

THE COMPAQ DESKPRO/i FAMILY OF PERSONAL COMPUTERS

Features/Specifications



Take a close look at the personal computers that business users have been waiting for: the COMPAQ DESKPRO/i Family of PCs makes breakthrough features and performance affordable.

Making COMPAQ Features And Performance Easily Attainable

Compaq packages powerful features and performance, and makes them available—at competitive prices—to the whole spectrum of business users. This new family covers a wide range of processing speeds. For mainstream applications, two 386-based PCs offer a choice of 25-MHz or 33-MHz processors with 16 Kbytes of four-way set-associative cache. Users with more demanding applications can choose a COMPAQ DESKPRO/i PC with a 25-MHz 486SX processor or a 33-MHz 486DX processor. Additionally, the family

will include a 66-MHz 486DX2 model when that processor becomes available in the marketplace, providing even greater power for your most challenging applications.

It's All In The Family

The COMPAQ DESKPRO/i Family establishes a new price performance standard for desktop PCs. Every COMPAQ DESKPRO/i PC comes complete with a full range of high-performance features, including:

- An integrated QVision 1024 Graphics Controller that provides dramatic acceleration for CAD and windowing environments.
- Easy, affordable processor upgrades that allow you to increase performance by simply adding a processor chip or secondary cache.
- Business audio capability.

- The right amount of storage and expandability to accommodate changing needs.
- A comprehensive set of hardware and software security features that provides the utmost protection for your valuable data.
- The uncompromising quality and exacting engineering associated with Compaq for more than a decade.

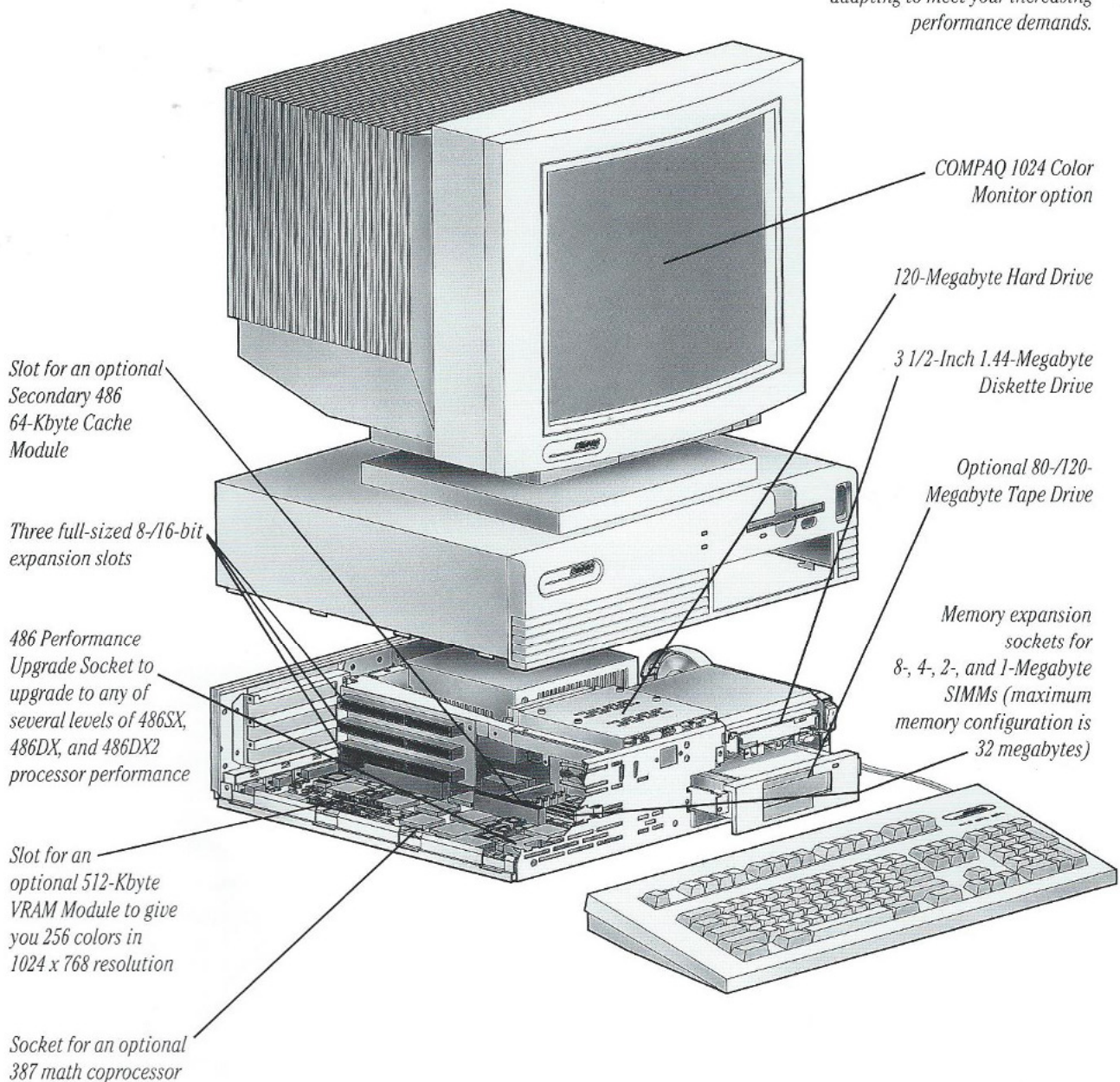
So if you've been waiting for a breakthrough to take your next step in PC computing, your wait is over. This exceptional combination of features and performance is available to you now, from Compaq—the name that gave the world a whole new way to spell quality.

