# THE COMPAQ DESKPRO 66M PERSONAL COMPUTER
## Features/Specifications



Introducing the COMPAQ DESKPRO 66M, the highest performing member of the COMPAQ DESKPRO/M Family. This new PC provides the ultimate combination of technology and features for performance-sensitive users.

### Performance Plus Features

The new 66-MHz 486DX2 microprocessor, which represents the state of the art in speed-doubling technology from Intel, provides an exceptional performance edge in high-end applications such as CAD/CAE, scientific analysis, and software development.

The COMPAQ DESKPRO 66M complements this power with leading-edge features you need to work faster and more efficiently. All models come standard with the QVision 1024/E Controller, a high-resolution graphics controller that supports 256 colors in 1024 x 768 resolution. This high-performance controller combines with optimized software drivers to dramatically improve performance in graphics-intensive applications and windowing environments.

In addition, a business audio system allows you to enhance your business computing by integrating sound into your daily work. You can choose a model that comes standard with COMPAQ business audio, or upgrade later if you like.

### A Member of the Family

Of course, the COMPAQ DESKPRO 66M includes the wide array of other features you've come to expect from the COMPAQ DESKPRO/M Family. The newest member of the family is also designed with Intelligent Modularity, an advanced design concept that gives you extensive configuration flexibility today, while providing a clear path for growth. The capability to upgrade processor, memory, graphics, and storage subsystems effectively protects your investment. For example, the COMPAQ DESKPRO 66M can be upgraded beyond the 486DX2 to the next generation of Intel microprocessor, designed to allow performance of more than 100 MIPS.

Standard features include 8 megabytes of memory (expandable to 64 megabytes), four 8-/16-/32-bit EISA slots available for expansion, and a comprehensive array of hardware and software security features. In a continuing tradition, the COMPAQ DESKPRO 66M also reflects the uncompromising quality and exacting engineering associated with Compaq for more than a decade. That's why we back every COMPAQ DESKPRO/M PC with a One-Year Limited Warranty.

COMPAQ

# MORE FEATURES, MORE CHOICES

Seven Expansion Slots
*Four Full-Sized 8-/16-/32-Bit
EISA Slots
*One Full-Sized 8-/16-/32-Bit
EISA Slot with QuickBlank
Video Feature
*One 32-Bit Dedicated
Processor Slot
*One 32-Bit Dedicated
High-Speed Memory Slot

QVision 170 Color
Monitor Option

8 MB of RAM
Standard;
Expandable
Up to 64 MB
Using SIMM
Memory Modules

510-MB
Hard Drive

240-Watt
Power Supply

Intelligent Modularity,
a Design Concept
That Separates the
Traditional System Board
into Five Boards

