TEWS TECHNOLOGIES

TVME8400   PowerPC based CPU Board with two PMC Slots

Application Information

The TVME8400 VMEbus CPU board is based on the high integrated MPC8245 Power PC microprocessor with a G2 MPC603e CPU core, a powerful Memory Controller and PCI interface.

The TVME8400 provides two PMC slots (32 bit, 33 MHz PCI) with VME64x P2 backplane I/O mapping according to ANSI/VITA 35-2000, Fast Ethernet, FLASH memory, System Memory, NVRAM/RTC and a PCI Expansion Connector (32 bit, 33 MHz PCI).

TVME8400-x1R order options additionally provide the VME P0 connector for full PMC-2 back-I/O support.

The TVME8400 may also be used as a passive or active PMC carrier for the VMEbus (including PMC interrupt handling).

The combination of the MPC8245 processor and the PMC slots plus the PCI Expansion capability provides a powerful CPU and a modular I/O solution for applications in process control, telecommunication, medical systems and traffic control.

Software support for the TVME8400 CPU board is available for VxWorks, Linux, and LynxOS. A PMON Bug Monitor is installed on the TVME8400.

Technical Information

- MPC8245 CPU: 300 MHz PowerPC G2 Core, 16 KB / 16 KB L1-Cache, four programmable timers
- TVME8400-1xR: 64 MB SDRAM (64 bit wide)
  TVME8400-2xR: 256 MB SDRAM (64 bit wide)
- Two 32-pin PLCC sockets for up to 1 MB firmware FLASH memory
- 8 MB FLASH memory (64 bit wide)
- Two PMC Slots (32 bit, 33 MHz PCI) with VME64x P2 I/O; 64 I/O lines for PMC-1, 46 I/O lines for PMC-2; TVME8400-x1R order options for full PMC-2 I/O support utilizing the VME P0 connector
- PCI Expansion Card Connector (32 bit, 33 MHz PCI, e.g. for using TVME230 IP Expansion Card or Motorola PMC-Span)
- Fast Ethernet Interface (32-bit PCI DMA)
- 8 KB NVRAM/RTC (exchangeable battery)
- Two asynchronous RS232 ports
- On board debug monitor
- A32/D32/BLT64 VME bus Master/Slave interface with system controller function, high performance DMA, supports VMEbus D64 and 32 bit PCI local bus memory burst, 4-Level requester, 7-Level interrupter and 7-Level VME bus interrupt handler
- Operating temperature range:
  TVME8400-xxR: 0°C to 55°C (forced air cooling)
  TVME8400-xxR-ET: -40°C to +85°C (forced air cooling)
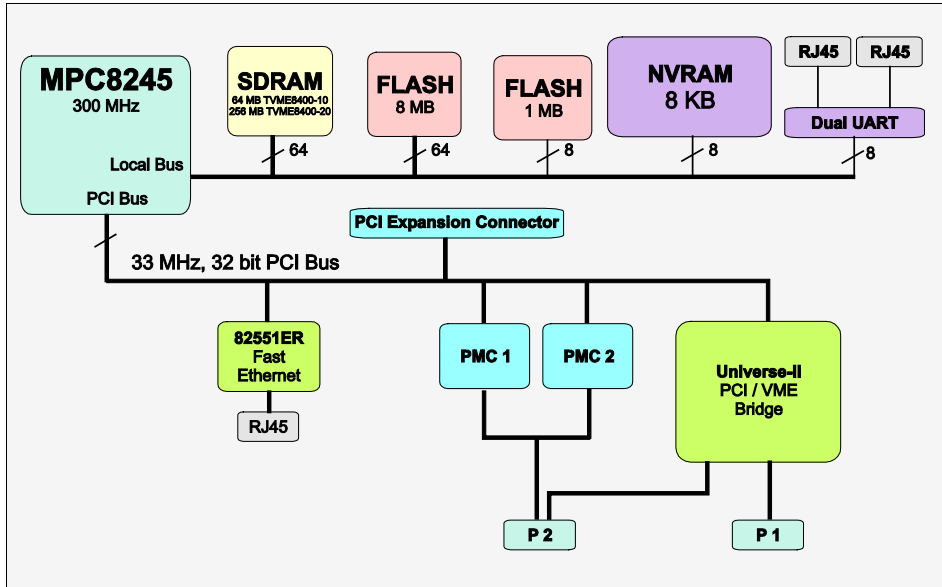
Block Diagram
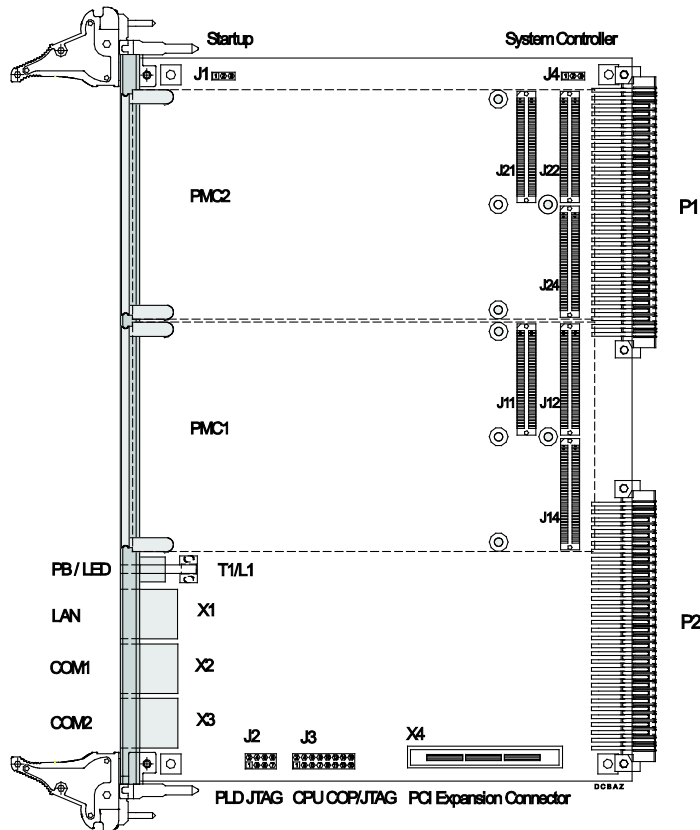
Board Layout

Order Information

RoHS Compliant

TVME8400-10R	6U, MPC8245-300MHz, 64 MB SDRAM, 1+8 MB Flash, 2 PMC Slot, 1 x 10/100 Ethernet
TVME8400-20R	6U, MPC8245-300MHz, 256 MB SDRAM, 1+8 MB Flash, 2 PMC Slot, 1 x 10/100 Ethernet
TVME8400-10R-ET	6U, MPC8245-300MHz, 64 MB SDRAM, 1+8 MB Flash, 2 PMC Slot, 1 x 10/100 Ethernet, ext. temp.
TVME8400-20R-ET	6U, MPC8245-300MHz, 256 MB SDRAM, 1+8 MB Flash, 2 PMC Slot, 1 x 10/100 Ethernet, ext..temp.

For the availability of non-RoHS compliant (leaded solder) products please contact TEWS.

Documentation
TVME8400-DOC   User Manual

Software
TVME8400-SW-40	VxWorks Board Support Package
TVME8400-SW-70	LynxOS Board Support Package
TBSP001-SW-80	Linux Board Support Package

For other operating systems please contact TEWS.

Related Products
TVME020-TM	6U Transition Module for VME64x PMC Carrier, 2 PIM Slots
TVME230	6U 4 Slot IndustryPack Expansion Card for VMEbus CPU's, IEEE1101 Handles or Standard Handles