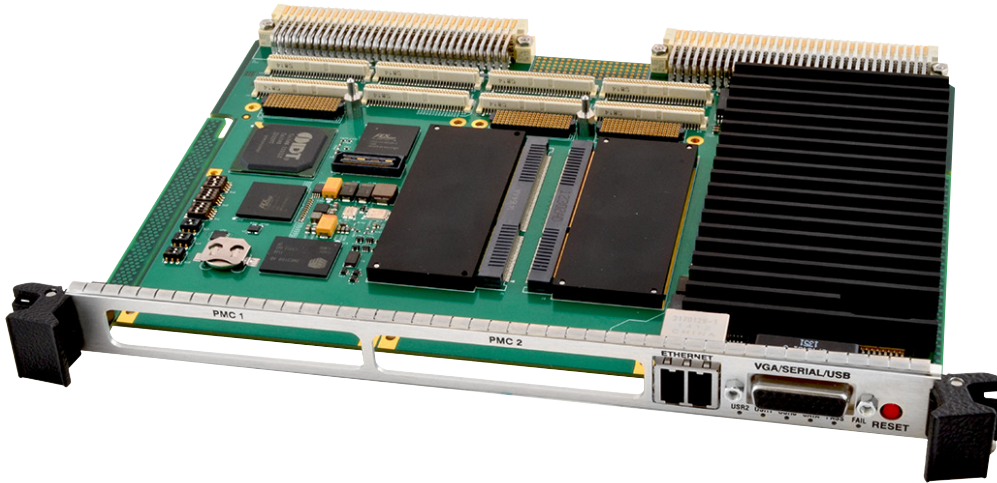


Single Board Computers

XVME-6410 6U VME Intel® Core™ i7/i5 Air Cooled Processor Board



4th Generation Intel® i7 or i5 CPU ◆ Up to 16GB DDR3L ECC RAM ◆ Dual PMC/XMC Sites

Description

The XVME-6410 is a high performance 6U VME single board computer based on the 4th Generation Intel® Core™ i7 or i5 processor and utilizes the Intel 8-Series PCH chipset for extensive I/O support.

Intel 4th Generation

Whether you're looking for a tech refresh to update your legacy systems or starting a new application, Intel processors deliver significant performance advancements such as: enhanced microarchitecture, integrated graphics, and expanded memory performance with up to 16GB of high-bandwidth DDR3L memory and ECC memory controllers.

The XVME-6410 also takes advantage of Intel Advanced Vector Extensions 2.0 for enhanced performance on floating point-intensive applications and Hyper-Threading Technology that enables each core to use two software threads for more efficient use of the CPU.

Expansion Capabilities

In addition to a comprehensive range of front panel and backplane I/O features, the XVME-6410 also offers increased expansion capabilities through two PMC/XMC sites available on the board.

In lieu of one PMC/XMC module, the optional XBRD-9060 expansion I/O carrier module may be installed. The XBRD-9060 allows for two SSD mSATA drives, as well as another Gigabit Ethernet port, RS-232 port, and two USB 3.0 ports.

The XVME-9640 rear transition module is also available for further storage, networking, and easy access to the P2 connector I/O.

Memory

Supports either one or two DDR3L ECC SODIMMs, for a total of up to 16GB removable memory. 1-64GB flash memory optional. The SODIMMs are firmly attached to the module with screws and surrounded by heat sink material to provide a mechanically and thermally robust mechanism.

System Integrity

Acromag Built-In Test (BIT) software provides exceptional test coverage through Power-On BIT (PBIT).

Operating System Software

The XVME-6410 is supported for use with Microsoft Windows® 7, Windows® 8, and Linux.

Extensive Support

With over 50 years experience, more than 35 of those years working with defense and military contracts, we are focused on providing embedded computing solutions for the best long term value in the industry.

Designed and manufactured in the USA, we stand by our products with a 2 year standard warranty and highly experienced sales engineers that provide pre- or post-sales technical support.

Key Features & Benefits

- 4th Generation Intel Core:
 - Quad Core i7 CPU for high performance (47W)
 - Dual Core i5 CPU for low power (25W)
- Intel 8-Series QM87 PCH chipset
- Up to 16GB of high-speed DDR3L memory with SODIMM lock-down mechanism (permits user removal or upgrades)
- Front panel I/O includes:
 - dual USB 2.0 ports
 - VGA (switched w/ rear)
 - dual Gigabit Ethernet ports
 - RS-232 port
- Backplane I/O includes:
 - dual Gigabit Ethernet (on optional P0)
 - dual SATA ports
 - dual USB ports
 - DVI-D
 - RS-232/422/485
 - VGA (switched with front)
- Additional capabilities with use of the XBRD-9060 expansion module:
 - dual USB 3.0 ports
 - Gigabit Ethernet port (switched with one of the rear ports)
 - RS-232 port
 - dual mSATA drives
- Power-On BIT (PBIT)
- Rugged design for harsh environments

Acromag 
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Performance Specifications

Processor and Memory

Processor

4th generation Intel Core™ i7 or i5 processor.

i7-4700EQ: 2.4GHz, quad core, 6Mb cache, 47W.

i5-4402E: 1.6GHz, dual core, 3Mb cache, 25W.

