

# T3100SX

(No longer manufactured)

## General Information

Model number:	T3100SX 40MB - PA8015U (FCC ID# CJ6UN625) T3100SX 80MB - PA8016U (FCC ID# CJ6UN625)
Dimensions:	12.2"W x 14.2"D x 3.15"H
Weight:	14.9 lbs.
Voltage:	Computer DC input - 15 VDC, 2.7 A Universal AC adapter - 90-240VAC, 49-61Hz, 60 W
Batteries:	Two removable NiCD battery packs
CPU:	80386SX (16/8MHz); 80387SX-16 coprocessor socket
RAM memory:	1MB standard (640KB conventional; 384 KB extended or HardRAM) Memory expandable to 7MB with optional 2MB memory modules or memory expandable to 13MB with optional 4MB memory modules
Video RAM:	256KB
Standard features:	AutoResume HardRAM
Number of keys:	86
Keyboard type:	101-key keyboard compatible
Drives:	One 1.44MB 3.5" floppy disk drive One 40MB or one 80MB hard disk drive
Operating system included:	Toshiba MS-DOS 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  
2 RS-232-C serial ports  
Parallel printer/external diskette or tape drive port  
Numeric keypad/101-key keyboard adapter port  
Built-in modem slot - "D" form factor  
3 Toshiba proprietary memory slots  
Toshiba proprietary "A" form factor expansion slot

## Orange Gas Plasma Display

Display area: 8"W x 6"H ; 10" diagonal  
Resolution: 640 x 480  
Gray scales: 16  
Contrast: 100 : 1

## 3.5" 40MB Hard Disk Drive

JVC HDD: JD-E3848VOTO  
Interface: IDE  
Average access time: 25ms  
Recording Method: 2-7 RLL

## 3.5" 80MB Hard Disk Drive

JVC HDD: JD-E3896VOTO  
Interface: IDE  
Average access time: 25ms  
Recording Method: 2-7 RLL

## T3100SX (continued)

### 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 right side of computer

#### 2) Reset

Located on left side of computer

#### 3) A/B/PRT switch

Located on left 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.

### 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

## T3100SX (continued)

### Options and Extra Accessories

PC15-PA8308U	2MB memory module (no longer manufactured)
PC15-PA8310U	4MB memory module (no longer manufactured)
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)
PC15-PA7489U	12VDC automobile adapter (no longer manufactured)
PC-PA801L	Statpower Prowatt 125 auto adapter
PC15-PA8709U	15VDC Universal AC adapter
PC15-PA8707U	Battery pack recharger (no longer manufactured)
PC15-PA8708URA	Battery pack
PC-PA7310U	Expansion chassis (requires expansion chassis interface card) (no longer manufactured)
PC-PA7313E	Expansion chassis interface card (no longer manufactured)
PC15-PA8601U	Desk Station III (includes interface card) (no longer manufactured)
PC-PA7225U	5.25" 360KB external FDD with 18VDC adapter
PC-PA7354E	17-key external numeric keypad
PC15-PA8020U	Fabric carrying case (no longer manufactured)
PC-PA8722E	Leather carrying case (no longer manufactured)
PC-PA5462U	ToshibaLAN 8/16 bit Ethernet card & AC power adapter (no longer manufactured)
PC-PA7367E	Floppy Link to 5.25 desktop diskette drive (no longer manufactured)
PC-PA722L	TD80 external tape drive (no longer manufactured)
Contact ASP	80MB hard drive upgrade (Installed by Toshiba Authorized Service Providers)
PC-PA8718U	101-key keyboard adapter with external power supply
PR-PA2750U	ExpressWriter 201 portable printer (no longer manufactured)
PC-SW004	Toshiba BASIC 3.30 (includes diskette and manual) (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)

## T3100SX (continued)

### System Memory Map

Address range	Space (Kilobytes)	Used For:
'000000'	640	System working memory
'09FFFF'		
'0A0000'	128	Video RAM
'0BFFFF'		
'0C0000'	32	VGA BIOS ROM
'0C7FFF'		
'0C8000'	32	Option ROM
'0CFFFF'		
'0D0000'	64	EMS window
'0DFFFF'		
'0E0000'	32	HardRam window
'0E7FFF'		
'0E8000'	32	Pop Up window
'0EFFFF'		
'0F0000'	64	System BIOS ROM
'0FFFFFF'		
'100000'	12,288	Optional memory cards
'CFFFFFF'		
'D00000'	3,008	Memory expansion in expansion slot
'FEFFFF'		
'FF0000'	64	System BIOS ROM
'FFFFFF'		(Duplicated)

### Interrupts

Interrupts	Level	Assigned To:
--	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)

## T3100SX (continued)

### 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
'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'	LIM-EMS Set 0
'210' / '217'	Expansion Unit
'218' / '21F'	LIM-EMS Set 1
'220' / '257'	(Not Used)
'258' / '25F'	LIM-EMS Set 2
'260' / '267'	(Not Used)
'268' / '26F'	LIM-EMS Set 3
'270' / '277'	(Not Used)
'278' / '27F'	Parallel PRT 2
'280' / '2A7'	(Not Used)
'2A8' / '2AF'	Reserved for LIM-EMS
'2B0' / '2B7'	(Not Used)
'2B8' / '2BF'	Reserved for LIM-EMS
'2C0' / '2E7'	(Not Used)
'2E8' / '2EF'	Reserved for LIM-EMS
'2F0' / '2F7'	(Not Used)
'2F8' / '2FF'	Serial Port 2 (COM 2)
'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' / '38F'	Parallel PRT 1
'380' / '38F'	SDLC, Bisynchronous 2
'390' / '39F'	(Not Used)
'3A0' / '3AF'	Bisynchronous 1
'3B0' / '3BF'	MDA, PRT
'3C0' / '3DF'	CGA, EGA, VGA
'3E0' / '3E7'	(Not Used)
'3E8' / '3FF'	Serial Port 3 (COM 3)
'3F0' / '3F7'	FDC
'3F8' / '3FF'	Serial Port 1 (COM1)