

# NEC PowerMate Express 486SX-25Te, 486-33Te/50Te 33Te (Enhanced), 486DX2-50Te/66Te

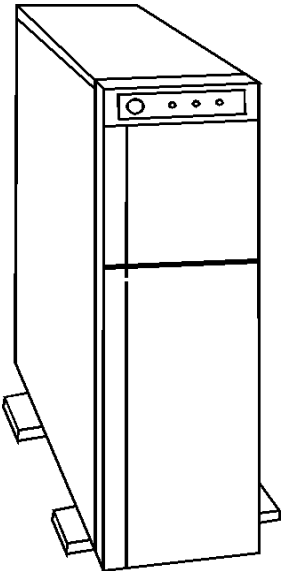


Figure 1. NEC PowerMate Express  
486SX-25Te  
486-33Te/50Te/33Te (Enhanced)  
486DX2-50Te/66Te

## Specifications

### Processor

- Intel 486SX -25/30 MHz
- 486DX -33/50 MHz
- 486DX2-50/66 MHz

### Memory

- 8MB standard, expands to 112MB

### I/O Expansion Slots

- Ten 32 bit EISA expansion slots

### Diskette Drive

- 1.44MB drive and up to 1.35GB SCSI HD

### Integrated Features

- Diskette and IDE controllers
- One Parallel port and Two serial ports
- Flash ROM and 8K internal cache
- **486-33Te/50Te:** 128K external cache
- **486DX2-50Te/66Te:** 128K external cache
- PS/2 Keyboard and Mouse
- Local bus VGA for all models

### Internal Expansion Bays

- One 5.25" slim line 1" front accessible bay
- Three 5.25" half height 1.6" front accessible bays
- Six 5.25" 1.6" internal accessible bays.

### I/O Architecture (Bus's supported)

- Extended Industry Standard Architecture (EISA)

### Dimensions

- 7.0d w X 26.8" d X 22.4" h

### Power Supply

- 388 Watt

### CMOS Access

- QAPLus/FE

## Tools and Software Requirements

- 1/4" Flat bladed and 2PT Phillips screwdriver
- T-15 Torx screwdrivers
- Needle nose pliers
- Diags and formatted blank diskette
- Anti-static wrist strap

## Jumper/Switch Settings

### System Board G8KUT 48633te,

Jumper	Setting	Function
JP1	open *	Reserved
JP2	1-2 * 2-3	ROM capacity 28256KB ROM capacity 282512KB
JP3	1-2 * 2-3	Write data to flash ROM on Write data to flash ROM off
JP4	1-2 * 2-3	Password select on Password select off
JP5	closed open *	Reset switch on Reset switch off

\* Default

### Maintenance Mode Switch For All Except 486SX-25Te

Setting	Function
Released *	Test mode off
Locked	Test mode on

\* Default

### Processor Board (G8JGFA) Settings for 486SX-25Te Only

Jumper	Setting	Function
15A2 & 15A3	1-2 * 2-3	Normal operation Test mode

\* Default

### Basic I/O Board DIP Switch Settings

Switch	Setting	Function
1-4	1-2: ON 3-4: OFF	LPT1=IRQ7, LPT2=IRQ5
	1-2: OFF* 3-4: ON*	LPT1=IRQ5, LPT2=IRQ7
	5-6	5 - ON 6 - OFF
	5 - OFF* 6 - ON*	FDD:500/250/300/150/125 kbps
7	OFF * ON	Non-loop test, manufacturing Loop test, manufacturing
8	OFF * ON	NEC VGA adapter off NEC VGA adapter on

\* Default

### Express VGA Adapter Settings

Jumper	Setting	Function
JP1	1 - 2 2 - 3 *	Disable -Write data to Flash ROM Enable -Write data to Flash ROM

\* Default

## Removal Procedures

### Initial Procedures

1. Turn off the computer and any peripheral devices
2. Disconnect AC power cord from outlet and system
3. Disconnect all peripheral devices from the computer
4. Discharge any static with static strap by touching chassis with strap.

### System Side Cover

How to remove the side cover:

1. Follow Initial procedures as describe before.
2. Unlock the cover lock if locked
3. Remove the screw hold the side panel to the middle of the rear panel.
4. Slide the cover back an inch, tilt the top of the panel
5. Lift the side cover up and off to remove.

### Front Bezel

1. Remove System Side Cover as described before.
2. Locate a long screw behind the front bezel and in the upper-left area of the system case
3. Remove this screw in a counter-clockwise direction
4. Lift the bezel up and away from the front of unit.