COMPAQ

MORE OF THE FEATURES YOU NEED

Built-in business audio with microphone, speaker, and special software to take advantage of the audio capabilities of Microsoft Windows 3.1

Select the COMPAQ DESKPRO/i PC that's optimum for your needs today with the assurance that your investment is protected over the long term. COMPAQ DESKPRO/i PCs offer extraordinary flexibility in adapting to meet your increasing performance demands.



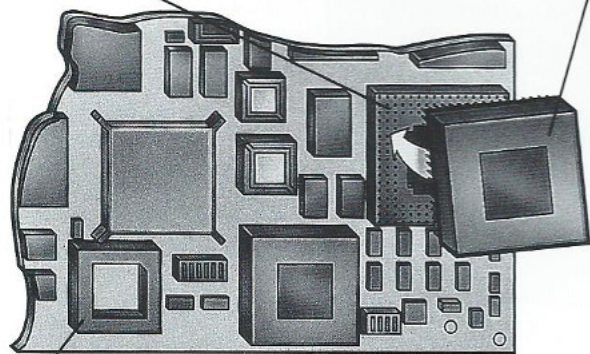
BREAKTHROUGH PERFORMANCE NOW... AND IN THE FUTURE

Choose Your Performance

Standard COMPAQ DESKPRO/i PCs cover a broad range of 386 and 486 processor options. The COMPAQ DESKPRO 3/33i and COMPAQ DESKPRO 3/25i feature popular 386 microprocessors, operating at 33 MHz and 25 MHz, respectively. We further enhance performance of 386-based PCs by adding 16 Kbytes of four-way set-associative cache memory to service nearly all processor-to-memory requests in zero wait states.

The COMPAQ DESKPRO 4/25is comes standard with a 25-MHz 486SX microprocessor, while the COMPAQ DESKPRO 4/33i comes standard with a 33-MHz 486DX microprocessor. Both products feature an integrated 32-bit processor and cache memory controller with 8 Kbytes of cache. With wider data paths and an advanced circuit design that allows concurrent processing of internal instructions, these 486 processors execute instructions much faster than a 386. For faster calculations in specialized, numeric-intensive applications, the 486DX processor also incorporates a built-in math coprocessor.

