

# T3200SX

(No longer manufactured)

## General Information

Model number: T3200SX 40MB - PA8045U (FCC ID# CJ6UK811)  
T3200SX 120MB - PA8046U (FCC ID# CJ6UK811)

Dimensions: 14.6"W x 3.9"H x 15.6"D

Weight: 17 lbs.

Voltage: 115 VAC ( 104 - 127 )/220 VAC (198 - 264 ) auto sensing

Frequency: 50/60Hz auto sensing

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

RAM memory: 1MB standard (640KB conventional; 384KB extended)  
Memory expandable to 7MB with optional 2MB memory modules or  
Memory expandable to 13MB with optional 4MB memory modules

Video RAM: 256KB

Number of keys: 91

Keyboard type: 101-key keyboard compatible

Drives: One 1.44MB 3.5" floppy disk drive  
One 40MB, or one 120MB hard disk drive

Operating system included: Toshiba MS-DOS 3.30 or 4.01

## Software Compatibility

Compatible with software written for the IBM PC/XT/AT using VGA, EGA, CGA, or T3100/AT&T 6300 640 x 400 high resolution graphics mode

## Interfaces

VGA color video port  
Built-in dedicated modem slot - "D" form factor  
2 RS-232-C serial ports  
Parallel printer/external diskette or tape drive port  
3 Toshiba proprietary memory slots  
101-key enhanced keyboard port  
2 expansion interface slots (one IBM PC/XT/286 compatible full length low profile 16 bit ISA slot, and one IBM PC/XT compatible half length low profile 8 bit ISA slot or Toshiba proprietary "A" form factor slot)

## Orange Gas Plasma Display

Display area: 9.4"W x 6.9"H; 11.25" diagonal  
Resolution: 640 x 480  
Gray scales: 16  
Contrast: 100 : 1

## 3.5" 40MB Hard Disk Drive

Conner Peripherals HDD: CP-3044  
Interface: IDE  
Average access time: 25ms  
Recording Method: 2,7 RLL

## 3.5" 120MB Hard Disk Drive

Conner Peripherals HDD: CP-30104  
Interface: IDE  
Average access time: 19ms  
Recording Method: 2,7 RLL

## **T3200SX (continued)**

### **IBM PC/XT Compatible Expansion Slots**

- 1 full length IBM PC/XT/286 compatible low profile 16 bit ISA slot;
- 1 half length IBM PC/XT compatible low profile 8-bit ISA slot

Maximum card sizes:

- 16-bit long slot 333.502mmL +/- .5mm x 106.68mmW  
99.06mmW +/- .3mm w/o connector  
33mmH or 13mmH if short slot used
- 8-bit short slot 140mmL x 13mmH, width same as 16 bit

### **Hardware Switches and Controls**

#### **1) Power on/off**

Located on back of computer

#### **2) A/B/PRT switch**

Located on right side of computer

With switch set to "A", external FDD port is accessed as drive A; internal 3.5" FDD as drive B.

With switch set to "B", external FDD port is accessed as drive B, internal 3.5" FDD as drive A.

Switch is set to "PRT" for parallel printer output.

Computer must be re-booted for switch change to take effect.

#### **3) Plasma display brightness dial**

Located on right side of display

### **Environmental Specifications**

#### **1) Operating condition**

Ambient temperature: 41 to 95 degrees F. 5 to 35 degrees C.

Relative Humidity: 20% to 80% non-condensing

#### **2) Non-Operating condition**

Ambient temperature: -4 to 140 degrees F. -20 to 60 degrees C.

