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Welcome to **AppleFacts 4.95**—a concise guide to Apple products offered worldwide. AppleFacts is intended as a convenient, one-stop reference for basic technical information, such as key product specifications, upgrade paths, and accessories. Because product availability, configurations, and part numbers vary worldwide, we suggest that you contact your local Apple dealer or Apple office for this information.

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A key to symbols used in *AppleFacts*:

- Indicates a peripheral product that is either available in a configuration specifically designed for Windows software-based computers, or that can be used with Windows software-based systems.
- ★ Indicates a new product.
-  32 Represents a cross-reference. For more information, simply turn to the page listed (in this case, page 32).

Apple Software

System Software and Related Products

Macintosh System 7.5

Macintosh System 7.5 is the latest version of the popular Mac OS—the Macintosh operating system. It incorporates a range of technologies not only to give you the best graphical user interface available, but also to provide advanced capabilities in productivity, printing, collaboration, document layout, and multimedia. Important features include the following:

- *Enhanced Finder.* Improved Find File commands, security features such as application and System Folder locking, and Drag and Drop features are among the upgrades in this version. In addition, the new Window Shade feature reduces screen clutter by letting you collapse windows to access other windows behind them, without closing documents. And the new Stickies feature lets you create on-screen reminder messages.
- *Apple Guide.* This enhanced on-screen help feature actually leads you through tasks step by step, so you can master the processes, procedures, and capabilities of your Macintosh and the applications running on it.
- *Macintosh PC Exchange and Macintosh Easy Open.* These utilities allow you to work with DOS-formatted disks as though they were Macintosh disks. You can open and edit Macintosh, MS-DOS 6.2, and Windows 3.1 files even when you don't have the original application. (Appropriate file translators are required.)
- *QuickDraw GX.* This new printing and graphics architecture lets you create portable “print and view” documents from any application. It incorporates Apple's ColorSync technology for maintaining consistent color from scanned document to displayed image to printed result. In addition, it supports Apple TrueType

and Adobe TypeManager GX font technologies, and is optimized for enhanced performance on Power Macintosh systems.

- *PowerTalk*. PowerTalk provides a universal desktop mailbox for all electronic mail, and allows you to exchange mail with other PowerTalk users either without a server or through a PowerShare Collaboration Server (available separately). The DigiSign digital signature feature offers you and your colleagues the efficiency and security of signing off on projects electronically and complies with the RSA Public Key Cryptography System.

- *PowerBook utilities*. These features let you easily designate which files and folders to synchronize between your desktop Macintosh and your PowerBook—over a network, locally, or by using a floppy disk. They provide improved battery life by offering automatic backlight dimming, persistent RAM disks, and sleep keys, so your PowerBook battery will last longer. A Control Strip gives you convenient access to AppleTalk on/off, battery monitor, file sharing, hard disk spin-down, power management, sound volume, and more. And these utilities let you designate files to be printed the next time you connect to a printer.

- *AppleScript*. You can create custom solutions by linking functions from different applications—and from the Finder.

- *MacTCP*. This feature prepares your Macintosh for connection to other systems using the industry-standard Transmission Control Protocol/Internet Protocol (TCP/IP) networking protocols.

- *QuickTime*. This industry-standard utility enables you to edit and play back digital video. It's optimized for enhanced performance on Power Macintosh computers, and through its cross-platform file format, you can play back Macintosh QuickTime files on Windows software-based systems by using QuickTime for Windows.

Macintosh Application Environment

Macintosh Application Environment (MAE)—the virtual Macintosh for open systems—is an innovative software product that allows users of UNIX RISC-based workstations to run Macintosh 680x0 applications right on their system. A complete Macintosh environment in an X Window, MAE brings the functionality and ease of

8 use of the Macintosh computer to Sun Microsystems SPARCstations running the SunSoft Solaris operating system, as well as to Hewlett-Packard 9000 Series 700 workstations running HP-UX.

- *Is a virtual Macintosh.* MAE provides the familiar Macintosh graphical user interface and desktop in an X Window. Based on the Macintosh System 7.1 Finder (and incorporating several features of Macintosh System 7.5), MAE lets you open UNIX files (including NFS-mounted volumes), access UNIX applications through the Macintosh user interface, and use systems services (such as PostScript printers on the UNIX network).

- *Runs Macintosh applications.* MAE lets you use the most popular off-the-shelf Macintosh software on your UNIX workstation. It provides one consistent interface for all Macintosh applications, complete with icons, menus, windows, and outline fonts. It even reads Macintosh high-density floppy disks and CD-ROMs.

- *Makes networking easy.* Through built-in support for AppleTalk, you can easily share documents, electronic mail, and printers with other MAE and Macintosh users, allowing for tighter integration between UNIX workstations and Macintosh-based administrative systems. And support for MacTCP enables you to access the Internet and TCP/IP-based applications.

- *Integrates smoothly with UNIX.* MAE is fully integrated with the standard UNIX file system and allows you to copy and paste text and graphics between the UNIX and Macintosh environments. MAE organizes UNIX files and applications, and allows use of the control panels from the Macintosh desktop to configure your keyboard, mouse, and monitor settings.

At Ease 2.0: The easiest way to manage a shared Macintosh computer

With At Ease software, you can manage your shared Macintosh and make your Macintosh even easier to use. It's perfect for home use (especially if you have young children), offices, classrooms, and training centers. The simple At Ease interface is ideal for novice users, and its security features protect the contents of your hard disk.

- *Custom work environments.* Lets you set up an Apple Macintosh computer so that individual users have access only to certain applications and documents; you can create a customized environment for each user.
- *Easy setup.* Streamlines the setup of user passwords, for document and application access, and makes it easy to establish Finder access, file management capabilities, and other At Ease settings for custom work environments.
- *Privacy.* Allows you to restrict access to sensitive documents, the Finder, control panels, and the Chooser.

At Ease 2.0 for Workgroups: The easiest way to manage a group of shared Macintosh computers

With At Ease 2.0 for Workgroups software, you can easily manage a group of shared Macintosh computers. As a group administrator, you can create customized work environments for up to 200 different groups of users. An activity log tracks user log-ins, providing information on both usage time and applications used, which facilitates system management and ensures security. At Ease 2.0 for Workgroups provides:

- *Custom enhanced work environments.* Lets you create customized environments for groups of users, specifying application and document access for each group, while allowing individuals to save documents in their own private folders.
- *Security.* Enables you to easily set up a group of computers from a single computer and then monitor user activity.
- *Application security.* Helps prevent accidents, by allowing you to restrict access to the internal hard disk with sophisticated password controls.

Apple Personal Diagnostics

Apple Personal Diagnostics software helps you keep your Macintosh trouble-free by performing comprehensive diagnostic tests on your logic board, hard disk, floppy disk drive, system software, and display. It also provides information about your system configuration. The Automated Diagnostics feature allows you to test your Macintosh automatically when you aren't using it. You'll be alerted to problems and given simple steps to correct

them. Apple Personal Diagnostics version 1.1 supports Macintosh System 7.5 and more than 100 Macintosh models, from the Macintosh Plus through the Power Macintosh 8100/110.

Learning and Entertainment

★ **Apple CD-ROM Collection**

The Apple CD-ROM Collection is designed to help users get the most from their multimedia computers, by offering affordable bundles of CD-ROM–based titles. The collection currently consists of seven CD-ROM title packs—each containing three high-quality CD-ROMs. Each pack also includes Xpand Xpo, which features demos of all the available CD-ROM titles as well as thousands of other Macintosh-related products.

- *Children's learning and entertainment titles.* Packs designed for young users include Smart Fun for Kids, Cool Fun for Kids, and Adventures for Kids.
- *Adult entertainment and reference titles.* Packs designed for adults include Sports and Humor, Encyclomedia, and Learning for Adults.

★ **Apple Home Learning Series**

The Apple Home Learning Series is designed to bring the excitement of Macintosh-based multimedia learning into the home. It features CD-ROM–based packages developed by experts in the areas of multimedia and education.

- *Earth Explorer.* This title from Enteractive, Inc., available for Windows software–based systems as well as Macintosh computers, provides families with the most comprehensive and up-to-date information possible about our planet—all in an entertaining and easy-to-use format.
- *WiggleWorks.* This series, developed by Scholastic Inc., includes multiple creative activities designed to foster reading and writing skills in children ages three to five. Each WiggleWorks CD-ROM features three different books, along with activity cards that suggest ways to help maximize your children's enjoyment and educational benefit.

Compatibility and Communications

Macintosh PC Exchange 2.0: The easiest way to work with PC files on your Macintosh

Macintosh PC Exchange 2.0 software makes it easy for Macintosh users to work with data files stored on MS-DOS-, Microsoft Windows-, OS/2-, and ProDOS-formatted floppy disks. You can move files between a Macintosh and a PC as easily as you can between two Macintosh computers. Included as part of System 7.5, Macintosh PC Exchange 2.0 is also sold separately. It features:

- *MS-DOS 6.2 and Windows 3.1 files on Macintosh.* Automatically displays the disk's icon on your Macintosh desktop when you insert an MS-DOS-formatted or Windows-formatted disk into your Apple SuperDrive.
- *Macintosh ease of use.* Displays the contents of MS-DOS 6.2 or Windows 3.1 disks on the screen as documents and folders—in the standard, easy-to-use Macintosh format.
- *Double-click and go.* Lets you double-click on MS-DOS 6.2 or Windows 3.1 files and launch a compatible Macintosh application—by creating links between MS-DOS 6.2 or Windows 3.1 files and Macintosh applications.
- *Multiple formats.* Works with both 3.5-inch and 5.25-inch floppy disks formatted using MS-DOS 6.2, Windows 3.1, ProDOS, or OS/2.
- *Storage devices.* Lets you work with SCSI hard disks and floptical, Bernoulli, and SyQuest removable-media devices.
- *A/UX compatibility.*

PowerBook/DOS Companion

This product combines four key Macintosh-to-PC compatibility tools in a single package, to provide virtually everything you need to make your PowerBook and a PC work together:

- *MacVGA Video Adapter.* Lets you easily connect a PowerBook to a color VGA or SVGA display and see your work in 256 colors.
- *MacLinkPlus/PC.* Converts PC files into Macintosh formats.

- *PowerPrint*. Allows you to expand the selection of printers that can be connected to your PowerBook.
- *Macintosh PC Exchange*. Helps your PowerBook to recognize MS-DOS 6.2, Windows 3.1, or OS/2 disks.

eWorld

eWorld, Apple's electronic information service for Macintosh and PowerBook computers, is an innovative, informative, easy-to-use on-line service that combines a global electronic-mail system with information, entertainment, and popular subscription services—including Reuters America Inc., Tribute Media Services, ZiffNet/Mac, and Inc. Magazine Online. It features:

- *Real-world metaphor*. eWorld is modeled on the metaphor of a community. It's an electronic neighborhood of colorfully illustrated buildings, plazas, and pavilions, each representing a specified area of the on-line service—for example, a Library for research, a Newsstand for current events, a Computer Center for assistance and software, and a Community Center for chatting with other members and viewing a listing of events.
- *Advanced electronic-mail system*. eWorld users can easily communicate with one another, as well as with users of the Internet and other electronic-mail services through mail gateways that simplify addressing. eWorld also offers a range of real-time interactive communications capabilities, such as lectures, forums, and Town Meetings, which allow up to 250 users to participate simultaneously. Smaller groups can chat and collaborate electronically in both public and private forums. And in the future, the service's communications capabilities are expected to incorporate Apple's Open Collaboration Environment (AOCE) technologies, to provide integration with PowerTalk services.
- *Cross-platform support*. eWorld services will be available on a range of devices, including Windows software-based computers and Newton MessagePad communications assistants, with common features available across platforms.
- *Publishing tools*. eWorld dramatically simplifies the creation and maintenance of on-line publications. Publishing tools allow publishers to design and prototype new products, and then

update them cost-effectively by moving information from their existing files to eWorld's global servers.

- *International appeal.* eWorld is designed to support multiple languages for both content and applications. It also supports network services from multiple vendors, providing local access points around the world. Native-language versions in German, Japanese, and French are planned for subsequent release.

NewtonMail

NewtonMail software make it easy for Newton MessagePad users to exchange text messages with one another and with anyone who can be reached on popular on-line information services.

- *Internet access.* Provides access to on-line information systems accessible via the Internet, including CompuServe, America Online, MCI Mail, AppleLink, SprintMail, and EasyLink.

- *Newton-to-Newton information exchange.* Allows 24-hour-per-day, 7-day-per-week electronic exchange of Newton information—such as notepad messages and graphics, business cards, and calendar appointments—between NewtonMail subscribers. Users can send mail from any Newton application.

- *Ease of use.* Incorporates metaphors consistent with other built-in Newton applications, such as the InBox and OutBox functions.

Publishing and Document Enhancement

QuickTime: The simplest way to incorporate sound and video into your work

With QuickTime, you can work with video, sound, and animation as easily as you now work with text and graphics. The QuickTime Starter Kit allows you to create and edit QuickTime movies—and paste them into your documents. The QuickTime Starter Kit features:

- *MoviePlayer.* Enables you to play, pause, edit, and rewind QuickTime movies using simple VCR-like controls.

- *Movie Converter.* Allows you to create QuickTime movies from several different file types.

- *Movie Recorder*. Lets you create movies from existing video footage. (Requires a video-capture card and sound digitizer.)
- *Picture Compressor*. Reduces large files to a fraction of their original size with little or no visible loss in picture quality.
- *QuickClips CD-ROM*. Features more than 400 megabytes of clip video, animation, and color-image files.
- *A/UX compatibility*.

Apple Font Pack for Macintosh: Exceptional type for impressive results

The Apple Font Pack provides a carefully chosen selection of 43 TrueType fonts from the world's leading type foundries. The Apple Font Pack is easy to install, manage, and work with; no system reconfiguration is required.

- *Broad compatibility*. Works with all System 7-compatible applications and Macintosh-compatible output devices.
- *TrueType format*. Lets you scale fonts to any size, to produce outstanding results both on the screen and in print.
- *Carefully chosen selection*. Provides you with a wide variety of text, display, and symbol fonts—including Zeal, a unique Apple symbol font that features a variety of useful symbols—to enhance any document you're working on.

PhotoFlash

With PhotoFlash 2.0 software, you can quickly and easily catalog and enhance digital photos, then place them into documents for high-impact results.

- *Catalog windows*. Makes it easy to organize and find photos—as well as to place them quickly—by examining or searching on thumbnails (small previews) of images that have been saved in industry-standard file formats. Drag and Drop capability lets you easily move images into applications such as Aldus PageMaker, QuarkXPress, Aldus Persuasion, Microsoft Word, and Claris FileMaker Pro.
- *Editing tools*. Provides optimized tools to enhance images immediately, with advanced options for finer control. You can adjust the color or brightness and contrast of photos; remove

scratches and dust from pictures; straighten scans; and quickly sharpen, blur, resize, rotate, and crop images.

- *Scripting capabilities.* Supports AppleScript scripting, to let you automate repetitive tasks—such as creating contact sheets and performing file-format conversions—and automatically place photos into documents created with popular applications.

Japanese Language Kit

The Japanese Language Kit contains everything you need to add Japanese text to your documents. It can be used with your Apple Macintosh, PowerBook, or PowerPC processor-based computer to run WorldScript-savvy or Japanese applications and to include Japanese text in letters, presentations, and reports. You can even work with files created using KanjiTalk, Apple's Japanese version of the Macintosh operating system.

- *Bilingual instruction.* Comes with a bilingual manual.
- *TrueType fonts.* Includes scalable HonMincho and MaruGothic TrueType fonts.

Chinese Language Kit

The Chinese Language Kit contains everything you need to add Chinese text to your documents. It can be used with your Apple Macintosh, PowerBook, or PowerPC processor-based computer to run Chinese applications and to include Chinese text in letters, presentations, and reports.

- *Bilingual instruction.* Comes with bilingual manuals.
- *TrueType fonts.* Includes scalable Chinese TrueType fonts.
- *Traditional or Simplified Chinese.* Provides easy-to-install Traditional and Simplified character sets.
- *Variety of input methods.* Includes Pinyin, Zhuyin, Cangjie, and others.

AppleScript

AppleScript is the first truly integrated scripting, or macro, language developed for a personal computer. Its convenient natural-language syntax makes it easy to learn and use and enables you to automate routine and complex tasks to increase personal productivity. Dialects are provided for English, French, and Japanese. Tasks that can be automated include creating backups, filing files, accessing mainframes, and downloading mail.

AppleScript comes with built-in commands that make it easy to develop useful solutions. There are dozens of popular third-party applications that support and can be controlled by AppleScript. Thus, AppleScript is an ideal tool for integrating and harnessing the power of existing general-purpose applications to meet your specific needs.

AppleScript includes FaceSpan, an interface builder that lets you quickly put together custom applications with familiar Macintosh interface elements—all tied together by AppleScript commands. These commands can be entered manually or “recorded” in macros.

HyperCard 2.3

HyperCard is an easy-to-use development tool for creating a wide range of custom software solutions. It lets you organize information through the metaphor of “stacks” of “cards” through which you can navigate and search for information. By simply clicking on a button, you can view related text, graphics, or QuickTime movies, as well as listen to sounds. Although it’s simple enough for use by nonprogrammers, it also provides a robust prototyping and development environment for professional developers, with powerful scripting tools (including built-in AppleScript support), a modeless script editor, hypertext support, debugging tools, and more. HyperCard 2.3 is designed to take advantage of the PowerPC processor, and is optimized for high performance on 680x0-based Macintosh computers.

- *Color and media integration tools.* The previous set of color tools has been enhanced to enable 24-bit color painting. And a complete suite of multimedia utilities for morphing and adding QuickTime movies has been added.
- *Ease of use.* HyperCard lets you integrate QuickTime movies, graphics, sounds, and spoken text within your stacks easily—no scripting experience is required.
- *New interface feature.* As part of the move from passive to active interface, HyperCard text can now be read aloud by your computer.

Apple Media Tool

The Apple Media Tool is a visual, object-based authoring environment that lets creative designers integrate media elements—such as QuickTime movies, PICT files, text, and sound files—and then make them interact through a direct manipulation interface to create interactive multimedia titles, support and training modules, and other similar projects. Also available is the Apple Media Tool Programming Environment, which allows programmers to customize interactive multimedia projects in a new object-based language called the Apple Media Language. (Products are sold separately.)

- *Collaboration aid.* Frees creative team members to work simultaneously on various aspects of the same project—programmers can spend their time developing media elements or “objects,” while designers use Apple Media Tool to make these elements interact and build a project.
- *Separate storage formats.* Stores media separately from the application—which reduces application size, and lets you replace work-in-progress with finished content without losing any of the relationships set up between objects.
- *QuickTime integration.* Takes advantage of Apple’s industry-standard QuickTime technology.
- *Cross-platform development.* Lets you deliver interactive multimedia projects on both Macintosh and Windows software-based systems using the same content. The Apple Media Tool Programming Environment gives programmers

18 access to both Macintosh and Windows toolboxes through a C language interface.

- *Runtime tool.* Includes Runtime Maker, which lets you create finished files and publish them on CD-ROM discs for Macintosh computers or for computers running Windows 3.1. Creates projects native to both PowerPC and 680x0 processor-based computers.

Desktop Computer Systems

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The Macintosh Advantage

Macintosh is easier to use than other personal computers


- The Macintosh is the only computer designed from the start with the user in mind. It's exceptionally easy to use. It lets you concentrate on getting your work done, instead of on figuring out how to get your computer to work—you'll see that from the minute you open the box.
- Macintosh hardware and software have been designed to work together, unlike in the PC world—where Microsoft develops MS-DOS and Windows, and many different manufacturers make the hardware systems.
- System 7 software provides a built-in, intuitive user interface, while Windows tries to compensate for the underlying limitations of MS-DOS. For example, Macintosh lets you use descriptive names for files (up to thirty-one characters), but both MS-DOS and Windows limit you to only eight characters, with a three-character extension.
- Not only are Windows users restricted by the limitations of MS-DOS, they also have to understand the two programs that make up Windows: Program Manager and File Manager.
- Because it's easier to use, people who use Macintosh get more done—a fact supported by multiple independent studies.

Macintosh offers you more and better applications

- More than 6,000 intuitive graphics-based programs run on Macintosh, for virtually any task you have to do—from word processing to spreadsheets, statistical analysis to three-dimensional modeling, desktop publishing to database management.
- Thousands of popular applications are being updated to take advantage of the high-performance capabilities provided by the

RISC-based PowerPC processor used in Power Macintosh computers. Already, software developers have redesigned hundreds of existing applications and created new applications that run up to six times faster than their counterparts on 680x0-based Macintosh computers—and some computation-intensive applications and tasks offer much higher performance than that.

- Macintosh applications work in a single, consistent way—once you've learned the basics of one program, you can apply that knowledge to thousands more.
- Macintosh applications require less disk space. For example, WordPerfect for Windows requires a minimum of 11 megabytes of hard disk space, while WordPerfect for Macintosh requires a minimum of 2.6 megabytes. Windows users who run a variety of applications may run out of disk space and have to add a hard disk. Not only is this an added expense, it can also be very difficult and time-consuming.
- Macintosh applications are easier to install and remove than Windows applications. For example, removing applications from the Macintosh is simple—you simply drag the application and its supporting files to the Trash icon. In contrast, removing an application from the PC is a many-step process that usually requires the use of three different programs: File Manager, to delete the application's file and subdirectories; Program Manager, to delete the application icon and the program group; and a text editor, to delete all references to that application from the WIN.INI configuration file.
- On Macintosh, double-clicking a document automatically opens the application that created it. You don't have to be concerned about where the application resides. With Windows, it's not that simple—sometimes clicking on a document opens the application that created it, and sometimes it doesn't.
- Macintosh applications are faster. Because Macintosh isn't a graphical shell grafted on top of a character-based system, it doesn't expend a lot of computing power trying to do something it wasn't designed for. For example, in performance benchmarks, the Macintosh Quadra 630 with a 66/33-megahertz 68040 processor outperformed a Windows 3.1 software-based computer

with a 486DX2 processor running at 66 megahertz.¹ And Power Macintosh computers far exceed the speed of their competitors—computers running the Intel Pentium processor—with more than 500 applications designed to maximize their performance.  28

Macintosh has lower costs of ownership

- The cost of buying a computer is not the same as the cost of owning it. When you factor in training time and other ownership expenses, independent researchers say Macintosh is less expensive to own than a PC running Windows. For example, the Gartner Group has researched how much a personal computer costs an organization over the course of five years. These costs include the initial hardware and software costs, training and support costs, the cost for the time the user spends trying to learn new software applications, and more. Gartner determined cost figures for Macintosh, MS-DOS, Windows, and OS/2 systems. According to Gartner, the five-year cost of the Macintosh in the United States is \$35,124, and the five-year cost of a PC running Windows 3.1 is \$41,439—making Macintosh computers \$6,315 cheaper to own than Windows software-based systems.² And cost savings over OS/2 and MS-DOS systems were even greater.