Performance Upgrade Socket

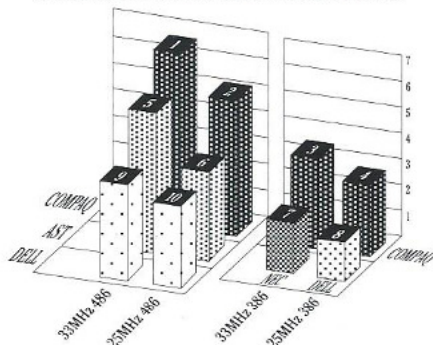


387 Coprocessor Socket

386 Processor Socket

To upgrade 386-based products to 486 performance, add the new processor chip to the 486 Performance Upgrade Socket. Boost performance further by adding a 64-Kbyte 486 Secondary Cache Module.

Microsoft Excel/Powerpoint Performance Test



This Compaq-developed test combines results from two popular applications. The Excel Scroll Test moves around a large Microsoft Excel spreadsheet. The PowerPoint Test zooms and pans presentation files of varying sizes.

Tested models: COMPAQ: (1) COMPAQ DESKPRO 4/33i; (2) COMPAQ DESKPRO 4/25is; (3) COMPAQ DESKPRO 3/33; (4) COMPAQ DESKPRO 3/25i; AST: (6) AST Premium 486sx/20; (5) AST Premium 433E; NEC: (7) NEC POWERMATE 386/33i; DELL: (8) DELL 325P; (9) DELL 433P; (10) DELL 486P/25. AST at 640 x 480, all others 1024 x 768 resolution.

As you can see in the charts, an optimized design gives COMPAQ DESKPRO/i PCs a competitive edge over comparable products. However, superior performance is only part of the story. The real power behind these new PCs is an innovative design that allows you to upgrade performance *at the chip level*.

Upgrade with Ease

With COMPAQ DESKPRO/i PCs, upgrading the processor is remarkably simple—just add or replace chips. For example, to upgrade the COMPAQ DESKPRO 3/33i or COMPAQ DESKPRO 3/25i to any of several levels of 486 performance, simply remove the hood and place the new chip in the 486 Performance Upgrade Socket. Set switches to specify the type and speed of the new processor. Replace the hood and you're back in business at a higher level of performance. To upgrade 486-based PCs, replace the existing chip with the upgrade chip, and set the appropriate switches. You can boost 486 performance even further by adding a secondary cache module with 64 Kbytes of two-way set-associative cache memory to any COMPAQ DESKPRO/i PC with a 486 processor.

Furthermore, this innovative design even provides the capability to support emerging technology, so you stay on the cutting edge of performance. For example, COMPAQ DESKPRO/i PCs support upgrades to Intel 486DX2 and OverDrive Processors, which use Intel's speed-doubling technology to process commands internally at twice the speed of the memory bus.

Cost Effective Memory Upgrades

Each COMPAQ DESKPRO/i comes standard with 4 megabytes of high-speed memory, expandable to 32 megabytes using industry-standard single inline memory modules (SIMMs). In keeping with the COMPAQ DESKPRO/i philosophy, memory expansion is quick and easy—simply add any combination of 8-, 4-, 2-, and 1-Megabyte SIMMs to the memory expansion sockets on the system board.

PRACTICAL NEW RESOURCES

See The Difference In Graphic Detail

With the introduction of the COMPAQ DESKPRO/i Family, Compaq makes high-performance, high-resolution graphics a practical reality for business users. COMPAQ DESKPRO/i PCs come standard with an integrated QVision 1024 Graphics Controller to provide unparalleled performance in graphics-intensive applications and windowing environments. With the QVision 1024 Controller, you'll realize an immediate performance improvement in your day-to-day work. This new controller delivers high resolution and blazing speed (up to 10 times faster than competitors) for graphics operations such as rendering of graphics and screen fonts, scrolling, jumping from page-to-page, redrawing, and moving windows.