COMPAQ Business
Audio I/O Board

32-Bit 8-Socket
Memory Expansion
Board Option

Processor Board

QVision 1024/E
Controller

1.44-Megabyte
Diskette Drive

EISA Bus Board

5 1/4-Inch 1.2-Megabyte
Diskette Drive Option

320-/525-Megabyte
Tape Drive Option

Enhanced Keyboard

Support for Up to Four
Mass Storage Devices
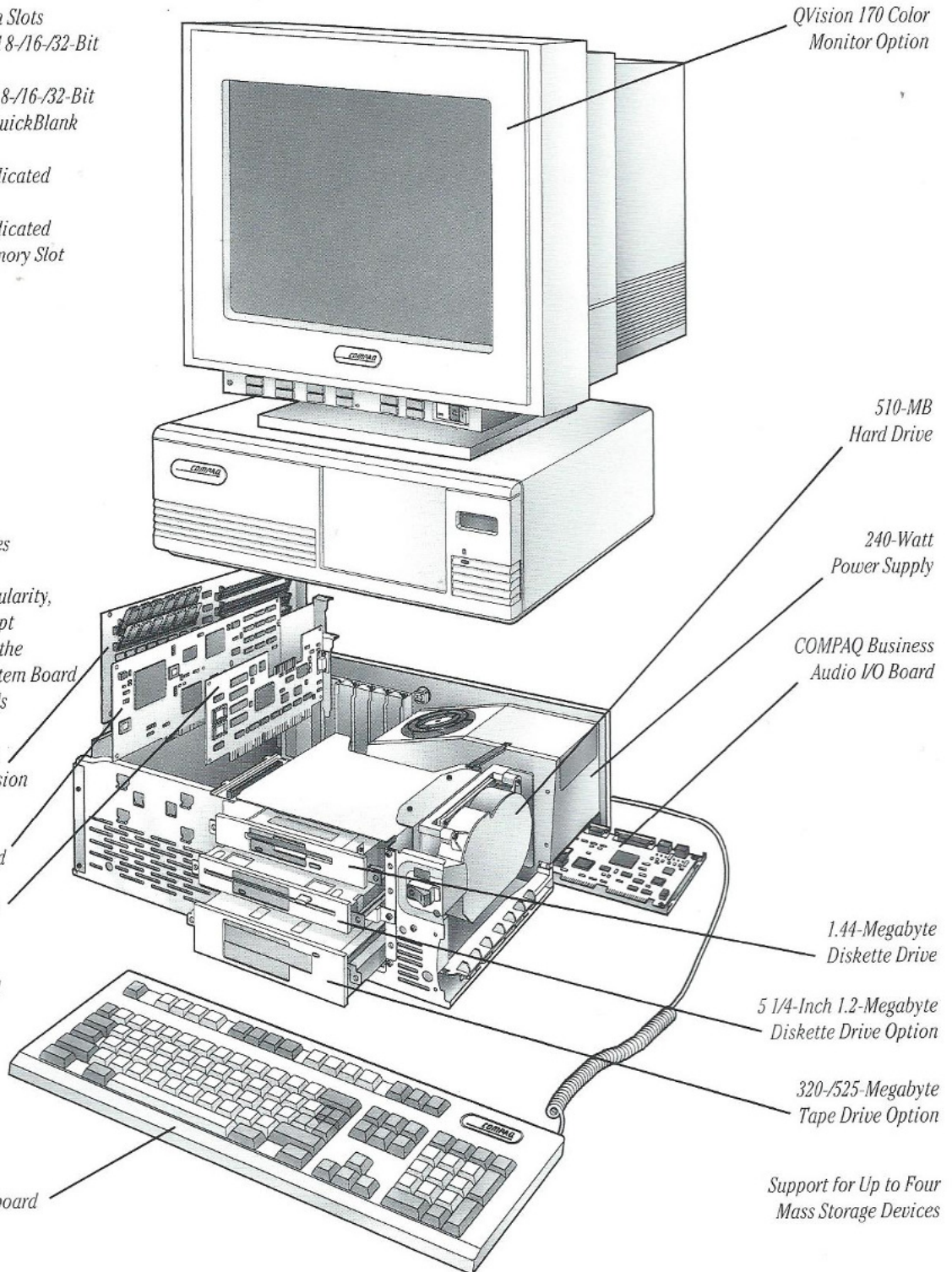
## Intelligent Modularity at Work

The COMPAQ DESKPRO 66M continues the commitment to Intelligent Modularity, an advanced design concept that gives you the ultimate in flexibility and expandability. The modular design of COMPAQ DESKPRO/M PCs separates the traditional system board into five boards--the EISA bus board, the I/O board, the processor board, the graphics board, and the optional memory board. Components are smaller, less expensive, and easier to get to, so upgrades are simple. Servicing is easier, and cheaper, too.

At the heart of this efficient design is the EISA bus board. As you can see in the diagram to the left, the EISA board contains seven total slots, two of which are dedicated to the processor board and an optional memory board. The standard QVision 1024/E Controller also occupies a slot, leaving four 8-/16-/32-bit EISA slots available for expansion. EISA provides special features that simplify system setup and provide exceptional I/O performance in standalone and connected environments.

## A Powerful New Processor

The COMPAQ DESKPRO 66M features the 66-MHz 486DX2, a new processor from Intel that processes commands internally at 66 MHz while interfacing with the system at 33 MHz. This design brings users the power of 66-MHz 486 computing while allowing them to use cost-effective 33-MHz system components. The 66-MHz 486DX2 includes an integrated 8-Kbyte cache and 387-compatible math coprocessor. To further enhance performance in complex applications and multitasking environments, we've added a second-level write-back cache with 256 Kbytes of cache memory.

## A Difference You Can See

The standard QVision 1024/E Controller provides unparalleled performance in graphics-intensive applications and windowing environments--which means you'll realize an immediate performance improvement in your day-to-day work. This advanced controller delivers high resolution and blazing speed (up to 10 times faster than competitors) for

graphics operations such as graphics rendering, redrawing, scrolling, jumping from page to page, and moving windows.

