

### Features

- PowerQUICC III<sup>®</sup> MPC8560
- VMEbus interface 32-bit
- DDR SDRAM on socket, up to 1GByte
- 16 MByte FLASH
- 1 MByte SRAM
- 2 x Gigabit Ethernet ports
- 1 x Fast Ethernet port
- 4 x multi-protocol serial ports
- One 32/64-bit, 33/66 MHz PMC slot
- Dual S-ATA hard disk drive
- RTC battery backed up
- CompactFlash



**VSBX-6560** VME PowerQUICC III Single Board Computer is based on the MPC8560 processor. This processor is rated at 1850 DMIPS @ 833 MHz and uses DDR SDRAM @ 333MHz. High reliability together with high performance is designed in with the highly integrated MPC8560, with Dual Data Rate (DDR) memory.

One of the key features of this device is the availability of a Quad Integrated Communications Controller (QUICC). It provides a dedicated module containing a RISC CPU and DMA channels for efficiently handling a wide range of standard or proprietary communication protocols.

#### VME interface

The VSBX-6560 board includes a 32-bit VME interface (rev C):

- Master: A32/A24/A16/D32/D16/D8, RMW
- Requester: RWD, ROR, FAIR, programmable request level
- Slave: A24/A16/D32/D16/D8, RMW
- Arbiter: SGL, PRI, RRS, prog timeout
- Handler: D8(O), IH(1-7)
- Interrupter: D8(O), ROAK, I(1-7)
- Bus Timer: BTO(16 to 112)
- Mailbox functionality
- 1 MByte - shared SRAM
- DMA channel <sup>1</sup>

#### Storage features

The VSBX-6560 board provides two media storage possibilities:

- A dual S-ATA hard disk drive <sup>2</sup>
- A CompactFlash extension

#### Network and serial communication links

The VSBX-6560 offers a variety of on-board I/Os:

- Two integrated Gigabit Ethernet ports available on the front panel
- One integrated Fast Ethernet port available on the front panel
- One RS-232 console is available for user general purpose operations
- Four RS-232 or RS422/485/V.35 serial ports available on the front panel

#### Flexible I/O

The board also contains one 32/64-bit, 33/66MHz PMC (PCI Mezzanine Card) site. This site can be used for system I/O, supporting industry-standard PMC cards as interface to a wide variety of devices

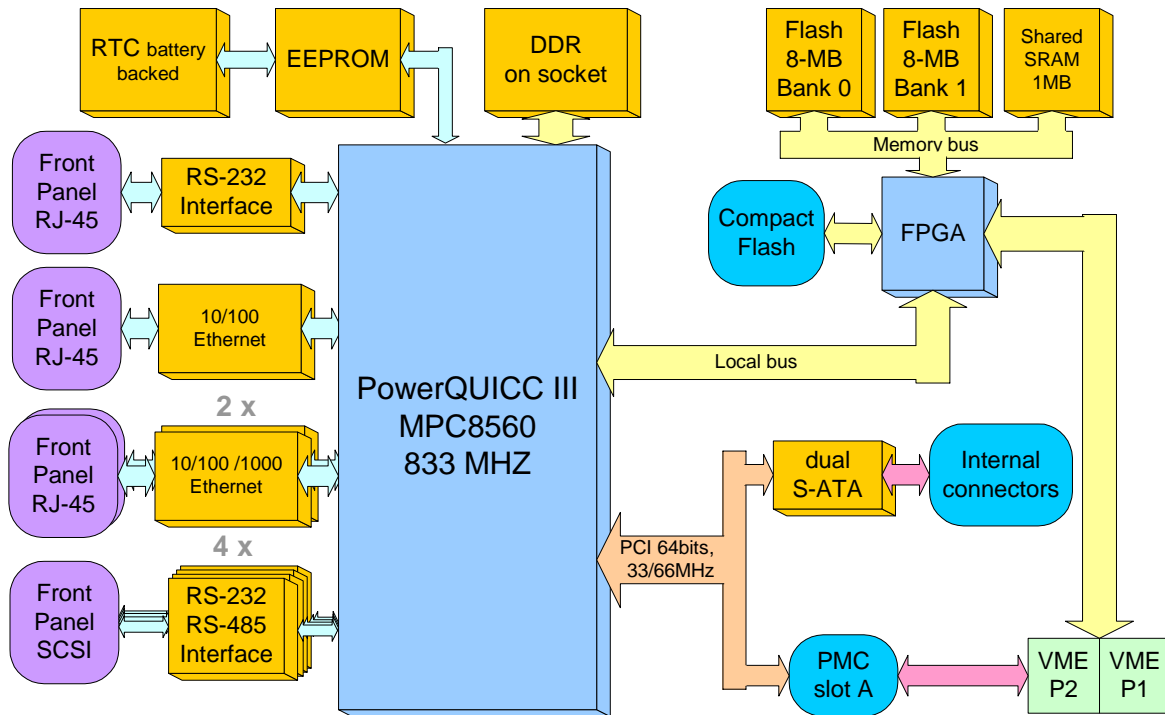
#### Software

Developers can take advantage of the VSBX-6560's power and performance when running major real-time operating systems (RTOS) or when deploying applications based on the low-cost, open-source Linux<sup>™</sup> operating system. RTOS supported by the VSBX-6560 include VxWorks<sup>®</sup> and others on request.

Note 1: The VME DMA channel is a functionality developed by Actis Computer. It allows data transfer between the shared SRAM and an address on the VME bus.

Note 2: Not available in industrial temperature.





## Features

- Freescale PowerQUICC III<sup>®</sup> MPC8560
- 1850 DMIPS @ 833 MHz
- DDR SDRAM on SO-DIMM socket, up to 1 GByte
- Up to 32 MByte FLASH
- Up to 2MByte shared SRAM

## Communication

- Two Gigabit Ethernet ports
- One Fast Ethernet port
- One RS-232 console port
- Four high-speed serial port supporting RS-232/422/485 mode

## Storage

- CompactFlash
- Dual S-ATA hard disk interface (S-ATA 1.0)

## Peripherals

- Real-time clock battery backed up
- I2C memory

## JTAG port

One internal connector for direct access to the processor with third party tool.

## VME interface

- Master: A32/A24/A16/D32/D16/D8, RMW
- Requester: RWD, ROR, FAIR, prog. request level
- Slave: A24/A16/D32/D16/D8, RMW
- Arbiter: SGL, PRI, RRS, prog. timeout
- Handler: D8(O), IH(1-7)
- Interrupter: D8(O), ROAK, I(1-7)
- Bus Timer: BTO(16 to 112)
- Mailbox functionality
- One DMA channel

## IEEE1386.1 slot

- One 32/64-bit PMC slot
- Up to 66 MHz compatible

## Environmental

Operating:

- Commercial: 0 to +55 °C
- Industrial: -25°C to +71°C

Non-operating: -40°C to 85 °C

Airflow requirement	20 CFM
Relative Humidity	0 to 90 % (non-cond.)
Altitude	0 to 10'000 ft

## Environmental

Dimensions	6.3 in x 9.2 in
Power	13 W typ
Vibration	0.5G RMS 20-2000 Hz random
Shock	20 G, 11 ms, ½ sine

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