The Picture Of Productivity

COMPAQ DESKPRO/i PCs incorporate this new graphics system to help you work faster and more efficiently. The QVision 1024 Controller produces resolutions up to 1024 x 768, so you can display CAD



The COMPAQ 1024 Color Monitor displays sharp, clear images in up to 1024 x 768 resolution.

drawings in incredible detail or view entire documents and spreadsheets at once. The standard 512 Kbytes of VRAM supports display of 256 simultaneous colors at 640 x 480 resolution, or 16 colors at 1024 x 768. By upgrading video memory with an additional 512-Kbyte VRAM module, you can achieve:

- 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

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 these resolutions.

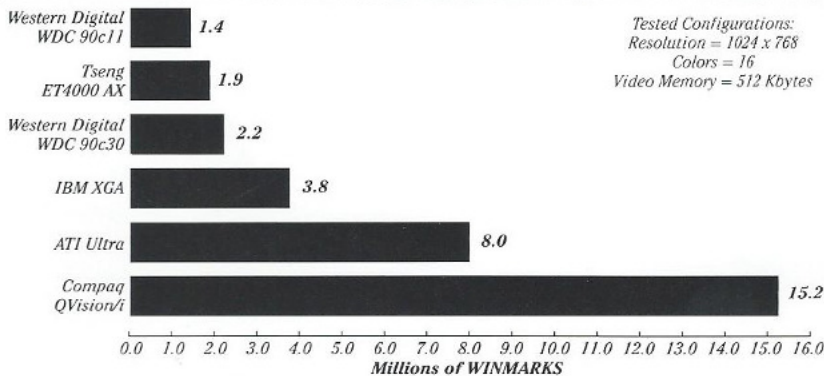
The Speed You Need

The QVision 1024 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*, and optimized software driver provides lightning-quick response for typical windowing operations such as scrolling, changing window size, and using pop-up and pull-down menus. Drawing borders, menu bars, and other graphical objects is also fast thanks to a line-draw accelerator. In addition, the 8-bit DAC provides a hardware cursor that stays rock solid and responds instantly when you move it around the screen. The graphics subsystem is compatible with COMPAQ Advanced VGA, VGA, EGA and CGA modes, to protect your existing software investment while increasing performance. For optimum performance in specific application environments, COMPAQ DESKPRO/i PCs come standard with drivers for Microsoft Windows and OS/2 Presentation Manager.

Look At Your Choice Of Monitors

The new 14-inch COMPAQ 1024 Color Monitor provides an ideal match for your COMPAQ DESKPRO/i PC. This new multiscanning monitor accepts noninterlaced input and refreshes at a rate of up to 72 MHz at 1024 x 768 resolution to virtually eliminate flicker. For maximum convenience, we put microprocessor controls at your fingertips. Push a button to change the height and width of your viewing area. Your COMPAQ 1024 Color Monitor remembers your choices and automatically adjusts to your viewing preference.

PC Labs Windows Benchmark Version 2.50 Graphics WINMARKS



Results, expressed in WINMARKS, reflect a weighted average of what PC Labs considers to be the 12 most frequently used windowing operations. Competitors often use these controllers to drive their graphic subsystems. The Diamond SpeedSTAR can be found in Gateway 2000 PCs; the WDC 90c30, in Dell PCs; and the ATI Ultra, in select AST PC Models.

FOR YOUR BUSINESS

In addition, a tilt-and-swivel base allows you to easily adjust the monitor for the best viewing angle. Of course, you can also choose from a wide range of other color and monochrome monitor options from Compaq.



Four jacks—two input and two output—give you the flexibility to attach external-powered speakers, headphones, CD players, recorders, or other audio devices.

You'll Like The Sound Of This

Compaq is among the first manufacturers to enhance business computing by integrating voice and other sounds into your daily work. Now, you can use business audio to extend the capabilities of your PC, 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 the scores of uses for this practical new tool. For example, you could add a voice message to clarify numbers in a spreadsheet, underscore an important message in a report, or introduce an article.

