



Description

The SB586T series of single board computers combines on one board many features normally needed for system operation, including high-speed serial ports, parallel ports, and disk controllers. This design reduces the number of slots required on your backplane and allows room for additional feature cards.

Since basic system functions are already provided, all you need to do is select the onboard options that meet your needs. You can select from ultra and ultrawide SCSI-3, SVGA video, a USB interface, or 10/100 Ethernet. You can also combine many of these options on one board. Refer to the ordering guide below and on the following pages to see the full range of the SB586T series.

Ordering Guide

Base Models - No Ultra SCSI, SVGA, USB, or Ethernet

Serial 1 and PS/2 mouse connectors on rear panel. Serial 2 and parallel port connectors cabled to separate bracket

SB586T100	SB586T233X
SB586T133	SB586T266K
SB586T166	SB586T300K
SB586T200X	

Models with Ultra SCSI, No USB or SVGA

Serial 1 and PS/2 mouse connectors on rear panel. Serial 2 and parallel port connectors to separate bracket.

SB586TS100	SB586TS200X
SB586TS133	SB586TS233X
SB586TS166	SB586TS266K
SB586TS200	SB586TS300K



Mission Critical Applied Computing Solutions

SB586T Series

Triton II Single Board Pentium Computer Family

Features

- Intel® Pentium® processors for general application needs
- Pentium® and Pentium MMX support, 100 to 233MHz
- AMD-K6® support, 266MHz
- AMD-K6®-2 support, 300Mz with 3DNow!™
- Intel 430HX, Triton II chip set
- 512K L2 cache
- To 256MB onboard DRAM
- Optional onboard ultra and ultra wide SCSI-3
- Optional onboard SVGA video with 2MB EDO RAM
- Optional onboard USB interface
- Optional onboard 10/100 Ethernet

Ordering Guide (cont.) Models with 2MB SVGA, No USB or Ultra SCSI

Serial 1, SVGA and PS/2 mouse connectors on rear panel. Serial 2 and parallel port connectors to separate bracket.

SB586T2V100	SB586T2V233X
SB586T2V133	SB586T2V266K
SB586T2V166	SB586T2V300K
SB586T2V200X	

Models with Ultra SCSI and 2MB SVGA, No USB

Serial 1, SVGA and PS/2 mouse connectors on rear panel. Serial 2 and parallel port connectors to separate bracket

SB586TS2V100	SB586TS2V233X
SB586TS2V133	SB586TS2V266K
SB586TS2V166	SB586TS2V300K
SB586TS2V200X	

Models with USB, No Ultra SCSI or SVGA

USB 1 and 2, PS/2 mouse and PS/2 keyboard onnectors on rear panel
Serial 1 and 2 and parallel port connectors to separate brackets.

SB586TU100	SB586TU200X
SB586TU133	SB586TU233X
SB586TU166	

Models with 10/100 Base-T and 2MB SVGA, No Ultra SCSI or USB

SVGA, PS/2 mouse, PS/2 keyboard and RJ45 Ethernet connectors on rear panel. Serial 1 and 2 and Parallel port connectors to separate brackets.

SB586TT100	SB586TT233X
SB586TT133	SB586TT266K
SB586TT200X	SB586TT300K

Accessories

EDO Memory

EDO non-parity, 60nS, tin-plated leads, compatibility tested

TMS-10032-60 (4MB SIMM)	TMS-80032-60 (32MB SIMM)
TMS-20032-60 (8MB SIMM)	TMS-16032-60 (64MB SIMM)
TMS-40032-60 (16MB SIMM)	

2

Ordering Guide (cont.) FPM Memory

Fast Page Mode parity, 60nS, tin-plated leads, compatibility tested

TMS-10036-60 (4MBSIMM) TMS-80036-60 (32MB SIMM)

TMS-20036-60 (8MB SIMM) TMS-16036-60 (64MB SIMM)

TMS-40036-60 (16MB SIMM)

SCSI Adapters

50313-01A SCSI cable adapter. Converts wide to narrow cabling at the single board computer.

50314-01A SCSI device adapter. Converts wide to narrow device at the device.

A Feature for Every Application

3

The SB586T series offers the latest onboard controllers that support the Intel Triton II chipset. Supported processors include Pentium with and without MMX technology; AMD-K6, and K6-2 with 3DNow! technology. The base model includes two EIDE channels with support for PIO Mode 4 enhanced IDE drives. In addition, basic system needs are met with a floppy disk controller, dual serial ports, and EPP/ECP parallel port. For graphics applications, a PS/2 mouse port is included as well.

Peripheral Support

Adding peripherals is simple and easy when you select the single board computer that builds in the support you need.

If you use SCSI-3 devices, the SB586TS and SB586TS2V series add an Adaptec 7880 controller for ultra and ultra-wide devices at up to 40 MB/S throughput.