## The Picture Of Productivity

QVision graphics increases your productivity by helping you work faster and more efficiently. The QVision 1024/E Controller produces resolutions up to 1024 x 768, so you can display CAD drawings in incredible detail or view entire documents and spreadsheets at once. A built-in 8-bit DAC (digital-to-analog converter) provides outstanding color depth with a palette of an incredible 16.7 million colors for all display modes. Some of the available display modes include:
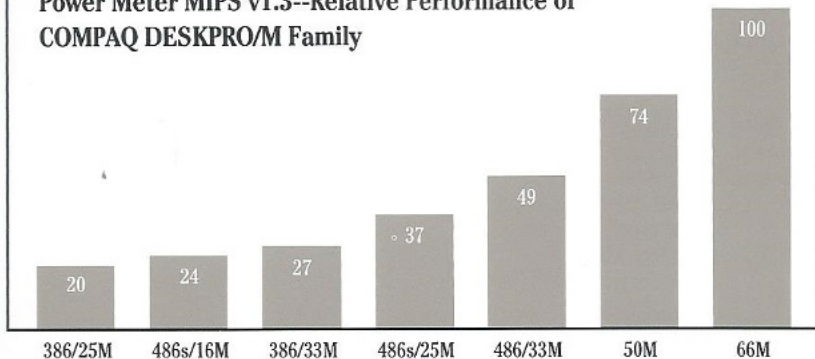
- 256 colors at 1024 x 768 resolution
- More than 65,000 colors at 800 x 600 and 640 x 480 resolution
- 16.7 million colors in 600 x 400 and 512 x 480 (true-color mode) resolution

In addition, the QVision 1024/E Controller is an EISA board, which means that you benefit from 32-bit performance, full-range addressability, and easy setup using the EISA Configuration Utility.

## Fast Response for Common Tasks

The QVision 1024/E Controller features an intelligent design that speeds response by assuming tasks normally performed by the CPU. For example, the combination of a graphics accelerator (or BitBLT engine), line-draw accelerator, and optimized software drivers provides lightning-quick response for performing windowing operations and drawing graphical objects. In addition, the 8-bit

**Power Meter MIPS v1.3--Relative Performance of COMPAQ DESKPRO/M Family**

| 386/25M | 486s/16M | 386/33M | 486s/25M | 486/33M | 50M | 66M |
|---------|----------|---------|----------|---------|-----|-----|
| 20 | 24 | 27 | 37 | 49 | 74 | 100 |

*Values represent relative performance, not actual MIPS*

**PC Labs Windows Benchmark Version
2.50 Graphics WINMARKS**

| | |
|---|---|
| IBM PS/2 Model 90 | 4.09 |
| AST Power Premium 450d | 6.48 |
| Dell PowerLine 450DE/2 DGX | 14.79 |
| COMPAQ DESKPRO 50M | 20.14 |
| COMPAQ DESKPRO 66M | 21.54 |

*Results, expressed in WINMARKS, reflect a weighted average of what PC Labs considers to be the 12 most frequently used windowing operations. All PCs ran in 1024 x 768 resolution with standard configurations. The IBM PC used a 50-MHz 486 upgrade and ran in 16 colors; all others used 256 colors.*

DAC supports a hardware cursor that stays rock solid and responds instantly as you move it around the screen.

In the COMPAQ tradition, this graphics subsystem is compatible with COMPAQ Advanced VGA, VGA, EGA, and CGA modes, effectively protecting your existing software investment while increasing performance. For optimum performance in specific application environments, we include drivers for Microsoft Windows, OS/2 Presentation Manager, and Autodesk (ADI) products.

## A Choice Of Monitors

Choose from three multiscanning, high-resolution monitors to complete your graphics picture. The optional QVision 170, QVision 150, and COMPAQ 1024 Color Monitors accept noninterlaced input and refresh at a rate of up to 72 MHz at 1024 x 768 resolution to virtually eliminate flicker. In addition, QVision Color Monitors incorporate state-of-the-art features such as a totally flat screen with an Optical Coating Laboratories Incorpo-

rated (OCLI) nonglare coating to reduce eyestrain and fatigue and increase readability.

## Plus, A Difference You Can Hear

Now, you can integrate sound into your daily work, thanks to a unique combination of hardware and software jointly developed by Compaq and Microsoft Corporation. This technology adds a whole new dimension to office communications. Instead of typing a memo, simply pick up the microphone and record a message. You can then place the audio icon exactly where you want it in a document or spreadsheet, so the recipient gets your personal message. Imagine how this practical new tool can ease your work day! For example, you could add a voice message to clarify changes on a CAD drawing or ask the recipient questions about a design.