Standard On Every COMPAQ DESKPRO/i PC

The audio circuitry, microphone, and built-in speaker that comprise this new audio subsystem is a standard feature on all COMPAQ DESKPRO/i PCs. COMPAQ

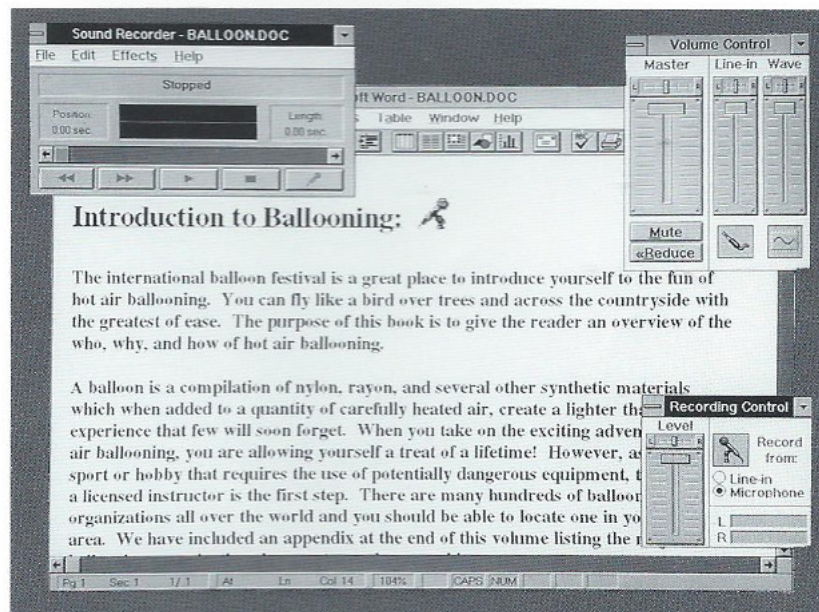
business audio supports the recording and playback of your voice in telephone quality (8-bit 11-KHz) sound, as well as playback of other audio sources in CD-quality sound. We built in an enhanced speaker, so no headphones

or external speakers are required. However, if you prefer, you can connect these or other audio devices through the four built-in jacks.

Plug in your standard COMPAQ microphone to record messages, or use Line-in to connect input devices such as a CD or tape player. You can connect Line-out to a standard recording device, or to external-powered speakers.

Audio Software Included

You can use business audio in OLE (Object Linking and Embedding)-compliant Microsoft Windows 3.1 applications. To get you started, we include an audio driver for Microsoft Windows 3.1, and two Microsoft applications that allow you to control the volume of sound playback, select which input source to record from, and control the recording level of your source.



"Mike, here's a preview of that chapter you wanted. I can already see book sales soaring!"

VALUE-ADDED STANDARD FEATURES

The Compaq philosophy is to build in quality features that add to the versatility and usefulness of our products. Here's a summary of the well-thought-out standard COMPAQ DESKPRO/i PC features that increase the value of your investment.

Software Included

To save you time and money, hard drive models of COMPAQ DESKPRO/i PCs come standard with the following software:

- MS DOS 5.0 in five languages
- COMPAQ User Programs to aid in

setup and increase performance, including Compaq Expanded Memory Manager (CEMM) and the COMPAQ Disk CACHE Utility

- *EZ Help Online Library*
- Audio driver for Microsoft Windows 3.1
- Volume Control and Recording Control audio applications for Microsoft Windows 3.1
- Other high-performance drivers, including graphics drivers for the QVision 1024 Controller

Windows models have all of the above software, plus Microsoft Windows 3.1 and a COMPAQ Mouse.

Compaq Quality And Reliability

The COMPAQ DESKPRO/i Family of products continues the COMPAQ legacy of setting industry standards for quality and reliability. It's a process that begins at the clean-sheet engineering stage and continues through development, manufacturing, and testing.