Macintosh makes it easier to enhance your system

- Macintosh is designed to grow as your needs change. There are thousands of Apple and third-party products that add capabilities to your Macintosh. And it's easy to add these capabilities, because Macintosh recognizes what types of expansion cards, printers, and other peripherals are connected.
- In contrast, adding capabilities to personal computers running Windows typically requires complex steps, such as configuring jumpers or DIP switches on a card, editing DOS and Windows files, and running installation programs.

¹ Source: Ingram Laboratories Benchmark Study, February 1995.

² Source: A life-cycle cost study conducted by Gartner Group, Inc., 1994.

Macintosh lets you connect easily to a wide variety of networks

- Every Macintosh comes with built-in AppleTalk networking capabilities, which means you can connect a Macintosh to a network simply by plugging in an inexpensive LocalTalk cable. Then you'll be able to use the network's printers, exchange electronic mail, and share files with other Macintosh users.
- Macintosh lets you connect to a wide variety of network environments.  148 You can easily integrate a Macintosh into networks of PCs, minicomputers, and mainframes. And Macintosh not only lets you easily access information stored on those systems, it also provides a consistent, easy-to-understand interface.
- Macintosh supports AppleTalk, DEC, IBM, OSI, TCP/IP, Token Ring, and Novell networks.

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Macintosh users are more satisfied and productive than Windows users

- Ten years after the introduction of the Macintosh, in January 1994, Arthur D. Little—a leading international consulting firm—conducted a study that clearly demonstrates that Macintosh users are more productive than users of Windows 3.1 software-based systems for a broad range of business computing tasks. Specifically, Macintosh users completed a set of business computing tasks in 44 percent less time—with up to 50 percent greater accuracy—than users performing the same tasks on Windows 3.1 software-based computers.³
- The superiority of Macintosh is not only proved by the long list of advantages it offers—it's also borne out by the millions of satisfied Macintosh customers. When Macintosh and Windows users were surveyed by The Roper Organization,⁴ Macintosh scored highest on overall satisfaction.
- Evans Research surveyed people who use both Macintosh and Windows systems. Macintosh was preferred by nearly two out of three people.⁵ A wide variety of people were surveyed:



³ Source: "A Competitive Study of Productivity: Macintosh vs. Windows." Study conducted by Arthur D. Little, Inc., January 1994.

⁴ Source: March 1993 study conducted by The Roper Organization.

⁵ Source: June 1992 study conducted by Evans Research Associates.

MIS managers, users in small and large businesses, and home users. In every category, people preferred Macintosh by a margin of almost two to one. In addition, when asked on which system they feel they accomplish more for the time and effort spent, a clear majority of people said Macintosh.

What comes with every Macintosh

- *System 7:* The popular Macintosh operating system. Imitated, but never equaled, System 7 makes Macintosh incredibly easy to learn and use. It runs on all Macintosh computers,⁶ offering capabilities such as multitasking, virtual memory, on-screen help, and file sharing.  6 Macintosh, Power Macintosh, and most PowerBook computers come with Macintosh System 7.5.
- *An Apple SuperDrive floppy disk drive.* The Apple SuperDrive floppy disk drive⁷ is a high-density floppy disk drive that can read from and write to Macintosh, MS-DOS, Windows, OS/2, and ProDOS disks. You can, for example, use it to open a file that's stored on an MS-DOS 6.2 disk, modify the file with a Macintosh program, and save your work back to the MS-DOS 6.2 disk.⁸
- *Built-in networking ports.* All Macintosh computers come with a LocalTalk port, which lets you easily connect Macintosh computers together in an AppleTalk network. You can also connect a Macintosh to DECnet, TCP/IP, SNA, APPC, 3270, and X.25 networking environments.  148
- *WYSIWYG.* Macintosh offers "what you see is what you get" capabilities—things you create and view on the screen of a Macintosh will appear exactly as you would expect when you print them.
- *Easy connection to printers.* It's easy to connect your Macintosh to an Apple printer—all you need is a single cable. And if you are connected to more than one printer over a network, it's easy to select the particular printer you want to use.

⁶ System 7.5 requires 4MB of RAM (8MB on a Power Macintosh computer) and a hard disk.

⁷ The PowerBook Duo computers can be used with an external 1.4MB floppy disk drive.

⁸ Requires use of either Macintosh PC Exchange (included as part of Macintosh System 7.5) or Apple File Exchange.

- *SCSI port.* You can connect as many as seven SCSI devices to your Macintosh—hard disk drives, CD-ROM drives, scanners, and more—with no need for extra cards or connectors.

- *Apple Desktop Bus.* The Apple Desktop Bus (ADB) port is a built-in peripheral port for input devices—such as mouse controllers, keyboards, and graphics tablets. It lets you easily customize your Macintosh to work the way you do by adding input devices to suit your needs. All Macintosh computers offer an ADB port—and some models have two.⁹

- *Sound capabilities.* Every Macintosh can play back high-quality sound. And all Macintosh models feature sound-input capabilities, so you can add voice annotation or music to your work.

- *Built-in video.* All Macintosh computers come standard with built-in video support. There's no need to purchase, configure, or install video cards. The Macintosh LC 580, Macintosh Performa 580, Macintosh Performa 5200CD, Power Macintosh 5200/75 LC, PowerBook, and PowerBook Duo computers have displays built in. All other Macintosh computers have built-in support for a variety of Apple displays.

- *Built-in features designed to meet the needs of individuals with disabilities.* Out of the box, the Macintosh is the most accessible personal computer available:

- Every Macintosh comes with Easy Access, a system utility that allows you to use Sticky Keys, which lets you type multiple keystrokes without actually having to press the keys simultaneously; Slow Keys, which lets you type very slowly and ignores accidental keystrokes by delaying the acceptance of the next keystroke; and Mouse Keys, which lets you use the numeric keypad to imitate the way the mouse moves your cursor.

- Most Macintosh computers come with CloseView, a screen utility that allows you to magnify what you see on your Macintosh screen from two to sixteen times its normal size. It also lets you invert black-on-white text screens to white-on-black, which is helpful for people with certain visual impairments.

⁹ The PowerBook Duo Dock Plus, PowerBook Duo MiniDock, and PowerBook Duo Floppy Adapter offer ADB ports for the PowerBook Duo systems.

—Every Macintosh has the built-in capability to substitute a flashing menu bar for the sound of the system beep.

Unique multimedia capabilities help Macintosh computers stand out

26

All Macintosh computers are designed to ensure your immediate success with multimedia, offering such features as QuickTime software, ports for sound input and output, speakers, and, in most cases, integrated CD-ROM drives and microphones. In addition, Power Macintosh computers are available in configurations that support Apple AV Technologies, a suite of integrated telecommunications, video, and speech technologies.

Many current Macintosh computers are designed to accommodate affordable, user-installable multimedia kits, so you can tailor your Macintosh to provide the specific multimedia capabilities you need. The kits are as follows:

- *Apple Video System.* This multimedia solution comes with a user-installable video card and software that lets you easily add still video images to documents and presentations. The video card allows you to connect a VCR, camcorder, laserdisc player, or other video source to your computer with a single cable. Then you can capture a still image or an entire video sequence and easily view it in a window on your Macintosh. You can even save the sequence as a QuickTime movie.
- *Apple TV/Video System.* This kit gives your computer the capabilities of the Apple Video System, and more—it also allows you to watch television programs in a window on your Macintosh and work on documents simultaneously. It supports closed-caption programming (where available) and allows password protection, so you can lock out access to specific TV channels or to TV viewing in general. The Apple TV/Video System comes with a video card, TV Tuner card, remote control, and software.

- *Apple Presentation System.* This makes it easy for you to create a presentation on your Macintosh, then display it to an audience on a large television screen. You can even make changes to the presentation on your Macintosh display, and your efforts will be mirrored on the television screen in real time. Or connect your Macintosh to a VCR and record your presentation on videotape. The Apple Presentation System comes with software, cables, and video converter box.

The Power Macintosh Advantage

Power Macintosh computers offer unprecedented levels of performance

With the introduction of the PowerPC 601 processor in Macintosh computers, Apple created the Power Macintosh line, the first personal computers to integrate the PowerPC processor with an industry-standard operating system. PowerPC processors streamline the internal workings of computers through a technology known as RISC (Reduced Instruction Set Computing). And they offer significant performance increases and new capabilities, while preserving compatibility with existing software and peripherals.

Apple computers based on PowerPC processors offer these key advantages:

- *Breakthrough price/performance value.* In a comparison of processors, the PowerPC 601 chip (the first PowerPC processor) has a price/performance advantage over competitors based on CISC (Complex Instruction Set Computing) technology. Power Macintosh and Apple's other PowerPC processor-based computers are designed to provide faster performance than CISC-based computers at the same price.
- *A smooth transition for current Macintosh, DOS, and Windows users.* Apple and third-party developers are offering a variety of affordable upgrades for existing Macintosh models. Customers can purchase Macintosh computers based on the Motorola 68000 family of processors with the confidence that they can upgrade when they're ready. In addition, SoftWindows software from Insignia Solutions allows Apple's PowerPC processor-based computers to run Windows 3.1 or MS-DOS 6.2 applications. And the Power Macintosh 6100/66 DOS Compatible provides hardware-level compatibility with MS-DOS 6.2 and

Windows 3.1 software-based applications through its built-in 486DX2 processor.

- *High-performance applications.* Software developers have designed more than 500 applications specifically to take advantage of the performance capabilities of the PowerPC processor. These applications run up to six times faster than conventional Macintosh applications designed for 68040-based systems.

Power Macintosh computers outperform comparable personal computers with a Pentium processor running Windows 3.1

At the heart of any Power Macintosh computer is a powerful PowerPC processor. The following points summarize how Power Macintosh computers with the PowerPC 601 processor outperform Intel Pentium processor-based computers running Windows 3.1.¹

- Overall, the Power Macintosh computers were 38 percent faster than PCs based on Pentium processors of equivalent clock speed.
- In the category of graphics and publishing applications, the Power Macintosh 8100/110 was 92 percent faster than a PC based on a 100-megahertz Intel Pentium processor.

Power Macintosh computers are compatible with Macintosh and Windows software-based systems

- Power Macintosh computers are the most compatible systems on the market. In addition to running System 7, they run virtually all your existing Macintosh software with no modification whatsoever. And Power Macintosh computers are compatible with existing Macintosh cards, cables, printers, system software extensions, and networking hardware and software.
- Power Macintosh computers have advanced compatibility features built right into the system software. For example, Macintosh PC Exchange software, included with Macintosh System 7.5, lets

¹ Source: "A Performance Comparison: Apple Power Macintosh Computers vs. Intel Pentium Processor-Based Computers Running Windows" by Ingram Laboratories, February 1995. Study was conducted using comparable application software on Power Macintosh computers running Macintosh System 7.5 and Pentium processor-based computers running Microsoft Windows 3.1.

you open, edit, and print MS-DOS 6.2 and Windows 3.1 files using your Power Macintosh.

- The Power Macintosh 6100/66 DOS Compatible runs applications for MS-DOS 6.2 and Windows 3.1, in addition to applications for the Mac OS. This computer comes with a built-in 66-megahertz 486DX2 processor, to provide hardware-level compatibility with MS-DOS 6.2 and Windows 3.1 software-based applications. And because it also includes a PowerPC 601 processor, this system lets you run virtually any software you want to, including applications optimized to take advantage of the PowerPC processor's high performance.
- The DOS Compatibility Card, which includes a 486DX2 processor, gives your Power Macintosh 6100 or Macintosh Performa 6100 series computer the same MS-DOS and Windows compatibility as the Power Macintosh 6100/66 DOS Compatible.
- Several third-party products also provide DOS and Windows compatibility for Power Macintosh. Through SoftWindows software (available from Insignia Solutions), Power Macintosh computers can run standard-mode MS-DOS 6.2 and Windows 3.1 software-based applications at speeds comparable to those of entry-level PCs based on the 80386 and 80486 processors.
- Apple has implemented an affordable, comprehensive upgrade path to PowerPC for existing Macintosh and PowerBook computers—so you can still buy and support Macintosh computers based on the Motorola 68000 family of microprocessors without missing out on the advantages of PowerPC technology.

Power Macintosh computers can run hundreds of applications at an exceptionally fast rate

- Software developers worldwide are redesigning applications—and creating new ones—to take advantage of the performance capabilities of the PowerPC processor, resulting in the largest library of mainstream applications designed specifically for a RISC platform. These applications can run up to six times faster than the applications you use on today's 680x0-based Macintosh computers.

- Computation-intensive RISC-based applications for tasks such as three-dimensional modeling and scientific visualization offer much higher performance than their CISC-based counterparts.
- The high performance of the PowerPC processor also enables developers to add new features to these applications. In this way, PowerPC technology helps advance the boundaries of software capabilities and opens the doors to innovation.

Macintosh LC 475



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At a glance

- The Macintosh LC 475 is Apple's most affordable Macintosh that features a Motorola 68LC040 microprocessor. It can be upgraded to take advantage of the PowerPC processor.
- It's a powerful, flexible system that can grow as your needs change—offering color capability and a wide variety of monitor options in a slim-line design.

Specifications *(Note: Configurations and availability may vary worldwide.)*

- **Processor:** 68LC040 with built-in paged memory management unit (PMMU) and 8K memory cache
- **Speed:** 50/25 megahertz
- **Memory:** 4MB or 8MB of RAM, expandable to 36MB—4MB on logic board and one 72-pin SIMM slot
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 160MB or 250MB hard disk drive
- **Expansion capabilities:** Macintosh LC-compatible processor-direct slot; supports seven SCSI devices
- **Ports:** Two serial ports, ADB port, video-output port, high-performance SCSI port, sound-input port (mono), sound-output port (stereo)
- **Displays:** Built-in support for all Apple displays
- **Networking ports:** Built-in LocalTalk
- **Dimensions (HWD):** 3.2 by 12.2 by 15.0 inches (8.1 by 31.0 by 38.1 cm)
- **Weight:** 8.8 lb. (4.0 kg)

Key features

- Features the Motorola 68LC040 processor, which enables it to handle complex tasks with ease.
- Can be upgraded to take advantage of the PowerPC processor.
- Comes with 512K of on-board video RAM for extensive video support; the Macintosh LC 475 can be used with any Apple display.
- Allows you to expand video RAM to 1MB, so you can work with up to 32,768 colors on some displays.
- Comes with an expansion slot for customizing your system, for instance, to add high-speed networking capabilities or to run Apple IIe applications.
- Comes with high-performance SCSI capability.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Upgrade information

- The Macintosh LC II and LC III can be upgraded to the Macintosh LC 475 with the purchase of the Macintosh LC 475 Logic Board Upgrade.

Other Macintosh models to consider

- The Macintosh Quadra 630 offers a faster processor, and the flexibility to provide advanced multimedia capabilities through new integrated hardware and software technologies.
- Power Macintosh computers take full advantage of the RISC-based PowerPC processor, providing exceptional speed and productivity.

Macintosh LC 580



★34

At a glance


- The Macintosh LC 580 gives you more multimedia for less—in a convenient all-in-one design. [Note: This Macintosh computer is not sold in the same channels worldwide as the Macintosh Performa 580.]
- It features a Motorola 68LC040 processor, and can be upgraded to take advantage of the PowerPC processor.
- It includes a built-in CD-ROM drive (some configurations), as well as a video slot and an optional connector for video output.

Specifications *(Note: Configurations and availability may vary worldwide.)*

- *Processor:* 68LC040 with 32-bit data bus
- *Speed:* 66/33 megahertz
- *Memory:* 8MB of RAM, expandable to 52MB
—4MB on logic board, one 4MB SIMM, and one 72-pin SIMM slot
- *Storage:*
—Internal Apple SuperDrive floppy disk drive
—Internal 500MB hard disk drive
—Supports one internal CD-ROM drive
- *Expansion capabilities:* Macintosh LC-compatible processor-direct slot; communications slot for Ethernet or modem card; video slot for NTSC, PAL, or SECAM video-input card; supports six SCSI devices
- *Ports:* Two serial ports, ADB port, optional video connector that can support connection to another display or the Apple Presentation System, high-performance SCSI port, sound-input/output ports
- *Displays:* Built-in 14-inch (diagonal) high-resolution display; supports 32,768 colors

- *Networking ports:* Built-in LocalTalk; optional Ethernet (requires Ethernet card)
- *Dimensions (HWD):* 17.9 by 13.5 by 16.5 inches (45.5 by 34.3 by 41.9 cm)
- *Weight:* 40.5 lb. (18.3 kg)—will vary based on internal devices installed

Key features

- Provides the power of a Motorola 68LC040 processor.
- Can be upgraded to take advantage of the PowerPC processor.
- Offers advanced multimedia capabilities in a convenient all-in-one design.
- Lets you easily expand the multimedia capabilities of your system to include MPEG playback or by connecting one of a variety of multimedia kits.  71
- Lets you add either an Ethernet card or a high-speed fax modem, through its communications slot.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Other Macintosh models to consider


- The Macintosh LC 630 DOS Compatible provides hardware-level compatibility with MS-DOS 6.2 and Windows 3.1 software-based applications.
- The Power Macintosh 5200/75 LC offers the power of the PowerPC processor in an innovative all-in-one design, and is optimized for multimedia.

Macintosh LC 630

36



At a glance

- The Macintosh LC 630 is an affordable Macintosh desktop system designed to handle the user's multimedia needs. [Note: This Macintosh is not sold in the same channels worldwide as the Macintosh Quadra 630 or Macintosh Performa 630 series.]
- Its unique industrial design—including a modular logic board and special internal connectors—allows users to tailor the system to their needs by adding a PowerPC upgrade, a CD-ROM drive, or one of a range of new multimedia kits.  26

Specifications *(Note: Configurations and availability may vary worldwide.)*

- **Processor:** 68LC040 with built-in paged memory management unit (PMMU) and 8K memory cache
- **Speed:** 66/33 megahertz
- **Memory:** 4MB or 8MB of RAM, expandable to 36MB
—4MB on logic board and one 72-pin SIMM slot
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 250MB or 350MB hard disk drive
 - Supports one half-height 5.25-inch internal peripheral, such as a hard disk drive, a CD-ROM drive, or a magneto-optical drive
- **Expansion capabilities:** Macintosh LC-compatible expansion slot; communications slot for Ethernet or modem card; video slot for NTSC, PAL, or SECAM video-input card; bay for TV-tuner module; supports seven SCSI devices
- **Ports:** Two serial ports, ADB port, video-output port, SCSI port, sound-input/output ports

- *Displays:* Built-in support for the Apple Color Plus 14" Display, Macintosh Color Display, Apple AudioVision 14 Display, and Apple Multiple Scan 15 Display; supports several third-party VGA and SVGA monitors
- *Networking ports:* Built-in LocalTalk; optional Ethernet (requires Ethernet card)
- *Dimensions (HWD):* 4.3 by 12.6 by 16.5 inches (10.9 by 32.0 by 41.9 cm)
- *Weight:* 19.0 lb. (8.6 kg)—will vary based on internal devices installed
- *Other features:*
 - Energy Star compliant
 - Keyboard power switch
 - Headphone jack and push-button sound controls located on front

Key features

- Provides the power of a Motorola 68LC040 processor.
- Can be upgraded to take advantage of the PowerPC processor.
- Lets you easily expand the multimedia capabilities of your system, by connecting one of a variety of multimedia kits, via an internal video slot. 📺 71
- Lets you add either an Ethernet card or a high-speed modem, through its communications slot.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Other Macintosh models to consider

If your tasks might require even greater performance and flexibility, you should consider the Power Macintosh 6100/66, which offers:

- A faster processor architecture (66-megahertz PowerPC 601 processor).
- A NuBus slot.
- More memory expansion capability—up to 72MB.
- Built-in Ethernet capability.
- A configuration that takes advantage of Apple AV Technologies.

Macintosh LC 630 DOS Compatible



★●38

At a glance

- The Macintosh LC 630 DOS Compatible is an affordable, compatible system that offers advanced multimedia capabilities. [Note: This Macintosh computer is not sold in the same channels worldwide as the Macintosh Performa 630 DOS Compatible.]
- It is, essentially, two computers in one: built-in 68LC040 and 486DX2 processors enable it to run applications, games, and CD-ROM titles for MS-DOS 6.2 and Windows 3.1 as well as the Mac OS.
- Its unique design allows you to tailor the system to your needs by adding one of a range of multimedia kits. **E3** 26

Specifications *(Note: Configurations and availability may vary worldwide.)*

- *Processors:* 68LC040 and 486DX2 with 32-bit data bus
- *Speed:* 66 megahertz for both processors
- *Memory:* 8MB of RAM, expandable to 52MB (Mac OS); 4MB expandable to 32MB (DOS and Windows environment)—4MB on logic board, one 4MB SIMM, and one 72-pin SIMM slot (Mac OS); one 4MB SIMM (DOS and Windows environment)
- *Storage:*
 - Internal Apple SuperDrive floppy disk drive
 - Internal 500MB hard disk drive
 - Internal CD-ROM drive
- *Expansion capabilities:* Communications slot for Ethernet or modem card; video slot for NTSC, PAL, or SECAM video-input card; bay for TV-tuner module; supports six external SCSI devices

- *Ports:* Two serial ports, ADB port, monitor port that can support connection to external video-out, high-performance SCSI port, sound-input port (stereo), sound-output port (stereo), PC game port for DOS and Windows environment
- *Displays:* Built-in support for Apple displays of up to 17 inches in size; supports VGA and SVGA displays
- *Networking ports:* Built-in LocalTalk; optional Ethernet (requires Ethernet card); ODI driver supports Novell NetWare IPX and TCP/IP (DOS and Windows environment)
- *Dimensions (HWD):* 4.3 by 12.6 by 16.5 inches (10.9 by 32.0 by 41.9 cm)
- *Weight:* 19.0 lb. (8.6 kg)—will vary based on internal devices installed

Key features

- Comes with a 486DX2 processor, for hardware-level compatibility with MS-DOS 6.2 and Windows 3.1 software-based applications and CD-ROMs, and includes MS-DOS 6.22 and Windows 3.1.
- Lets you share files, folders, and disks between operating systems, as well as cut, copy, and paste between Mac OS, MS-DOS 6.2, and Windows 3.1 software-based applications.
- Lets you easily expand the multimedia and communications capabilities of your system. 📺 71
- Provides 16-bit stereo playback, and includes support for Sound Blaster 16 audio output.
- Lets you use Macintosh-compatible printers, modems, and other peripherals with both operating systems.