Relative Humidity: 5% to 90% non-condensing

## **T3200SX (continued)**

## Options and Extra Accessories

PC12-PA8307U	2MB memory module (no longer manufactured)
PC12-PA8309U	4MB memory module (no longer manufactured)
PC-PA7225U	5.25" 360KB external FDD with 18VDC adapter
PC-T24A	2400 bps Hayes compatible Toshiba expansion slot modem w/serial port (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-PA801L	Statpower Prowatt 125 auto adapter
PC-PA7597E	Fabric carrying case (no longer manufactured)
PC-PA7598	Leather carrying case (no longer manufactured)
PC-PA7310U	Expansion chassis (requires expansion chassis interface card) (no longer manufactured)
PC-PA7313E	Expansion interface card (no longer manufactured)
PC-PA5467U	ToshibaLAN 16 bit Ethernet Card (Toshiba proprietary slot) (no longer manufactured)
PC-PA5466U	ToshibaLAN 8 bit Ethernet card (IBM/AT compatible 1/2 card, 8 bit) (no longer manufactured)
PC-PA722L	TD80 external tape drive (no longer manufactured)
PC-PA7367E	Floppy Link to 5.25" desktop diskette drive (no longer manufactured)
Contact ASP	120MB hard drive upgrade (Installed by Toshiba Authorized Service Providers)
PR-PA2750U	ExpressWriter 201 portable printer (no longer manufactured)
PC-SW004	Toshiba BASIC 3.30 (no longer manufactured)
PC-SW008	Toshiba MS-DOS 3.30 (no longer manufactured)
PC-SW007	Toshiba MS-DOS 4.01 (no longer manufactured)
PC-SW013	Toshiba MS-DOS 5.0 (no longer manufactured)
PC-SW015	Toshiba MS-DOS 5.0 (no longer manufactured)
PC-SW012	Toshiba MS OS/2 operating system 1.21 (no longer manufactured)

## System Memory Map

Address range	Space (Kilobytes)	Used For:
'000000'	640	System working memory
'09FFFF'		
'0A0000'	128	Video RAM
'0BFFFF'		
'0C0000'	32	HRGS ROM
'0C7FFF'		
'0C8000'	32	(Not Used)
'0CFFFF'		
'0D0000'	64	(Not Used)
'0DFFFF'		
'0E0000'	64	(Not Used)
'0EFFFF'		
'0F0000'	64	System BIOS ROM
'0FFFFFF'		
'100000'	15,360	Memory expansion area
'FFFFFF'		

## T3200SX (continued)

## Interrupts

Interrupts	Level	Assigned To:
--	NMI	RAM Parity Error, I/O Channel Error
	0	Timer
	1	Keyboard
	2	Interrupt Controller 2
1	3	SIO port 1, 2, Toshiba modem or others
	4	SIO port 1, 2, Toshiba modem or others
	5	SIO port 1, 2, Toshiba modem or others
	6	Floppy disk
	7	Printer 1
	8	RTC
	9	Software Redirect to INT '0A'
2	10	(Reserved)
	11	(Reserved)
	12	SIO port 1, 2, Toshiba modem or others
	13	Math coprocessor
	14	Hard disk
	15	(Reserved)

## I/O Port Assignment

### Port Address

From / To	Device / Function
'000' / '01F'	82C37A : DMA Controller 1
'020' / '03F'	82C59A : Interrupt Controller 1
'040' / '05F'	82C54 : Timer
'060' / '06F'	8742: Keyboard Controller
'070' / '07F'	RTC & NMI
'080' / '09F'	DMA Page Register
'0A0' / '0BF'	82C59A : PIC 2
'0C0' / '0DF'	82C37A : DMA Controller 2
'0E0' / '0FF'	NDP Error Clear Port
'100' / '1EF'	(Not Used)
'1F0' / '1F7'	HDC Port
'1F8' / '1FE'	(Not Used)
'200' / '207'	(Not Used)
'209' / '217'	(Not Used)
'219' / '257'	(Not Used)
'259' / '267'	(Not Used)
'260' / '2E7'	(Not Used)
'2E8' / '2EF'	SIO Port (1, 2, Modem card)
'2F8' / '2FF'	SIO Port (1, 2, Modem card)
'300' / '337'	(Not Used)
'338' / '33F'	SIO Port (1, 2, Modem card)
'340' / '377'	(Not Used)
'378' / '37F'	Parallel PRT 1
'380' / '3AF'	(Not Used)
'3B0' / '3DF'	HRGS Ports
'3E0' / '3E7'	(Not Used)
'3E8' / '3EF'	SIO Port (1, 2, Modem card)
'3F0' / '3F7'	FDC/FDD Interface (with HDC)
'3F8' / '3FF'	SIO Port (1,2, Modem card)