

## High Speed 80386 Personal Computer Z-386

Zero wait states, ultra high speed processing and expansion for the future—designed for stand alone or multi-user, multi-tasking operations.



*The advanced 32-bit 80386 microprocessor brings supermini performance to this desktop PC... it's the next generation of power and speed.*

The Z-386 has totally redefined personal computer performance. This system runs two to three times faster than AT type PCs and can be configured with up to 16MB RAM and an 80MB Winchester. The increase in speed comes largely from two factors. First, the Z-386 32-bit processor works on data units that are 32 bits rather than 16 bits in size. Second, the speed of the Z-386 processor is 16 MHz, twice that of many other PCs.

The system's high speed design makes it ideal for local area network (LAN) file servers, computer-aided design (CAD), desktop publishing, windowed environments, artificial intelligence, Xenix™ applications, program development, and anyone who needs lightning-fast PC performance.

The Z-386 combines new PC technology with minicomputer technology in creating a 32-bit memory BUS that has the ability to use both PC and AT-compatible cards. The Z-386 features 2 PC/AT slots (1-open), 2 PC slots (1-open) and 6 32-bit AT/PC slots (3-open).

Enjoy the superior advantages of new performance standards for memory, speed and expandability with the Z-386... one of the most advanced desktop PCs ever manufactured.

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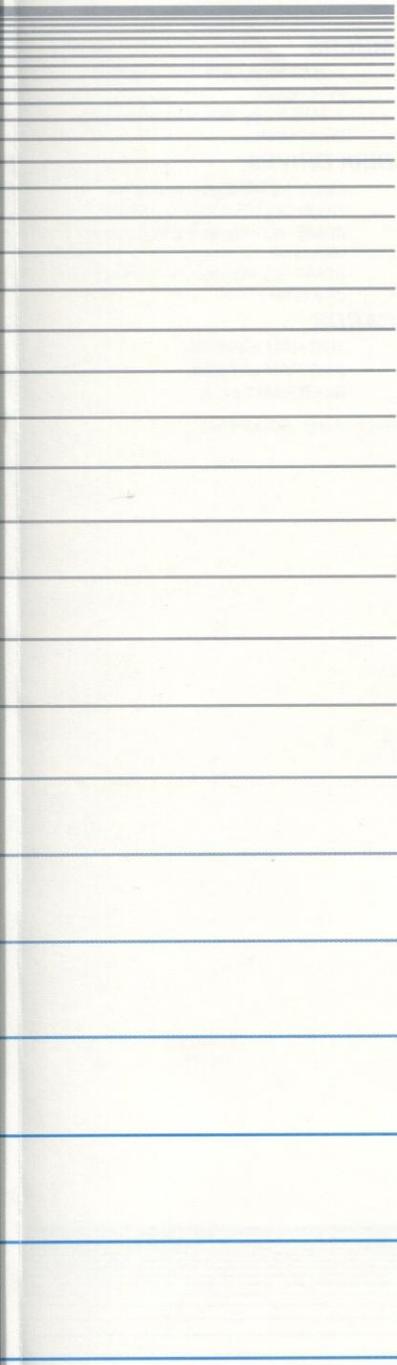
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## ***Ultra fast. Advanced performance. Enhanced compatibilities.***

### **Designed to provide important new speed features.**

Unique use of paging memory architecture of the Z-386 eliminates wait-states (idle time that retards performance so that the microprocessor can wait for memory to "catch-up"). Burst-mode refresh increases system speed by refreshing multiple rows of memory on one operation. Optional cache memory card allows the microprocessor to read and write at zero wait-states. And Zenith's "Slushware" (Firmware in RAM) feature allows extra flexibility and speed in ROM-based software.

### **Built for rapid response.**

The Z-386 features the high powered 80386 microprocessor. Running at 16 MHz, it processes data up to 10 times faster than the standard PC with an 8088 microprocessor. For heavy mathematical computations there is a socket that allows for an optional 80287 or 80387 microprocessor.

### **Powered to introduce new software technology.**

The Z-386 is IBM PC/AT compatible and can run virtually all of the MS-DOS® 16-bit software written for the IBM PC or AT.

The ability to run the Xenix operating system is what makes the conversion to a multi-user configuration possible. Add data terminals and use the Z-386 as a low-cost "mainframe" computer. Or, connect with other PCs and create a network with file and peripheral sharing, plus independent processing.

### **Process more data in less time.**

The Z-386 comes with 1MB standard RAM. For even more computing power, Z-386 memory can be expanded in 1 or 4MB increments. Memory expansion of the

Z-386 to 16MB of dynamic RAM is possible through paging memory.

### **Stores more data and adds greater capability.**

The Z-386 system can be configured with a 1.2MB floppy drive and a 40MB or 80MB Winchester hard disk drive from Zenith. For users building their own systems, the Z-386 has a self-configuring start-up mode that saves hours of time with mass storage devices. The Z-386 cabinet accommodates up to two full-height and two half-height disk drives for ample data storage.

### **Five open expansion slots.**

The Z-386 expands with your expanding needs. Three open slots accept 32-bit, 16-bit (AT) or 8-bit (PC) compatible cards. An additional slot accepts 16-bit or 8-bit compatible cards. A fifth slot accepts 8-bit compatible cards. Together, they provide virtually unlimited potential for adding memory cards, communications devices, additional serial or parallel ports, plus much more.

