

NEC Image 486es Series

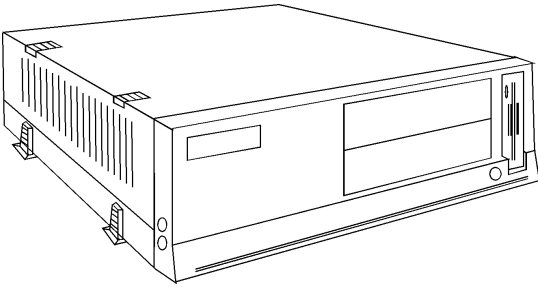


Figure 1. NEC Image 486es Series

Specifications

Processor

- Intel 486DX/33, 486DX2/66MHz

Memory

- 4MB RAM, expands to 128MB

I/O Expansion Slots

- Four expansion slots

Diskette Drive

- 1.44MB, 3.5" and 210 MB HD standard

Integrated Features

- VGA controller (1MB VRAM)
- Enhanced parallel port
- Two serial ports
- Flash ROM and 8K cache
- Integrated IDE and SCSI-2 interfaces
- PS/2 style keyboard and Mouse

Internal Expansion Bays

- Two 5.25" user accessible bays
- One 3.5" user accessible bay
- One 3.5" internal bay.

I/O Architecture (Bus s supported)

- Industry Standard Architecture (ISA)
- Vesa Local Bus

Power Supply

- 145 Watt

Diagnostics

- Normal Post Diags performed on Power UP of system.
- For Advanced Diags use a PC Diagnostic Utility.
- Troubleshoot according to errors found during test.

CMOS Access

- QAPIus/FE

Tools and Software Requirements

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

Jumper/Switch Settings

System Configuration, Switch SW1

Switch	Setting	Function
1	ON	Turns off built in video
	OFF *	Turns on built in video
2	ON	Turns off diskette controller
	OFF *	Turns on diskette controller
3	ON	Turns off password feature
	OFF *	Turns on password feature
4	ON	Disallows BIOS reprogramming
	OFF *	Allows BIOS reprogramming
5	ON	BIOS reprog. over net, no BUU disk
	OFF *	BIOS reprog. over net, need BUU Disk
6	ON	CPU speed 25/50MHz
	OFF	CPU speed 33/66MHz

* Default, BUU = BIOS Update Utility

System Board Connectors

Connector	Function
P1	COM1 port
P2	COM2 port
P3	VGA monitor
P4	Printer port
P5	Keyboard / Mouse
P6	SCSI-2 interface (external)
J1-J4	SIMM sockets
J5	External ISA/VL hard disk LED
J7	IDE interface
J8	Diskette Drive interface
J9	Video feature
J10	Speaker
J11, J15	Indicator Panel
J13	Battery
J16, J20	ISA expansion
J17	SCSI-2 interface (internal)
J18	Cache module
JP10, JP11	Power Supply
U1	Processor socket
U37-U39, U94	Video DRAM sockets

Special Notices:

Hardware

- All NEC hard drives are formatted at the factory and needs no formatting and configured as primary drive.
- All switch settings will not be reflected until the system has been completely repowered.
- Multi-Sync monitors contain high voltages, any internal adjustments are to be made only by certified engineer.
- For proper SCSI-2 installation make sure last SCSI-2 device has a SCSI-2 terminating connector installed.

BIOS Functions

- All IRQ used by built- in ports are not available for use by any ISA cards in the system.
- The system unit's CMOS is set with the correct hardware settings at the factory. Time and date may be the only thing to change.

Memory

- Page mode interleaving is available when banks 0/1 or banks 2/3 or all have the same size SIMM installed.
- Memory (RAM) used is 1,2,4,8MB x 36 bit @ 70ns.
- Different size SIMMs may be intermixed on system board, however, fill and place the larger size SIMM chips starting from (bank 0) to (bank 3) and do not leave any spaces or slots empty.

Removal Procedures

Before beginning removal complete the following steps:

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 by touching static strap to chassis.

System Cover

How to remove the cover:

1. Find two locking tabs at the bottom of the front panel.
2. Firmly press the tabs and swing front panel away from the system unit.
3. Unlock the cover, if locked by finding the two locking tabs on both sides of the unit.
4. Pull the tabs outward and slide cover a few inches to the back of the system unit.
5. To remove, lift up and off the cover.

Field Replaceable Units

Memory	OEM Part	IBM Part
256KB secondary cache	158-053639-000	67H9668
4MB @ 1MB X 36 SIMM	158-053409-008	37H8767
8MB @ 2MB X 36 SIMM	158-053409-009	37H8768
16MB @ 4MB X 36 SIMM	158-053409-010	37H8769
32MB @ 8MB X 36 SIMM	158-053409-011	37H8770
DRAM, 1MB	158-053685-003	55H2389

Internal Hard Drive	OEM Part	IBM Part
210MB, IDE HD	158-050395-319	22H1968
250MB, IDE HD	158-053407-011	37H8781
340MB, IDE HD	158-053437-008	22H1989
420MB, IDE HD	158-053407-013	48H2538
540MB, IDE HD	158-050395-322	71H0400
540MB, SCSI-2 HD	158-053407-008	22H1991
1.37GB, SCSI-2 HD	158-053407-009	22H1992

System Boards	OEM Part	IBM Part
G8MZK- Image 433es Board	158-026154-100A	22H1979
G8MZX- Image 450es Board	158-026154-500A	22H1980
G8MZL- Image 466es Board	158-026154-200A	22H1981
G8RDJ- Image 4100es Board	158-026154-600A	22H1982

CD-ROM Drives	OEM Part	IBM Part
CD-ROM, Portable	03377144	67H7729
CD-ROM, Internal	03377145	48H4395
CD-ROM, External	03377146	48H4396

Diskette Drives	OEM Part	IBM Part
5.25", 1.2MB Floppy	158-053476-000	22H1988
3.5", 1.44MB Floppy	158-053475-000	20H9484

Cables	OEM Part	IBM Part
Floppy signal cable	158-050503-001	66H7465
HD IDE signal cable	158-050324-001	66H7455
SCSI data cable, 2 devices	158-050548-000	66H7470
SCSI data cable (External)	09601058	53H1293

Miscellaneous	OEM Part	IBM Part
ISA backboard	158-026155-000A	22H1983
AC Power cord	808-857649-101A	22H0531
Power supply (145 Watt)	158-050614-003	22H1984
Power supply carrier	158-050614-005	22H1985
NEC PS/2 style mouse	158-050484-000	22H1970
Keyboard PS/2 style	158-050550-000	20H9481
Keyboard / Mouse assembly	158-050614-017	48H7026
Battery 3.6v	158-060155-000	20H9490