Other Macintosh models to consider

For even greater performance, you should consider the Power Macintosh 6100/66 DOS Compatible, which offers:

- A faster processor architecture (66-megahertz PowerPC 601 processor).
- More memory expansion capability—up to 72MB for Mac OS environment.
- Built-in support for two displays, so you can dedicate one to the Mac OS and one to MS-DOS 6.2 and Windows 3.1 software-based applications.

Macintosh Performa 580

★40



At a glance


- The Macintosh Performa 580 has an all-in-one design, is optimized for multimedia, and can be upgraded to take advantage of the PowerPC processor. [Note: This computer is not sold in the same channels worldwide as the Macintosh LC 580.]

Specifications (*Note: Macintosh Performa model numbers, configurations, and availability may vary worldwide.*)

- *Processor:* 68LC040 with 32-bit data bus
- *Speed:* 66/33 megahertz
- *Memory:* 5MB or 8MB of RAM, expandable to 52MB—4MB on logic board, one 1MB or 4MB SIMM, and one 72-pin SIMM slot
- *Storage:*
 - Internal Apple SuperDrive floppy disk drive
 - Internal 250MB or 500MB hard disk drive
 - Internal CD-ROM drive (most configurations)
- *Expansion capabilities:* Macintosh LC-compatible processor-direct slot; communications slot for Ethernet or modem card; video slot for NTSC, PAL, or SECAM video-input card; supports six SCSI devices
- *Ports:* Two serial ports, ADB port, optional video connector that can support connection to another display or the Apple Presentation System, high-performance SCSI port, sound-input/output ports
- *Displays:* Built-in 14-inch (diagonal) high-resolution display; supports 32,768 colors
- *Networking ports:* Built-in LocalTalk; optional Ethernet (requires Ethernet card)

- *Dimensions (HWD)*: 17.9 by 13.5 by 16.5 inches (45.5 by 34.3 by 41.9 cm)
- *Weight*: 40.5 lb. (18.3 kg)—will vary based on internal devices installed
- *Other features*:
 - Comes with a variety of third-party applications and CDs (CD configuration only)

Key features

- Provides the power of a Motorola 68LC040 processor.
- Can be upgraded to take advantage of the PowerPC processor.
- Offers advanced multimedia capabilities in a convenient all-in-one design.
- Lets you easily expand the multimedia capabilities of your system to include MPEG playback or by connecting one of a variety of multimedia kits.  71
- Lets you add either an Ethernet card or a high-speed fax modem, through its communications slot.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Other Macintosh models to consider


- The Macintosh Performa 630 series computers feature a modular design that lets you choose the monitor that best meets your needs.
- The Macintosh Performa 5200CD offers the power of the PowerPC processor in an innovative all-in-one design, and is optimized for multimedia.

Macintosh Performa 630 Series

42



At a glance


- The Macintosh Performa 630 series computers are affordable Macintosh desktop systems designed to handle the user's multimedia needs. [Note: These Macintosh computers are not sold in the same channels worldwide as the Macintosh LC 630 and Macintosh Quadra 630.]
- Their unique industrial design—including a modular logic board and special internal connectors—allows users to tailor the system to their needs by adding a PowerPC upgrade, a CD-ROM drive, or one of a range of multimedia kits.  26

Specifications (*Note: Macintosh Performa model numbers, configurations, and availability may vary worldwide.*)

- **Processor:** 68LC040
- **Speed:** 66/33 megahertz
- **Memory:** 5MB or 8MB of RAM, expandable to 36MB—4MB on logic board and one 72-pin SIMM slot
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 250MB or 350MB hard disk drive
 - Supports one half-height 5.25-inch internal peripheral, such as a hard disk drive, a CD-ROM drive, or a magneto-optical drive
- **Expansion capabilities:** Macintosh LC-compatible expansion slot; communications slot for Ethernet or modem card; video slot for NTSC, PAL, or SECAM video-input card; bay for TV-tuner module; supports seven SCSI devices
- **Ports:** Two serial ports, ADB port, video-output port, SCSI port, sound-input/output ports

- *Displays*: Comes with the Apple Performa Plus 14" Display or Apple Multiple Scan 15 Display
- *Networking ports*: Built-in LocalTalk; optional Ethernet (requires Ethernet card)
- *Dimensions (HWD)*: 4.3 by 12.6 by 16.5 inches (10.9 by 32.0 by 41.9 cm)
- *Weight*: 19.0 lb. (8.6 kg)—will vary based on internal devices installed
- *Other features*:
 - Headphone jack and sound controls located on front
 - Comes with an Apple display, keyboard, and mouse
 - Comes with a variety of Macintosh system software extensions and a variety of third-party applications

Key features

- Provides the power of a Motorola 68LC040 processor.
- Can be upgraded to take advantage of the PowerPC processor.
- Lets you easily expand the multimedia capabilities of your system, by connecting one of a variety of multimedia kits, via an internal video slot.  71
- Lets you add either an Ethernet card or a high-speed modem, through its communications slot.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Other Macintosh models to consider

If your tasks might require even greater performance and flexibility, you should consider the Macintosh Performa 6100 series, which offers:

- A faster processor architecture (60-megahertz PowerPC 601 processor).
- A NuBus slot.
- More memory expansion capability—up to 72MB.
- Built-in Ethernet capability.
- A configuration that takes advantage of Apple AV Technologies.

Macintosh Performa 630 DOS Compatible

★●44



At a glance


- The Macintosh Performa 630 DOS Compatible is an affordable, compatible system that offers advanced multimedia capabilities. [Note: This computer is not sold in the same channels worldwide as the Macintosh LC 630 DOS Compatible.]
- It is, essentially, two computers in one: built-in 68LC040 and 486DX2 processors enable it to run applications, games, and CD-ROM titles for MS-DOS 6.2 and Windows 3.1 as well as the Mac OS.

Specifications *(Note: Macintosh Performa model numbers, configurations, and availability may vary worldwide.)*

- *Processors:* 68LC040 and 486DX2 with 32-bit data bus
- *Speed:* 66 megahertz for both processors
- *Memory:* 8MB of RAM, expandable to 52MB (Mac OS); 4MB expandable to 32MB (DOS and Windows environment)
—4MB on logic board, one 4MB SIMM, and one 72-pin SIMM slot (Mac OS); one 4MB SIMM (DOS and Windows environment)
- *Storage:*
—Internal Apple SuperDrive floppy disk drive
—Internal 500MB hard disk drive
—Internal CD-ROM drive
- *Expansion capabilities:* Communications slot for Ethernet or modem card; video slot for NTSC, PAL, or SECAM video-input card; bay for TV-tuner module; supports six external SCSI devices

- *Ports:* Two serial ports, ADB port, monitor port that can support connection to external video-out, high-performance SCSI port, sound-input port (stereo), sound-output port (stereo), PC game port for DOS and Windows environment
- *Displays:* Supports Apple displays of up to 17 inches in size as well as VGA and SVGA displays
- *Networking ports:* Built-in LocalTalk; optional Ethernet (requires Ethernet card); ODI driver supports Novell NetWare IPX and TCP/IP (DOS and Windows environment)
- *Dimensions (HWD):* 4.3 by 12.6 by 16.5 inches (10.9 by 32.0 by 41.9 cm)
- *Weight:* 19.0 lb. (8.6 kg)—will vary based on internal devices installed
- *Other features:*
—Comes with a variety of third-party applications and CDs

Key features

- Comes with a 486DX2 processor, for hardware-level compatibility with MS-DOS 6.2 and Windows 3.1 software-based applications and CD-ROMs, and includes MS-DOS 6.22 and Windows 3.1.
- Lets you share files, folders, and disks between operating systems, as well as cut, copy, and paste between Mac OS, MS-DOS 6.2, and Windows 3.1 software-based applications.
- Lets you easily expand the multimedia and communications capabilities of your system.  71
- Provides 16-bit stereo playback, and includes support for Sound Blaster 16 audio output.

Other Macintosh models to consider

- If your tasks might require higher performance and hardware-level compatibility with MS-DOS 6.2 and Windows 3.1 software-based applications, you should consider the Macintosh Performa 6100 series, which can accommodate the DOS Compatibility Card.

Macintosh Performa 5200CD

★46



At a glance


- The Macintosh Performa 5200CD combines the high performance of PowerPC technology with advanced multimedia capabilities—in an innovative and advanced all-in-one design.
- Its RISC-based PowerPC 603 microprocessor provides the power needed to handle complex multimedia content.
- It offers a number of multimedia options, including an internal TV tuner to view television channels in a window on the computer screen and a video-input card to connect your video camera or VCR.

Specifications *(Note: Macintosh Performa model numbers, configurations, and availability may vary worldwide.)*

- **Processor:** PowerPC 603 RISC with integrated math coprocessor and 16K on-chip cache; 256K level 2 cache
- **Speed:** 75 megahertz
- **Memory:** 8MB of RAM, expandable to 64MB
 - One 8MB SIMM and one 72-pin SIMM slot
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 500MB hard disk drive (minimum configuration)
 - Internal CD-ROM drive
- **Expansion capabilities:** Macintosh LC-compatible processor-direct slot; communications slot for Ethernet card; video slot for NTSC, PAL, or SECAM video-input card; bay for TV-tuner module; supports five external SCSI devices

- *Ports:* Two serial ports, ADB port, optional video connector that can support connection to another display or the Apple Presentation System, SCSI port, sound-input port (mono), sound-output port (stereo)
- *Displays:* Built-in 15-inch flat, square multiple-scan RGB display (12.8-inch diagonal viewable image size)
- *Networking ports:* Built-in LocalTalk; optional Ethernet (requires Ethernet card)
- *Dimensions (HWD):* 17.5 by 15.1 by 16.0 inches (44.5 by 38.3 by 40.6 cm)
- *Weight:* 47.0 lb. (21.2 kg)—will vary based on internal devices installed
- *Other features:*
—Headphone jack and push-button sound and brightness controls located on front
—Comes with a modem and a variety of third-party applications

Key features

- Features the RISC-based PowerPC 603 processor, which provides unprecedented power for your Performa computer.
- Offers impressive—and flexible—multimedia capabilities in an innovative and advanced all-in-one design.
- Lets you adjust the display for maximum viewing convenience, using its tilt-and-swivel base and multiple-scan technology.
- Lets you easily expand the multimedia capabilities of your system to include MPEG playback or by connecting one of a variety of multimedia kits.  71
- Lets you add an Ethernet card.
- Includes an expansion bay for an optional television tuner.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Other Macintosh models to consider

- If your tasks might require higher performance and hardware-level compatibility with MS-DOS 6.2 and Windows 3.1 software-based applications, you should consider the Macintosh Performa 6100 series, which can accommodate the DOS Compatibility Card.

Macintosh Performa 6100 Series

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At a glance

- The Macintosh Performa 6100 series computers have a RISC-based PowerPC 601 microprocessor, which makes them ideal for handling all of your tasks with exceptional speed.

Specifications *(Note: Macintosh Performa model numbers, configurations, and availability may vary worldwide.)*

- **Processor:** PowerPC 601 RISC with integrated math coprocessor and 32K on-chip cache
- **Speed:** 60 megahertz
- **Memory:** 8MB of RAM, expandable to 72MB
—8MB on logic board and two 72-pin SIMM slots
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 250MB, 350MB, or 500MB hard disk drive
 - Supports one internal AppleCD 300i Plus CD-ROM drive
- **Expansion capabilities:** Internal expansion slot for one processor-direct card or one 7-inch NuBus expansion card (requires adapter); supports seven SCSI devices
- **Ports:** Two serial ports (both can be used with Apple's GeoPort Telecom Adapter), ADB port, monitor port that can support an Apple AudioVision Display or another display, SCSI port, sound-input port (stereo), sound-output port (stereo)
- **Displays:** Includes a 14-inch color display with built-in speakers
- **Networking ports:** Built-in LocalTalk and Ethernet
- **Dimensions (HWD):** 4.3 by 12.6 by 16.5 inches (10.9 by 32.0 by 41.9 cm)

- *Weight:* 19.0 lb. (8.6 kg)—will vary based on internal devices installed
- *Other features:*
 - Comes with a 14.4-kbps fax modem, keyboard, and mouse
 - Comes with a variety of Macintosh system software extensions and third-party applications, depending on the configuration

Key features

- Features the RISC-based PowerPC 601 processor, which provides unprecedented power.
- Has built-in Ethernet, for faster data transfer over a network.
- Comes with DRAM video support, providing up to 32,768 colors on 14-inch display (included).
- Provides 16-bit, CD-quality sound-input/output capabilities.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Macintosh Performa 6200CD

★50



At a glance


- The Macintosh Performa 6200CD combines the high performance of PowerPC technology with advanced multimedia capabilities—in a flexible modular design.
- Its RISC-based PowerPC 603 microprocessor provides the power needed to create and handle complex multimedia content quickly and easily.
- It offers a number of multimedia options, including an internal TV tuner to view television channels in a window on the computer screen.

Specifications *(Note: Macintosh Performa model numbers, configurations, and availability may vary worldwide.)*

- **Processor:** PowerPC 603 RISC with integrated math coprocessor and 16K on-chip cache; 256K level 2 cache
- **Speed:** 75 megahertz
- **Memory:** 8MB of RAM, expandable to 64MB
 - One 8MB SIMM and one 72-pin SIMM slot
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 500MB hard disk drive (minimum configuration)
 - Internal CD-ROM drive
- **Expansion capabilities:** Macintosh LC-compatible processor-direct slot; communications slot for either Ethernet or modem card; video slot for NTSC, PAL, or SECAM video-input card; bay for TV-tuner module; supports five external SCSI devices

- *Ports:* Two serial ports, ADB port, monitor port, SCSI port, sound-input port (mono), sound-output port (stereo)
- *Displays:* Built-in support for Apple displays of up to 15 inches in size
- *Networking ports:* Built-in LocalTalk; optional Ethernet (requires Ethernet card)
- *Dimensions (HWD):* 4.3 by 12.6 by 16.5 inches (10.9 by 32.0 by 41.9 cm)
- *Weight:* 19.0 lb. (8.6 kg)—will vary based on internal devices installed
- *Other features:*
 - Headphone jack and push-button sound controls located on front
 - Comes with a variety of third-party applications and CDs

Key features

- Features the RISC-based PowerPC 603 processor, which provides unprecedented power for your Performa computer.
- Offers impressive multimedia capabilities in a flexible modular design.
- Lets you easily expand the multimedia capabilities of your system to include MPEG playback or by connecting one of a variety of multimedia kits.  71
- Lets you add either an Ethernet card or a high-speed fax modem, through its communications slot.
- Includes an expansion bay for addition of an optional television tuner.
- Provides 16-bit, CD-quality sound-output capabilities.

Other Macintosh models to consider

- If you want the convenience of an all-in-one system, you should consider the Performa 5200CD, which provides the multimedia features of the Performa 6200CD in an innovative design.

Macintosh Quadra 630

52



At a glance


- The Macintosh Quadra 630 is an affordable Macintosh desktop system designed to handle the user's multimedia needs. [Note: This Macintosh is not sold in the same channels worldwide as the Macintosh LC 630 or Macintosh Performa 630 series.]
- Its unique industrial design—including a modular logic board and special internal connectors—allows users to tailor the system to their needs by adding a PowerPC upgrade, a CD-ROM drive, or one of a range of multimedia kits. 📖 26

Specifications *(Note: Configurations and availability may vary worldwide.)*

- **Processor:** 68040 with built-in math coprocessor, paged memory management unit (PMMU), and 8K memory cache
- **Speed:** 66/33 megahertz
- **Memory:** 4MB or 8MB of RAM, expandable to 36MB—4MB on logic board and one 72-pin SIMM slot
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 250MB hard disk drive
 - Supports one half-height 5.25-inch internal peripheral, such as a hard disk drive, a CD-ROM drive, or a magneto-optical drive
- **Expansion capabilities:** Macintosh LC-compatible expansion slot; communications slot for Ethernet or modem card; video slot for NTSC, PAL, or SECAM video-input card; bay for TV-tuner module; supports seven SCSI devices
- **Ports:** Two serial ports, ADB port, video-output port, SCSI port, sound-input/output ports

- *Displays:* Built-in support for the Apple Color Plus 14" Display, Macintosh Color Display, Apple AudioVision 14" Display, and Apple Multiple Scan 15" Display; supports several third-party VGA and SVGA monitors
- *Networking ports:* Built-in LocalTalk; optional Ethernet (requires Ethernet card)
- *Dimensions (HWD):* 4.3 by 12.6 by 16.5 inches (10.9 by 32.0 by 41.9 cm)
- *Weight:* 19.0 lb. (8.6 kg)—will vary based on internal devices installed
- *Other features:*
 - Keyboard power switch
 - Headphone jack and push-button sound controls located on front

Key features

- Provides the power of a Motorola 68040 processor.
- Can be upgraded to take advantage of the PowerPC processor.
- Lets you easily expand the multimedia capabilities of your system, by connecting one of a variety of multimedia kits, via an internal video slot.  71
- Lets you add either an Ethernet card or a high-speed modem, through its communications slot.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Other Macintosh models to consider

If your tasks might require even greater performance and flexibility, you should consider the Power Macintosh 6100/66, which offers:

- A faster processor architecture (66-megahertz PowerPC 601 processor).
- A NuBus slot.
- More memory expansion capability—up to 72MB.
- Built-in Ethernet capability.
- A configuration that takes advantage of Apple AV Technologies.

Macintosh Quadra 950

54



At a glance

- The most expandable Macintosh computer, the Macintosh Quadra 950 provides exceptional processing power, as well as maximum expansion capabilities and storage options.
- It's ideal for professional projects including design and modeling, color illustration and photo manipulation, architecture, engineering, scientific visualization, multimedia authoring, and three-dimensional rendering.

Specifications *(Note: Configurations and availability may vary worldwide.)*

- **Processor:** 68040 with built-in math coprocessor, paged memory management unit (PMMU), and 8K memory cache
- **Speed:** 66/33 megahertz
- **Memory:** 8MB of RAM, expandable to 256MB
 - Eight 1MB SIMMs and eight 30-pin SIMM slots
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 230MB, 500MB, or 1GB hard disk drive (optional)
 - Supports up to three half-height 5.25-inch internal peripherals, such as hard disk drives, CD-ROM drives, or magneto-optical drives
- **Expansion capabilities:** Five NuBus slots and one 040 processor-direct slot; supports seven SCSI devices
- **Ports:** Two serial ports, ADB port, video-output port, dual-channel SCSI port, sound-input port (mono), sound-output port (stereo)
- **Displays:** Built-in support for all Apple displays; supports several third-party VGA, SVGA, and 19-inch monitors

- *Networking ports:* Built-in LocalTalk and Ethernet
- *Dimensions (HWD):* 16.8 by 8.9 by 20.6 inches (42.7 by 22.6 by 52.3 cm)
- *Weight:* 36.8 lb. (16.6 kg)—will vary based on internal devices installed
- *Other features:*
 - High-performance, video RAM—based video
 - High-performance NuBus
 - Electronic security lock
 - Dual-channel SCSI provides faster SCSI performance than the SCSI used by the Macintosh II computers

Key features

- Offers the widest variety of storage options of any Macintosh.
- Features the Motorola 68040 processor, which enables the Macintosh Quadra 950 to handle even the most complex tasks easily.
- Can be upgraded to take advantage of the PowerPC processor.
- Offers built-in accelerated 24-bit graphics capability, which allows you to display photographic-quality images.
- Has built-in Ethernet capability, which lets you transfer information up to 10 times faster than with LocalTalk cabling—and also allows for other types of cabling schemes that let you easily integrate the Macintosh Quadra 950 into multivendor environments.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Upgrade information

- The Macintosh Quadra 900 can be upgraded to the Macintosh Quadra 950 with a Macintosh Quadra 950 Logic Board Upgrade.

Power Macintosh 5200/75 LC



★56

At a glance


- The Power Macintosh 5200/75 LC combines the high performance of PowerPC technology with advanced multimedia capabilities in an innovative all-in-one design.
- Its RISC-based PowerPC 603 microprocessor provides the power needed to create and handle complex multimedia content quickly and easily.
- It offers a number of multimedia options, including an internal TV tuner to view television channels in a window on the computer screen and a video-input card to connect your video camera or VCR.

Specifications *(Note: Configurations and availability may vary worldwide.)*

- **Processor:** PowerPC 603 RISC with integrated math coprocessor and 16K on-chip cache; 256K level 2 cache
- **Speed:** 75 megahertz
- **Memory:** 8MB of RAM, expandable to 64MB
 - One 8MB SIMM and one 72-pin SIMM slot
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 500MB hard disk drive
 - Internal CD-ROM drive
- **Expansion capabilities:** Macintosh LC-compatible processor-direct slot; communications slot for either Ethernet or modem card; video slot for NTSC, PAL, or SECAM video-input card; bay for TV-tuner module; supports five external SCSI devices

- *Ports:* Two serial ports, ADB port, optional video connector that can support connection to another display or the Apple Presentation System, SCSI port, sound-input port (mono), sound-output port (stereo)
- *Displays:* Built-in 15-inch flat, square multiple-scan RGB display (12.8-inch diagonal viewable image size)
- *Networking ports:* Built-in LocalTalk; optional Ethernet (requires Ethernet card)
- *Dimensions (HWD):* 17.5 by 15.1 by 16.0 inches (44.5 by 38.3 by 40.6 cm)
- *Weight:* 47.0 lb. (21.2 kg)—will vary based on internal devices installed
- *Other features:*
—Headphone jack and push-button sound and brightness controls located on front

Key features

- Features the RISC-based PowerPC 603 processor, which provides unprecedented power for your Power Macintosh computer.
- Offers impressive—and flexible—multimedia capabilities in an innovative and advanced all-in-one design.
- Lets you adjust the display for maximum viewing convenience, using its tilt-and-swivel base and multiple-scan technology.
- Lets you easily expand the multimedia capabilities of your system to include MPEG playback or by connecting one of a variety of multimedia kits.  71
- Lets you add either an Ethernet card or a high-speed fax modem, through its communications slot.
- Includes an expansion bay for an optional television tuner.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Other Macintosh models to consider

- The Power Macintosh 7100/80 features a faster processor in a flexible modular design.
- The Power Macintosh 6100/66 DOS Compatible provides hardware-level compatibility with MS-DOS 6.2 and Windows 3.1 software-based applications.

