Altos 586 Series

The Altos 586 family of products is a line of powerful systems designed to meet multiuser and multitasking requirements. The 8086, 16 bit systems offer a complete system solution with a wide selection of industry standard operating systems and languages, full communications, and support of application software to meet any business need. The Altos 586 Series is designed to perform larger, more comprehensive tasks for more users than 8 bit systems. Each system includes the Xenix™ Run time operating system and one Altos II terminal.

General Description

The 586 Series product line is a desk-top micro-computer system with the capability to handle up to 9 users simultaneously. Each system has a 1 MB 5¼ inch diskette drive, and support a range of hard disk options. Disk storage options range from 20 to 42 MB. An additional 42 MB second drive may be added to any system.

The 586 Series is a general purpose computer based on the Intel 8086 microprocessor family, offering the following features:

- Multiple processors 8086 —CPU
  Z80 —Serial I/O
  8089 —Hard Disk I/O
- 512K Bytes of Main Memory with parity, expandable to 1 megabyte
- Supports five users plus serial printer, expandable to nine users plus serial printer
- Intelligent Disc/Tape controller supports up to two Disk drives
- Self Diagnostics at power up
- Power fail detect
- Full 10 MHz 8086 performance
- WorkNet Local Area Network port (RS-422) built in

Features and Capabilities

Multiple processors

While the 8086 serves as the master CPU, the Z80 intelligent asyncronous controller handles serial I/O functions and the 8089 intelligent disk controller manages mass data storage with direct memory accessing.

Memory Management

586 Series carry a proprietary memory management system. It can subdivide up to 1 MB of memory into 4K blocks. It assigns a logical to physical address translation and various access attributes to each block so that noncontiguous physical memory can be assigned to any given task. The 586 also provides write and access protections to increase reliability and performance.

Memory Expansion

The Altos 586 system includes 512K of random access main memory with byte parity error detection. It can be expanded to 1 MB.

Integral Data Storage

All 586 systems include 1 MB of floppy disk storage. Hard disks are available with 20 or 42 MB variations. In addition, all series systems can support a second 42 MB disk upgrade. This provides disk capacities ranging from 20 to 84 MB.

An intelligent hard disk controller is an integral part of all 586 systems. This controller takes full advantage of higher CPU speed and fast hard disk access providing fast throughput.

Communications

586 Series supports asynchronous, 3270/3276 IBM Clustered Terminal Emulation and 3780 IBM BiSynchronous Communications.

The 586 Series will support an optional Serial Expander Board. This board provides an additional Z80 processor for support of 4 additional RS-232 serial ports. This option provides expanded support for additional video terminals, printers or modems.

The 586 series of products also supports the Altos local area network. For larger or multiple vendor networks, an Ethernet interface is also supported.

Magnetic Tape Back Up

All systems in the 586 family support an optional magnetic tape unit to provide high performance, high capacity back up for the hard disk.

Configurations

All 586 Series systems consist of 512 RAM, 1 MB floppy, 6 serial RS-232 Ports* and XENIX™ Run Time systems, and include one Altos II terminal with 10 foot cable. Winchester disk options include:

586-20	20 MB Winchester disk
586-40	42 MB Winchester disk

Specifications

Microprocessor

Model	8086
Technology	NMOS
Data/Instruction word size	16 bit
Clock Frequency	10 MHz

RAM Memory

Capacity	512K Bytes
Maximum	1M Byte
Cycle Time	375 NSEC

I/O Control

I/O Processor	Z80A
DMA processor	8089
Interrupt system	vectored
Serial ports	6 RS-232

Floppy Storage

Number of drives	1
Capacity Unformatted	1 MB
Density	Double
Side	Double
Data transfer rate	250 Kb/Sec
Access time	132 msec

Winchester Drives

Number of Drives   1

Capacity Unformatted

586-20	19 MB	(15 MB Formatted)
586-40	42 MB	(33 MB Formatted)

Data Transfer Rate	5 mbits/sec

Average Access Time

586-20	85 msec
586-40	45 msec

Optional Add ons

- 42 MB (unformatted) Winchester disk
- 17 MB (unformatted) magnetic tape cartridge
- 512K Memory Add-on
- Communication Board Serial Port Expansion Option

Communications

Ethernet
Worknet
3780 IBM Bisynchronous
3270 IBM Clustered Terminal Controller/Emulator

Physical Characteristics

Width	16⅞"
Height	6"
Depth	18"
Weight	33 pounds

Environmental and Safety Standards

Meets FCC docket 20780
   Class A requirements
   UL and CSA approved
Ambient Temperature Range
   15–32°C
   50–90°F
Relative Humidity
   non condensing 20–80%
Power dissipation 250 Watts

XENIX is a trademark of Microsoft.

ΔLTOS

COMPUTER SYSTEMS