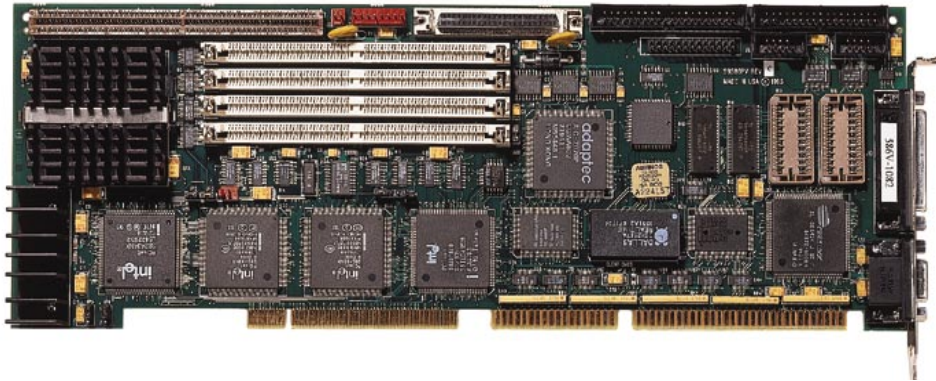


Model SB586P (V) Series



Neptune 586 Single Board CPU



FEATURES

- **Intel Neptune II Chip Set**
- **Pentium 90MHz through 200MHz Processors Supported**
- **Support for PCI Passive Backplanes**
- **PICMG Compliant**
- **On-Board PCI Disk Controllers**
- **Fast and Fast Wide SCSI Support**
- **On-board SVGA PCI Video Controller Option - VESA Feature Connector**
- **Upgradeable Modular Cache Memory**
- **64mA ISA Bus Drive Current**
- **DEC PCI to PCI Bridge Support**
- **May Be Used to Upgrade older ISA BUS Systems**



DESCRIPTION

The Neptune II Pentium series CPUs provide full PCI bus support conforming to the PICMG standards. It is also capable of being installed into an ISA passive backplane without PCI expansion as a method for upgrading an older, slower system. Two basic models are available - one with an on-board PCI bus SVGA video adapter and one without. Other board features remain the same between models. Additional on-board controllers include PCI EIDE and SCSI-3 disk controllers. The PCI

bus controllers offer the fastest available throughputs with today's disk drives. The EIDE controller will support up to two drives with LBA and PIO mode 3 support for up to 12MB/Sec throughput speeds. The SCSI-3 controller offers support for either 8 bit SCSI devices alone, 16 bit Wide SCSI devices alone, or a mixture of 8 and 16 bit SCSI devices on a single cable using optional cable adapters. The adapters convert the 68 pin cabling to 50 pin cabling for 8 bit drives. See the following table of specifications for all controller features.



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SPECIFICATIONS

Processors Supported

Pentium 90MHz, 100MHz, 120MHz, 133MHz, 150MHz, 166MHz and 200MHz

Processor Clock Rate

60MHz External - 90MHz, 120MHz, 150MHz
Internal
66MHz External - 100MHz, 133MHz, 166MHz,

Chip Set

Intel Neptune II

BIOS

AMI WinBIOS

ISA Bus Clock Rate

8.3MHz (64mA Drive Current)

PCI Bus Clock Rate

25, 30 or 33MHz; Processor Dependent

Memory Capacity

192MB Maximum On-board, Fast Page Mode, 64 bits Wide

SIMM Support

2 Banks, 2 Sockets Each
256Kx36(1MB),
512Kx36(2MB)
1MBx36(4MB)
4MBx36(16MB)
8MBx36(32MB)
16MBx36(64MB) (Bank 0 only)

Memory Speed Required

70nS or Faster

Cache Memory

16K Internal Cache on Processor 0K External
Installed 256K
Optional Cache Modules straight Synchronous or
Asynchronous, 64 bit
512K Optional Cache Module Straight
Synchronous, 64 bit

EIDE Disk Controller

2 Fixed Disk Drives Supported on the PCI Local
Bus
Secondary Controller Support
LBA and PIO Mode 3 Support

SCSI-3 Disk Controller

Adaptec SCSI-2 78xx Controller Chip on the PCI
Bus
8 bit Fast, 16 bit Fast/Wide or Mixture

Floppy Controller

2 Floppy Drives up to 2.88M Supported

Video Controller (Optional)

Cirrus Logic Video Controller
Horizontal Sync Sigansls
31.5 - 60KHz
Vertical Refresh
43 - 75Hz

Resolution	1 Meg	2 Meg
640 x 480	16M	16M
800 x 600	64k	16M
1024 x 768	256	64k
1280 x 1024	N/A	256

1MB DRAM Installed
Upgradable to 2MB
VESA Feature Connector

Serial Ports

2 16550 Buffered
Isolated to $\pm 1500V$ ESD
Dual Header Connector with Cable to Rear Panel
DB9P Connectors

SPECIFICATIONS CONT.

Operating Systems Tested

MS-DOS 6.X
Windows 3.X
Windows NT 3.5X
Windows 95
OS/2 V3.0
SCO Unix V5.0
Netware 3.12
Netware 4.X

Parallel Port

1 Centronics Bi-directional, Rear Panel DB25S
EPP and EPC Enhanced Modes

Reset Port, Keyboard Port, Speaker Port

Single 8 pin Header Connector for System
Interface

CMOS Battery

On-board, Included

Power Requirements

+5V @ 2.8 A, Typical, No DRAM, No Cache
+12V @ <100mA Typical
-12V @ <100mA Typical

Operating Environment

Temperature: 0 to +70°C
Humidity: 5 to 90% RHNC

Storage Environment

Temperature: -40 to +70°C
Humidity: 5 to 95% RHNC

Operating Altitude

10,000 ft

MTBF

>90,000 P.O.H. @ 25°C Calculated

Compatibility Testing

XXCAL Labs Gold Certification

CE Certified

89/336/EC

ORDERING GUIDE

NON-VIDEO MODELS

Model SB586P/166

Pentium 166MHz Processor, 0K Cache, No
SVGA, Serial Port Cable

Model SB586P/133

Pentium 133MHz Processor, 0K Cache, No
SVGA, Serial Port Cable

Model SB586P/100

Pentium 100MHz Processor, 0K Cache, No
SVGA, Serial Port Cable

VIDEO MODELS

Model SB586PV/166

Pentium 166MHz Processor, 0K Cache, SVGA
Video, Serial Port Cable

Model SB586PV/133

Pentium 133MHz Processor, 0K Cache, SVGA
Video, Serial Port Cable

Model SB586PV/100

Pentium 100MHz Processor, 0K Cache, SVGA
Video, Serial Port Cable

ACCESSORIES

Model CMM-512-66S

512K Straight Synchronous Cache Module,
66MHz Bus Clock Pentium

Model CMM-256-66S

256K Straight Synchronous Cache Module,
66MHz Bus clock Pentium

Model 3-274764-0

1MB Additional Video DRAM (2ea. Required)

Model 50314-01A

Cable Adapter, 68 pin to 50 pin F-F, 16 bit to 8
bit Adapter for Single Device

Model 50313-01A

Cable Adapter, 68 pin to 50 pin M-M, 16 bit to 8
bit Cable Adapter



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