Power Macintosh 6100/66



★58

At a glance

- The Power Macintosh 6100/66 is the most affordable Power Macintosh computer, providing industry-leading price/performance value in a personal computer.
- Its RISC-based PowerPC 601 microprocessor makes it ideal for handling even complex business tasks.
- It offers performance increases of up to 30 percent over the previous 6100 models.

Specifications *(Note: Configurations and availability may vary worldwide.)*

- **Processor:** PowerPC 601 RISC with integrated math coprocessor and 32K on-chip cache; 256K level 2 memory cache
- **Speed:** 66 megahertz
- **Memory:** 8MB or 16MB of RAM, expandable to 72MB—8MB on logic board and two 72-pin SIMM slots
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 350MB or 500MB hard disk drive
 - Supports one half-height 5.25-inch internal peripheral, such as a hard disk drive, a CD-ROM drive, or a magneto-optical drive
- **Expansion capabilities:** Internal expansion slot for one processor-direct card or one 7-inch NuBus expansion card (requires adapter); supports six SCSI devices
- **Ports:** Two serial ports (both can be used with Apple's GeoPort Telecom Adapter), ADB port, monitor port that can support an Apple AudioVision Display or another display, high-performance SCSI port, sound-input port (stereo), sound-output port (stereo)
- **Displays:** Built-in support for most Apple displays
- **Networking ports:** Built-in LocalTalk and Ethernet

- *Dimensions (HWD)*: 3.4 by 16.3 by 15.6 inches (8.6 by 41.1 by 39.6 cm)
- *Weight*: 14.0 lb. (6.3 kg)—will vary based on internal devices installed

Key features

- Features the RISC-based PowerPC 601 processor, which provides unprecedented power for your Power Macintosh computer.
- Offers built-in, high-performance SCSI for faster data transfer.
- Has built-in Ethernet, for faster data transfer over a network.
- Comes with DRAM video support, providing up to 32,768 colors on 14-inch displays.
- Can be upgraded to support Apple AV Technologies.
- Provides 16-bit, CD-quality sound-input/output capabilities.

59★

Upgrade information

- The Macintosh Centris 610 and 660Av, and the Macintosh Quadra 610 and 660Av can be upgraded to the Power Macintosh 6100/60 with the purchase of the Power Macintosh 6100/60 Logic Board Upgrade.

Other Macintosh models to consider

If your tasks might require greater speed or more expansion options, you should consider the Power Macintosh 7100/80, which offers:

- A faster processor architecture (80 megahertz compared with 66 megahertz for the Power Macintosh 6100/66).
- More expansion options than the Power Macintosh 6100/66—three NuBus slots (as opposed to one).
- More memory expansion capability—up to 136MB.
- Greater video RAM expansion capability and dual-display support.

Power Macintosh 6100/66 DOS Compatible



★●60

At a glance

- The Power Macintosh 6100/66 DOS Compatible is the most compatible Power Macintosh available; it can run more software packages than any other mainstream personal computer available.
- It includes a 486DX2 processor, providing compatibility with MS-DOS 6.2 and Windows 3.1 software-based applications.

Specifications *(Note: Configurations and availability may vary worldwide.)*

- **Processors:** PowerPC 601 RISC with integrated math coprocessor, 32-bit data cache, and 256K level 2 memory cache; 486DX2 with 32-bit data bus
- **Speed:** 66 megahertz for both processors
- **Memory:** 8MB or 16MB of RAM, expandable to 72MB; DOS Compatibility Card can share system RAM or use local RAM on the card (72-pin SIMM, up to 32MB)
 - 8MB on logic board and two 72-pin SIMM slots; one 72-pin SIMM slot on DOS Compatibility Card
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 500MB hard disk drive
 - Supports one half-height 5.25-inch internal peripheral, such as a hard disk drive, a CD-ROM drive, or a magneto-optical drive
- **Expansion capabilities:** Supports six SCSI devices
- **Ports:** Two serial ports (both can be used with Apple's GeoPort Telecom Adapter), ADB port, monitor port that can support an Apple AudioVision Display or another display, high-performance

SCSI port, sound-input port (stereo) sound-output port (stereo), PC game port

- *Displays:* Built-in support for most Apple displays; supports VGA and SVGA displays (may require separate adapter)
- *Networking ports:* Built-in LocalTalk and Ethernet
- *Dimensions (HWD):* 3.4 by 16.3 by 15.6 inches (8.6 by 41.4 by 39.6 cm)
- *Weight:* 16.2 lb. (3.3 kg)—will vary based on internal devices installed

61●★

Key features

- Features the RISC-based PowerPC 601 processor, which provides unprecedented power for your Power Macintosh computer.
- Comes with a 486DX2 processor, for hardware-level compatibility with MS-DOS 6.2 and Windows 3.1.
- Includes MS-DOS 6.22 and Windows 3.1.
- Has built-in Ethernet, for faster data transfer over a network; supports Novell NetWare IPX and TCP/IP protocols in DOS and Windows environments using built-in Ethernet and an ODI driver.
- Comes with DRAM video support, providing up to 32,768 colors on 14-inch displays (Mac OS environment); 512K of RAM for video (DOS and Windows environment).
- Provides 16-bit, CD-quality sound-input/output capabilities, and includes support for Sound Blaster 16 playback.
- Features built-in support for one or two displays.

Upgrade information

- The Power Macintosh 6100 can be upgraded to the Power Macintosh 6100/66 DOS Compatible with the purchase of the DOS Compatibility Card.

Other Macintosh models to consider

- If your tasks might require higher performance when running software for the Mac OS, you should consider the Power Macintosh 7100/80 or 8100/110, which offer faster processors (80 megahertz and 110 megahertz, respectively), and can be configured with third-party options to provide MS-DOS 6.2 and Windows 3.1 compatibility.

Power Macintosh 6200/75

★62



At a glance


- The Power Macintosh 6200/75 combines the high performance of PowerPC technology with advanced multimedia capabilities—in a flexible modular design.
- Its RISC-based PowerPC 603 microprocessor provides the power needed to create and handle complex multimedia content quickly and easily.
- It offers a number of multimedia options, including an internal TV tuner to view television channels in a window on the computer screen.

Specifications *(Note: Configurations and availability may vary worldwide.)*

- **Processor:** PowerPC 603 RISC with integrated math coprocessor and 16K on-chip cache; 256K level 2 cache
- **Speed:** 75 megahertz
- **Memory:** 8MB of RAM, expandable to 64MB
 - One 8MB SIMM and one 72-pin SIMM slot
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 500MB hard disk drive (minimum configuration)
 - Internal CD-ROM drive
- **Expansion capabilities:** Macintosh LC-compatible processor-direct slot; communications slot for either Ethernet or modem card; video slot for NTSC, PAL, or SECAM video-input card; bay for TV-tuner module; supports five external SCSI devices
- **Ports:** Two serial ports, ADB port, monitor port, SCSI port, sound-input port (mono), sound-output port (stereo)
- **Displays:** Built-in support for Apple displays of up to 15 inches in size

- *Networking ports:* Built-in LocalTalk; optional Ethernet (requires Ethernet card)
- *Dimensions (HWD):* 4.3 by 12.6 by 16.5 inches (10.9 by 32.0 by 41.9 cm)
- *Weight:* 19.0 lb. (8.6 kg)—will vary based on internal devices installed
- *Other features:*
 - Headphone jack and push-button sound controls located on front
 - Remote-control sensor

Key features

- Features the RISC-based PowerPC 603 processor, which provides unprecedented power for your Power Macintosh computer.
- Offers impressive multimedia capabilities in a flexible modular design.
- Lets you easily expand the multimedia capabilities of your system to include MPEG playback or by connecting one of a variety of multimedia kits.  71
- Lets you add either an Ethernet card or a high-speed fax modem, through its communications slot.
- Includes an expansion bay for addition of an optional television tuner.
- Provides 16-bit, CD-quality sound-output capabilities.

Other Macintosh models to consider

If your tasks might require more power and flexibility, you should consider the Power Macintosh 7100/80, which offers:

- A faster processor (80-megahertz PowerPC 601).
- More expansion capabilities (three NuBus slots).

Power Macintosh 7100/80

★64



At a glance

- The Power Macintosh 7100/80 is Apple's midrange Power Macintosh computer, providing the speed of the PowerPC 601 processor and a variety of expansion options.
- It's designed to handle business tasks using productivity applications, as well as tasks such as page layout, data retrieval, and work with complex spreadsheets.
- It offers performance increases of up to 40 percent over the previous 7100 models.

Specifications *(Note: Configurations and availability may vary worldwide.)*

- **Processor:** PowerPC 601 RISC with integrated math coprocessor and 32K on-chip cache; 256K level 2 cache
- **Speed:** 80 megahertz
- **Memory:** 8MB or 16MB of RAM, expandable to 136MB—8MB on logic board and four 72-pin SIMM slots
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 500MB or 700MB hard disk drive
 - Supports one half-height 5.25-inch internal peripheral, such as a hard disk drive, a CD-ROM drive, or a magneto-optical drive
- **Expansion capabilities:** Three NuBus slots; supports six SCSI devices
- **Ports:** Two serial ports (both can be used with Apple's GeoPort Telecom Adapter), ADB port, monitor port that can support an Apple AudioVision Display or another display, standard monitor port, high-performance SCSI port, sound-input port (stereo), sound-output port (stereo)
- **Displays:** Built-in support for all Apple displays

- *Networking ports:* Built-in LocalTalk and Ethernet
- *Dimensions (HWD):* 6.0 by 13.0 by 16.5 inches (15.2 by 33.0 by 41.9 cm)
- *Weight:* 25.0 lb. (11.3 kg)—will vary based on internal devices installed

Key features

- Features the RISC-based PowerPC 601 processor, which provides unprecedented power for your Power Macintosh computer.
- Has built-in Ethernet, for faster data transfer over a network.
- Has three NuBus slots, so you can add the capabilities you want to your computer.
- Comes with 1MB of video RAM for extensive video support.
- Allows you to expand video RAM to 2MB, so you can work with as many as 16.7 million colors on the Apple Multiple Scan 17 Display.
- Optional configuration supports Apple AV Technologies.
- Provides 16-bit, CD-quality sound-input/output capabilities.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Upgrade information

- The Macintosh IIfx and IIfx, Macintosh Centris 650, Macintosh Quadra 650, and Macintosh Performa 600 can be upgraded to the Power Macintosh 7100/66 with the Power Macintosh 7100/66 Logic Board Upgrade.

Other Macintosh models to consider

If your tasks require exceptional computing speed and greater storage capacity, you should consider the Power Macintosh 8100/100 or 8100/110, which offers:

- A faster processor (100 or 110 megahertz, compared with 80 megahertz for the Power Macintosh 7100/80).
- Greater storage capacity—larger hard disk drives and space for two additional 3.5-inch storage devices.
- More memory expansion capability—up to 264MB.
- Greater video RAM expansion capability—video support for up to 16.7 million colors on the Apple Multiple Scan 20 Display.

Power Macintosh 8100/100 and 8100/110

★66



At a glance

- Apple's most powerful desktop computers ever, the Power Macintosh 8100/100 and 8100/110 provide phenomenal speed, along with ample storage capacity and expansion capabilities to handle your work now—and in the future.
- The RISC-based PowerPC 601 processor running at 100 or 110 megahertz makes these computers ideal for work that involves computation-intensive tasks, such as professional color publishing, computer-aided design, scientific visualization, and three-dimensional modeling.
- The Power Macintosh 8100 computers provide performance increases of up to 30 percent over the previous 8100 models.

Specifications *(Note: Configurations and availability may vary worldwide.)*

- **Processor:** PowerPC 601 RISC with integrated math coprocessor and 32K on-chip cache; 256K level 2 cache
- **Speed:** 100 or 110 megahertz
- **Memory:** 8MB or 16MB of RAM, expandable to 264MB—8MB on logic board and eight 72-pin SIMM slots
- **Storage:**
 - Internal Apple SuperDrive floppy disk drive
 - Internal 700MB, 1GB, or 2GB hard disk drive
 - Supports two additional 3.5-inch peripherals and one half-height 5.25-inch internal peripheral, such as a hard disk drive, a CD-ROM drive, or a magneto-optical drive
- **Expansion capabilities:** Three NuBus slots; dual SCSI buses support up to six SCSI devices

- *Ports:* Two serial ports (both can be used with Apple's GeoPort Telecom Adapter), ADB port, monitor port that can support an Apple AudioVision Display or another display, standard monitor port, high-performance SCSI port, sound-input port (stereo), sound-output port (stereo)
- *Displays:* Built-in support for all Apple displays
- *Networking ports:* Built-in LocalTalk and Ethernet
- *Dimensions (HWD):* 14.2 by 8.9 by 16.0 inches (36.1 by 22.6 by 40.6 cm)
- *Weight:* 25.3 lb. (11.4 kg)—will vary based on internal devices installed
- *Other features:*
—“Mini-tower” design allows vertical use on a floor or desktop

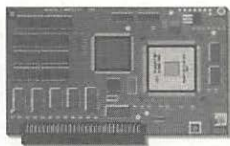
Key features

- Features the RISC-based PowerPC 601 processor, which provides unprecedented power for your Power Macintosh computer.
- Has built-in Ethernet, for faster data transfer over a network.
- Has three NuBus slots, so you can add the capabilities you want to your computer.
- Supports up to four internal storage devices, so you can configure your system the way you want—without sacrificing desk space.
- Allows you to expand video RAM up to 4MB, so you can work with up to 16.7 million colors on the Apple Multiple Scan 20 Display.
- Is available in a configuration that supports Apple AV Technologies.
- Provides 16-bit, CD-quality sound-input/output capabilities.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Upgrade information

- The Macintosh Quadra 800 and 840Av can be upgraded to the Power Macintosh 8100/80 with the Power Macintosh 8100/80 Logic Board Upgrade.

Desktop System Upgrades



★68

Upgrades for PowerPC performance

There are several products available for current Macintosh owners who want to move up to the speed and power of Power Macintosh computers without sacrificing their previous investments. Currently, upgrades are available for the following models:


- Macintosh LC 475, 520, 550, 575, and 630
- Macintosh Quadra 605, 610, 630, 650, 660AV, 700, 800, 840AV, 900, and 950
- Macintosh Centris 610, 650, and 660AV
- Macintosh Ilvx and Ilvi
- Macintosh Performa 470 series, 550, 560, 570 series, 600, and 630 series
- Workgroup Servers 60, 80, and 95

There are three different upgrades: The Power Macintosh Upgrade Card, the Macintosh Processor Upgrade, and the Power Macintosh Logic Board Upgrade.

• *Power Macintosh Upgrade Card.* This low-cost card, which can be installed in the 68040 processor-direct slot of a Macintosh Quadra or Macintosh Centris using only a screwdriver, allows your computer to run applications optimized for the performance capabilities of the PowerPC processor up to six times faster than standard applications for Macintosh.

• *Macintosh Processor Upgrade.* This upgrade, appropriate for select Macintosh Quadra, LC, and Performa computers, must be installed by an authorized Apple reseller or service provider. It provides the same capabilities as the Power Macintosh Upgrade Card.

- *Power Macintosh Logic Board Upgrade.* This upgrade, which must be installed by an authorized Apple reseller or service provider, gives your computer capabilities identical to those of the particular Power Macintosh model to which you are upgrading. It comes in two versions, one of which supports Apple AV Technologies.

For specific information on the upgrades appropriate for a particular system, see your Apple reseller.  166

- **DOS Compatibility Card for Power Macintosh 6100 or Performa 6100 series computers**

This user-installable card turns your Power Macintosh 6100 or Performa 6100 series computer into one of the most flexible, versatile systems available. It features a 486DX2 processor, which provides hardware-level compatibility with MS-DOS 6.2 and Windows 3.1 software-based applications. Because the card works with a Power Macintosh or Performa 6100 series computer, you can also run software for the Mac OS as well as applications optimized for the PowerPC processor. You can even instantly switch between the Mac OS and MS-DOS 6.2 and Windows 3.1 environments. The DOS Compatibility Card supports MS-DOS 6.2 and Windows 3.1 network applications and services using Novell NetWare IPX or TCP/IP protocols over the built-in Ethernet network connection and an ODI-compliant driver (network client software not included). It also supports Sound Blaster 16-compatible multimedia and entertainment applications.

Desktop System Accessories

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General Macintosh accessories

- Macintosh 1MB, 2MB, 4MB, and 8MB Memory Expansion Kits
 - Apple Multimedia Kit for Macintosh
- Includes AppleDesign Powered Speakers II, Apple Headphones, AppleCD 300e Plus CD-ROM player, CD-ROM setup software, a Multimedia Starter CD, and a selection of CD-ROM titles. All cables included.

Macintosh LC 475

- Apple IIe Card
- Macintosh 256K VRAM SIMM
- Macintosh 512K VRAM SIMM
- Apple Ethernet LC Card
- Apple PlainTalk Microphone

Macintosh Quadra 950

- Macintosh VRAM Expansion Kit (two 256K SIMMs)
- Apple Ethernet Cable System
- Power Macintosh Upgrade Card

**Macintosh LC 580, Macintosh LC 630,
Macintosh Quadra 630, Performa 580,
Performa 630 series, Performa 5200CD,
Performa 6200CD, Power Macintosh 5200/75 LC,
and Power Macintosh 6200/75**

- Apple Video System
- Apple TV/Video System (except Macintosh LC 580 and Performa 580)
- Apple Presentation System
- Ethernet cards (Macintosh Ethernet CS Thin Coax Card, Ethernet CS Twisted-Pair Card, and Ethernet CS AAUI Card)
- External Video Macintosh Connector (Macintosh LC 580 and Performa 580 only)

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**Power Macintosh 6100/66, 7100/80, 8100/100,
and 8100/110**

- Power Macintosh 6100/60 NuBus Adapter Card
- Apple Ethernet Cable System
- PlainTalk for Power Macintosh
- Apple PlainTalk Microphone
- Power Macintosh Display Adapter
- Power Macintosh 7100/66 1MB VRAM Upgrade Kit
- Power Macintosh 8100/80 2MB VRAM Upgrade Kit

GeoPort Telecom Adapter Kit

The GeoPort Telecom Adapter Kit takes advantage of Apple's GeoPort architecture and the Macintosh Telephony Architecture to turn your Power Macintosh (or Macintosh Quadra 660Av or 840Av) into an intelligent telephone, digital answering machine, fax, and high-speed modem. It consists of the following components:

- GeoPort Telecom Adapter
- Apple Telecom 2.0 software
- MegaPhone software from Cypress Research, Inc.
- SITcomm software from Aladdin Systems, Inc.

The Apple Display Advantage

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Great computers deserve great displays

The original Macintosh set the standard for display quality with its innovative screen—it was the first computer to display text and graphics just as they'd appear when printed. And as the needs of Macintosh users have become more sophisticated, so have Macintosh displays.

Six Macintosh displays to choose from

Apple offers six displays for Macintosh computers—in a range of sizes. All of our displays are known for their unprecedented brightness, clarity, and fidelity. Their flat screens have sharp focus and virtually no distortion, even at the edges. And our displays meet even the strict Swedish specifications for magnetic-field emissions.

Easy to connect

Apple displays are easy to install and configure. To connect one to your Macintosh, all you have to do is take a single cable and plug one end into the back of your display and the other into the back of your Macintosh. When you turn on your Macintosh, it will automatically adjust to the size and type of Apple display you're using.

Easy to add a second display

With Macintosh, you can use multiple displays simultaneously. For instance, you might want to use a color display to view graphics and a full-page display to view word processing documents—simultaneously. It's a cost-effective way to increase your on-screen work area.

Energy efficient

All Apple displays meet the requirements for the Environmental Protection Agency's Energy Star rating. This means that they won't waste energy—and they *will* save you money on your electric bill.

Multiple-scan display technology

Apple has incorporated multiple-scan technology into the Apple Multiple Scan displays. This technology enables the displays to provide multiple resolution modes, for flexible viewing. You can switch among viewing modes to optimize your viewing area and resolution for presentations, publishing, two-page layouts, or enlarged page layouts.

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Advanced display performance with the Macintosh Display Card 24Ac

You can get the most out of your display by adding a Macintosh Display Card 24Ac in your Macintosh computer's NuBus slot. This video card improves the performance and resolution of your display, making it ideal for high-end publishing and graphic design. On-board QuickDraw acceleration boosts Macintosh drawing speed up to 30 times faster than with nonaccelerated QuickDraw video. It also lets you work with up to 16.7 million colors.

Compatibility with Windows software-based systems

Our Apple Multiple Scan displays can also be used with Windows software-based systems—so everyone in your office or school can take advantage of their excellent quality.

