

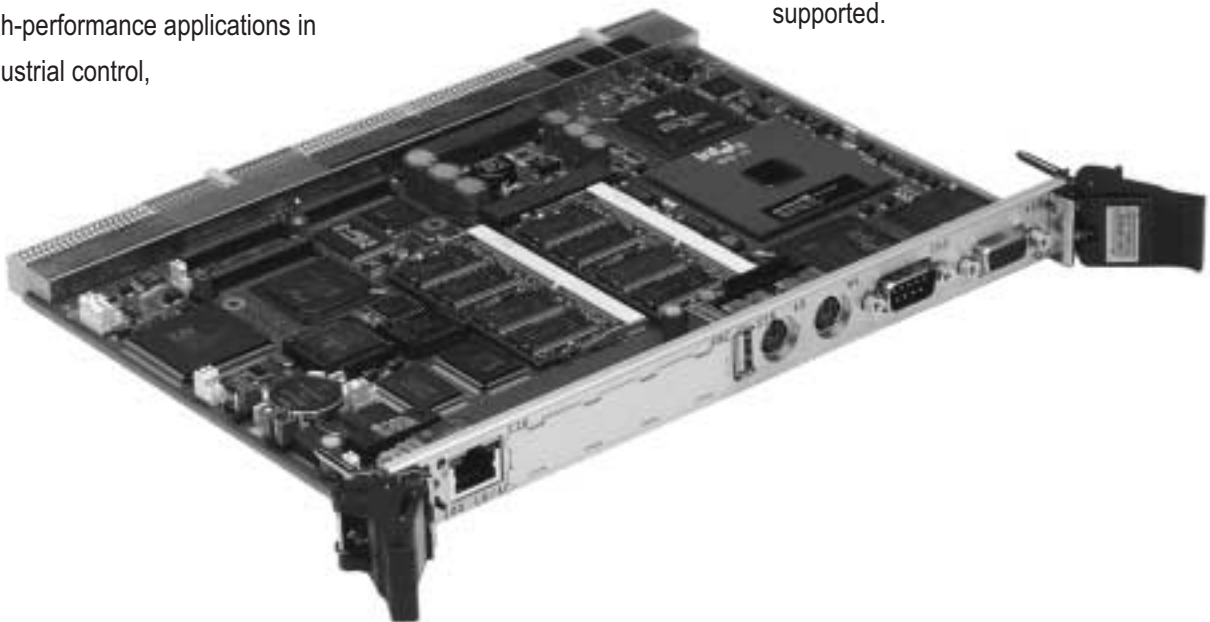
## PP SC2/P3x

### APPLICATIONS

The PP SC2/P3x is a PC-compatible high performance, high functionality one-slot CompactPCI single board computer based on the Pentium III processor in an FC-PGA 370 pin package. Featuring a selection of memory options together with a variety of interfaces, the board is suitable for a range of high-performance applications in industrial control,

telecomms, telemetry, medical, scientific and aerospace applications. 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

- 600, 700 or 850MHz Pentium III processor
  - 32 Kbytes L1 cache
  - 256 Kbytes L2 cache
  - No CPU fan needed
- Single slot
- Up to 576 Mbytes of Synchronous DRAM
- High performance Wide Ultra2-SCSI and EIDE interfaces
- Two 10/100Mbps Ethernet interfaces
- High resolution SVGA graphics interface
- PS/2 mouse port and a Keyboard port
- Expansion interface to Mass Storage Module
- PMC module interface
- 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
- Support for VxWorks®, Windows® NT, Solaris™, Linux® and QNX®
- CompactPCI System Slot controller
  - 32/64-bit CompactPCI interface
  - Optional bridge to second CompactPCI bus segment
- Optional Transition Module for rear panel I/O



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# SPECIFICATION

## CENTRAL PROCESSOR

- Pentium III with MMX operating at 600, 700 or 850MHz:-
  - using a socket 370 FC-PGA (Flip-Chip Pin Grid Array) CPU
  - 32 Kbytes internal (Level 1) CPU cache
  - 256 Kbytes of secondary (Level 2) cache
  - supports 100MHz bus frequency
  - utilizes Intel's 82440BX chipset
  - no CPU fan
  - Pentium III (ITP) debug port

## DRAM

- supporting up to 576 Mbytes 100MHz S-DRAM:-
  - 64 Mbytes soldered to board
  - up to 512 Mbytes in two SODIMM sites
- 64-bits wide using 3.3Volt S-DRAMs
- accessible from Pentium III, CompactPCI bus

