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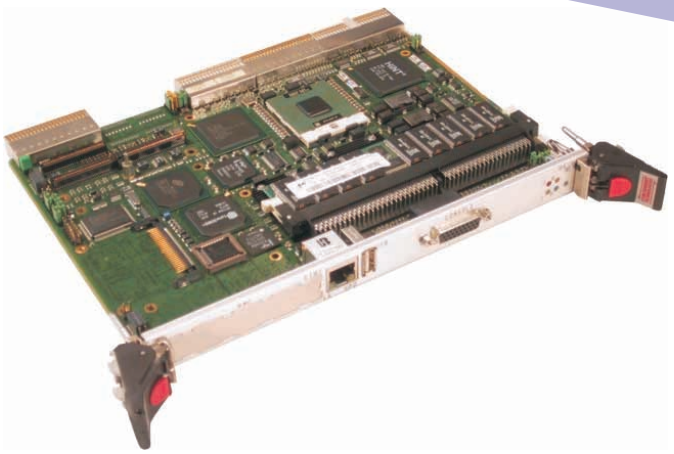
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Find the *Concurrent Technologies PP 200/012-12* at our website: *Click HERE*

CompactPCI

PP 200/01x

Intel® Pentium® 4 Processor M Single Board Computer



APPLICATIONS

The PP 200/01x is a PC-compatible high performance, high functionality one-slot CompactPCI® single board computer. It supports the 2.2 GHz or 1.7 GHz Intel® Pentium® 4 Processor-M and features a selection of memory options, an on-board CompactFlash™ site, optional on-board hard disk drive or CompactFlash carrier, and a variety of interfaces. The board is suitable for a range of high-performance applications in industrial control, telecomms, telemetry, scientific and aerospace applications. Its functionality can be further increased through the use of PMC modules. It is fully compliant with PICMG® 2.16 (Packet Switching Backplane) specification. Additionally, very high performance networking is provided by three Gigabit Ethernet links. To simplify the board's integration many popular industry standard operating systems are supported. Full system monitoring is provided by the PICMG 2.9 compliant IPMI interface.

HIGHLIGHTS

- 2.2 GHz or 1.7 GHz Intel Pentium 4 Processor-M:
  - 400 MHz Front Side Bus
  - 512 Kbytes L2 cache
  - no CPU fan needed
  - single slot
- Up to 2 Gbytes DDR SDRAM (with ECC)
- Ultra 160 SCSI interface
- High performance EIDE interfaces with on-board CompactFlash site
- Optional on-board 2.5 inch disk drive or CompactFlash/Microdrive™ carrier (within a single slot)
- 3 x 10/100/1000Mbps Ethernet interfaces
- Dual Gigabit Packet Switching Backplane (PICMG 2.16)
- 1 x PMC module interface (32/64-bit and 33/66 MHz)
- High resolution graphics interface
- PS/2 Keyboard and mouse port
- 512 Kbytes of BIOS Flash EPROM
- 8 Mbytes of Application Flash
- CompactPCI controller:
  - operates in system slot or peripheral slot
  - 32/64-bit at 33/66 MHz CompactPCI interface
- Option to bypass CompactPCI bus (Satellite Mode)
- IPMI (Intelligent Platform Management Interface):
  - PICMG 2.9 (System Management Specification)
  - with BMC (Baseboard Management Controller)
- 2 x USB ports
- 2 x asynchronous RS232 serial channels
- Floppy disk interface
- Watchdog timer; Long Duration Timer
- Parallel Printer Port (ECP, EPP and IEEE1284)
- Optional Transition Module for rear panel I/O
- Support for Linux®, Windows NT®, Windows® 2000, Windows® XP, Windows® XP Embedded ,VxWorks® and QNX®

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Central Processor

- 2.2 GHz or 1.7 GHz Intel® Pentium® 4 Processor-M:-
  - using a socketed Flip-Chip CPU
  - 400 MHz Front Side Bus
  - 512 Kbytes of secondary (L2) on-die cache
  - no CPU fan
- utilizes 64-bit ServerWorks' ServerSet™ GC-LE chipset

DRAM

- supporting up to 2 Gbytes of 200MHz DDR ECC SDRAM:-
  - up to 2 Gbytes provided via a 184-pin DIMM socket
  - single bit error correction; double-bit error detection
- accessible from Processor or CompactPCI bus

Hard Disk Interfaces

- EIDE interface:-
  - supports up to Ultra-DMA 100 for high performance drives
  - two channels (primary and secondary)
  - secondary channel supports on-board CompactFlash site
  - plus, secondary channel options; on-board 2.5 inch disk drive; or, support for 1 or 2 CompactFlash or IBM® MicrodriveType II drives. Either option within a single slot
  - primary channel is accessible via J5 to the Transition Module
- Ultra 160 SCSI:-
  - implemented by an LSI Logic® 53C1000
  - accessible via J3 to the Transition Module

Ethernet Interfaces

- 3 x channels supporting 10 Base-T, 100 Base-TX, 1000 Base-T
  - implemented by an Intel® 82540EM Controller (32-bit PCI bus) and Intel® 82546EB LAN Controller (64-bit PCI bus)
  - one channel accessible via front panel RJ45
  - two channels accessible via J3 to the PSB or the Transition Module
- support for PICMG 2.16 - Packet Switching Backplane (PSB)