Key Features of the Apple Display Family

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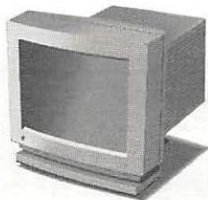
Apple Color Plus 14" Display

- Most affordable Apple color display
- Tilt-and-swivel base for adjustable viewing angle
- Energy Star compliant (requires software)
- 14-inch (diagonal) RGB; 11.9-inch diagonal viewable image size
- 640 by 480 pixels; 76 dots per inch
- 67-hertz screen refresh rate
- 14.2 by 14.2 by 16.0 inches (HWD) (36.1 by 36.1 by 40.6 cm)
- 26.0 lb. (11.7 kg)



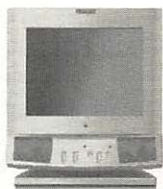
Macintosh Color Display

- Low-cost, high-quality color display
- Provides both color and gray-scale capabilities
- Tilt-and-swivel base for adjustable viewing angle
- Energy Star compliant (requires software)
- 14-inch (diagonal) screen; 11.5-inch diagonal viewable image size; Sony Trinitron tube
- 640 by 480 pixels; 70 dots per inch
- 67-hertz screen refresh rate
- 13.0 by 13.4 by 14.0 inches (HWD) (33.0 by 34.0 by 35.6 cm)
- 25.0 lb. (11.3 kg)



Apple AudioVision 14 Display

- Offers integrated audio and video features that take full advantage of your software's multimedia features
- Built-in stereo speakers and microphone
- Energy Star compliant
- Autodegaussing circuitry—eliminates magnetic interference



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- Tilt-and-swivel base for adjustable viewing angle

- 14-inch (diagonal) screen [13-inch (viewable)];

Sony Trinitron tube

- 640 by 480 pixels; 70 dots per inch

- 66.7-hertz screen refresh rate

- Two ADB ports, sound-input port, headphone and microphone ports

- 13.0 by 13.4 by 14.0 inches (HWD) (33.0 by 34.0 by 35.6 cm)

- 25.0 lb. (11.3 kg)

• Apple Multiple Scan 15 Display

- Most affordable RGB display offering multiple-scan technology, which lets you adjust the resolution to meet your needs

- Works with both Macintosh and

Windows software—based computers

- Flat, square screen minimizes image distortion

- Energy Star compliant

- Tilt-and-swivel base for adjustable viewing angle

- 15-inch (diagonal) screen; 13.3-inch diagonal viewable image size

- Adjustable resolution through software (included):

selectable from 640 by 480 pixels to 832 by 624 pixels (Mac OS)

- 67- to 75-hertz screen refresh rate (depending on resolution)

- 16.7 by 15.9 by 17.8 inches (HWD) (42.4 by 40.5 by 45.2 cm)*

- 31.0 lb. (14.0 kg)*



* Two designs available worldwide—dimensions and weight may vary

• Apple Multiple Scan 17 Display

- Multiple-scan technology allows you to adjust resolution
- Works with both Macintosh and Windows software-based computers.
- Large work area can be adjusted for different viewing needs
- Energy Star compliant
- Tilt-and-swivel base with convenient audio and ADB pass-through connectors
- 17-inch (diagonal) screen; 16.1-inch diagonal viewable image size; Sony Trinitron tube
- Adjustable resolution through software (included): selectable from 640 by 480 pixels to 1,024 by 768 pixels (Mac OS)
- 67- to 75-hertz screen refresh rate (depending on resolution)
- 16.7 by 15.9 by 17.8 inches (HWD) (42.4 by 40.5 by 45.2 cm)
- 50.0 lb. (22.5 kg)



• Apple Multiple Scan 20 Display

- Largest Apple display available
- Multiple-scan technology allows you to adjust resolution to suit your needs (four resolution settings available)
- Works with both Macintosh and Windows software-based computers.
- Energy Star compliant
- Tilt-and-swivel base for adjustable viewing angle
- 20-inch (diagonal) screen; 19.1-inch diagonal viewable image size; Sony Trinitron tube
- Adjustable resolution through software (included): selectable from 640 by 480 pixels to 1,152 by 870 pixels (Mac OS)
- Antistatic, antiglare screen coating
- 67- to 75-hertz screen refresh rate (depending on resolution)
- 18.7 by 18.7 by 19.7 inches (HWD) (47.5 by 47.5 by 50.0 cm)
- 66.0 lb. (29.7 kg)

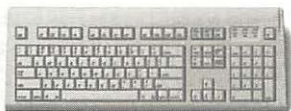


Apple Keyboards and Mouse

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AppleDesign Keyboard

- Sleek, ergonomically designed keyboard for use with any Macintosh computer
- Adjustable keyboard slope
- Includes function keys, a numeric keypad, cursor arrow keys, and special screen-editing keys
- Dual-legend keycaps represent some of the most common functions of the MS-DOS environment



Apple Extended Keyboard II

- Includes function keys, a numeric keypad, cursor arrow keys, and special screen-editing keys
- Adjustable keyboard slope
- Ideal for running alternate operating systems or terminal-emulation programs

Apple Desktop Bus Mouse II

- Round shape fits the contour of the palm of the hand
- Large button allows easy clicking and dragging
- Front ball design allows finer movements with ease



AppleCD 300e Plus AppleCD 300i Plus



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At a glance

- The AppleCD 300e Plus is an external double-speed CD-ROM drive that gives you fast access to the content on CD-ROM discs.
- It allows you to access QuickTime movies, Kodak Photo CD images, and the wide range of information stored on CD-ROM discs.
- The AppleCD 300i Plus is the version that can be installed inside some Macintosh computers and Workgroup Servers.

Specifications

- *Data transfer rate:* 342 kilobytes per second; 256K cache buffer
- *Average data access time:* Less than 290 milliseconds
- *Ports:* Two 50-pin SCSI connectors, two RCA jacks, headphone jack
- *Dimensions (HWD):* AppleCD 300e Plus—2.3 by 6.2 by 12.7 inches (5.9 by 15.8 by 32.3 cm); AppleCD 300i Plus—1.7 by 5.8 by 8.3 inches (4.3 by 14.8 by 21.0 cm)
- *Weight:* AppleCD 300e Plus—5.7 lb. (2.6 kg); AppleCD 300i Plus—2.1 lb. (.95 kg)

Key features

- Offers double-speed data transfer, at rates of up to 342 kilobytes per second.
- Provides a loading tray—just like an audio CD player.
- Provides full compatibility with any SCSI-equipped personal computer, including Macintosh (running System 6.0.7 or later) and Power Macintosh systems, Windows software-based computers, and UNIX workstations.
- Reads multisession Kodak Photo CD discs.

AppleCD 600e



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At a glance

- The AppleCD 600e is an external quadruple-speed CD-ROM player that gives you fast access to the content on CD-ROM discs.
- It allows you to access QuickTime movies, Kodak Photo CD images, and the wide range of information stored on CD-ROM discs.

Specifications

- *Data transfer rate:* 600 kilobytes per second; 256K cache buffer
- *Average data access time:* 167.5 milliseconds
- *Ports:* Two 50-pin SCSI connectors, two RCA jacks, headphone jack
- *Dimensions (HWD):* 2.3 by 6.2 by 12.7 inches (5.9 by 15.8 by 32.3 cm)
- *Weight:* 5.7 lb. (2.6 kg)

Key features

- Offers quadruple-speed (up to 684.4 kilobytes per second in mode 2) streaming data transfer rate.
- Provides a loading tray—just like an audio CD player.
- Provides full compatibility with any SCSI-equipped personal computer, including Macintosh (running System 7.1 or later) and Power Macintosh systems, Windows software-based computers, and UNIX workstations.
- Supports all major CD-ROM formats—including audio CDs and multisession Kodak Photo CDs.

AppleDesign Powered Speakers



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At a glance

- The AppleDesign Powered Speakers were specifically engineered to provide high-quality sound for computer use.
- They let you take advantage of CD-quality output from multimedia and audio compact discs.

Specifications

- *Amplifier:* Built-in dual channel
- *Ports:* Computer sound-input jack (stereo), CD sound-input jack (stereo); front-panel headphone jack
- *Dimensions (HWD):* 9.25 by 4.5 by 4.75 inches (23.5 by 11.4 by 12.1 cm)
- *Weight:* 4.8 lb. (2.2 kg)—pair
- *Other features:*
 - Tuned-port bass-reflex system for low-frequency response
 - Active equalization for best frequency response at all levels
 - Noise-reduction circuitry for audio clarity

Key features

- Can connect directly to any personal computer, CD player, cassette player, or television.
- Feature a dual-input mixer for mixing computer and audio sound tracks.
- Provide controlled sound dispersion so you can enjoy excellent sound quality while maintaining a private listening environment.
- Incorporate magnetic shielding, so you can use them near displays without distorting image quality.
- Provide convenient power, volume, and balance controls and a front headphone jack.

AppleDesign Powered Speakers II



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At a glance

- The extremely compact AppleDesign Powered Speakers II were designed to provide high-quality sound output from a personal computer—or a home stereo system.

Specifications

- *Amplifier:* Built-in dual channel
- *Ports:* Computer sound-input jack (stereo), CD sound-input jack (stereo); front-panel headphone jack
- *Dimensions (HWD):* 6.9 by 4.2 by 4.0 inches (17.5 by 10.7 by 10.1 cm)
- *Weight:* 2.7 lb. (1.2 kg)—pair
- *Other features:*
 - Tuned-port bass-reflex system for low-frequency response
 - Active equalization for best frequency response at all levels
 - Noise-reduction circuitry for audio clarity

Key features

- Can connect directly to any personal computer, as well as to a CD player, cassette player, or television, with a simple cable (included).
- Feature a dual-input mixer for mixing computer and audio sound tracks.
- Provide controlled sound dispersion, so you can enjoy excellent sound quality while maintaining a private listening environment.
- Incorporate magnetic shielding, so you can use them near displays without distorting image quality.
- Provide convenient volume controls and a front headphone jack.

Portable Computers

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The PowerBook Advantage

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The PowerBook advantage: Truly portable computing

- Apple understands the difference between portable computing and desktop computing. That's why Apple PowerBook computers are not just miniature desktop computers—they were designed specifically to meet the needs of notebook computer users.

Although PowerBook computer systems use the same system software as the Macintosh desktop systems, their unique design and carefully selected feature set make PowerBook computers very personal machines, designed to be part of your life.

- Since you'll probably use your PowerBook when you're away from your desk, all of the features you'll need are built in—there are no snap-on components or extra pieces.* We offer the capability to connect to your world through the fax modem technology available in all PowerBook models, and through Apple Remote Access software. PowerBook computers are available in both gray-scale and color models. And they comply with the Environmental Protection Agency's Energy Star guidelines for energy conservation.

- PowerBook computers are available in three series: the PowerBook 500 series, the PowerBook 200 series, and the PowerBook 100 series. Each offers a unique set of capabilities, allowing PowerBook computers to meet a range of needs.

PowerBook computers equal success

- The success of PowerBook is evident in the number of units sold—to date, more than 1.8 million PowerBook computers have

* Applies specifically to the PowerBook 100 and PowerBook 500 series.

been sold, making it one of the top notebook computers on the market.

- PowerBook systems bring success to both first-time computer users and seasoned professionals.
- Praise from the industry has been phenomenal. In 1994, J.D. Power and Associates ranked Apple highest in customer satisfaction among notebook computer business users. In addition, PowerBook computers have won numerous awards, including "Breakthrough Product of the Year" for the PowerBook Duo (*MacUser*, March 1993) and "Best Product of the Year" for the PowerBook (*BusinessWeek*, *Time*, and *Fortune* magazines, 1992). The PowerBook is consistently listed as one of the top two notebook computers on the market.

The PowerBook 500 series: High performance and advanced mobile computing technology

The PowerBook 500 series computers show particular strength in key areas:

- *Performance.* With the power of a Macintosh Quadra, PowerBook 500 computers offer exceptional performance through their Motorola 68LC040 processor, as well as providing an upgrade path to the PowerPC processor. They even come with built-in Ethernet capability for connection to high-speed networks. And some are available with active-matrix displays.
- *Innovation.* The PowerBook 500 series computers have a full-size keyboard with function keys and a built-in Apple trackpad instead of a trackball, for precise cursor control and reliability. In addition, their multimedia capabilities include stereo speakers and a built-in microphone housed in the display, giving you a convenient way to present your work in 16-bit stereo sound and with excellent image quality. And a dual intelligent battery system helps ensure that you won't run out of power when you're on the road—new battery-charging technology and power-management software let you monitor and adjust your battery usage no matter where you are.
- *Expandability.* The PowerBook 500 computers have a variety of expansion options. They have three expansion slots: one for a modem, one for RAM, and one processor-direct slot that can

accommodate the PowerBook PCMCIA Expansion Module, so you can add PC Cards and take advantage of features such as cellular communications capability. And the PowerBook 520 and 520c can be upgraded to active-matrix color screen technology. The PowerBook 500 series computers come with a variety of expansion ports, including sound, SCSI, and ADB ports.

- *PowerBook Mobility Bundle.* As mobile computing becomes a business standard, the PowerBook is an excellent tool to help you stay connected to your world. The preinstalled PowerBook Mobility Bundle software provides communications software such as Apple Remote Access, so you can have access to the information you need no matter where you are; compatibility software such as Macintosh PC Exchange and a variety of file-translation options, so you can work with files that are in MS-DOS 6.2 or Windows 3.1 format; and power- and information-management software, such as the PowerBook Control Strip, so you can use your PowerBook in the most efficient way possible.

PowerBook 200 series—The leading full-featured subnotebook computers

For users who value exceptionally small size and light weight in a portable computer, the PowerBook 200 series is an excellent choice, providing a range of features in a product that weighs just over 4 pounds. The PowerBook Duo 280c computer shows particular strength in a few key areas:

- *High performance in a lightweight design.* PowerBook Duo users don't have to compromise power or ease of use to benefit from the convenience of a subnotebook computer. All PowerBook Duo models have plenty of memory and hard disk expansion options. The PowerBook Duo 280c has a high-performance Motorola 68LC040 processor—and is designed to accommodate a future version of the PowerPC processor. It also uses active-matrix screen technology, for excellent display quality.
- *Easy-to-use, mobile computing solution.* The PowerBook Duo 280c offers features that make it an excellent system for when you're away from the office, including long battery life and battery-management software, as well as a built-in modem slot and serial port. It comes with the PowerBook Mobility Bundle

software installed. And it can also be used with a variety of docking products from Apple and third-party vendors, which give you access to the services and peripheral devices provided by a traditional desktop system.

All-in-one PowerBook 100 series—All the features you need, with you all the time

Featuring the award-winning PowerBook design, the Apple PowerBook 100 series provides the essential built-in features that have made PowerBook computers so popular from the start. The PowerBook 150 is an excellent system for users in homes and schools, offering an affordable portable solution with the best hardware and software integration available, as well as these key features:

- *Original PowerBook design.* The award-winning PowerBook 100 series product design is one of Apple's strongest advantages. Some of our competitors manage to shrink the features of their desktop computers into notebook size by offering a clip-on mouse or leaving out a palm rest. In contrast, the PowerBook 150 has an integrated palm rest, keyboard, and trackball, so you don't have to sacrifice comfort or deal with additional components.
- *Expansion options.* The PowerBook 150 comes with SCSI, serial, and modem ports. And it has a built-in Apple SuperDrive, which can read from and write to MS-DOS 6.2, Windows 3.1, and OS/2 disks, as well as Macintosh disks.
- *Preinstalled software.* Like all current PowerBook computers, the PowerBook 150 comes with the PowerBook Mobility Bundle installed. And it also comes with ClarisWorks software, so you can be productive from the moment you start up your PowerBook.

PowerBook 150



At a glance

- The PowerBook 150 is the most affordable PowerBook computer.
- It comes with all of the features that made the original PowerBook computers so popular, including an Apple SuperDrive, an integrated high-quality display, SCSI and serial ports, and a modem port—incorporated in the award-winning PowerBook design.

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Specifications *(Note: Configurations and availability may vary worldwide.)*

- *Processor:* 68030
- *Speed:* 33 megahertz
- *Memory:* 4MB of RAM, expandable to 40MB
—4MB on logic board and one memory expansion slot
- *Storage:*
—Internal Apple SuperDrive floppy disk drive
—Internal 250MB hard disk drive
- *Expansion capabilities:* Two internal expansion slots—one for RAM, one for a modem
- *Ports:* Serial port, power adapter port, SCSI port—supports six SCSI devices
- *Display:* 9.5-inch (diagonal) backlit FSTN passive-matrix display (640 by 480 pixels)
- *Battery:* Nickel-cadmium; average life: 2 to 4 hours
- *Networking ports:* Built-in LocalTalk
- *Dimensions (HWD):* 2.25 by 11.25 by 9.3 inches (5.8 by 28.7 by 23.6 cm)
- *Weight:* 5.5 lb. (2.5 kg)
- *Internal modem:* Optional fax/data modem

- *Other features:*

- Backup application included on hard disk drive
- Restore application included on System Tools disk

Key features

- Offers an award-winning design—provides palm rests and a convenient trackball that can be used equally well by left- and right-handed users.
- Comes with the PowerBook Mobility Bundle—preinstalled software that makes mobile computing even easier.  86
- Weighs only 5.5 pounds.
- Comes with a built-in, industry-standard 9.5-inch gray-scale display.
- Offers a SCSI port for expandability.
- Takes advantage of Apple Remote Access software.
- Runs thousands of Macintosh applications—and comes with ClarisWorks software.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

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Other PowerBook models to consider

- The PowerBook Duo 280c offers high-performance portable computing in a smaller, more lightweight design. It provides an upgrade path to PowerPC technology, and has an active-matrix color screen.
- The PowerBook 520 provides support for PC Cards, 16-bit stereo sound, a larger display, three expansion slots, and an Apple trackpad.

PowerBook Duo 280c



At a glance


- The PowerBook Duo 280c is Apple's top-of-the-line color sub-notebook computer, offering a Motorola 68LC040 processor, an upgrade path to the PowerPC processor, and extensive memory and storage expansion in a design that weighs just over 4 pounds.
- Its backlit, active-matrix display shows up to thousands of bright, vivid colors.

Specifications *(Note: Configurations and availability may vary worldwide.)*

- *Processor:* 68LC040
- *Speed:* 66/33 megahertz
- *Memory:* 4MB of RAM, expandable to 40MB
 - 4MB on logic board and one memory expansion slot
- *Storage:*
 - Optional external Apple SuperDrive floppy disk drive
 - Internal 320MB hard disk drive
- *Expansion capabilities:* Two slots—one for the optional PowerBook Duo Express Modem, one for RAM
- *Ports:* Serial port, docking connector, power adapter port, modem port; integrated microphone and speakers
- *Display:* 8.4-inch (diagonal) backlit active-matrix color display with two display modes:
 - 256 colors at 640- by 480-pixel resolution
 - Thousands of colors at 640- by 400-pixel resolution
- *File-transfer options:*
 - LocalTalk cables or serial cable and System 7 file sharing
 - Fax/data modem and Apple Remote Access software
 - External floppy disk drive (optional)
 - SCSI disk mode

- *Battery*: High-capacity Type III nickel-metal-hydride; typical life: 2 to 4 hours; power adapter included
- *Networking ports*: Built-in LocalTalk
- *Dimensions (HWD)*: 1.5 by 10.9 by 8.5 inches (3.8 by 27.7 by 21.6 cm)
- *Weight*: 4.8 lb. (2.2 kg)
- *Internal modem*: Optional PowerBook Duo Express Modem (includes optical character recognition software)

Key features

- Features the high-performance Motorola 68LC040 processor.
- Has a built-in, active-matrix color display, which provides exceptional resolution in up to thousands of colors.
- Can be upgraded to take advantage of the PowerPC processor.
- Comes with the PowerBook Mobility Bundle—preinstalled software that makes mobile computing even easier.  86
- Takes advantage of Apple Remote Access software.
- Offers easy file-transfer capability through the PowerBook Duo Dock Plus or the PowerBook Duo MiniDock; by connecting your PowerBook Duo to a Macintosh computer via the SCSI port; or by using an optional fax/data modem and Apple Remote Access software.
- Features the award-winning design shared by all PowerBook Duo computers—provides palm rests and a convenient, integrated trackball.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Other PowerBook models to consider

If your tasks might require more advanced features in a portable computer, you should consider the PowerBook 520c computer, which offers:

- Support for PC Cards
- 16-bit stereo sound
- A larger display
- Three expansion slots (as opposed to one)
- An Apple trackpad
- A built-in Apple SuperDrive

PowerBook 520



At a glance

- The PowerBook 520 is Apple's entry-level PowerBook computer that uses a high-performance Motorola 68LC040 processor.
- It incorporates features that make mobile computing even easier, such as built-in Ethernet capability, a PCMCIA expansion module, and an intelligent battery system.


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Specifications *(Note: Configurations and availability may vary worldwide.)*

- *Processor:* 68LC040
- *Speed:* 50/25 megahertz
- *Memory:* 4MB of RAM, expandable to 36MB
—4MB on logic board and one memory expansion slot
- *Storage:*
—Internal Apple SuperDrive floppy disk drive
—Internal 240MB hard disk drive
- *Expansion capabilities:* Three slots—one for a processor-direct card, one for an internal fax/data modem, one for RAM; PowerBook PCMCIA Expansion Module (optional)
- *Ports:* Serial port, ADB port, video-output port, power adapter port, sound-input port (stereo) and integrated microphone, sound-output port (stereo) and speakers, SCSI port
- *Display:* 9.5-inch (diagonal) FSTN passive-matrix display (16-level gray scale); 640 by 480 pixels
- *Battery:* Nickel-metal-hydride; average life: 2 to 4 hours on one battery; 4 to 7 hours with optional second battery; power adapter included
- *Networking ports:* Built-in LocalTalk and Ethernet; supports TCP/IP networking software via MacTCP

- *Dimensions (HWD)*: 2.3 by 11.5 by 9.7 inches (5.8 by 29.2 by 24.6 cm)
- *Weight*: 6.3 lb. (2.9 kg)
- *Internal modem*: Optional fax/data modem
- *Security*: Security slot for locking (requires third-party cable)

Key features

- Features the Motorola 68LC040 processor, which enables the PowerBook 520 to handle even the most complex tasks easily.
- Has built-in Ethernet capability, which lets you transfer information up to 10 times faster than with LocalTalk cabling.
- Can be upgraded to take advantage of the PowerPC processor.
- Has a built-in, 16-level gray-scale display—which you can upgrade to an active-matrix color display.
- Can accommodate PC Cards for storage and expansion (requires the PowerBook PCMCIA Expansion Module, which fits into the processor-direct slot).
- Offers an Apple trackpad for precise cursor control.
- Has two speakers and a microphone housed in the display to give you convenient access to 16-bit, stereo sound input and output.
- Comes with the PowerBook Mobility Bundle—preinstalled software that makes mobile computing even easier.  86
- Takes advantage of Apple Remote Access software.
- Offers support for many external Apple displays, including the Apple Multiple Scan 17 Display.
- Offers a SCSI port for expandability; optional SCSI disk adapter and system cable allow you to use your PowerBook 520 as an external Macintosh hard disk.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Other PowerBook models to consider

- The PowerBook 520c features a color display that shows 256 bright, vivid colors.