### Shielding Panel (Drive Cover)

1. Remove front bezel and side-cover as described before.
2. Locate four screws located in each of the four corners on the reverse side of the shielding panel
3. Remove screws and note their positions for replacement.
4. Lift shielding panel out of the front bezel frame.

### Special Notices:

- For Advanced Diags use a PC Diagnostic Utility.
- Troubleshoot according to errors found during test.
- All NEC hard drives are formatted at the factory and need no formatting and are configured as primary drive.
- All switch settings will not be reflected until the system has been completely repowered.
- When removing the processor chips, use a chip puller.
- Multi-Sync monitors contain high voltages, any internal adjustments are to be made only by certified engineer.
- Add memory to system in closest to the drive bays first.
- Different size SIMMS may be intermixed when adding memory to system board, however, same speed SIMMs are recommended.

### Field Replaceable Units

Memory	OEM Part	IBM Part
Memory expansion board	136-261977-504A	48H6415
4MB SIMM, 1 x 36	136-261977-704A	61H6014
16MB SIMM, 4 x 36	136-261977-705A	48H6416
32MB SIMM, 8 x 36	136-262705-010A	61H6016
SCSI adapter memory mod.	158-050334-102	61H6041

Controllers & Adapters	OEM Part	IBM Part
Basic I/O board	158-050432-000A	47H9529
EISA SCSI host adapter	158-050334-203	61H6039
SCSI adapter smart ROM	158-050334-201	48H7017
SCSI adapter cache board	158-050334-205	61H6042
ESDI caching controller	158-050334-130	47H9479

Video Boards	OEM Part	IBM Part
Express - VGA adapter	158-050494-000	67H9709
BASE - VGA adapter	158-053395-003	61H6038
BitBlt - EVGA adapter	158-053395-002	67H9752

Internal Hard Drive	OEM Part	IBM Part
45MB, 3.5", IDE HD	134-500988-099O	67H9045
60MB, 3.5", IDE HD	158-050395-301	67H9699
120MB, 3.5", IDE HD	808-880145-001A	47H3851
140MB, 5.25", ESDI HD	136-008174-620A	49H6837
240MB, 3.5", IDE HD	158-050395-305	20H9532
300MB, 5.25", ESDI HD	136-008174-621A	67H9117
535MB, SCSI HD	158-050395-306	47H7594
600MB, 5.25", SCSI HD	134-505034-0020	67H9046
1.3GB, SCSI HD	158-050395-501	55H1796

Diskette Drives	OEM Part	IBM Part
3.5", 1.44MB Floppy	134-505642-206O	48H6251
5.25", 1.2MB Floppy	136-261977-404A	20H9508
3.5", 1.44MB Floppy (Thin)	808-870954-001A	20H9520

Tape Drive	OEM Part	IBM Part
525MB SCSI-2 tape drive	158-050389-100	37H8553
2.0/8.0GB DAT tape drive	158-050389-200	37H8554

CD-ROM Drive	OEM Part	IBM Part
CD-ROM External, CDR-73M	09600704	67H8008

System Boards	OEM Part	IBM Part
System board	158-050431-002A	61H5882

Processor Boards	OEM Part	IBM Part
Processor Bd.-486SX-25Te	158-050394-001	48H7019
Processor Bd.-486-33Te	158-050394-000	48H6417
Processor Bd.-486-50Te	136-262848-501A	61H5884
Processor Bd.-48633Te,Enh	136-263293-501A	61H5885
Processor Bd.-486DX250Te	136-263294-501A	61H5886
Processor Bd.-486DX266Te	158-050504-000A	61H5887

Cables	OEM Part	IBM Part
Keyboard / mouse cable	808-857913-002A	67H2202
5", Floppy signal cable	808-840655-014A	67H2179
IDE drive cable	808-857766-001A	67H2198
5", ESDI HD, signal cable	808-840656-005A	67H2180
5" HD B, ESDI/ST506 cable	808-840069-019A	67H2174
SCSI HD internal cable	158-050343-002	66H7456
SCSI HD external cable	136-260968-516A	66H6897

Miscellaneous	OEM Part	IBM Part
Lithium battery	804-020612-003A	61H5881
Power supply (388 Watt)	808-891261-001A	68H5623
Fan cooling assembly	808-864027-038A	61H5880
Fan cooling for CPU	808-864027-045A	61H5891
Keyboard PS/2 style	808-897060-001A	61H5893