

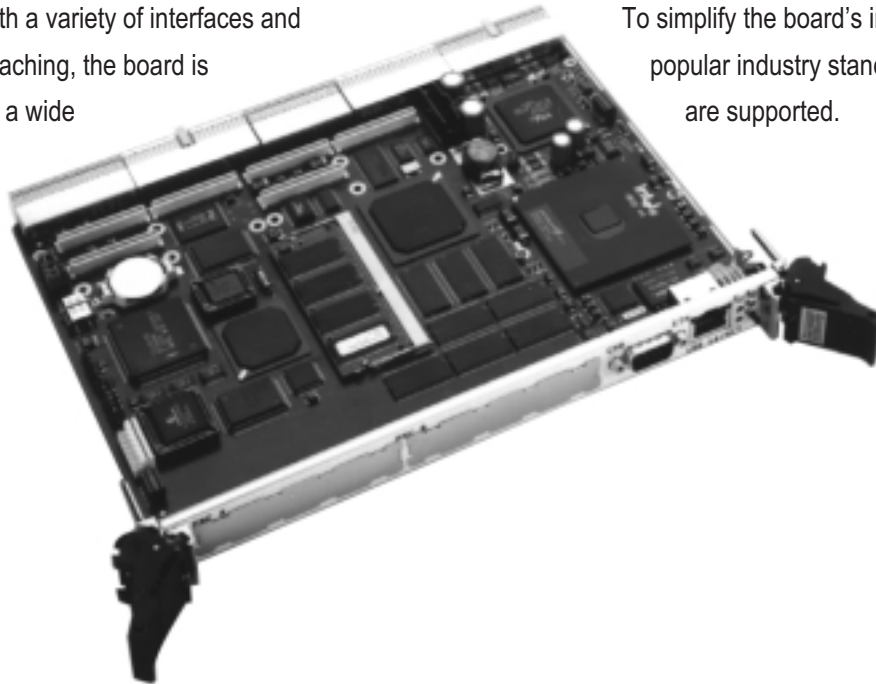
PP EMB/P33

APPLICATIONS

The PP EMB/P33 is a PC-compatible high performance, long life cycle, high functionality, one-slot CompactPCI peripheral processor supporting the low-power 0.18 micron Pentium III Flip-Chip family of socketed processors. Featuring a selection of memory options together with a variety of interfaces and improved caching, the board is suitable for a wide

range of high-performance applications in industrial control, telecommunications, telemetry, medical, scientific or aerospace systems. Its functionality can be further increased through the use of PMC modules.

To simplify the board's integration many popular industry standard operating systems are supported.



HIGHLIGHTS

- 700MHz Pentium III processor
 - using PGA370 socket based Flip-Chip
 - 32 Kbytes L1 cache
 - 256 Kbytes L2 cache, 256-bits wide, 8-way associative
 - 100MHz Front Side Bus
 - no CPU fan needed
- Up to 256 Mbytes of Synchronous DRAM
- High performance EIDE (ATA) interface
- Ethernet 10 Mbps (10Base-T) or 100 Mbps (100Base-TX)
- PS/2 mouse port and a keyboard port
- Dual PMC module interface
- 512 Kbytes battery backed SRAM
- 4 Mbytes of Flash EPROM
- 512 Kbytes of BIOS Flash EPROM
- 2 asynchronous RS232 serial channels
- Parallel Printer Port (ECP, EPP and IEEE1284)
- Floppy disk interface
- Watchdog timer
- Universal Serial Bus (USB)
- Support for VxWorks®, Windows NT®, Solaris™, Linux® and QNX®
- Single slot
- Optional Transition Module for rear panel I/O
- Hot Swap Compatible CompactPCI interface



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SPECIFICATION

CENTRAL PROCESSOR

- Pentium III operating at 700MHz:-
 - using a PGA370 socket FC-PGA (Flip-Chip Pin Grid Array) CPU
 - 32 Kbytes internal (Level 1) CPU cache
 - 256 Kbytes of internal secondary (Level 2) Advanced Transfer Cache - full speed, 256-bits wide, 8-way associative
 - 100MHz system bus
 - utilizes Intel's 82440BX chipset
 - no CPU fan

DRAM

- supporting up to 256 Mbytes S-DRAM:-
 - 64 or 128 Mbytes soldered to board; and,
 - 64 or 128 Mbytes provided by 1 x 144-pin SO-DIMM
- 64-bits wide using 3.3Volt S-DRAMs
- 100MHz system bus frequency
- accessible from Pentium III or CompactPCI bus