PowerBook 520c



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At a glance


- The PowerBook 520c has a high-performance Motorola 68LC040 processor and a dual-scan color display that lets you show your work in 256 bright, vivid colors.
- Its high-quality color display and video-output capability make this a good choice for people who use their notebook computer for giving presentations to clients.

Specifications *(Note: Configurations and availability may vary worldwide.)*

- *Processor:* 68LC040
- *Speed:* 50/25 megahertz
- *Memory:* 4MB of RAM, expandable to 36MB
—4MB on logic board and one memory expansion slot
- *Storage:*
 - Internal Apple SuperDrive floppy disk drive
 - Internal 240MB or 320MB hard disk drive
- *Expansion capabilities:* Three slots—one for a processor-direct card, one for an internal fax/data modem, one for RAM; PowerBook PCMCIA Expansion Module (optional)
- *Ports:* Serial port, ADB port, video-output port, power adapter port, sound-input port (stereo) and integrated microphone, sound-output port (stereo) and speakers, SCSI port
- *Display:* 9.5-inch (diagonal) dual-scan, passive-matrix display (256 colors); 640 by 480 pixels
- *Battery:* High-capacity Type II nickel-metal-hydride; average life: 2 to 4 hours on one battery; 4 to 7 hours with optional second battery; power adapter included
- *Networking ports:* Built-in LocalTalk and Ethernet; supports TCP/IP networking software via MacTCP

- *Dimensions (HWD)*: 2.3 by 11.5 by 9.7 inches (5.8 by 29.2 by 24.6 cm)
- *Weight*: 6.4 lb. (2.9 kg)
- *Internal modem*: Optional fax/data modem
- *Security*: Security slot for locking (requires third-party cable)

Key features

- Features the Motorola 68LC040 processor, which enables the PowerBook 520c to handle even the most complex tasks easily.
- Has a built-in, passive-matrix, dual-scan 256-color display—which you can easily upgrade to an active-matrix display.
- Can be upgraded to take advantage of the PowerPC processor.
- Has built-in Ethernet capability, which lets you transfer information up to 10 times faster than with LocalTalk cabling.
- Can accommodate PC Cards for storage and expansion (requires PCMCIA Expansion Module, which fits into the processor-direct slot).
- Offers an Apple trackpad for precise cursor control.
- Has speakers and a microphone housed in the display to give you convenient access to 16-bit, stereo sound output.
- Comes with the PowerBook Mobility Bundle—preinstalled software that makes mobile computing even easier.  86
- Takes advantage of Apple Remote Access software.
- Offers support for many external Apple displays, including the Apple Multiple Scan 17 Display.
- Offers a SCSI port for expandability; optional SCSI disk adapter and system cable allow you to use your PowerBook 520c as an external Macintosh hard disk.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Other PowerBook models to consider

- The PowerBook 540c features a high-quality active-matrix color display that can show thousands of vivid colors.

PowerBook 540c



At a glance


- The PowerBook 540c is Apple's top-of-the-line color PowerBook computer, combining the high-performance Motorola 68LC040 processor with an active-matrix color display.
- Color capability, built-in speakers, and an integrated microphone make this an ideal system for people who use their notebook computer for giving presentations to clients.

Specifications *(Note: Configurations and availability may vary worldwide.)*

- **Processor:** 68LC040
- **Speed:** 66/33 megahertz
- **Memory:** 4MB of RAM, expandable to 36MB
—4MB on logic board and one memory expansion slot
- **Storage:**
—Apple SuperDrive floppy disk drive
—Internal 320MB or 500MB hard disk drive
- **Expansion capabilities:** Three slots—one for a processor-direct card, one for an internal fax/data modem, one for RAM; PowerBook PCMCIA Expansion Module (optional)
- **Ports:** Serial port, ADB port, video-output port, power adapter port, sound-input port (stereo) and integrated microphone, sound-output port (stereo) and speakers, SCSI port
- **Display:** 9.5-inch (diagonal) active-matrix display with two display modes:
—256 colors at 640- by 480-pixel resolution
—Thousands of colors at 640- by 400-pixel resolution
- **Battery:** High-capacity Type II nickel-metal-hydride (two included); average life: 1.5 to 3 hours on one battery; 3 to 6 hours on two batteries; power adapter included

- *Networking ports:* Built-in LocalTalk and Ethernet; supports TCP/IP networking software via MacTCP
- *Dimensions (HWD):* 2.3 by 11.5 by 9.7 inches (5.8 by 29.2 by 24.6 cm)
- *Weight:* 7.3 lb. (3.3 kg)
- *Internal modem:* Optional fax/data modem
- *Security:* Security slot for locking (requires third-party cable)

Key features

- Features the Motorola 68LC040 processor, which enables the PowerBook 540c to handle even the most complex tasks easily.
- Has a built-in, active-matrix display that supports 256 colors (supports up to thousands of colors at a lower resolution).
- Can be upgraded to take advantage of the PowerPC processor.
- Has built-in Ethernet capability, which lets you transfer information up to 10 times faster than with LocalTalk cabling.
- Can accommodate PC Cards for storage and expansion (requires PCMCIA Expansion Module, which fits into the processor-direct slot).
- Offers an Apple trackpad for precise cursor control.
- Has speakers and a microphone housed in the display to give you convenient access to 16-bit, stereo sound input and output.
- Comes with the PowerBook Mobility Bundle—preinstalled software that makes mobile computing even easier.  86
- Takes advantage of Apple Remote Access software.
- Offers support for many external Apple displays, including the Apple Multiple Scan 17 Display.
- Offers a SCSI port for expandability; optional SCSI disk adapter and system cable allow you to use your PowerBook 540c as an external Macintosh hard disk.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Other PowerBook models to consider

- The PowerBook Duo 280c is an exceptionally lightweight sub-notebook computer that features an active-matrix color display.

PowerBook Duo Docking Products

★ **PowerBook Duo Dock Plus at a glance**

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• Inserting your PowerBook Duo notebook computer into the PowerBook Duo Dock Plus gives you access to a complete Macintosh desktop system.

• PowerLatch docking technology gives the PowerBook Duo System:

—Easy connection between the PowerBook Duo computer and the dock; there are no cables to hook up.

—Powered insert and eject.

—Data protection. You can't accidentally lose your work-in-progress by ejecting your PowerBook Duo while it is docked.

• The dock is compatible with all PowerBook Duo computers.

• The PowerBook Duo Dock Plus physically supports external displays weighing up to 85 pounds—including the Apple Multiple Scan 20 Display.



Specifications

• *Storage:*

—Internal Apple SuperDrive floppy disk drive

—Bay for 3.5-inch hard disk drive

• *Expansion capabilities:* Two NuBus slots; supports six SCSI devices

• *Ports:* Two serial ports, ADB port, SCSI port, video-output port, pass-through port for modem, sound-input port (mono), sound-output port (mono)

- *Video support:* Comes with 1MB of video RAM, providing built-in support for up to thousands of colors on the Apple Multiple Scan 17 Display, and up to 256 colors on the Apple Multiple Scan 20 Display; supports some third-party VGA and SVGA displays

- *Networking ports:* Built-in LocalTalk; Ethernet

- *Dimensions (HWD):* 5.1 by 12.5 by 16.3 inches (13.0 by 31.8 by 41.4 cm)

- *Weight:* 13.5 lb. (6.1 kg)

- *Other features:*

- Mouse

- Automatic PowerLatch insert and eject, which makes inserting a PowerBook Duo computer into a PowerBook Duo Dock Plus as easy as inserting a videotape into a VCR

- Manual eject if power is out

PowerBook Duo MiniDock at a glance

- The portable PowerBook Duo MiniDock provides convenient connection to a modem, an external floppy disk drive, and a variety of external displays for presentations, including the Apple Multiple Scan 17 Display and some third-party VGA and SVGA displays.



- Offers standard Macintosh input and output ports—and supports up to six SCSI devices.

- Features PowerLatch docking technology for easy, one-step docking.

- Lets you connect your PowerBook Duo to another Macintosh computer—and use the PowerBook Duo as if it were an external Macintosh hard disk.

Specifications

- *Ports:* Two serial ports, ADB port, power adapter port, video-output port, SCSI port, external disk drive port, pass-through port for modem, sound-input port (mono), sound-output port (mono)

- *Security features:* Built-in security slot

- *Video support:* Built-in support for up to 256 colors on Apple displays and on some third-party VGA and SVGA displays

- *Networking ports:* Built-in LocalTalk
- *Dimensions (HWD):* 2.1 by 10.6 by 3.2 inches (5.3 by 26.9 by 8.1 cm)
- *Weight:* 1.24 lb. (.56 kg)

PowerBook Duo Floppy Adapter at a glance

- The PowerBook Duo Floppy Adapter gives you access to an external floppy disk drive with any PowerBook Duo.
- Its ADB port lets you connect a mouse or an extended keyboard.
- Its security slot helps ensure that the system cannot be removed from your work space.



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Specifications

- *Ports:* External floppy disk drive port; ADB port
- *Dimensions (HWD):* 1.5 by 5.0 by 2.6 inches (3.8 by 12.7 by 6.6 cm)
- *Weight:* .3 lb. (.14 kg)

Portable Computer Accessories

PowerBook Accessories (all models)

- PowerBook 4MB Memory Expansion Kit
- PowerBook 8MB Memory Expansion Kit
- PowerBook AC Adapter
- Apple HDI-30 SCSI System Cable
- Apple HDI-30 SCSI Disk Adapter

101★

PowerBook 150

- PowerBook Rechargeable Battery
- PowerBook Battery Recharger

PowerBook 520, 520c, 540c

- PowerBook PCMCIA Expansion Module
- PowerBook Active-Matrix Color Screen Upgrade
(PowerBook 520, 520c, and 540 only)
- PowerBook Intelligent Battery
- PowerBook Expansion Bay Cover
- PowerBook Express Modem II (not sold in the United States)

★ **Apple Mobile Message System**

With the Apple Mobile Message System, you can join the ranks of mobile professionals who are easily accessible to their colleagues via wireless communications.

- *PageCard wireless message receiver with LCD screen from Socket Communications.* Works as a stand-alone unit or fits into the PCMCIA Expansion Module of your PowerBook 500 series computer.
- *Apple Notification Service.* This service lets your clients and colleagues use your personal 800 number to reach you from any phone, fax machine, or computer equipped with a modem.

You'll get immediate notification of the faxes and voice messages you've received, and can also receive short and long wireless text messages, including messages from the Internet. All notifications and messages are relayed to your PageCard, where you can read them on its LCD screen. You can also insert the PageCard into the PCMCIA Expansion Module to view your messages on the PowerBook, store them, and transfer them into applications.

- *Update! receive software and Notify! send software from Ex Machina.* Automatically transfers wireless messages received by the PageCard to your computer.

- *Macintosh System 7.5 with PowerTalk*

- *Gateway software.* Turns PowerTalk into a universal mailbox for pages, faxes, CompuServe mail, QuickMail, and Internet mail.

- *Aldus DateBook and Adobe TouchBase Pro Bundle software*

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★ **GSM Connection Kit for PowerBook**

(Currently available in Germany; subsequent adaptations for other markets in both European and non-European countries will depend on the availability and range of GSM data services.)

Designed for the PowerBook 500 series, this kit lets you connect your notebook computer to the GSM and DCS 1800 networks via the Nokia 2110 and 2140 handsets and the Nokia Cellular Data Card. It also provides mobile users with access to a full range of communications services when on the road, including fax capabilities and connection to services such as AppleLink and eWorld, as well as wireless connection to office networks.

PowerBook Duo Accessories

- PowerBook Duo Dock Plus
- PowerBook Duo MiniDock
- PowerBook Duo Floppy Adapter
- Macintosh HDI-20 External 1.4MB Floppy Disk Drive
- PowerBook Duo Express Modem
- PowerBook Duo Rechargeable Battery
- PowerBook Duo Battery Recharger
- PowerBook Duo AC Adapter
- PowerBook File Assistant
- PowerBook/DOS Companion

Printers & Imaging

The Apple Printer Advantage

Apple printers come complete

All essential features are built in. So there's no need to buy interface cards, special printer drivers, or font cartridges.

They're incredibly easy to set up and use

Setting up any Apple printer is a simple matter of connecting a cable from the back of your Macintosh to the back of the printer. Connecting a printer to a network of Macintosh computers is just as simple. And when it comes time to print, you just use the Print command.

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They're built to work with all Macintosh, Power Macintosh, and PowerBook models and all applications for the Mac OS

If you can create it on a Macintosh screen, you can print it on an Apple printer. Our printers are designed to help you get the most out of your Macintosh and software. They can be used with all Macintosh computers that use System 7 and support QuickDraw. The LaserWriter Select 360 and LaserWriter 16/600 PS can even be used in mixed workgroup environments with Windows software-based systems, and with some UNIX-based systems.

They're versatile

No matter which printer you choose, you'll get great printed results. All Apple printers let you use fonts in a wide range of sizes to create clear, compelling documents—from simple letters to complex desktop publishing projects. You can print on a variety of materials, including envelopes, labels, and transparencies. And Apple's GrayShare and ColorShare software add gray-scale

and color printing and printer sharing capability to the StyleWriter 1200, Color StyleWriter 2400, Color StyleWriter Pro, and Personal LaserWriter 300.

They offer excellent print quality, through Apple's core imaging technologies

Apple has developed six key technologies that not only make scanning simpler and printing crisper, but also make adding images to your work easier than ever. These technologies redefine the way computers handle graphics and increase the number of ways you can express your ideas.

- *TrueType*. With Apple's TrueType outline font technology, even the most affordable Apple printers can exceed the type quality of most printers currently on the market. All TrueType fonts are expertly crafted to produce type that's perfect at any size, and they look as good on the screen as they do in print.



The letters, numbers, symbols, and punctuation marks of a TrueType font are defined mathematically and stored as outlines. As you type, the Macintosh computer uses those outlines to determine how the characters will look on your display, and then fills in the outlines. Your Macintosh can enlarge, reduce, or stretch TrueType outlines to give you the exact type size you want. And when you print your work, the computer uses the same TrueType outlines to create smooth, high-resolution characters for the printer.

- *FinePrint*. Many laser printers generate text and line art with jagged edges, because they print dots of only one size. Apple's FinePrint technology, on the other hand, gives some Apple laser printers the capability of printing dots of different widths, producing precise, smooth text and line art. By adjusting the widths of individual dots, Apple printers can produce crisper text and sharper graphics than ever before.



- *PhotoGrade*. Photographs retain more detail when printed from the Personal LaserWriter 320 and LaserWriter 16/600 PS printers, because these printers can use Apple's PhotoGrade technology.



PhotoGrade can designate many different gray levels for each pixel, as well as control the size of the dots, enabling you to print photographs that closely resemble the originals.

- *GrayShare*. GrayShare technology is part of Apple printers that use QuickDraw software. GrayShare provides ease of use and full compatibility with all Macintosh computers, and it offers two key capabilities that were once available only in high-end PostScript printers: gray-scale printing and printer sharing.



—*Gray-scale printing*. GrayShare makes it easy for you to include photographs in your work, because it gives your printer the ability to produce images with multiple colors and gray levels.

—*Printer sharing*. Now it's a simple matter of clicking the mouse when you want to share your printer with others who are connected to an AppleTalk or EtherTalk network. And GrayShare comes with options for controlling printer access with passwords and for monitoring printer use.

- *ColorShare*. Like GrayShare, this technology allows you to share your color printer with other users on a network. It includes “scatter” or diffusion halftoning for better print quality.



- *ColorSync*. Apple's ColorSync software addresses one of the most common difficulties associated with color desktop publishing: the wide variations in color from original document to scanned image (continuous color) to displayed image [RGB (red, green, and blue) color] to printed image [CMYK (cyan, magenta, yellow, and black) color].



Unlike color-matching applications—which are designed to work with specific programs only—ColorSync is part of the Macintosh System 7 operating system. It works behind the scenes with Macintosh applications, making sure that colors are consistent across input, display, and output devices.

Apple printers are Energy Star compliant

All Apple printers qualify for the EPA Energy Star rating (U.S.A.) as energy-efficient products, making them more affordable to use.

There's a printer for every task—and budget

With a family of nine printers to choose from, you can be certain that there's an Apple printer that meets your needs. You can also rest assured that your Apple printer will continue to do so for a long time to come: All of our printers are designed to provide years of dependable service.

ImageWriter II



At a glance

- The ImageWriter II is a dot-matrix printer well suited for classroom, personal, and professional use.
- It's ideal for printing on continuous-feed paper, such as payroll checks or preprinted forms.

Specifications

- *Resolution:* 144 dots per inch
- *Printing speed:* .5 page per minute (best mode); 2 pages per minute (draft mode)
- *Processor:* Uses the computer's processor
- *Supported languages:* QuickDraw
- *Fonts:* Built-in character sets for English, Italian, Danish, German, Swedish, French, and Spanish
- *Paper handling:* Supports both cut sheet and fanfold continuous (3 to 10 inches in width); prints forms, labels, envelopes
- *Connectivity and networking:* Serial port; optional LocalTalk connector supports AppleTalk protocol
- *Dimensions (HWD):* 5.0 by 17.0 by 12.0 inches (12.7 by 43.2 by 30.5 cm)
- *Weight:* 15.0 lb. (6.8 kg)
- *Recommended number of users:* One to three (with LocalTalk option)
- *Other features:*
 - Capable of printing color documents (requires color ribbon).
 - Can be equipped with a cut-sheet feeder, which holds as many as 100 single-sheet pages of cut-sheet paper.

Key features

- Prints dot-matrix format, so it's good for drafts, and can handle multipart forms.
- Has tractor-feed feature, which allows it to print on continuous-feed paper.
- Prints in two modes—draft mode and best mode.
- Can print on envelopes and labels.
- Can print in color (requires color ink ribbon).
- Is compatible with Apple II and Macintosh computers.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

StyleWriter 1200



At a glance

- The StyleWriter 1200 is an ink-jet printer that offers laser-quality printing at a very affordable price.
- It takes advantage of Apple's GrayShare software—which allows printer sharing and gray-scale printing for sharp printed graphics.
- Its compact design lets you use it in even the smallest of work spaces, such as a dorm room or a one-person office.

Specifications

- **Resolution:** 720 by 360 dots per inch with edge smoothing for black and white; 360 by 360 dots per inch for gray scale
- **Printing speed:** 3 pages per minute (black-and-white normal mode); 2 pages per minute (best mode)
- **Processor:** Uses the computer's processor
- **Memory:** 128K of RAM
- **Supported languages:** QuickDraw
- **Fonts:** 64 scalable TrueType fonts
- **Paper tray size:** 100 sheets; automatically feeds up to 15 envelopes
- **Paper handling:** Supports U.S. letter, U.S. legal, A4, envelopes, labels, and transparencies
- **Connectivity and networking:** Serial port; GrayShare software allows printer sharing on LocalTalk, Ethernet, and Token Ring networks
- **Dimensions (HWD):** 7.0 by 13.6 by 7.9 inches (17.8 by 34.5 by 20.1 cm)
- **Weight:** 6.6 lb. (3.0 kg)
- **Recommended number of users:** One; supports multiple users through GrayShare

Key features

- Provides laser-quality printing in a compact design.
- Can print on a variety of materials, including envelopes and transparencies.
- Takes advantage of GrayShare software, which allows printer sharing and gray-scale printing for sharp printed graphics.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Portable StyleWriter



At a glance

- The Portable StyleWriter is a portable ink-jet printer that offers laser-quality printing at an affordable price.
- Its small, lightweight design and battery-operation mode make it ideal for PowerBook users to take with them on the road.

Specifications

- *Resolution:* 360 dots per inch
- *Printing speed:* .5 page per minute (best mode); 1 page per minute (draft mode)
- *Processor:* Uses the computer's processor
- *Memory:* 16K of RAM
- *Supported languages:* QuickDraw
- *Fonts:* 39 scalable TrueType fonts
- *Paper tray size:* Single-sheet feed; 50-sheet feeder optional
- *Paper handling:* Supports U.S. letter, U.S. legal, A4, envelopes, labels, and transparencies
- *Connectivity and networking:* Serial port
- *Battery:* Nickel-cadmium; average life: 2 to 2.5 hours (approximately 50 pages per charge)
- *Dimensions (HWD):* 1.9 by 12.2 by 8.7 inches (4.8 by 31.0 by 22.1 cm)
- *Weight:* 4.5 lb. (2.0 kg) with battery included
- *Recommended number of users:* One
- *Other features:*
 - Battery and battery recharger included

Key features

- Provides laser-quality printing in an extremely small design.
- Is designed for printing when you're on the road—which makes it perfect for use with a PowerBook or PowerBook Duo computer.
- Operates on either batteries or AC power.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Color StyleWriter 2400



At a glance

- The Color StyleWriter 2400 is an economical, compact ink-jet printer that produces vibrant colors and crisp text.
- Its exceptional print quality and affordable price make the Color StyleWriter 2400 ideal for families, educators, and small-business owners.

Specifications

- *Resolution:* 360 dots per inch
- *Printing speed:* 3 pages per minute (gray scale); .3 minutes per page (color)—depends on computer's processor
- *Processor:* Uses the computer's processor
- *Memory:* 96K input buffer
- *Supported languages:* QuickDraw
- *Fonts:* 64 scalable TrueType fonts
- *Paper tray size:* Multipurpose tray holds up to 100 sheets of paper or 15 envelopes
- *Connectivity and networking:* Serial port; ColorShare software allows printer sharing on LocalTalk, Ethernet, and Token Ring networks; optional LocalTalk module supports AppleTalk protocol
- *Dimensions (HWD):* 8.3 by 14.4 by 8.4 inches (21.1 by 36.5 by 21.5 cm)
- *Weight:* 7.9 lb. (3.6 kg)
- *Recommended number of users:* One; can support multiple users through ColorShare
- *Other features:*
 - Cable included
 - Energy Star compliant
 - One color ink cartridge; separate black ink cartridge

Key features

- Has a compact design, making it ideal for dormitories or small work spaces.
- Ink cartridges are separate—one for color inks and one for black ink—so you can replace the black ink (which is most commonly used) without wasting remaining ink in the color tanks. Fade- and water-resistant inks.
- Has ColorSync color-matching technology, so the color you see on the screen will match the colors on the printed page.
- Supports a variety of paper formats: plain paper, premium paper, transparencies, and coated papers.
- Has ColorShare software, so you can share your printer with others on a network.
- Provides high-quality printing at a low cost per page.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Color StyleWriter Pro



At a glance

- The Color StyleWriter Pro is an ink-jet printer that provides fast, high-quality color printing in a compact design.
- It's a versatile printer that's perfect for home or office use, since it lets you print your color files at your desk at about half the cost per page of other desktop color printers.