## A Complete Audio System

You can choose a COMPAQ DESKPRO 66M model that includes business audio or simply add the audio system later. The complete system includes an audio I/O

board, microphone, built-in speaker, external audio adapter, and an audio driver for Microsoft Windows 3.1. You can use COMPAQ business audio in OLE (Object Linking and Embedding)-compliant Microsoft Windows 3.1 applications.

This audio system supports the recording and playback of your voice in telephone quality (8-bit 11-KHz) sound, as well as playback of other audio sources in CD-quality sound. We built in an enhanced speaker, so no headphones or external speakers are required. However, if you prefer, you can connect these or other audio devices through the External Audio Adapter included with your business audio system.

Plug in the COMPAQ microphone to record messages, or use the External Audio Adapter to connect to input devices such as a CD or tape player or a standard recording device.

## Software Included

In addition to audio software, hard drive models of the COMPAQ DESKPRO 66M also come standard with MS-DOS Version 5 as published by Compaq and Microsoft Windows 3.1. You'll find that new and upcoming software applications deliver more power and convenience than you ever thought possible with a PC. Say, for example, that you are planning a new office layout and want to substitute a different desk into your design. You simply type in the specifications and through a Microsoft Windows 3.1 feature called dynamic data exchange, all your applications reflect the new data. Your CAD drawing shows the new desks in place, the description changes, and when you check your spreadsheet you'll find the bid automatically updated with the new cost figures!

# TECHNICAL SPECIFICATIONS

## Hard Drives

| | 510-MB | 340-MB |
|---|---|---|
| Standard Configuration | Model 510 | w Option |
| Capacity Per Drive (MB) | 510.4 | 340.1 |
| Number Supported | Two | Two |
| Height | Half | Half |
| Size (in) | 3.5 | 3.5 |
| Drive Type(s) | 61 | 63 |
| Controller | IDE | IDE |
| Transfer Rate (Mbits/sec) | 16 | 16 |
| Sector Interleave | 1:1 | 1:1 |
| **SEEK TIMES (TYPICAL, INCLUDING SETTLING)** | | |
| Track-to-Track (ms) | 5 | 5 |
| Average (ms) | 12 | 12 |
| Maximum (ms) | 30 | 30 |
| Rotational Speed (RPM) | 3828 | 3828 |
| **PHYSICAL CONFIGURATION** | | |
| Cylinders | 1806 | 1806 |
| Heads | 12 | 8 |
| Sectors Per Track | 46 | 46 |
| Bytes Per Sector | 512 | 512 |
| **LOGICAL CONFIGURATION** | | |
| Cylinders | 989 | 659 |
| Heads | 16 | 16 |
| Sectors Per Track | 63 | 63 |
| Bytes Per Sector | 512 | 512 |

| | 210-MB | 120-MB |
|---|---|---|
| Standard Configuration | Model 210 | w Option |
| Capacity Per Drive (MB) | 212.6 | 121.4 |
| Number Supported | Two | Two |
| Height | Half | Half |
| Size(in) | 3.5 | 3.5 |
| Drive Type(s) | 51 | 50 |
| Controller | IDE | IDE |
| Transfer Rate (Mbits/sec) | 12 | 12 |
| Sector Interleave | 1:1 | 1:1 |
| **SEEK TIMES (TYPICAL, INCLUDING SETTLING)** | | |
| Track-to-Track (ms) | 5 | 5 |
| Average (ms) | 16 | 19 |
| Maximum (ms) | 35 | 35 |
| Rotational Speed (RPM) | 3486 | 3399 |
| **PHYSICAL CONFIGURATION** | | |
| Cylinders | 1366 | 1520 |
| Heads | 8 | 4 |
| Sectors Per Track | 38 | 39 |
| Bytes Per Sector | 512 | 512 |
| **LOGICAL CONFIGURATION** | | |
| Cylinders | 683 | 760 |
| Heads | 16 | 8 |
| Sectors Per Track | 38 | 39 |
| Bytes Per Sector | 512 | 512 |

