in/out port

Software Support

- Linux BSP
- Wind River VxWorks BSP
- QNX Neutrino BSP
- Greens Hills INTEGRITY BSP
- Windows drivers

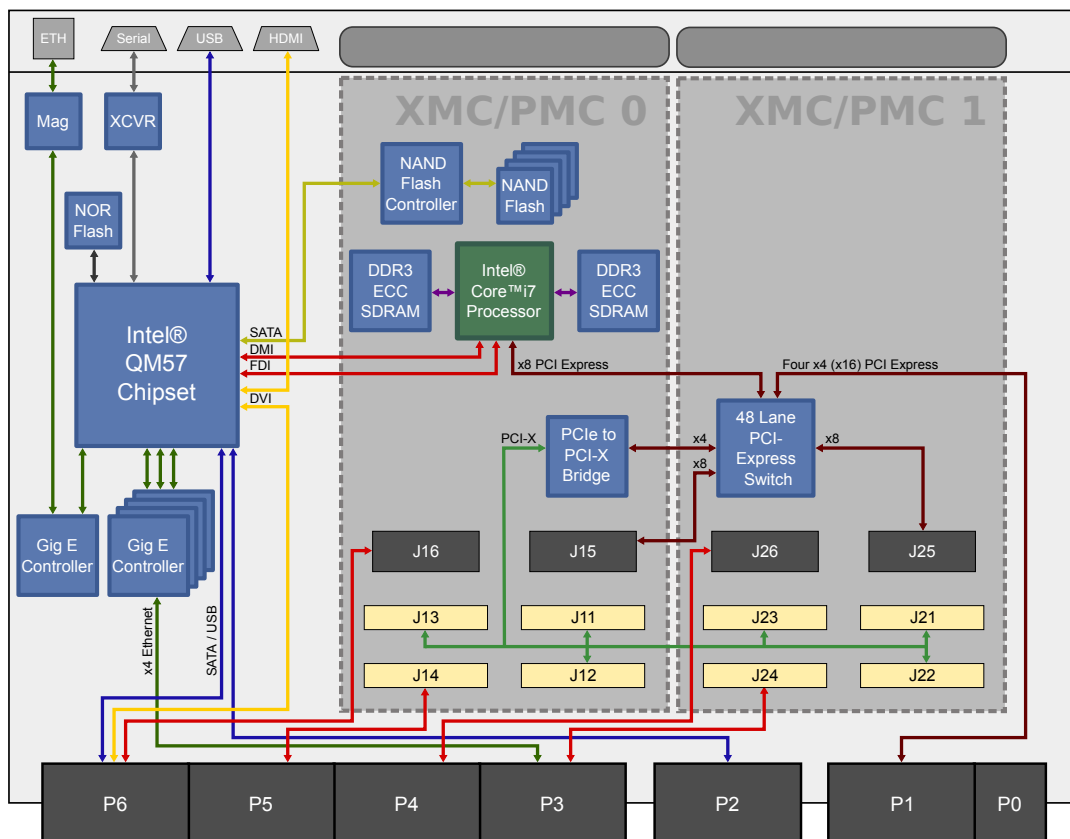
Environmental Requirements

- 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 (Estimate)

- 50 W (2.53 GHz)

Supported 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	0 to +85 °C ambient	-40 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



XCalibur4341