Systems engineers dedicated to testing ensure that COMPAQ products are compatible with hundreds of third-party hardware products and software applications. In addition, reliability engineers put our PCs through extremes of temperature, humidity, and use to ensure that they will continue to serve you well throughout the years to come.

Comprehensive Security Provisions

COMPAQ DESKPRO/i PCs include an impressive array of hardware and software security features to provide



unprecedented protection for your work. **Asset management provision.** Lets network managers access the PC to obtain data such as the PC serial number, amount of memory, or storage.

Administrator password. Provides a second-level password to secure the system configuration settings.

Power-on password. Prevents unauthorized access to system at power-on.

Keyboard password. Allows you to restrict access to the system by disabling the keyboard and pointing device.

QuickLock/QuickBlank. QuickLock allows you to disable the keyboard and pointing device, then enable them with a password. With QuickBlank you can blank the screen at the same time you invoke QuickLock.

Network server mode. Allows you to boot directly from the hard drive or the

network to provide security when the system is operating unattended.

Diskette boot control. Prevents loading of operating systems from the diskette drive, while allowing other drive functions to remain active.

Diskette drive control. Provides diskette drive security by enabling or disabling the drive.

Hard drive control. Provides hard drive security by enabling or disabling the hard drive.

Serial interface control. Sets serial interfaces to COM1, COM2, COM3, COM4, or disable to prevent unauthorized data transfer through the serial port.

Parallel interface control. Sets the parallel interface to LPT1, LPT2, or disable to prevent unauthorized data transfer through the parallel port.

Diskette write control. Prevents unauthorized copying of information from the network or hard drive to a diskette.

SETUP control. Locks the SETUP utility to prevent unauthorized changes to the system configuration.

Service And Support In The Compaq Tradition

Our primary objective is to lead the industry in the category of customer satisfaction. In this effort, we have again emphasized Compaq quality and reliability in the COMPAQ DESKPRO/i Family of PCs, and in the service and support program that backs all COMPAQ DESKPRO/i products. Designed and engineered for easy serviceability and low-cost ownership, COMPAQ DESKPRO/i Family PCs are backed by a One-Year Limited Warranty.

Other components of COMPAQ DESKPRO/i service and support include:

- Accessible technical information for resellers, service providers, and end users. Compaq technical personnel can tap into SMART, Support Management Automated Reasoning, for quick and thorough answers to your inquiries.
- Timely, reliable service with field replaceable parts and a network of Authorized COMPAQ Service Providers in locations worldwide.

TECHNICAL SPECIFICATIONS

Hard Drives

	510-MB	340-MB
Standard Configuration	Option	Option
Capacity Per Drive (MB)	510.4	340.1
Number Supported	One	One
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	30	16
Sectors Per Track	63	63
Bytes Per Sector	512	512

Standard Model 210 and Model 120

	210-MB	120-MB
Capacity Per Drive (MB)	212.6	121.4
Number Supported	One	One
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	8
Average (ms)	16	17
Maximum (ms)	35	35
Rotational Speed (RPM)	3485	3833
LOGICAL CONFIGURATION		
Cylinders	683	760
Heads	16	8
Sectors Per Track	38	39
Bytes Per Sector	512	512

Hard Drives *continued*

Standard Model 84

Capacity Per Drive (MB)	84.3
Number Supported	One
Height	Half
Size (in)	3.5
Drive Type(s)	27
Controller	IDE
Transfer Rate (Mbits/sec)	16
Sector Interleave	1:1
SEEK TIMES (TYPICAL, INCLUDING SETTling)	
Track-to-Track (ms)	8
Average (ms)	17
Maximum (ms)	35
Rotational Speed (RPM)	3833
LOGICAL CONFIGURATION	
Cylinders	832
Heads	6
Sectors Per Track	38
Bytes Per Sector	512

System Unit

Dimensions (L x W x D)	15.95 x 15.05 x 4.0 in 40.51 x 38.23 x 10.16 cm
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WEIGHT