## Hard Drives *continued*

| | 60-MB |
|---|---|
| Standard Configuration | Option |
| Capacity Per Drive (MB) | 60.7 |
| Number Supported | Two |
| Height | Half |
| Size(in) | 3.5 |
| Drive Type(s) | 55 |
| Controller | IDE |
| Transfer Rate (Mbits/sec) | 12 |
| Sector Interleave | 1:1 |
| **SEEK TIMES (TYPICAL, INCLUDING SETTLING)** | |
| Track-to-Track (ms) | 5 |
| Average (ms) | 19 |
| Maximum (ms) | 35 |
| Rotational Speed (RPM) | 3399 |
| **PHYSICAL CONFIGURATION** | |
| Cylinders | 1522 |
| Heads | 2 |
| Sectors Per Track | 39 |
| Bytes Per Sector | 512 |
| **LOGICAL CONFIGURATION** | |
| Cylinders | 760 |
| Heads | 4 |
| Sectors Per Track | 39 |
| Bytes Per Sector | 512 |

## System Unit

| | |
|---|---|
| Dimensions (H x D x W) | 5.9 x 14.8 x 16.8 in<br>14.9 x 37.5 x 42.6 cm |
| **WEIGHT** | |
| Model 510 | 23.4 lb (10.6 kg) |
| Model 210 | 22.7 lb (10.3 kg) |
| Model 1 | 21.2 lb (9.6 kg) |
| **POWER SUPPLY** | |
| Nominal Line Voltage | 120 VAC<br>(220 to 240 VAC outside N.A.) |
| Range Line Voltage | 85 to 135 VAC<br>(170 to 270 VAC outside N.A.) |
| Line Frequency | 60 Hz (50 Hz outside N.A.) |
| Current (nominal) | 6.0 A<br>(3.0 A outside N.A.) |
| Fuse | 8.0 A |
| Steady-State Power | 240 Watts |
| **TEMPERATURE RANGE** | |
| Operating | 50° to 104° F<br>(10° to 40° C) |
| Nonoperating | -14° to 122° F<br>(-10° to 50° C) |
| **RELATIVE HUMIDITY (NONCONDENSING)** | |
| Operating | 20% to 80% |
| Nonoperating | 5% to 90% |

## QVision 1024/E Controller

| | |
|---|---|
| Slot Type | EISA |
| RAM | 1 MB VRAM |
| Hardware Interrupt | IRQ9 (Edge/Level) |
| Dimensions (H x W) | 5.0 x 9.2 in (12.7 x 23.1 cm) |
| Component Height | 0.5 in (1.2 cm) |
| Power Requirements | 9 Watts |
| QuickBlank Feature | Yes |
| Monitor Connector | 15-PIN D |
| Feature Connector | 26-pin edge (output only) |

## Audio

| | |
|---|---|
| Sampling rate | 5.51 to 48 KHz (adjustable) |
| Data Types | 8-/16-bit alaw, 8-/16-bit µlaw, 16-bit mono/stereo |
| **INPUT/ OUTPUT CONNECTORS** | |
| Microphone In | Stereo 1/8-in miniphone |
| Headphone Out (External Audio Adapter) | Stereo 1/8-in miniphone |
| Line In (External Audio Adapter) | RCA |
| Line Out (External Audio Adapter) | Stereo 1/8-in miniphone |
| **INPUT/ OUTPUT IMPEDENCE** | |
| Microphone In | 1 KOhm nom |
| Headphone Out | 4 Ohm min |
| Line In | 20 KOhm nom |
| Line Out | 100 Ohm max |
| **INPUT/ OUTPUT VOLTS RMS** | |
| Microphone In | .013 max |
| Line In | 1.414 max |
| Line Out | 1.414 max |

# STANDARD MODELS AND OPTIONS

## Products

### COMPAQ DESKPRO 66M

66-MHz 486DX2 microprocessor
• Integrated cache memory controller with 8 Kbytes of cache memory
• Integrated math coprocessor
256 Kbytes of two-way set-associative write-back secondary cache memory
Performance Upgrade Socket
Socket for a Weitek 4167 coprocessor

## Standard Models

| | |
|---|---|
| **Model 510/w** | 3 1/2-Inch 1.44-Megabyte Diskette Drive |
| | 510-Megabyte Hard Drive |
| | COMPAQ business audio with Audio I/O Board, Microphone, External Audio Adapter, and Microsoft Windows Audio Applications and Driver |
| | Microsoft Windows |
| | Microsoft MS-DOS Version 5.0 as published by Compaq |
| | Mouse |
| **Model 210/w** | 3 1/2-Inch 1.44-Megabyte Diskette Drive |
| | 210-Megabyte Hard Drive |
| | COMPAQ business audio with Audio I/O Board, Microphone, External Audio Adapter, and Microsoft Windows Audio Applications and Driver |
| | Microsoft Windows |
| | Microsoft MS-DOS Version 5.0 as published by Compaq |
| | Mouse |
| **Model 1** | 3 1/2-Inch 1.44-Megabyte Diskette Drive |