## HARD DISK INTERFACES

- Wide Ultra2-SCSI 8/16-bit:-
  - single-ended asynchronous/synchronous or Low Voltage Differential, with active termination and signal negation
  - utilizing Symbios Logic 33MHz 53C895 SCSI I/O Processor
  - synchronous SCSI data rates up to 80 Mbytes/sec
  - accessed via Transition Module
- EIDE interface:-
  - accessed via MSE (Mass Storage Expansion) interface and Transition Module
  - supports Ultra-DMA 33 for high performance drives
  - connects to an optional hard/floppy/flash/CDROM drive board via the MSE and in the Transition Module

## ETHERNET INTERFACES

- support 10Base-T and 100Base-TX for UTP CAT-5
- implemented by two 82559ER LAN Controllers
- accessed by an RJ45 front panel connector and via Transition Module
- programmable station IDs

## GRAPHICS INTERFACE

- implemented by an Asiliant Technologies 69030 controller
- supporting resolutions up to 1600 x 1200, up to 16M colors
- using 4 Mbytes on-chip graphics RAM
- accessed by front panel or via Transition Module

## PMC (PCI MEZZANINE CARD) INTERFACE

- 1 x PMC slot with I/O via front panel or via J3 connector

## SERIAL INTERFACE

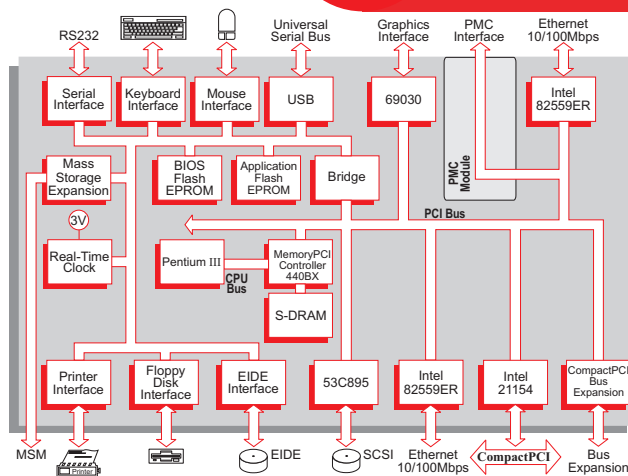
- 2 x RS232 serial channels
- 16550 compatible UART
- accessed by one 9-pin D-type connector on front panel and via Transition Module

## OTHER PERIPHERAL INTERFACES

- keyboard interface via PS/2™ type connector on front panel or via Transition Module
- mouse interface via PS/2™ type connector on front panel or via Transition Module
- PC-compatible Real Time Clock (Year-2000 compliant)
- floppy disk interface via MSE expansion or Transition Module
- two USB (Universal Serial Bus) interfaces; one via front panel, both via J5 connector on Transition Module
- parallel printer port interface (ECP, EPP and IEEE1284) via Transition Module
- Watchdog timer
- system fan monitor

## FLASH EPROMs

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



## FIRMWARE SUPPORT

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

## SOFTWARE SUPPORT

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

## COMPACTPCI INTERFACE

- compliant with PCI Specification 2.1
- 33MHz; 32/64-bit interface accessed via J1/J2 connectors
- utilizing a PCI-PCI bridge for off-board accesses
- operates as a System Slot board
- PICMG® 2.1 Hot Swap Specification Compatible as hot swap controller only
- optional expansion to second 32/64-bit CompactPCI bus segment (uses a second slot)

## ELECTRICAL SPECIFICATION

- +5V@4.0A (typical at 600MHz with 64 Mbyte DRAM); +5%/-3%
- +3.3V@2.0A; +5%/-3%
- +12V@0.001A; -12V@0.001A; ±5%
- +12V and -12V routed to PMC Expansion

## SAFETY

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

## 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 SC2/P32-xx	600MHz Pentium III MMX CPU
PP SC2/P33-xx	700MHz Pentium III MMX CPU
PP SC2/P34-xx	850MHz Pentium III MMX CPU
PP MSS/IFP-xx	Mass Storage Module (MSM)
AD PP1/01-yy	Transition Module
AD SC2/001-yy	CompactPCI Bus Expansion Module

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

- 14	64 Mbytes
- 15	128 Mbytes
- 16	192 Mbytes
- 17	256 Mbytes
- 18	320 Mbytes
- 21	576 Mbytes