Graphics Interface

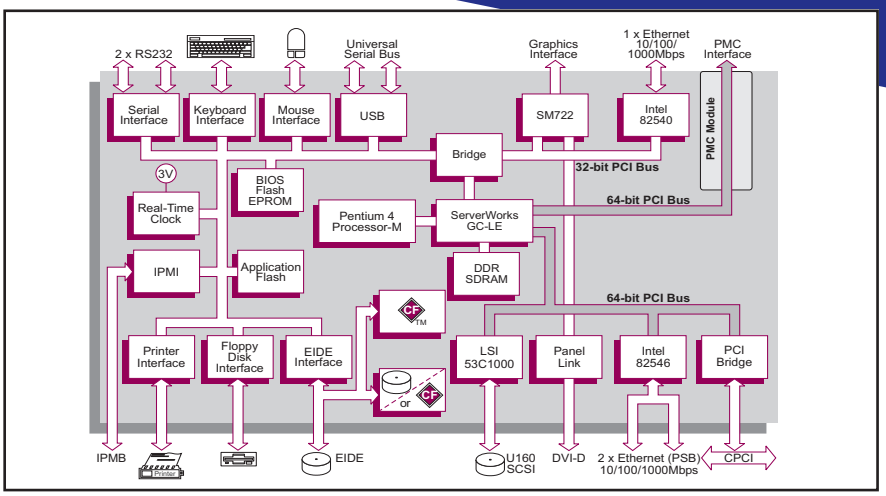
- implemented by a Silicon Motion® SM722 providing:-
  - 8 Mbytes video memory
  - resolutions up to 1280 x 1024
  - supporting up to 16M colors
- accessed via a 26-way high-density connector on front panel
- flat panel supported via DVI-D interface via J3 to the Transition Module

PMC Interface

- 1 x PMC slot with I/O via front panel:-
  - supports 32/64-bit, 33/66 MHz PCI operation
  - dedicated PCI bus for optimal throughput

Flash EPROM

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



Serial Interfaces

- 2 x RS232 serial channels using 16550 compatible UARTs
- 1 x channel accessed via a 26-way high-density connector on front panel and both channels via J5 to 2 x D-type connectors on the Transition Module
- each channel supports CTS, RTS, DSR, DTR, DCD and RI via front panel and Transition Module

Other Peripheral Interfaces

- keyboard and mouse interfaces accessed via a 26-way high-density connector on front panel or via J5 to the Transition Module
- floppy disk interface via J5 to the Transition Module
- 2 x USB (Universal Serial Bus) interfaces; one via front panel, both via J5 to the Transition Module
- parallel printer port interface (ECP, EPP and IEEE1284) via J5 to the Transition Module
- 1 x 32-bit Long Duration Timer with processor interrupt capability
- system fan monitor; CPU temperature monitor; voltages monitor:-
  - all accessible via IPMI
- watchdog timer; speaker interface

CompactPCI Interface

- compliant with PICMG 2.0 R3.0; 3.3V or 5V signaling levels:-
  - universal signaling supported
- 33/66 MHz; 32/64-bit interface accessed via J1/J2 connectors
- utilizing a PCI-PCI bridge for off-board accesses
- PICMG® 2.1 R2.0 Hot Swap Specification compatible as hot swap controller only
- operates as a System Slot controller or in a peripheral slot
- option to disable CompactPCI interface (Satellite Mode):-
  - receives power from CompactPCI bus
  - board can be hot swapped in this mode
- J4 connector not fitted

Software Support

- Linux, Windows NT, Windows 2000, Windows XP, Windows XP Embedded, VxWorks and QNX

Firmware Support

- Phoenix® ServerBIOS™
- comprehensive Power-On Self-Test (POST)
- LAN boot firmware included

IPMI

- PICMG 2.9 R1.0 (System Management Specification)
- implements the IPMB0 interface
- on-board Baseboard Management Controller
- 8 Kbytes of non-volatile memory

Electrical Specification

- +5V@7A; (typical at 2.2 GHz with 1 Gbyte DRAM); +5% / -3%
- +3.3V@8A; +5% / -3%
- +12V@0.0A ; -12V@0.0A
- +12V and -12V routed to PMC expansion slot

Safety

- PCB (PWB) manufactured with flammability rating of 94V-0

Environmental Specification

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

Mechanical Specification

- 6U form-factor: 9.2inches x 6.3inches (233mm x 160mm)
- single-slot: 0.8inches (20.3mm)
- connectors: IEC-1076-4-101 for J1-J5
- shock:
  20g, 11ms, ½ sine (operating);
  30g, 11ms, ½ sine (non-operating)
- vibration:
  5Hz-2000Hz at 2g, 0.38mm peak displacement (operating);
  5Hz-2000Hz at 5g, 0.76mm peak displacement (non-operating)

ORDERING INFORMATION

Order Number	Product Description (Hardware)
PP 200/011-xy	1.7 GHz Pentium 4 Processor-M
PP 200/012-xy	reserved
PP 200/013-xy	2.2 GHz Pentium 4 Processor-M
AD PP4/001-zz	Transition Module
AD 200/001-01	CompactFlash/Microdrive carrier assembly
AD CP1/DR1-z2	2.5 inch Disk Drive assembly
CB 26D/124-00	26-way HD to VGA, Keyboard, Mouse, RS232 connector cable

Replace the order number suffix (xy) with selections from the following:

where x =
1 - Ethernet via rear panel
2 - Ethernet via PICMG 2.16

where y =
1 - 256 Mbytes
2 - 512 Mbytes
3 - 1 Gbyte
4 - 2 Gbytes

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