VSBC – 6848

POWERPC SINGLE BOARD COMPUTER

VME

Features

- PowerQUICC II® MPC8248 @ 400 MHz
- Security engine
- 32-bit VMEbus interface
- SDRAM SO-DIMM module
- 16 MByte FLASH
- 1 MByte dual-port SRAM
- 2 x Fast Ethernet ports
- 2 x HDLC Controllers
- One USB master port
- 8-bit user GPIOs
- Two 32-bit @ 33 MHz PMC slots
- Real-Time Clock
- One CompactFlash slot
- 2 x Serial-ATA interfaces
- Supplied with ECMON boot loader and debugger
- VxWorks and Linux RTOS support

VSBC-6848 VME PowerQUICC II Single Board Computer are based on the MPC8248 processor. This processor is rated at 760 DMIPS @ 400 MHz.

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 communications protocols.

VME interface

The VSBC-6848 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 dual-port SRAM
- DMA channel

Storage interface

The VSBC-6848 supports one removable CompactFLASH slot for true IDE media card, and two S-ATA HDD interfaces.

Network and serial communication links

The VBSC-6848 offers a variety of on-board communication I/Os:

- Two Fast Ethernet ports (10BASE-T / 100BASE-TX)
- One USB master interface
- One RS-232 console is available for user general purpose operations
- Two RS422/485 HDLC serial ports

Flexible I/O

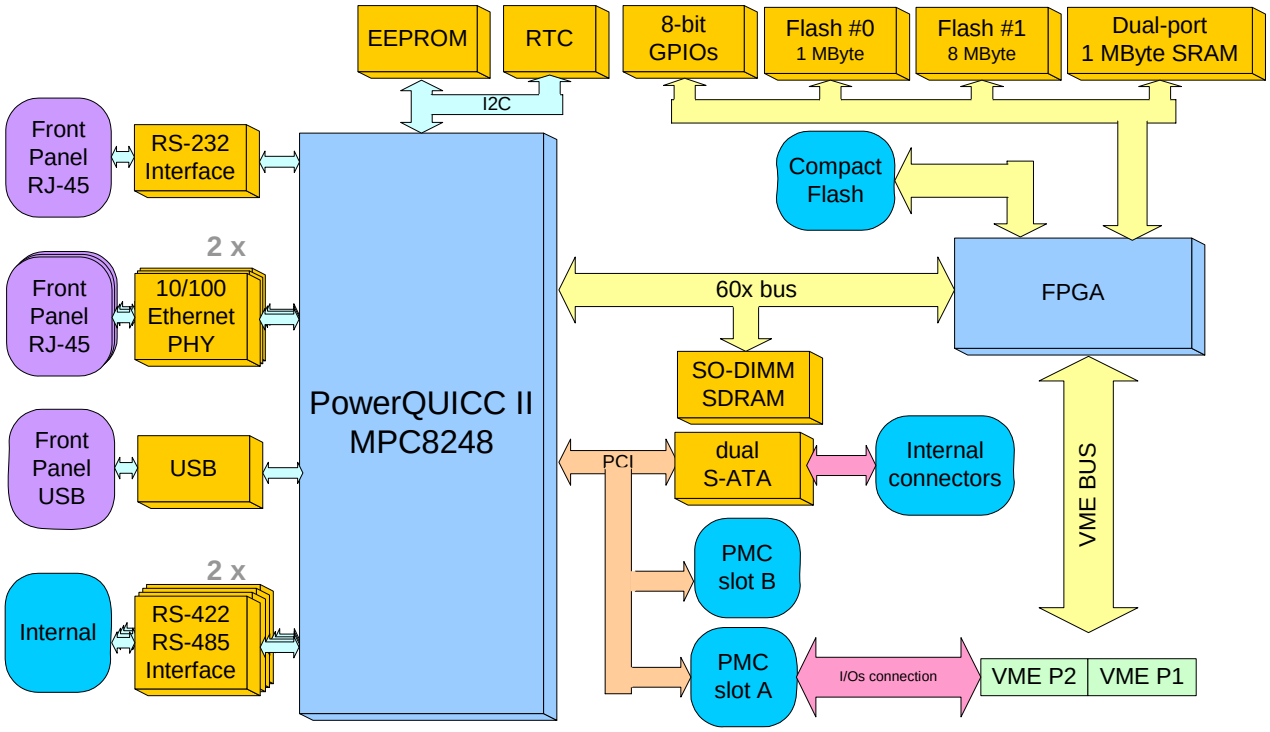
The board also contains two 32-bit, 33 MHz PMC (PCI Mezzanine Card) sites. These slots can be used for system I/O, supporting industry-standard PMC cards as interfaces to a wide variety of devices

Software

Developers can take advantage of the VSBC-6848 power and performance when running major real-time operating systems (RTOS) or when deploying applications based on the low-cost, open-source Linux ™ operating system. RTOS supported by the VSBC-6848 include VxWorks® and others on request. Include ECMON boot loader and debugger software.

VSBC-6848

VME



** VSBC-6848 only*

Features

- Motorola PowerQUICC II® MPC8248 (HIP7 0.13 µm)
- 760 DMIPS @ 400 MHz
- Security engine
- SO-DIMM SDRAM module
- 16 MByte FLASH
- 1 MByte dual-port SRAM
- 256 kbit serial EEPROM for user application

Communication

- Two Fast Ethernet ports on the front panel
- One RS-232 console port on the front panel
- Two high-speed serial port supporting RS-422/485 mode
- One USB master interface

Storage

- CompactFlash for true IDE card
- Two S-ATA HDD interfaces

Peripherals

- Real-time clock
- I2C memory for VPD information
- 8-bit user GPIOs

VME interface

- Master : A32/A24/A16/D32/D16/D8
- Requester : RWD, ROR, FAIR, programmable request level
- Slave : A24/A16/D32/D16/D8
- Arbiter : SGL, PRI, RRS
- Handler : IH(1-7)
- Interrupter: I(1-7)
- Bus Timer : BTO()
- Mailbox functionality
- One DMA channel

JTAG port

- JTAG interface support for software debugging and testing purposes

IEEE1386.1 slot

- Two 32-bit PMC slots
- Up to 33 MHz

Environmental

Operating
- Commercial : 0 to +55 °C

Non-operating : -40°C to 85 °C

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

Environmental

Dimensions	6.3 in x 9.2 in
Power	typ. 6 W
Vibration	0.5G RMS 20-2000 Hz random
Shock	20 G, 11 ms, ½ sine

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