HARD DISK INTERFACES

- EIDE primary and secondary interfaces:-
 - accessed via J4/J5 connectors and Transition Module
 - supports Ultra-DMA 33 for high performance drives
 - connects to an optional Transition Module

ETHERNET INTERFACE

- supports 10Base-T and 100Base-TX for UTP CAT-5
- implemented by an Intel 21143 LAN Controller
- accessed via front panel and J4 connector/Transition Module
- programmable station ID

PMC (PCI MEZZANINE CARD) INTERFACE

- 2 x PMC slots with I/O via front panel or via J3/J4 connectors

SERIAL INTERFACE

- 2 x RS232 serial channels
- 16550 compatible UART
- accessed by 9-pin D-type connector on front panel or via J5 connector/Transition Module

OTHER PERIPHERAL INTERFACES

- keyboard interface (PS/2™ type) via J5 connector/Transition Module
- mouse interface (PS/2™ type) via J5 connector/Transition Module
- PC-compatible Real Time Clock (Year-2000 compliant)
- floppy disk interface via J5 connector/Transition Module
- parallel printer port interface (ECP, EPP and IEEE1284) via J5 connector/Transition Module
- two USB (Universal Serial Bus) interfaces: via J5 connector/Transition Module
- Watchdog timer

BATTERY BACKED SRAM

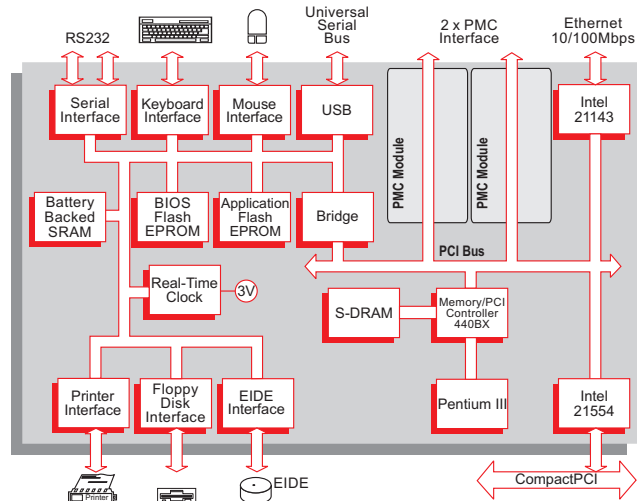
- 512 Kbytes of battery backed SRAM

FLASH EPROMs

- 512 Kbytes of BIOS Flash EPROM - 8-bits wide
- 4 Mbytes of Application Flash EPROM

COMPACTPCI INTERFACE

- compliant with PCI Specification 2.0 R3.0
- 33MHz; 32-bit interface accessed via J1 connector
- utilizing an Intel PCI-PCI bridge for off-board accesses
- operates as a Peripheral (Embedded) Slot board
- PICMG® 2.1 R1.0 Hot Swap Specification Compatible



FIRMWARE SUPPORT

- PhoenixPICO™ BIOS
- comprehensive Power-On Self-Test (POST)

SOFTWARE SUPPORT

- support for VxWorks, Windows NT, Linux, Solaris and QNX

ELECTRICAL SPECIFICATION

- all voltages to be within +5% and -3%
- +5V@4.6A (typical with 64 Mbyte DRAM)
- +3.3V@2.0A
- +12V@0.002A
- -12V@0.001A
- +12V and -12V routed to PMC Expansion

ENVIRONMENTAL SPECIFICATION

- 0°C to +55°C (operating)
- 10% to 90% Relative Humidity (operating)
- -40°C to +70°C (storage)
- 10% to 90% Relative Humidity (storage)

MECHANICAL SPECIFICATION

- 6U form-factor: 9.2" x 6.3" (233mm x160mm)
- single-slot: 0.8" (20.3mm)
- connectors: IEC-1076-4-101 for J1-J5
- shock: 5g/6ms
- vibration: 1g (10Hz to 2kHz)

ORDERING INFORMATION

Order Number	Product Description (Hardware)
PP EMB/P33-xx	700MHz Pentium III Peripheral CPU
AD PP2/00x-xx	Transition Module

Suffix the order number (xx) with the following for selected option

- 14	64 Mbytes
- 15	128 Mbytes
- 16	192 Mbytes
- 17	256 Mbytes