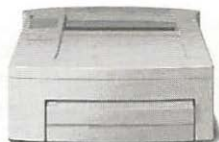
Specifications

- *Resolution:* 360 dots per inch
- *Printing speed:* Up to 2 pages per minute (gray scale); up to .5 page per minute (color)—depends on computer's processor
- *Processor:* Uses the computer's processor
- *Memory:* 96K input buffer
- *Supported languages:* QuickDraw
- *Fonts:* 64 scalable TrueType fonts
- *Paper tray size:* Multipurpose tray holds up to 100 sheets or 15 envelopes
- *Connectivity and networking:* Serial port; ColorShare software allows printer sharing on LocalTalk, Ethernet, and Token Ring networks
- *Dimensions (HWD):* 7.2 by 16.5 by 10.1 inches (18.3 by 41.9 by 25.7 cm)
- *Weight:* 11.0 lb. (5.0 kg)
- *Recommended number of users:* One; can support multiple users through ColorShare
- *Other features:*
 - Cable included
 - Energy Star compliant
 - Four separate ink cartridges

Key features

- Prints using fast-drying, fade-resistant ink.
- Uses four separate ink cartridges for a low cost per page.
- Has ColorSync color-matching technology, so the color you see on the screen will match the colors on the printed page.
- Supports a variety of paper formats: plain paper, premium paper, transparencies, and coated papers.
- Has ColorShare software, so you can share your printer with others on a network.
- Provides fast, high-quality printing at a low cost per page.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Personal LaserWriter 300



At a glance

- The Personal LaserWriter 300 is Apple's most affordable laser printer.
- Its gray-scale capability enables the Personal LaserWriter 300 to offer sharp graphics printing.
- It's a compact, energy-efficient laser printer that's perfect for home use.

Specifications

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- *Resolution:* 300 dots per inch
- *Printing speed:* 4 pages per minute
- *Processor:* Uses the computer's processor
- *Memory:* 512K of RAM (can operate as though it has 2MB of RAM)
- *Supported languages:* QuickDraw
- *Fonts:* 39 scalable TrueType fonts
- *Paper tray size:* Multipurpose tray holds 100 sheets or 15 envelopes
- *Paper handling:* Manual feed supports straight-through paper path
- *Connectivity and networking:* Serial port; GrayShare software allows printer sharing on LocalTalk, Ethernet, and Token Ring networks
- *Dimensions (HWD):* 6.3 by 15.2 by 14.9 inches (16.0 by 38.6 by 37.9 cm)
- *Weight:* 15.0 lb. (6.8 kg)
- *Recommended number of users:* One to three
- *Other features:*
 - Energy conservation mode

Key features

- Most affordable, most compact Apple laser printer.
- Has a compact design and quiet operation, which makes it perfect for home use.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.
- Provides password-protected printer sharing and gray-scale printing through GrayShare printer driver software.

Personal LaserWriter 320



At a glance

- The Personal LaserWriter 320 provides advanced print capabilities in Apple's most affordable Adobe PostScript laser printer.
- It's a fast, quiet, energy-efficient printer that's ideal for home or office use.

Specifications

- *Resolution:* 300 dots per inch; FinePrint; PhotoGrade (optional)
- *Printing speed:* 4 pages per minute
- *Processor:* 16-megahertz AMD 29205 RISC
- *Memory:* 2MB, expandable to 8MB
- *Supported languages:* Adobe PostScript Level 2
- *Fonts:* 39 scalable TrueType and PostScript fonts
- *Paper tray size:* 100 sheets or 15 envelopes; manual feed supports straight-through paper path
- *Connectivity and networking:* LocalTalk port supports AppleTalk protocol; LaserWriter Bridge 2.0 software allows printer sharing on Ethernet and Token Ring networks
- *Dimensions (HWD):* 6.3 by 15.2 by 14.9 inches (16.1 by 38.5 by 37.9 cm)
- *Weight:* 15.4 lb. (7.0 kg)
- *Recommended number of users:* One to three

Key features

- Comes with a RISC processor so you can print at a quick 4 pages per minute.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.
- Can support FinePrint and PhotoGrade technology (PhotoGrade requires 8MB of RAM), to make your work look great.
- Provides TrueType and Adobe PostScript fonts in a range of typefaces.
- Prints quietly—the fan operates only during printing.

LaserWriter Select 360



At a glance

- The award-winning LaserWriter Select 360 is Apple's 600-dot-per-inch laser printer for small and medium-size workgroups that use Macintosh and Windows software-based computers.
- It's a high-speed printer for handling complicated jobs quickly.
- With an optional internal fax card that incorporates PostScript technology, it can work with your computer to send, receive, and print plain-paper faxes at up to 600-dot-per-inch resolution.

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Specifications

- *Resolution:* 600 dots per inch
- *Printing speed:* 10 pages per minute
- *Processor:* 16-megahertz AMD 29200 RISC
- *Memory:* 7MB, expandable to 16MB
- *Supported languages:* Adobe PostScript Level 2, PCL 5 emulation—autoemulation switching between PostScript and PCL 5
- *Fonts:* 64 scalable TrueType and PostScript fonts
- *Paper tray size:* Built-in 50- and 250-sheet trays (can hold envelopes); 250- or 500-sheet trays optional
- *Connectivity and networking:* Serial port; parallel port; LocalTalk port supports AppleTalk protocol; LaserWriter Bridge 2.0 software allows printer sharing on Ethernet and Token Ring networks
- *Dimensions (HWD):* 8.0 by 15.0 by 18.3 inches (20.3 by 38.1 by 46.5 cm)
- *Weight:* 26.0 lb. (11.7 kg)
- *Recommended number of users:* Two to six
- *Other features:*
—Energy Star compliant

Key features

- Prints at 600-dot-per-inch resolution, providing exceptional print quality at your desk.
- Lets you use your printer as a plain-paper fax machine (requires optional fax card).
- Prints at 10 pages per minute, so you can print long documents quickly.
- Can connect to Ethernet networks through software (included).
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.
- Fits easily into both Macintosh and Windows computing environments.
- Provides autoemulation switching between PostScript and PCL 5.

LaserWriter 16/600 PS



At a glance

- The Apple LaserWriter 16/600 PS is a high-performance laser printer with exceptional print quality, speed, network compatibility, and expansion options that cannot be matched by other printers in its price range.
- It provides enhanced network support for TCP/IP, Novell NetWare IPX, and EtherTalk protocols over Ethernet networks.
- It can be used in networks of Macintosh computers, networks of Windows software-based computers, or mixed workgroup environments that include both.
- With an optional internal fax card, users can send, receive, and print plain-paper faxes at up to 600-dot-per-inch resolution.

Specifications

- *Resolution:* 600 dots per inch standard with FinePrint; PhotoGrade (requires minimum 12MB of RAM)
- *Printing speed:* 16 pages per minute (A4-size paper); 17 pages per minute (letter-size paper)
- *Processor:* 32-megahertz 29030 AMD RISC processor; 80C186 I/O processor
- *Memory:* 8MB, expandable to 16MB
- *Supported languages:* Adobe PostScript Level 2; PCL 5
- *Fonts:* 64 scalable TrueType and PostScript
- *Paper tray size:* 100- and 250-sheet multipurpose trays (can hold envelopes); optional 500-sheet tray can hold 75 envelopes
- *Connectivity and networking:* LocalTalk port supports AppleTalk protocol; bidirectional parallel port supports Ethernet, TCP/IP, and Novell NetWare IPX protocols; internal and external SCSI ports for hard disk storage

- *Dimensions (HWD)*: 12.1 by 16.7 by 16.9 inches (30.7 by 42.4 by 42.9 cm)
 - *Weight*: 40.0 lb. (18.0 kg)
 - *Recommended number of users*: Can accommodate workgroups of 10 or more
 - *Other features*:
 - Energy Star compliant
 - Autoemulation switching
-

Key features

- Can be connected to Macintosh and Windows software-based computers over Ethernet networks supporting a variety of protocols, which makes it an ideal solution for a multivendor environment.
- Prints at 600-dot-per-inch resolution, providing exceptional print quality at your desk.
- Offers an optional fax card that incorporates PostScript technology and lets you send faxes from your computer and receive faxes at your printer—at up to 600-dot-per-inch resolution.
- SCSI ports let you add hard disk drives to store a range of fonts.
- Qualifies for the EPA Energy Star rating (U.S.A.) as an energy-efficient product.

Apple Printer Accessories

ImageWriter II

- ImageWriter II/LQ LocalTalk Option
- ImageWriter I and II Black Ribbon (six ribbons per box)
- ImageWriter II Color Ribbon (six ribbons per box)
- ImageWriter II Cut Sheet Feeder
- ImageWriter II 32K Memory Option

StyleWriter 1200

- StyleWriter Series Ink Cartridge

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Portable StyleWriter

- StyleWriter Series Ink Cartridge
- Personal StyleWriter NiCd Battery Pack
- Portable StyleWriter Auto Sheet Feeder

Color StyleWriter 2400 and Color StyleWriter Pro

- Color StyleWriter 2400 Ink Cartridge (includes color and black ink tanks)
- Color StyleWriter 2400 replacement ink tank (black and color C, M, Y)
- Color StyleWriter 2400 Black Ink Cartridge
- Color StyleWriter 2400 LocalTalk Option
- Color StyleWriter Pro Ink Cartridge (four ink tanks—C, M, Y, K)
- Apple Color Ink-jet Premium Coated Paper Film A4
- Apple Color Ink-jet Premium Coated Paper Film LTR
- Apple Color Ink-jet Transparencies Film A4
- Apple Color Ink-jet Transparencies Film LTR
- Apple Color Ink-jet Back-Print Film A4
- Apple Color Ink-jet Back-Print Film LTR

- Apple Color Ink-jet Glossy Paper LTR
- Apple Color Ink-jet Glossy Paper A4

Personal LaserWriter 300

- Personal LaserWriter 300 Series Universal Cassette
- Personal LaserWriter 300 Series Toner Cartridge

Personal LaserWriter 320

- Personal LaserWriter 300 Series Universal Cassette
- Personal LaserWriter 300 Series Toner Cartridge
- Personal LaserWriter 320 2MB RAM Upgrade
- Personal LaserWriter 320 6MB PhotoGrade Upgrade

LaserWriter Select 360

- LaserWriter Select Toner Cartridge
- LaserWriter Bridge software for Ethernet
- LaserWriter Select 500-Sheet Feeder with Letter Cassette
- LaserWriter Select 250-Sheet Legal Cassette
- LaserWriter Select 250-Sheet Feeder with Cassette

(supports letter, A4, and B5 paper)

- LaserWriter Select 30-Envelope Cassette
- LaserWriter Select 360 PostScript Fax Card
- LaserWriter Select Multipurpose Tray Option

LaserWriter 16/600 PS

- LaserWriter 16/600 PS Fax Card (United States only)
- LaserWriter 16/600 PS Fax Kit (international)
- LaserWriter 16/600 PS Internal Hard Disk Drive
- LaserWriter Toner Cartridge

Apple OneScanner



At a glance

- Both the Apple OneScanner and Apple OneScanner for Windows offer high-quality scanning and single-button simplicity, for both professional and personal use.
- Both come with Ofoto scanning software, which ensures outstanding clarity and fidelity to the original image.

Specifications

- *Gray-scale capabilities:* 256 levels (8 bits per pixel)
- *Scanning resolution:* 75 to 1,200 dots per inch in 1-dot-per-inch increments through software interpolation
- *Maximum scan area:* 8.5 by 14.0 inches (21.6 by 35.6 cm)
- *Interface:* SCSI; OneScanner for Windows comes with SCSI interface card
- *File formats:* Supports PICT, TIFF, EPS, and MacPaint formats on Macintosh computers; supports TIFF, PC Paintbrush, Windows bitmap, GEM Image, Microsoft Paint, and EPS formats on Windows software-based computers
- *System requirements:* Macintosh system software version 7.1 or later, HyperCard 2.0 or later to use HyperScan 2.0 software, and appropriate SCSI cabling; OneScanner for Windows requires Windows 3.0 or later
- *Dimensions (HWD):* 4.4 by 13.6 by 21.8 inches (11.2 by 34.5 by 55.4 cm)
- *Weight:* 23.0 lb. (10.4 kg)

Key features

- Features high-quality rotation and scaling algorithms.
- Includes automatic scanning capability for one-step usage.
- Provides adaptive calibration to improve image quality.

Apple Color OneScanner



At a glance

- The Apple Color OneScanner offers high-quality scanning and single-button simplicity—in color.
- It comes with Ofoto 2.0 scanning software, which ensures outstanding clarity and fidelity to the original image—and adds color support, background processing, and an improved user interface.

Specifications

- *Color capabilities:* 16.7 million colors
- *Scanning resolution:* 75 to 1,200 dots per inch in 1-dot-per-inch increments through software interpolation
- *Maximum scan area:* 8.5 by 14 inches (21.6 by 35.6 cm)
- *Interface:* SCSI
- *File formats:* Supports PICT, TIFF, EPS, and MacPaint formats
- *System requirements:* System software version 7.0 or later, HyperCard 2.0 or later to use HyperScan 2.0 software
- *Dimensions (HWD):* 4.4 by 13.6 by 21.8 inches (11.2 by 34.5 by 55.4 cm)
- *Weight:* 23.0 lb. (10.4 kg)

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Key features

- Features high-quality rotation and scaling algorithms for flexible image manipulation without loss of quality.
- Offers a trilinear charge-coupled device, stabilizing the color and maximizing color registration.
- Provides a color-correction ASIC, which adjusts color “behind the scenes.” (Includes ColorSync software.)
- AutoScan feature automatically adjusts brightness, contrast, cropping, alignment, and sharpening of scanned images.

QuickTake 100



At a glance

- The QuickTake 100 for Macintosh and QuickTake 100 for Windows are lightweight digital cameras that allow you to take 24-bit color pictures without using film—and quickly import them directly into your Macintosh or Windows software-based computer.
- They come with QuickTake software, which allows you to download images directly into a personal computer; display those images in up to 16.7 million colors; and rotate, crop, scale, and zoom in on images as you edit them for use in your documents.
- They can run either on batteries (included with the camera) or by plugging them into a standard wall outlet (AC adapter not included).

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Specifications

- *Image resolution:* High resolution—640 by 480 pixels; standard resolution—320 by 240 pixels
- *Color resolution:* 24-bit color (millions of colors)
- *Memory:* 1MB of Flash EPROM stores up to 32 images for more than one year
- *Shutter speed:* $\frac{1}{30}$ to $\frac{1}{175}$ seconds; self-timer—10 seconds automatic
- *Aperture range:* f2.8 to f16 automatic
- *Focus range:* 4 feet to infinity
- *Flash:* Built-in automatic or manual; flash range from 4 feet to 9 feet

- *Battery*: Runs on three rechargeable AA nickel-cadmium batteries (batteries and battery recharger included); supports three 1.5-volt AA, R6P, LR-6, or SUM-3 nickel-cadmium, alkaline, or lithium batteries
- *File formats*: Macintosh—PICT, TIFF, QuickTake; Windows—BMP, PCX, JPEG, TIFF, QuickTake
- *Image transfer*: Built-in high-speed serial interface, with appropriate serial cable for connection to Macintosh or Windows software-based computers
- *Dimensions (HWD)*: 2.0 by 5.0 by 6.0 inches (5.08 by 12.7 by 15.2 cm)
- *Weight*: .9 lb. (.41 kg)

Key features

- Lets you quickly download digital images into your computer for use in documents you create.
- Lets you open images directly in most business productivity, graphics, and desktop publishing applications.
- Offers easy one-step use for taking pictures and importing them into your files—with easy-reading icons for monitoring flash and battery status, resolution, self-timer settings, and more.
- Lets you store 32 standard-resolution or 8 high-resolution images in high-quality, 24-bit color.

Accessories

- QuickTake 100 Battery Booster Pack
- QuickTake 100 AC Adapter
- QuickTake 100 Travel Case
- QuickTake 100 Connection Kit for Windows
- QuickTake 100 Connection Kit for Macintosh

QuickTake 150



At a glance

- The QuickTake 150 for Macintosh and QuickTake 150 for Windows are lightweight digital cameras that allow you to take 24-bit color pictures without using film—and quickly import them directly into your Macintosh or Windows software-based computer.
- They include a close-up lens, with built-in features designed to make close-up work easy.
- They come with software that allows you to download images directly into a personal computer; display those images in up to 16.7 million colors; and rotate, crop, scale, and zoom in on images as you edit them for use in your documents (QuickTake 1.5 software and PhotoFlash 2.0 for Macintosh version; QuickTake 1.5 and PhotoNow! TWAIN driver for Windows version).
- They can run either on batteries (included with the camera) or by plugging them into a standard wall outlet (AC adapter not included).

Specifications

- *Image resolution:* 640 by 480 pixels for all images
- *Color resolution:* 24-bit color (millions of colors)
- *Memory:* 1MB of Flash EPROM stores up to 32 standard-quality images, 16 high-quality images, or a combination for more than one year
- *Shutter speed:* $\frac{1}{30}$ to $\frac{1}{175}$ seconds; self-timer—10 seconds automatic
- *Aperture range:* $f2.8$ to $f16$ automatic
- *Focus range:* 4 feet to infinity for standard lens; 10 to 14 inches for close-up lens

- *Flash*: Built-in automatic or manual; flash range from 4 feet to 9 feet; diffused with close-up lens system
- *Battery*: Runs on three rechargeable AA lithium batteries; supports three 1.5-volt AA, R6P, LR-6, or SUM-3 nickel-cadmium, alkaline, or lithium batteries
- *File formats*: Macintosh—EPS, PICT, TIFF, JPEG, QuickTake; Windows—BMP, PCX, JPEG, TIFF, QuickTake
- *Image transfer*: Built-in high-speed serial interface, with appropriate serial cable for connection to Macintosh or Windows software-based computers
- *Dimensions (HWD)*: 2.0 by 5.0 by 6.0 inches (5.08 by 12.7 by 15.2 cm)
- *Weight*: .9 lb. (.41 kg)

Key features

- Lets you quickly download digital images into your computer for use in documents you create.
- Lets you open images directly in most business productivity, graphics, and desktop publishing applications.
- Offers easy one-step use for taking pictures and importing them into your files—with easy-reading icons for monitoring flash and battery status, resolution, self-timer settings, and more.
- Lets you store 32 standard-quality images, 16 high-quality images, or a combination.

Accessories

- QuickTake Battery Booster Pack
- QuickTake AC Adapter
- QuickTake Travel Case
- QuickTake Connection Kit for Windows
- QuickTake Connection Kit for Macintosh

Personal Interactive Electronics

Newton MessagePad 120



At a glance

- The Newton MessagePad 120 puts easy-to-use communications, productivity, and desktop connectivity solutions in the palm of your hand, no matter where you happen to be—in a meeting or on the road.
- It has a slightly different industrial design than the Newton MessagePad 110—is slightly more durable, and features a removable lid, a more conveniently located PCMCIA lock switch, and an enhanced screen—but will run existing Newton MessagePad applications without any modification.
- It also provides significantly more power to the PCMCIA slot, expanding your choice of PCMCIA communications and peripheral products, and features vastly expanded user storage space.
- When you write on its built-in screen with a Newton pen, the Newton MessagePad 120 converts your printed or cursive handwritten notes into typed text. It also keeps track of your calendar, stores names and addresses in your card file, and organizes your to-do list. If you prefer, an on-screen keyboard lets you “type” your notes.

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Specifications

- *Processor:* ARM 610 RISC
- *Speed:* 20 megahertz
- *Memory:* 1MB or 2MB of RAM, 4MB of ROM; 385K or 1,361K of nonvolatile user RAM
- *Storage:* Expandable with the Newton 2MB Flash Storage Card or 4MB Flash Storage Card
- *Expansion:* Slot for one Type II PCMCIA expansion card, with 325 mA capacity
- *Ports:* AC power port, serial port



- *Display*: 3.8-inch by 2.8-inch low-power reflective LCD
- *Battery*: Four AA alkaline batteries (included); optional Newton Rechargeable Battery Pack (nickel-cadmium), Newton Battery Booster Pack (requires eight AA alkaline batteries), Newton MessagePad Charging Station
- *Communications*:
 - Built-in LocalTalk port; point-to-point infrared data exchange
- *Dimensions (HWD)*: 1.2 by 4.0 by 8.0 inches (3.0 by 10.2 by 20.3 cm)
- *Weight*: 1.0 lb. (.45 kg)
- *Other features*:
 - Newton Telescoping Pen
 - Operating-system enhancements and additional NewtonMail features
 - Includes an assortment of information and productivity tools
 - Comes bundled with a variety of software

Key features

- It can connect to Macintosh and Windows software-based personal computers (requires appropriate connection kit).
- Its communications capabilities allow you to send faxes; receive messages; “beam” information to other MessagePad units through point-to-point infrared technology; connect to your desktop computer and its network to take advantage of files, printers, or network services; and connect directly to a wide range of printers.
- It provides built-in printer support for PostScript-equipped LaserWriter printers, as well as supporting StyleWriter II printers.