For video applications, the Cirrus Logic GL-5446 SVGA video port, with 2MB onboard RAM, enhances the SB586T2V and SB586TS2V, and SB586TT series.

If you prefer a 10/100 Ethernet interface, the SB586TT series is available and includes SVGA video as well.

4

USB Support

The SB586TU series adds Universal Serial Bus support for upcoming peripherals on this high-speed, high-capacity interface. The SB586TU series also supports ISA/PCI passive backplanes with up to 16 PCI expansion slots.

To go along with the SB586TU, Industrial Computer Source has developed a backplane with full PCI 2.1 compliance. This backplane works with our larger chassis such as the 7700 and 7520 series. The backplane has even been load balanced to ensure proper operation. The CPU fits in the middle and the expansion slots, with their card loads, are equally distributed to each side. For more information on this backplane, contact Industrial Computer Source.

Specifications

Processors supported

Intel Pentium, AMD K6, or K6-2 in a ZIF Socket 7

Processor clock rate

Intel 100, 133, 166, 200, 233, AMD-266, or 300MHz

Clock rates

ISA bus: 8.33MHz, 24mA line drivers

PCI bus: 33MHz

Crystal clock: 14.31818MHz ±100ppm

Chip set

Triton II (Intel 430HX)

BIOS

Hi-Flex Pentium AMIBIOS, flash EPROM support, Plug-and-Play compatible. Full support for Year 2000 and leap-year date functions,

Memory capacity

256MB maximum onboard

SIMM support

2 banks, 2 sockets each, 72-pin, 32-bit EDO or 36-bit FPM (with parity) SIMMs.

ECC memory supported

Memory speed required

70ns or faster

Video controller

(SB586T2V, SB586TS2V, and SB586TT)

SVGA Video, Cirrus Logic CL-GD5446

2MB DRAM installed

VESA feature connector

Rear panel DB-15, high density, 15-pin connector, female

Specifications (cont.) *Cache memory*

16K internal Pentium chip cache
(32K on MMX)

Split 64K on AMD K6-2 - 32K
instruction and 32K data

512K synchronous pipeline burst L2
cache on board

EIDE disk controller

Four fixed disk drives supported
(two each on primary and secondary
PCI buses)

SCSI disk controller

LBA and PIO Mode 4 support

(SB586TS and SB586TS2V)

SCSI-3 Ultra-Wide controller,
located on PCI local bus

To 40MB/sec throughput

Adaptec AIC-7880 single-chip host
adapter

Ethernet controller

(SB586TT)

Complies with IEEE 802.3 and
ANSI 8802-3 Ethernet standards

10/100 BASE-T twisted-pair cable
with full-duplex operation

RJ45 connector included

DEC 21140-AE controller

Diskette controller

2 diskette drives, up to 2.88MB
supported

Serial ports

Two, RS232, 16550-compatible,
FIFO buffer

Isolated to $\pm 1500V$ ESD

MAX211E component incorporated
for enhanced ESD protection

Parallel port

One, Centronics-compatible,
bidirectional compatibility

EPP and ECP enhanced port modes

*Speaker, keyboard, keylock,
and reset port*

Single 8-pin header connector for
system interface

The keyboard may be selected as
absent or *present* by the system
BIOS. This option allows the
system to boot without a keyboard
attached.

5

Specifications (cont.)

6

Watchdog timer

Reset CPU automatically if CPU stops operating

Reset CPU automatically if +5VDC varies more than 5 percent

CMOS battery

Onboard, included in Dallas 12887A chip

Supported operating systems

Windows NT™ V4.0 Workstation and Server

Windows '95™ OSR2

SCO Unix™ V5.0 and later

SCO UnixWare™ V2.1 and later

Solaris™ V2.5.1 with driver update patches 9 and 10

MS-DOS™ 6.22

Windows 3.11™

OS/2™ V2.0 and later

QNX 4.24

Operating environment

Temperature: 0°C to 70°C

Humidity: 5% to 90% RHNC

Altitude: 10,000ft (3,048m) pressure altitude

Storage environment

Temperature: -40°C to 85°C

Humidity: 5% to 90% RHNC

Altitude: 10,000ft (3,048m) pressure altitude

MTBF

>90,000 P.O.H. @ 25°C

Power requirements

1.6A @ +5V

<100mA @ +12V

The onboard +3.3 V is regulated down from the +5V source.

Agency approvals

FCC conformity with:

47 CFR Part 15, Subpart B, Class A

CE conformity with:

EU EMC Directive 89/336/EEC

EU Low Voltage Directive 72/23/EEC



6260 Sequence Drive
San Diego, CA 92121
800 523-2320
fax 858 677-0895
www.icsadvent.com

Document 1532 02/18/99