## Standard Features

| | |
|---|---|
| **Design** | Modular system design |
| **Memory** | Eight megabytes of 32-bit system memory, expandable to 64 megabytes |
| **Expansion** | Four 8/16-/32-bit EISA slots available |
| **Storage** | Four device positions<br>• One third-height for a diskette drive<br>• Two half-height accessible for a diskette, tape, or CD-ROM drive<br>• One half-height 3-1/2 inch internal for a hard drive<br>Internal expansion to 1.02 gigabytes; external to 18.2 gigabytes |

## Standard Features *continued*

| | |
|---|---|
| **Graphics** | QVision 1024/E Controller<br>• Up to 256 colors<br>• Resolutions up to 1024 x 768<br>• Graphics accelerator<br>• 132-Column support |
| **Interfaces** | Two serial<br>Parallel<br>Pointing device (mouse)<br>Keyboard<br>Mic-in/Line-in (hard drive models)<br>Head-out/Line-out (hard drive models) |
| **Software** | COMPAQ User Programs<br>• Disk CACHE Utility<br>• COMPAQ Expanded Memory Manager (CEMM)<br>Other COMPAQ software and drivers, including high-performance graphics drivers |
| **Security** | Power-on password<br>Keyboard password<br>QuickLock/QuickBlank<br>Network server mode<br>Diskette boot control<br>Hard drive control<br>Serial interface control<br>Parallel interface control<br>Diskette write control<br>Asset management provision<br>EISA configuration lock<br>Keylock<br>Cable lock provision |
| **Keyboard** | Enhanced Keyboard |
| **Power Supply** | 240-Watt with automatic line switching |
| **Warranty** | One-Year Limited Warranty |

## OPTIONS

| | |
|---|---|
| **Memory** | 32-Bit 8-Socket Memory Expansion Board<br>8-, 4-, 2-, and 1-Megabyte Single Inline Memory Modules (SIMMs) |
| **Mass Storage Devices** | 5 1/4-inch 1.2-Megabyte and 3 1/2-Inch 1.44-Megabyte Diskette Drives<br>510-, 340-, 210-, 120-, 60-Megabyte Hard Drives<br>COMPAQ Intelligent Array Expansion System Model 2600<br>1.3-Gigabyte Differential Interface Hard Drive (Array Expansion System)<br>32-Bit Intelligent Drive Array Expansion Controller (Array Expansion System) |

## Options *continued*

| | |
|---|---|
| **Mass Storage, *cont.*** | Tape Connection Kit (Array Expansion System)<br>Fixed Disk Expansion Unit Model 650<br>Advanced ESDI Controller (Expansion Unit only)<br>1.3-/2.0-Gigabyte Digital Audio Tape Drive (with compression)<br>320-/525- and 150-/250-Megabyte Tape Drives<br>80-/120- and 60-Megabyte Tape Drives with Compression |
| **Communications** | COMPAQ 32-Bit DualSpeed Token Ring Controller |
| **Graphics** | QVision 170 Color Monitor<br>QVision 150 Color Monitor<br>COMPAQ 1024 Color Monitor<br>Reduced Emissions Video Graphics Color Monitor<br>Video Graphics Color Monitor<br>Video Graphics Monochrome Monitor |
| **System Management** | COMPAQ System Manager |
| **Software and Reference Material** | MS-DOS Version 5.0 as published by COMPAQ<br>COMPAQ LicensePaq for MS-DOS Version 5.0<br>Microsoft MS-DOS Version 3.31 as published by COMPAQ<br>COMPAQ LicensePaq for MS-DOS Version 3.31<br>Microsoft MS OS/2 Standard Version 1.21 as published by COMPAQ<br>Sytos Plus Tape Software for MS OS/2<br>Sytos Plus Tape Software for MS-DOS<br>*COMPAQ DESKPRO/M Technical Reference Guide*<br>*COMPAQ Video Graphics System Technical Reference Guide* |
| **Supported Operating Systems from Joint Integration Partners** | Banyan VINES Version 4.11<br>Microsoft LAN Manager Version 2<br>Microsoft Windows<br>Novell NetWare v4.11<br>Novell NetWare v2.2<br>SCO UNIX System V/386<br>SCO Open Desktop |