### **Ergonomic design for easy operation.**

Many features of the Z-386 make it easier for users to work on the system for extended periods. A detached keyboard with clearly labeled keys helps minimize input errors. A separate key pad allows users to enter numbers quickly and accurately.

### **Total Support from Zenith Data Systems.**

Zenith Data Systems provides comprehensive documentation for our full line of quality computer products and software. If desired, we can also supply maintenance agreements. We even offer a special telephone hotline to provide you with "on-the-spot" technical assistance, if required.

## Zenith Data Systems Z-386 Specifications

### CPU AND MEMORY

<b>Processor:</b>	Intel 32-bit 80386, 16MHz. Optional 80387 or 80287 arithmetic co-processor.
<b>Memory:</b>	1MB Dynamic RAM; internal parity check standard; expandable in 1 or 4MB blocks; 128K ROM address space. 4K special RAM.
<b>Operating System:</b>	Supports Microsoft MS-DOS 3.x and Microsoft Xenix.
<b>Standard Video Characteristics:</b>	Enhanced Graphics Adapter standard (IBM compatible). Runs at 31 KHz. Provides high resolution, 16 of 64 colors in a 640 x 350 pixel resolution (8 x 14 character cell); alternate CGA-compatible 640 x 200 mode (8 x 8 character cell).
<b>Optional Video:</b>	Compatible cards include: IBM Professional Graphics Controller (PGC), Hercules, Tecmar Graphics Master, Persyst, Paradise, and others.
<b>Drives:</b>	Basic system—Single 5.25" 1.2MB floppy, double sided/double density floppy drive (brackets and power supply included for additional 5.25" floppy drive and two Winchester). Enhanced system—Single 5.25" drive, 1.2MB floppy double sided/double density drive; 40MB 40 millisecond or 80MB 40 millisecond access time Winchester drive. Power supply brackets for additional floppy drive and another Winchester.
<b>Disk Controller:</b>	Combined Winchester and floppy controller supports 360K 5.25" and/or 1.2MB 5.25" drives plus two Winchester devices.
<b>Keyboard:</b>	Enhanced 101 key keyboard.
<b>Cursor:</b>	Blinking underline or reverse.
<b>Cursor Controls:</b>	Up, down, left, right, home, end, page up, page down.
<b>Cursor Addressing:</b>	Relative or direct.
<b>Tab:</b>	8 column tab (software application dependent).
<b>Edit Function:</b>	Insert and delete character or line (software application dependent).
<b>Erase Function:</b>	Erase line; erase to beginning of line; erase to end of page; erase to end of line (software application dependent).
<b>Refresh Rate:</b>	60Hz, 50Hz.
<b>Bell:</b>	Audible alarm in receipt of the ASCII BEL command.
<b>Clock:</b>	Continuous running real time clock with Lithium battery.
<b>Diagnostics:</b>	Automatic power-on with LED indicators; ROM-based user-invoked diagnostics.

### I/O PORTS

<b>Serial Ports:</b>	One male DB 9 EIA RS-232C connector; asynchronous RS-232C compatible. User software selectable: Number of start bits—1; Number of data bits—5, 6, 7, or 8; Number of stop bits—1 or 2; Baud rate—110, 150, 300, 600, 1200, 2400, 4800, 9600, and 19,200; Signals monitored—receive data, clear to send, data set ready, and carrier detect. Signals controlled—transmit data, request to send, data terminal ready. Supports both full and half duplex operation. Odd, even or null parity. Connector accessible from the rear.
<b>Parallel Ports:</b>	One Centronics compatible bidirectional parallel printer port with a 25 female pin D-connector accessible from the rear of the unit.

### EXPANSION

<b>Capability:</b>	10 bus slots; five open for expansion, one 8-bit PC-compatible, one 8/16-bit PC/AT compatible and three 32-bit/16-bit/8-bit compatible expansion slots.
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### PHYSICAL

<b>Weight:</b>	Single floppy drive—35 lbs. (15.9Kg); Winchester & Floppy drive 38 lbs. (17.2Kg.).
<b>Size:</b>	21" W x 16.5" D x 6.5" H (53.3 x 41.9 x 16.5 cm).

### OPERATING ENVIRONMENT

<b>Temperature:</b>	50-90° F.
<b>Humidity:</b>	20-80% relative humidity.
<b>FCC Approval:</b>	FCC class B (pending), UL approval.

### POWER

<b>Requirements:</b>	105-125 volts at 50/60 Hz at 200 watts; 210-240 volts at 50/60 Hz switch mode power supply.
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### ORDER NUMBERS

<b>Model 40</b>	1.2MB floppy disk drive and 40MB Winchester.
<b>Model 80</b>	1.2MB floppy disk drive and 80MB Winchester.

### OPTIONAL DISK DRIVES

<b>ZD-12</b>	Single 1.2MB floppy disk drive.
<b>Z-207-7</b>	Single 360KB floppy disk drive.
<b>ZD-400</b>	40MB, 40 millisecond Winchester disk drive.
<b>ZD-800</b>	80MB, 40 millisecond Winchester disk drive.

### OPTIONAL CARDS:

<b>Z-505</b>	1MB RAM with EMS.
<b>Z-515</b>	4MB RAM with EMS.
<b>Z-525</b>	64KB RAM Cache.

Specifications subject to change without notice.



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