Models 210, 120, and 60	15.85 lb (7.20 kg)
Model 1	14.1 lb (6.41 kg)

INPUT REQUIREMENTS

Nominal Line Voltage	100 to 120 VAC (220 to 240 VAC outside N.A.)
Line Voltage Range	90 to 132 VAC (180 to 264 VAC outside N.A.)
Line Frequency	47 to 63 Hz
Current (nominal)	4.0 A (2.0 A outside N.A.)
Fuse	4.0 A
Steady-State Power	145.0 Watts

TEMPERATURE RANGE

Operating	50° to 104° F (10° to 40° C)
Nonoperating	-14° to 122° F (-10° to 50° C)

RELATIVE HUMIDITY (NONCONDENSING)

Operating	20% to 80%
Nonoperating	5% to 90%

COMPAQ 1024 Color Monitor Option

Type	Color Multiscanning
Active Display Area	240 x 180 mm
Dot Pitch	0.28 mm
Factory Preset Resolutions	1024 x 768 (72 Hz) 1024 x 768 (87 Hz interlaced) 800 x 600 (60 Hz) 640 x 480 (72 Hz) 640 x 480 (70 Hz) 640 x 480 (60 Hz) 640 x 350 (70 Hz)
Bandwidth	75 MHz
Input Impedance	75 Ohm
Horizontal Frequency	30 to 50 KHz
Vertical Frequency	50 to 100 Hz
Power Supply	Autosensing 90 to 132 VAC and 180 to 264 at 50 to 60 Hz
Power Rating	85 Watts
Sync Input	Sync on green, TTL Sync, Composite Sync
Signal Cable	15-pin subminiature D
Dimensions (W x H x L)	14.6 x 14.3 x 15.2 in (37.1 x 36.2 x 38.6 cm)
Weight	30.86 lb (14 kg)

Audio

Sampling rate	5.51 to 48 KHz
Data Types (mono/stereo)	8-bit linear 8-bit alaw, 8-bit ulaw, 16-bit linear
INPUT/ OUTPUT CONNECTORS	
Microphone In	Stereo 1/8-in miniphone
Headphone Out	Stereo 1/8-in miniphone
Line In	Stereo 1/8-in miniphone
Line Out	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	20 KOhm
INPUT/ OUTPUT VOLTS RMS	
Microphone In	.013 max
Line In	1.4 max
Line Out	0.7 max

STANDARD MODELS AND OPTIONS

Products

COMPAQ DESKPRO 4/33i

33-MHz 486 microprocessor; integrated cache memory controller with 8 Kbytes of cache memory; chip-upgradable architecture for 486DX2/50 and 486DX2/66* processors

COMPAQ DESKPRO 4/25is

25-MHz 486SX microprocessor; integrated cache memory controller with 8 Kbytes of cache memory; chip-upgradable architecture for 486DX, 486DX2/50, and 486DX2/66* processors

COMPAQ DESKPRO 3/33i

33-MHz 386 microprocessor; 16 Kbytes of four-way set-associative cache memory; socket for optional math coprocessor; chip-upgradable architecture for 486SX, 486DX, 486DX2/50, and 486DX2/66* processors

COMPAQ DESKPRO 3/25i

25-MHz 386 microprocessor; 16 Kbytes of four-way set-associative cache memory; socket for optional math coprocessor; chip-upgradable architecture for 486SX, 486DX, 486DX2/50, and 486DX2/66* processors

