

T2000SX

(No longer manufactured)

General Information

Model number: T2000SX 20MB - PA8020U (FCC ID# CJ6UK669)
T2000SX 40MB - PA8030U (FCC ID# CJ6UK669)
T2000SX 60MB - PA8000U (FCC ID# CJf6UK669)

Dimensions: 12.2"W x 10"D x 1.9"H

Weight: 6.9 lbs. with battery pack

Voltage: Computer DC input - 18VDC, 1.7A (running)/18VDC, 2.2A (charging)
Universal AC adapter - 100-240 VAC 50-60 Hz

Battery: Removable rechargeable Nickel Hydride battery pack

CPU: 80386SX (16/8MHz); 80387SX-16 coprocessor socket

RAM memory: 1MB standard (640KB conventional: 384KB extended or Hard-RAM)
Memory expandable up to 9MB via one credit card style memory slot when optional 1MB, 2MB, 4MB, or 8MB card is added

Video RAM: 256KB

Number of keys: 86

Keyboard type: 101-key keyboard compatible

Drives: One 1.44MB 3.5" floppy disk drive
One 20MB, 40MB, or 60MB hard disk drive

Standard features: AutoResume
HardRAM
Auto display and hard drive shutdown
CPU sleep mode
Intelligent power supply with battery "gas gauge"

Operating system included: Toshiba MS-DOS 4.01 or 5.0

Software Compatibility

Compatible with software written for the IBM PC/XT/AT using VGA, EGA, or CGA resolution graphics modes

Interfaces

VGA color video port
RS-232-C serial port
Parallel printer/external diskette or tape drive port
Numeric keypad/101-key keyboard adapter port
Built-in modem slot - "D" form factor
100 pin expansion interface connector
Credit card style memory slot

Fluorescent Sidelit Supertwist LCD Display

Display area: 6.8"W x 5.1"H; 8.5" diagonal
Resolution: 640 x 480
Aspect ratio: 1 : 1
Contrast: 15 : 1
Gray scales: 16 gray scales

T2000SX (continued)

2.5" 20MB Hard Disk Drive
Conner Peripherals HDD: CP2024
Interface: IDE
Average Access Time: 25ms
Recording Method: 2-7 RLL

2.5" 40MB Hard Disk Drive
Conner Peripherals HDD: CP2044
Interface: IDE
Average access Time: 19ms
Recording Method: 2-7 RLL

2.5" 60MB Hard Disk Drive
Conner Peripherals HDD: CP2064
Interface: IDE
Average access time: 19ms
Recording Method: 2-7 RLL

Soft Switches

- 1) Change CPU speed
 - Fn + PgUp 16MHz CPU Speed
 - Fn + PgDn 8MHz CPU Speed
- 2) Pop-up window
 - Fn + Esc Toggles pop-up window
- 3) Keypad overlay
 - Fn + NumLock Toggles keypad overlay
- 4) Fn key
 - Fn + Ctrl Simulate IBM enhanced keyboard Right Ctrl
 - Fn + Alt Simulate IBM enhanced keyboard Right Alt
 - Fn + Enter Simulate IBM enhanced keyboard numeric keypad Enter

Hardware Switches and Controls

- 1) Power on/off
 - Located on left side of computer
- 2) Reset
 - Located on left side of computer
- 3) LCD brightness and contrast dials
 - Located on right side of computer

Environmental Specifications

- 1) Operating condition
 - Ambient temperature: 41 to 95 degrees F. 5 to 35 degrees C.
 - Relative Humidity: 20% to 80% non-condensing
 - Altitude (from sea level): 0 to 12,000 ft. (0 to 3,657 meters)
- 2) Non-Operating condition
 - Ambient temperature: -4 to 140 degrees F. -20 to 60 degrees C.
 - Relative Humidity: 8% to 80% non-condensing
 - Altitude (from sea level): 40,000 ft. (12,192 meters) max.
- 3) Wet bulb temperature condition
 - Ambient temperature: 79 degrees F. (26 degrees C.) maximum

T2000SX (continued)

