PmPPC750f
PMC Modules

Embedded Computing for Business-Critical Continuity™

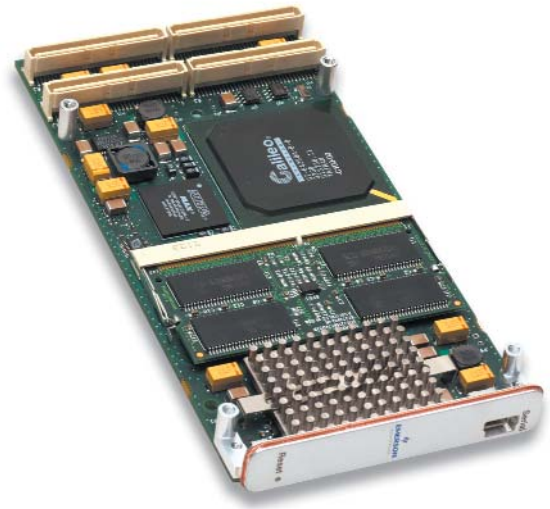
PowerPC™-based ProcessorPMC

- PowerPC 750FX processor running at 733MHz+
- 128MB, 256MB, 512MB or 1GB ECC SDRAM in SODIMM package
- 32/64-bit 33/66 MHz PCI with DMA
- Three 10/100 Ethernet interfaces
- Processor PMC Monarch and Non-Monarch modes
- Two serial I/O ports
- I^2C interface
- RoHS/WEEE compliant configuration available
- Quality assured by over 30 years of design experience and a TL-9000 and ISO 9001:2000 certified quality management system. (FM 26789)

Emerson's PmPPC750f is a complete processor subsystem in a very compact, industry standard form factor. It is designed to allow communication equipment manufacturers to add modular and upgradeable compute functionality to their I/O baseboard and provide the localized horsepower necessary for applications such as protocol processing, packet processing, data filtering or I/O management.

Using an off-the-shelf processor subsystem saves you time-to-market by allowing you to focus your engineering efforts on the key value-add portions of the system without spending time and effort on the processor design and testing. A modular processor subsystem also lowers your lifetime cost of ownership by providing an easy upgrade path, and protecting you from obsolescence issues.

Considerable engineering effort has gone into ensuring maximum flexibility on the PmPPC750f. The module can be used in both Processor PMC Monarch and Non-Monarch modes, which means that it can act as the host (Monarch) of the local PCI bus or be a peripheral (Non-Monarch) on the local PCI bus depending on the application or baseboard. We've also implemented the SDRAM memory using SODIMM packaging, the same memory package used dominantly in laptop computers.



ISO 9001:2000
FM 26789

CE

EMERSON™
Network Power

PmPPC750f

PMC Modules

Embedded Computing for Business-Critical Continuity™

PROCESSOR

PowerPC™ 750FX running at 733+ MHz

- 32-bit address bus, 64-bit data bus
- L1 Cache
  - 32K, 32-byte line, 8-way set associative instruction and data cache
  - Singe-cycle cache access
- 512K on-chip core speed L2 Cache with ECC
- Floating-Point Unit (FPU)

MEMORY

SDRAM

- 128MB, 256MB, 512MB or 1GB SDRAM configurations with Error Checking and Correction (ECC)
- Modular and upgradable SODIMM packaging
- 133MHz operation (100MHz for 1GB configuration)

Flash

- 16, 32 or 64 MByte Flash configurations
- Organized as 2 banks – for protected field updateable image
- Flash Architecture NOR

I/O

Ethernet

- Three 10/100Base Fast Ethernet ports with access via P14 connector
- Two of the 10/100BaseTX Ethernet ports available during development via optional Development Mezzanine Card (DMC)

Serial Ports

- Two RS-232 asynchronous serial ports
- Both ports available with access via P14 connector
- One of the ports available via bezel or one of the ports available during development via optional Development Mezzanine Card (DMC)

I²C

- 2-wire independent bus
- Master or slave mode
- Access via P14 connector for end-user applications

General Purpose Timers

- Eight 32-bit counter/timers
- 32-bit watchdog timer

Real-Time Clock

- I²C

DMA

- 8-Channel DMA support
- High-speed data movement between any module resources without significant CPU intervention

PCI

- 33/66MHz operation via Marvell Discovery system controller
- 32/64-bit data path
- Monarch and Non-Monarch mode support (local host or peripheral)
- PCI 2.2 compliant

LEDs and Switches

- 4 development user-programmable surface mount LEDs on PMC module
- 4 development user-programmable surface mount LEDs on optional Development Mezzanine Card (DMC)
- Recessed front panel reset based

DEVELOPMENT MEZZANINE CARD (DMC)

- Optional plug-on card (side 2) to speed development
  - Dual 10/100BaseTX Ethernet ports via 2 RJ45 connectors
  - RS-232 debug serial port with cable to DB-9 connector
  - Processor COP header for software development
  - JTAG header for PCI bridge and on-card logic
  - Four software-readable configuration jumpers
  - 32-pin PLCC socket for software development
- Single connector to attach to PMC module

SOFTWARE SUPPORT

- Monitor with power-on self test
- Board support package for VxWorks
- Board support package for Linux
- Board support package for QNX

ACCESSORIES

- Development Mezzanine Card (DMC)
- Serial Cable
- User Manual

PHYSICAL CHARACTERISTICS

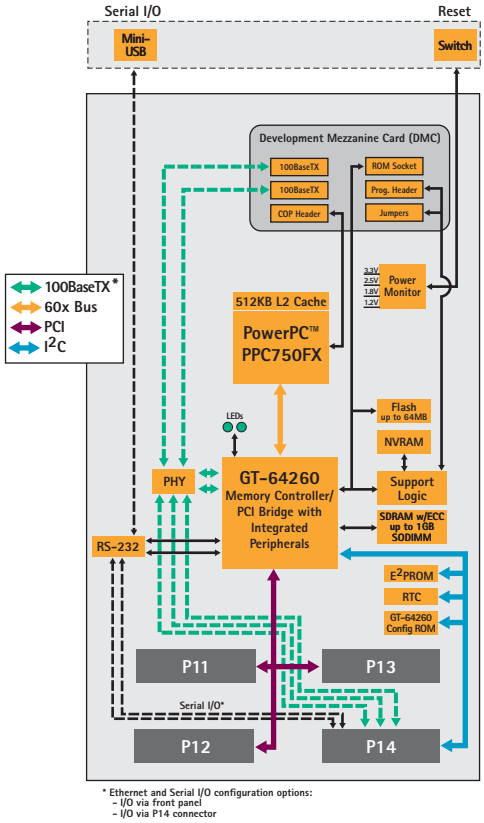
- PMC Formfactor: 149mm x 74mm
- Power supply: 3.3Vdc
- Power dissipation: 9W typical
- Operating range: 0°–55° C, 5–95% relative humidity (non-condensing)

COMPLIANCE

- IEEE 1356.4
- VITA 32
- PCI 2.2

REGULATORY

- UL/CSA 60950
- IEC 950
- Canada ICES-003
- EN55022 FCC Part 15
- NEBS Bellcore GR1089
- NEBS Bellcore GR63
- EN 300386



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