Standard Models

Model 1	3 1/2-Inch 1.44-Megabyte Diskette Drive
Model 84 (All except COMPAQ DESKPRO 486/33i)	3 1/2-Inch 1.44-Megabyte Diskette Drive 84-Megabyte Hard Drive MS-DOS Version 5.0, EZ Help, Online Library, COMPAQ User Programs and other utilities and drivers
Model 84 Windows (All except COMPAQ DESKPRO 486/33i)	3 1/2-Inch 1.44-Megabyte Diskette Drive 84-Megabyte Hard Drive MS-DOS Version 5.0, EZ Help, Online Library, COMPAQ User Programs, other utilities and drivers, Microsoft Windows, and COMPAQ Mouse.
Model 120	3 1/2-Inch 1.44-Megabyte Diskette Drive 120-Megabyte Hard Drive MS-DOS Version 5.0, EZ Help, Online Library, COMPAQ User Programs and other utilities and drivers
Model 120 Windows (COMPAQ DESKPRO 4/33i only)	3 1/2-Inch 1.44-Megabyte Diskette Drive 120-Megabyte Hard Drive MS-DOS Version 5.0, EZ Help, Online Library, COMPAQ User Programs, other utilities and drivers, Microsoft Windows, and COMPAQ Mouse.

Standard Models, *continued*

Model 210 (COMPAQ DESKPRO 486/33i only)	3 1/2-Inch 1.44-Megabyte Diskette Drive 210-Megabyte Hard Drive MS-DOS Version 5.0, EZ Help, Online Library, COMPAQ User Programs and other utilities and drivers
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Standard Features

Design	Upgradable system design
Memory	Four megabytes of high-speed memory, expandable to 32 megabytes
Expansion	Three 8/16-bit ISA slots
Storage	Three device positions <ul style="list-style-type: none"> • One third-height for a diskette drive • One half-height accessible for a diskette, tape, or CD-ROM drive • One half-height 3 1/2-inch internal for a hard drive Internal expansion to 500 megabytes
Graphics	QVision 1024 Graphics Controller with 16 colors, expandable to 256 colors; resolutions up to 1024 x 768; graphics accelerator; 132-column support
Interfaces	Serial, parallel, pointing device (mouse), keyboard, Mic-in/Line-in, and Head-out/Line-out
Software	Microsoft Windows Audio Applications and driver COMPAQ User Programs <ul style="list-style-type: none"> • Disk CACHE Utility • COMPAQ Expanded Memory Manager (CEMM) Other COMPAQ software and drivers, including high-performance graphics drivers
Power Supply	145-Watt with manual line switching
Warranty	One-Year Limited Warranty
Security	Asset management provision Administrator password Power-on password Keyboard password QuickLock/QuickBlank Network server mode Diskette boot control Hard drive control Serial interface control Parallel interface control Diskette write control SETUP control

Options

Processor/Memory	64-Kbyte 486 Secondary Cache Module 8-, 4-, 2-, and 1-Megabyte Single Inline Memory Modules (SIMMs)
Mass Storage Devices	5 1/2-inch 1.2-Megabyte Diskette Drive 510-, 340-, 210, 120-, 84-Megabyte Hard Drives 320-/525- and 150-/250-Megabyte Tape Drives 80-/120-Megabyte Tape Drive with Compression
Graphics	COMPAQ 1024 Color Monitor QVision 1024/1 Controller Reduced Emissions Video Graphics Color Monitor Video Graphics Color Monitor Video Graphics Monochrome Monitor 512-Kbyte VRAM Module

Software and Reference Material

Microsoft MS-DOS Version 5.0 as Published by COMPAQ
COMPAQ LicensePac for MS-DOS Version 5.0
Microsoft MS-DOS Version 3.31 as Published by COMPAQ
COMPAQ LicensePac for MS-DOS Version 3.1
Microsoft MS OS/2 Standard Version 1.21 as Published by COMPAQ
Sytos Plus Tape Software for MS OS/2
Sytos Plus Tape Software for MS-DOS
COMPAQ DESKPRO/i Technical Reference Guide
COMPAQ Video Graphics System Technical Reference Guide
Compaq Business Audio System Guide

Supported Operating Systems From Joint Integration Partners

Banyan VINES Version 4.11
Microsoft LAN Manager Version 2
Microsoft Windows
Novell NetWare v4.11
Novell NetWare v2.2
SCO UNIX System V/386
SCO Open Desktop

*When available.