Options and Extra Accessories

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PC18-PA8316U	1MB memory card (no longer manufactured)
PC18-PA8317U	2MB memory card (no longer manufactured)
PC-PA2000U	2MB memory card (no longer manufactured)
PC-PA2001U	4MB memory card (no longer manufactured)
PC-PA2002U	8MB memory card (no longer manufactured)
PC-T24D	2400 bps Hayes compatible dedicated built-in modem (Bell or CCITT) (no longer manufactured)
PC-T24D/F	2400bps data/9600bps send/receive FAX built-in modem
PC-T144D/F	14400 bps send/receive FAX built-in modem (no longer manufactured)
PC-T24D/X or PC-T24D/X2	2400 bps Hayes compatible dedicated built-in modem w/enhanced protocol (MNP5 V.42 bis) (both no longer manufactured)
PC-TCL24A	Audiovox Axsys cellular connection for use with T24D/X modem (no longer manufactured)
PC-TCL24M	Motorola Axsys cellular connection for use with T24D/X modem (no longer manufactured)
PC-TCL24N	NEC Axsys cellular connection for use with T24D/X modem (no longer manufactured)
PC-TCL24U	Uniden Axsys cellular connection for use with T24D/X modem (no longer manufactured)
PC-PA7225U	5.25" 360KB external FDD with 18VDC adapter
PC18-PA8725U	Battery pack - 2200 mAh
PC18-PA8726U	Battery pack recharger with AC adapter (no longer manufactured)
PC18-PA8727U	Universal AC adapter
PC18-PA749L	Auto adapter - 12 VAC (no longer manufactured)
PC-PA801L	Statpower Prowatt 125 auto adapter
PC-PA7354E	17-key numeric keypad
PC-PA8718U	101-key keyboard adapter with external power supply
PC-PA722L	TD80 external tape backup drive (no longer manufactured)
PC-PA8600U	Desk Station II (no longer manufactured)
PC18-PA875L	Fabric carrying case (no longer manufactured)
PC-PA1000L	Leather carrying case (no longer manufactured)
PC-PA1050L	Leather attache case
PC13-PA874L	Executive leather portfolio (no longer manufactured)
PR-PA2750U	ExpressWriter 201 portable printer (no longer manufactured)
PC-SW013	Toshiba MS-DOS 5.0 (no longer manufactured)
PC-SW015	Toshiba MS-DOS 5.0 (no longer manufactured)
PC-SW007	Toshiba MS-DOS 4.01 (no longer manufactured)
PC-SW008	Toshiba MS-DOS 3.30 (no longer manufactured)
PC-SW004	Toshiba BASIC 3.30 (no longer manufactured)
PC-SW012	Toshiba MS OS/2 v1.21 operating system (no longer manufactured)

Interrupts

<u>Interrupt</u>	<u>Level</u>	<u>Assigned To:</u>
---	NMI	RAM Parity Error, I/O Channel Error
	0	Timer
	1	Keyboard
	2	PIC 2 for level 8 to 15
1	3	Secondary Communications (COM 2)
	4	Primary Communications (COM 1)
	5	PRT 2
	6	FDC
	7	PRT 1
	8	RTC
	9	Software Redirect to INT '0A'
2	10	(Reserved)
	11	(Reserved)
	12	COM 3
	13	80387SX
	14	HDC
	15	(Reserved)

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System Memory Map

<u>Address range</u>	<u>Space (Kilobytes)</u>	<u>Used For:</u>
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'000000'-'09FFFF'	640	System working memory
'0A0000'-'0BFFFF'	128	Video RAM
'0C0000'-'0C7FFF'	32	VGA BIOS ROM
'0C8000'-'0CFFFF'	32	(Reserved)
'D00000'-'DFFFFF'	64	(Reserved)
'0E0000'-'0E7FFF'	32	HardRAM window
'0E8000'-'0EFFFF'	32	Backup RAM
'0F0000'-'0FFFFF'	64	System BIOS ROM
'100000'-'8FFFFF'	8,192	Optional memory cards
'900000'-'FEFFFF'	7,104	Memory expansion in expansion port
'FF0000'-'FFFFFF'	64	System BIOS ROM (Duplicated)

I/O Port Assignment

Port Address

<u>From / To</u>	<u>Device / Function</u>
'000' / '01F'	82C37 : DMA Controller 1
'020' / '03F'	82C59 : PIC 1
'040' / '05F'	82C54 : Timer
'060' / '06F'	80C42 : KBC
'070'	NMI Mask Register
'070' / '07F'	RTC
'080' / '09F'	DMA Page Register
'0A0' / '0BF'	82C59 : PIC 2
'0C0' / '0DF'	82C37 : DMA Controller 2
'0E0' / '0EF'	Special Register
'0F0' / '0F7'	80387SX : NDP
'100' / '1EF'	VGA
'1F0' / '1FF'	HDC
'200' / '207'	Game I/O
'208' / '20F'	(Not Used)
'210' / '217'	Expansion Unit
'218' / '21F'	(Not Used)
'220' / '257'	(Not Used)
'258' / '25F'	(Not Used)
'260' / '267'	(Not Used)
'268' / '26F'	(Not Used)
'270' / '277'	(Not Used)
'278' / '27F'	Parallel PRT 2
'280' / '2A7'	(Not Used)
'2A8' / '2AF'	Reserved for EMS
'2B0' / '2B7'	(Not Used)
'2B8' / '2BF'	Reserved for EMS
'2C0' / '2DF'	(Not Used)
'2E0' / '2E7'	(Not Used)
'2E8' / '2EF'	Reserved for EMS
'2F0' / '2F7'	(Not Used)
'2F8' / '2FF'	Serial Port 2 (COM2)
'300' / '31F'	Prototype card
'320' / '32F'	XT type HDC
'330' / '337'	(Not Used)
'338' / '33F'	Serial Port 3 (COM 3)
'340' / '377'	(Not Used)
'378' / '37F'	Parallel PRT 1

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I/O Port Assignment (continued)

Port Address From / To	Device / Function
'380' / '38F'	SDLC, Bisync 2
'390' / '39F'	(Not Used)
'3A0' / '3AF'	Bisync 1
'3B0' / '3BF'	MDA and PRT
'3C0' / '3DF'	CGA, EGA, VGA
'3E0' / '3E7'	(Not Used)
'3E8' / '3E7'	Serial Port 3 (COM3)
'3F0' / '3F7'	FDC
'3F8' / '3FF'	Serial Port 1 (COM1)