Chipset

Intel 8-Series QM87 PCH chipset.

Intel DH82QM87 Platform Controller Hub.

Memory

Up to 8-16GB of 1600 DDR3L ECC memory.

Flash Memory

1-64GB available, please consult the factory.

Software Support

Microsoft Windows® 7, 8, and Linux

Bus Compliance

VMEbus Interface

- P1 and P2 connectors are compatible with VME64x

- VME Master/Slave using IDT/Tundra Tsi 148 device

- A32/A24/A16/D64/D32/D16/D8, MBLT64, 2eVME/2eSST

- VMEbus specification VME-2gSST, 64X, 320X

Dual PMC/XMC Sites

- 32/64-bit, 33/66/133MHz sites (IEEE P1386/P1386.1)

- Front panel I/O bezel and P4 module user I/O on optional P0 rear connector and P2 connector. (XMC module P16 connector I/O optionally available on P0 connector, please consult the factory).

- XMCs are PCIe x8

- Option to replace PMC/XMC #2 with the XBRD-9060

Form Factor

6U VMEbus 9.2" (233mm) x 6.3" (160mm)

Environmental

Operating temperature

Standard temperature models: 0 to 70°C*

Extended temperature models: -40 to 75°C*

* w/ 200 lfm airflow; depends on application - see manual for details

Storage temperature

-40 to 85°C

Relative humidity

90% at 60°C non-condensing

Shock

50g peak-to-peak, 11ms duration,

MIL-STD-202G Method 213B.

Vibration

11.96 grms, 50-20,000 Hz, each axis,

MIL-STD-202G Method 214A.

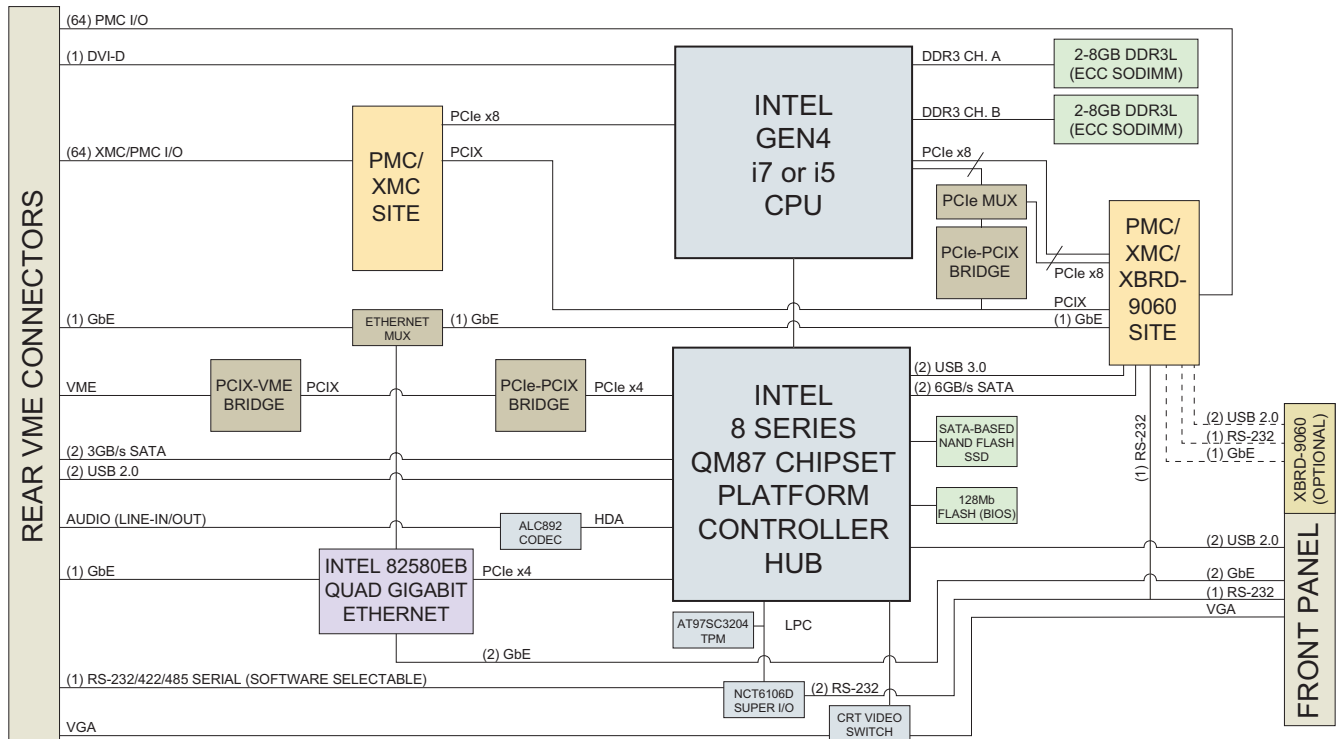
Power Inputs from backplane:

5V (5V only backplane): TBD

5V (5V +3.3V backplane): TBD

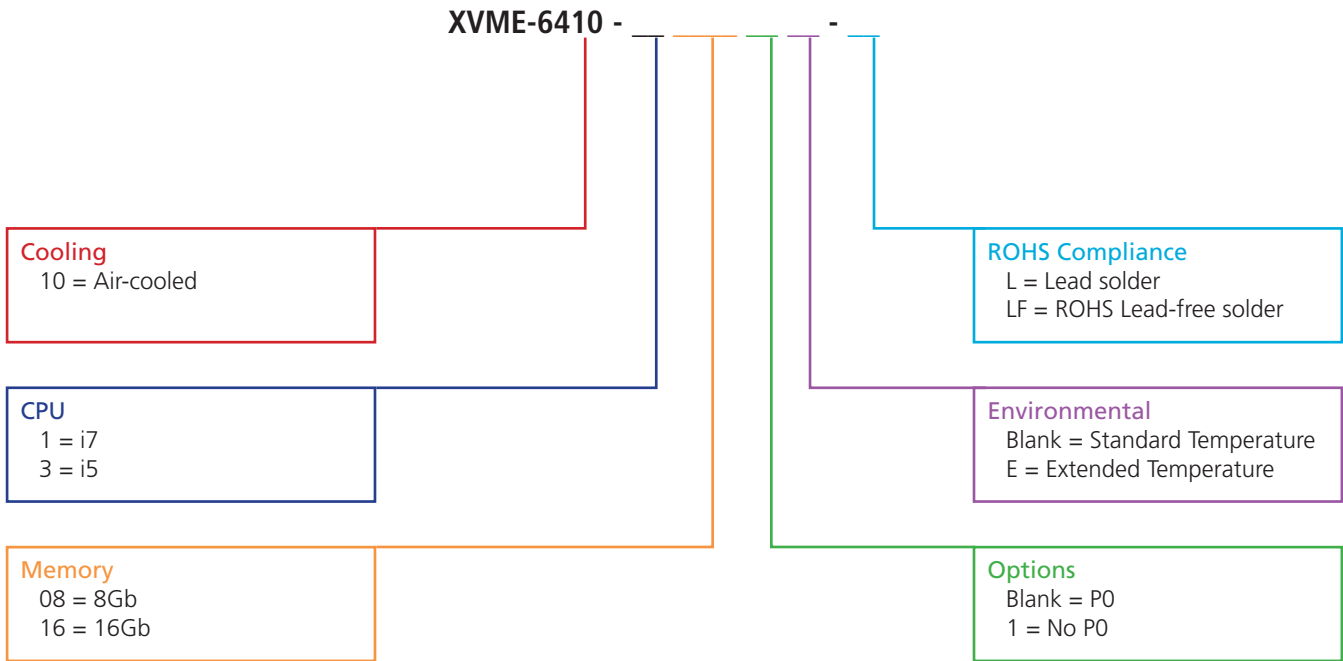
3.3V (optional): TBD

+/-12V: Used only for PMC/XMC



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XVME-6410 6U VME Intel® Core™ i7/i5 Air Cooled Processor Board



Ordering Information

Build your model number from the diagram above.

Note: Please contact factory for lead solder options

Accessories

For more information, see www.acromag.com.

XBRD-9060-LF

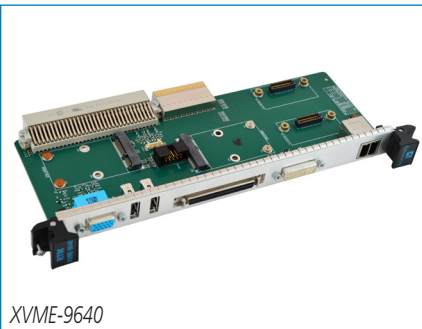
Expansion I/O Carrier Module for XVME-4610

XVME-9640-1-LF

6U VMEbus Rear Transition Module with P0 connector

XVME-9640-2-LF

6U VMEbus Rear Transition Module without P0 connector



ISO9001
AS9100



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