Newton MessagePad Accessories

Newton MessagePad 120

- Newton Connection Kit
- Newton Messaging Card
- Apple Mobile Message System (also available for PowerBook 500 series computers; for description  101)
- GSM Connection Kit for Newton (also available for PowerBook 500 series computers; for description  102)
- Newton Fax Modem
- Newton PCMCIA Fax Modem Card
- Newton 2MB Flash Storage Card and 4MB Flash Storage Card
- Newton Print Pack
- Newton Power Adapter
- Newton Battery Booster Pack
- Newton Rechargeable Battery Pack
- Newton MessagePad Charging Station
- Newton Telescoping Pen
- Newton Carrying Case
- Newton Leather Carrying Case
- Newton Leather Carrying Case LC
- Newton Communications Case

Networking & Connectivity

Workgroup Server 95



At a glance

- The Workgroup Server 95, based on the Motorola 68040 processor, is Apple's highest-performance AppleShare server, offering extensive file, print, and database services for large workgroups.
- It's ideal for workgroups that have demanding file- and print-sharing requirements or that work with large database applications.
- It can run Oracle7 database software for A/UX, to take advantage of cross-platform compatibility for Macintosh, Windows, and UNIX clients.

Specifications

- *Processor:* 68040 with built-in math coprocessor, paged memory management unit (PMMU), and 8K memory cache; up to 512K second-level memory cache
- *Speed:* 33 megahertz
- *Memory:* 16MB of RAM, expandable to 256MB
—16 SIMM sockets (parity SIMMs optional)
- *Storage:*
—Internal Apple SuperDrive floppy disk drive
—Supports six internal 5.25-inch peripherals, such as SCSI hard disk drives, 4-millimeter DAT drives with Digital Data Storage-Data Compression, or CD-ROM drives
- *Expansion capabilities:* Five NuBus slots (one occupied by processor-direct card); 040 processor-direct expansion slot; supports up to 20 SCSI devices
- *Ports:* Two serial ports, ADB port, video-output port, four SCSI channels, sound-input port (mono)

- *Displays:* Built-in support for all Apple displays; supports third-party VGA, SVGA, and 19-inch monitors
 - *Number of active network users supported:* Up to 200 connected users with AppleShare Pro (up to 50 concurrently active users)
 - *Networking ports:* Built-in LocalTalk and Ethernet; supports AppleTalk and TCP/IP networking software
 - *Dimensions (HWD):* 18.6 by 8.9 by 20.6 inches (47.2 by 22.6 by 52.3 cm)
 - *Weight:* 36.8 lb. (16.6 kg)—will vary based on internal devices installed
 - *Other features:*
 - Has four high-performance SCSI buses (four SCSI channels; two are SCSI DMA channels)
 - Runs Apple's A/UX 3.1 operating system
-

Key features

- Comes with A/UX 3.1 installed on the hard disk drive, which allows system administrators to enjoy both the familiar Macintosh interface and UNIX performance and multiuser capabilities.
 - Can be equipped with a DAT drive, for backup storage of large volumes of data.
 - Has built-in Ethernet capability, which lets you transfer information up to 10 times faster than with LocalTalk cabling.
 - Offers built-in, SCSI DMA support for faster data transfer.
-

Upgrade information

- The Macintosh Quadra 900 and 950 can be upgraded to the Workgroup Server 95 with a Workgroup Server 95 PDS Card Upgrade Kit or a Workgroup Server 95 PDS Card/DDS-DC Drive Upgrade Kit.
-

Other models to consider

- If you need the fastest and most expandable Workgroup Server based on the Macintosh operating system, you should consider the Workgroup Server 9150, which features the PowerPC 601 RISC processor.

Workgroup Server 6150/66



At a glance

- The Workgroup Server 6150/66 is Apple's affordable, entry-level server system based on the high-performance PowerPC RISC processor.
- It's perfect for small workgroups or as an additional server on a network of Mac OS and Windows software-based computers.

Specifications

- *Processor:* PowerPC 601 RISC with integrated math coprocessor and 32K on-chip cache; 256K second-level memory cache
- *Speed:* 66 megahertz
- *Memory:* 16MB of RAM, expandable to 72MB—8MB on logic board and two 72-pin SIMM slots
- *Storage:*
 - Internal Apple SuperDrive floppy disk drive
 - Internal 700MB hard disk drive
 - Internal quadruple-speed CD-ROM drive
- *Expansion capabilities:* Internal expansion slot for one processor-direct card or one 7-inch NuBus expansion card (requires adapter); supports seven SCSI devices
- *Ports:* Two serial ports, ADB port, video-output port, SCSI port, sound-input port (stereo), sound-output port (stereo)
- *Displays:* Built-in support for all Apple displays; supports third-party VGA, SVGA, and 19-inch monitors
- *Networking ports:* Built-in LocalTalk and Ethernet; supports TCP/IP networking software via MacTCP
- *Dimensions (HWD):* 3.4 by 16.3 by 15.6 inches (8.6 by 41.4 by 39.6 cm)
- *Weight:* 14.0 lb. (6.3 kg)—will vary based on internal devices installed

Key features

- Features the PowerPC 601 RISC processor, which enables it to handle computation-intensive tasks with exceptional speed.
- Has on-board Ethernet capability.
- Offers built-in, high-performance SCSI for faster data transfer.
- Includes Apple RAID Software, for increased data protection and performance.
- Comes with AppleShare 4.1, which includes AppleShare Client for Windows, installed on the hard disk drive (selected configurations).
- Includes third-party software: Adobe Acrobat Reader, FileWave from Wave Research, Now Contact and Now Up•to•Date from Now Software, Server Manager from Santorini (with AppleShare configurations), and Viper Instant-Access from IT Design.

Upgrade information

- The Workgroup Server 60 can be upgraded to the Workgroup Server 6150/66 with a Workgroup Server 6150 Logic Board Upgrade.

Other models to consider

If you need even more speed and expansion options, you should consider the Workgroup Server 8150/110, which offers:

- A faster processor (110 megahertz compared with 66 megahertz for the Workgroup Server 6150/66).
- More than twice the memory expansion capability (up to 264MB) and more storage options (two 3.5-inch hard disk drives and an optional internal DAT drive).
- More expansion options—three NuBus slots (as opposed to one).

Workgroup Server 8150/110



At a glance

- The Workgroup Server 8150/110 is Apple's versatile midrange server system based on the PowerPC 601 RISC processor.
- It's perfect for workgroups that require high performance and expansion options—at an attractive price.
- It can be used as a communications server for linking multiple AppleTalk internets and integrating Macintosh networks into a wide area network.

Specifications

- *Processor:* PowerPC 601 RISC with integrated math coprocessor and 32K on-chip cache; 256K second-level memory cache
- *Speed:* 110 megahertz
- *Memory:* 16MB of RAM, expandable to 264MB
—8MB on logic board and eight 72-pin SIMM slots
- *Storage:*
 - Internal Apple SuperDrive floppy disk drive
 - Space for two internal 1GB, 2GB, or 4GB hard disk drives
 - Internal DAT drive (selected configurations)
 - Internal quadruple-speed CD-ROM drive
- Supports a total of three internal SCSI devices, such as hard disk drives
- *Expansion capabilities:* Three NuBus slots and one processor-direct expansion slot; supports up to nine SCSI devices (internal and external)
- *Ports:* Two serial ports, ADB port, video-output port, two high-performance SCSI ports, sound-input port (stereo), sound-output port (stereo)
- *Displays:* Built-in support for all Apple displays; supports third-party VGA, SVGA, and 19-inch monitors

- *Networking ports*: Built-in LocalTalk and Ethernet; supports TCP/IP networking software via MacTCP
- *Dimensions (HWD)*: 14.2 by 8.9 by 16.0 inches (36.1 by 22.6 by 40.6 cm)
- *Weight*: 25.3 lb. (11.4 kg)—will vary based on internal devices installed

Key features

- Runs communications service applications, such as Apple Internet Router, SNA•ps, MacX25, and MacX.400.
- Features the PowerPC 601 RISC processor, which enables it to handle computation-intensive tasks with exceptional speed.
- Equipped with a DAT drive, for backup storage of 10GB to 14GB of data (using compression).
- Configurations with a DAT drive include Retrospect Remote software, for automatic backup of the server and clients.
- Has built-in Ethernet capability.
- Offers built-in, high-performance SCSI for faster data transfer.
- Includes Apple RAID Software, for increased data protection and performance.
- Comes with AppleShare 4.1, which includes AppleShare Client for Windows, installed on the hard disk drive (selected configurations).
- Includes third-party software (varies by configuration): Adobe Acrobat Reader, FileWave from Wave Research, Now Contact and Now Up•to•Date from Now Software, Retrospect Remote from Dantz Development, Server Manager from Santorini, and Viper Instant-Access from IT Design.

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Upgrade information

- The Workgroup Server 80 can be upgraded to the Workgroup Server 8150/110 with a Workgroup Server 8150 Logic Board Upgrade.

Other models to consider

- If you need an exceptionally powerful server that provides extensive expansion options, you should consider the Workgroup Server 9150/120, which offers more hard disk storage capacity.

Workgroup Server 9150/120



At a glance

- The Workgroup Server 9150/120 is Apple's fastest and most expandable server system, offering extensive file, print, and communications services for large workgroups.
- It's ideal for workgroups that have demanding file- and print-sharing requirements, or that work with large database applications.

Specifications

- *Processor:* PowerPC 601 RISC with integrated math coprocessor and 32K on-chip cache; 1MB second-level memory cache
- *Speed:* 120 megahertz
- *Memory:* 16MB of RAM, expandable to 264MB
 - Eight 72-pin SIMM slots
- *Storage:*
 - Internal Apple SuperDrive floppy disk drive
 - Space for five 1GB, 2GB, or 4GB internal hard disk drives
 - Internal DAT drive (selected configurations)
 - Internal quadruple-speed CD-ROM drive
- *Expansion capabilities:* Four NuBus slots and one processor-direct expansion slot; supports 14 SCSI devices
- *Ports:* Two serial ports, ADB port, video-output port, two high-performance SCSI ports, sound-input port (stereo), sound-output port (stereo)
- *Displays:* Built-in support for all Apple displays; supports third-party VGA, SVGA, and 19-inch monitors
- *Networking ports:* Built-in LocalTalk and Ethernet; supports TCP/IP networking software via MacTCP

- *Dimensions (HWD)*: 18.6 by 8.9 by 20.6 inches (47.2 by 22.6 by 52.3 cm)
- *Weight*: 36.8 lb. (16.6 kg)—will vary based on internal devices installed
- *Other features*:
—Has two high-performance SCSI buses (both SCSI DMA channels)

Key features


- Features the PowerPC 601 RISC processor, which enables it to handle computation-intensive tasks with exceptional speed.
- Equipped with a DAT drive, for backup storage of 10GB to 14GB of data (using compression).
- Configurations with a DAT drive include Retrospect Remote software, for automatic backup of the server and clients on the network.
- Has space for five 1GB, 2GB, or 4GB internal hard disk drives.
- Offers built-in, high-performance SCSI for faster data transfer.
- Includes Apple RAID Software, for increased data protection and performance.
- Comes with AppleShare 4.1, which includes AppleShare Client for Windows, installed on the hard disk drive (selected configurations).
- Includes third-party software (varies by configuration): Adobe Acrobat Reader, FileWave from Wave Research, Now Contact and Now Up•to•Date from Now Software, Retrospect Remote from Dantz Development, Server Manager from Santorini, and Viper Instant-Access from IT Design.

Upgrade information

- The Macintosh Quadra 900 or 950 can be upgraded to the Workgroup Server 9150 with a Workgroup Server 9150 Logic Board Upgrade.

Apple Networking Products

You can easily connect your Macintosh to almost any kind of network or computing platform.

- *The easy and consistent Macintosh approach.* Macintosh lets you connect to an IBM mainframe across town just as readily as to an AppleShare file server in the next room. Using AppleTalk, the networking system built into every Macintosh, any device on the network can appear as an icon on your screen. AppleTalk lets you navigate complex networks without special skills, and it readily adapts to different technologies.
- *Expanding the capacity of your AppleTalk network.* You can begin by connecting your Macintosh computers using LocalTalk cables that plug into any Macintosh. Should you require more speed, you can move to an Ethernet or Token Ring network. This will speed printing of documents, delivery of electronic mail, and transfer of large documents and QuickTime video segments. With the addition of the Apple LocalTalk Bridge, you can upgrade your Macintosh computers to a faster network while maintaining LocalTalk network connectivity.  151

LocalTalk networks

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Every Macintosh comes with AppleTalk networking capability, including software and a LocalTalk networking port. A LocalTalk network costs little to install, is easy to maintain, and transmits information with high reliability at 230.4 kilobits per second.

- *LocalTalk Locking Connector Kit—DB-9.* This is used for connecting Macintosh 128K, 512K, and 512K Enhanced computers and original LaserWriter and LaserWriter Plus printers to a LocalTalk network. The kit contains one LocalTalk connector with a DB-9 plug, and two meters of LocalTalk cable.
- *LocalTalk Locking Connector Kit—DIN-8.* This is used for

connecting Apple IIGs, Macintosh Plus, and newer Macintosh computers and LaserWriter printers to a LocalTalk network. The kit contains one LocalTalk connector with a circular 8-pin plug (DIN-8), and two meters of LocalTalk cable.

- *LocalTalk RJ-11 Connector.* This connector comes in two versions, sold separately. It connects any Macintosh computer or LaserWriter printer to a LocalTalk network using unshielded twisted-pair LocalTalk network cable (silver-satin phone cable).

Ethernet networks

Built-in Ethernet connectivity is provided through an Apple Ethernet port in the Macintosh Centris 650, most Macintosh Quadra computers, all Power Macintosh computers and Workgroup Servers, and several LaserWriter printers. Just choose the appropriate Apple Ethernet transceiver to match your cabling system. For all other Macintosh computers, Apple offers several interface cards that enable access to Ethernet networks. Apple also offers the portable, easy-to-install Apple Ethernet 10T/5 Workgroup Hub for creating or extending 10Base-T Ethernet networks. All Apple Ethernet solutions comply with IEEE 802.3 standards, include EtherTalk software, and support a variety of popular networking protocols.

- *Apple Ethernet 10T/5 Workgroup Hub.* This portable, 5-port IEEE 802.3-compliant Ethernet hub allows you to create or extend 10Base-T Ethernet networks quickly and easily. It comes with one Apple AUI Connector and four RJ-45 connectors, and can be used with Apple's Ethernet twisted-pair products. An optional external power adapter is available. Any Macintosh, PowerBook, printer, or Ethernet card with an Apple AUI port can serve as a host to supply power and a network connection.

- *Apple Ethernet Twisted-Pair Transceiver.* This connects all Macintosh computers or Ethernet cards equipped with an Apple Ethernet port to a 10Base-T Ethernet network using industry-standard twisted-pair cable.

- *Apple Ethernet Thin Coax Transceiver.* This connects all Macintosh computers or Ethernet cards equipped with an Apple Ethernet port to Thin Coax Ethernet networks using thin coaxial cable.

- *Apple Ethernet AUI Adapter.* This adapter adds an IEEE 802.3 attachment unit interface (AUI) to any Macintosh computer or Ethernet card equipped with an Apple Ethernet port, and can be used to connect to external transceivers for use with fiber-optic, thick coaxial, and other Ethernet media.
- *Apple Ethernet LC Card.* This card comes with an Apple Ethernet port and connects your Macintosh Color Classic; Macintosh LC, LC II, LC III, LC 475, and LC 520; Macintosh Quadra 605; and most Macintosh Performa computers to any Ethernet network.
- *Apple Ethernet LC Twisted-Pair Card.* This card connects your Macintosh Color Classic; Macintosh LC, LC II, LC III, LC 475, and LC 520; Macintosh Quadra 605; and most Macintosh Performa computers to IEEE 802.3 10Base-T Ethernet networks. It has a built-in RJ-45 connector, which allows you to connect directly to a 10Base-T hub. No transceiver required.
- *Apple Ethernet LC Thin Coax Connection.* This comes with an Apple Ethernet LC Card and a Thin Coax Transceiver in one convenient package and connects your Macintosh Color Classic; Macintosh LC, LC II, LC III, LC 475, and LC 520; Macintosh Quadra 605; and most Macintosh Performa computers to a Thin Coax Ethernet network.
- *Apple Ethernet NB Card.* This card lets you connect any Macintosh II or the Macintosh Centris 610 computer to IEEE 802.3 Ethernet networks. It comes with an Apple AUI port for maximum flexibility. You can choose the appropriate Ethernet transceiver to match your cabling system, or use the card as a host to the Apple Ethernet 10T/5 Workgroup Hub.
- *Apple Ethernet NB Twisted-Pair Card.* This card allows you to connect any Macintosh II or the Macintosh Centris 610 computer to IEEE 802.3 10Base-T Ethernet networks. It has a built-in RJ-45 connector, which allows you to connect directly to an industry-standard 10Base-T hub. No transceiver required.
- *Apple Ethernet NB Thin Coax Connection.* This comes with an Apple Ethernet NB Card and a Thin Coax Transceiver, and connects any computer with a NuBus slot—including the Macintosh II, Macintosh Centris, Macintosh Quadra, and Power Macintosh computers—to a Thin Coax Ethernet network.

- *Apple Ethernet CS Twisted-Pair Card.* This card works with all Macintosh models that have a communications slot, such as the Macintosh LC 575 and LC 630, the Macintosh Quadra 630, and the Macintosh Performa 630 series. It has a built-in RJ-45 connector, which allows you to connect directly to an IEEE 802.3 10Base-T hub. No transceiver required.
- *Apple Ethernet CS Thin Coax Card.* This card works with all Macintosh models that have a communications slot. It has a built-in BNC connector, which allows you to connect to IEEE 802.3 thin coax networks using thin coaxial cable. No transceiver required.
- *Apple Ethernet CS AAUI Card.* This card comes with an Apple Ethernet port and works with all Macintosh models that have a communications slot. It can also serve as a host connection to the Apple Ethernet 10T/5 Workgroup Hub.

Token Ring networks

Token Ring networks often serve a mixture of personal computers, minicomputers, and mainframes. Software drivers and hardware for Token Ring networks are available for Macintosh II, Macintosh Centris, Macintosh Quadra, and Power Macintosh computers, as well as for the Workgroup Server.

- *Apple Token Ring 4/16 NB Card.* This card connects any Macintosh computer with a full-size NuBus slot to an IEEE 802.5 Token Ring network at either 4 or 16 megabits per second, and is the ideal card for implementing gateway solutions.
- *Apple Token Ring NB/c Card.* This compact card connects any Macintosh computer with NuBus slots to an IEEE 802.5 Token Ring network at either 4 or 16 megabits per second.

★ **Integrating LocalTalk with other networks**

- *Apple LocalTalk Bridge software.* This product enables you to extend the networking reach of your current system by bridging your LocalTalk network to Ethernet or Token Ring networks. You can gain access to shared resources on the Ethernet or Token Ring network, such as file servers, electronic mail, or mainframe systems, while maintaining a seamless connection to LocalTalk-based systems and LaserWriter printers.

Network Services Software

Apple Remote Access

Apple Remote Access lets you use a modem and telephone lines to connect a remote Macintosh or PowerBook computer to another Macintosh computer or to an entire AppleTalk network. The Apple Remote Access product family provides an easy-to-use, cost-effective, and secure solution for an entire range of Macintosh users—from individuals to workgroups to large organizations. These products include:

- *Apple Remote Access Personal Server.* Ideal for individuals or small organizations, this product provides remote access to a single Macintosh computer or an entire AppleTalk network over a single telephone line. It offers enhanced ease of use, productivity features, and security options, and includes Remote Access Client for Macintosh software.
- *Apple Remote Access Client for Macintosh.* This allows you to connect to any Apple Remote Access-compatible server, so your server's capabilities can expand as your needs grow. When used with the single-line Personal Server, it can support up to 10 regular users or up to 20 infrequent users—and the multiline MultiPort Server software can support as many as 200 users.
- *Apple Remote Access MultiPort Server.* This offers remote AppleTalk network access for large numbers of mobile professionals. When used in conjunction with Remote Access Client software and the appropriate hardware, this software converts a single Macintosh into a server that can support 4 simultaneous connections. And, when combined with one or more Apple Remote Access MultiPort Server 4-Port Expansion Kits, your server can support up to 16 simultaneous connections.
- *Apple Remote Access MultiPort Server 4-Port Expansion Kit.* Expand your Apple Remote Access MultiPort Server with the

Apple Remote Access MultiPort Server 4-Port Expansion Kit and get 4 more simultaneous connections with each expansion kit.

- *Apple Remote Access MultiPort X.25 Extension.* This gives you the ability to connect Apple Remote Access clients to an Apple Remote Access MultiPort Server through public or private networks, taking advantage of the communications cost savings that X.25 offers (requires MacX25).

★ **Apple RAID**

Apple RAID Software version 1.0.1 provides RAID (Redundant Array of Independent Disks) technology to Apple's PowerPC processor-based Workgroup Servers, allowing them to offer better data reliability and greater performance. It supports two of the six primary levels of currently defined RAID technology: Levels 1 and 0, disk mirroring and striping, respectively.

- *Apple RAID Level 1: Mirroring.* Mirroring is a data-reliability technology that involves the simultaneous writing of data to two disks. If either disk fails, users can access data from the surviving disk. Mirroring is particularly useful for situations in which downtime resulting from a disk failure is not acceptable.

- *Apple RAID Level 0: Striping.* Striping enables the server to store successive units of data across multiple hard disks. This allows a collection of smaller disks to store larger amounts of data. The data is stored in parallel on several disks, which can potentially yield increased performance for applications that are optimized to take advantage of this feature.

AppleShare

AppleShare software provides a range of file-, print-, and application-sharing capabilities to users of Macintosh, DOS, and Windows software-based computers connected to an AppleTalk network. It enhances collaboration on cross-platform networks by enabling users to work in the operating system environment with which they are most familiar—whether it's the Mac OS or Windows 3.1. The software includes a number of features that enable network managers to control centralized applications, data files, and printers effectively. It provides a variety of security features—such as launch-count limits on applications, minimum password length,

password aging, automatic disconnect after a specified number of unsuccessful log-in attempts, and network administrator-controlled log-off capabilities.

AppleShare 3 runs on any 68030-based Macintosh or earlier computer and supports up to 120 concurrent users. AppleShare 4.0.2 is two to three times faster than AppleShare 3 and supports up to 150 users simultaneously connected to the server (it runs on 68040-based Macintosh computers). AppleShare 4.1, which offers significant performance improvements over the previous version (4.0.2), comes with selected PowerPC processor-based Workgroup Servers. AppleShare Pro runs on the Workgroup Server 95 with Apple's A/UX operating system, for up to four times the performance capability of AppleShare 3.

AppleSearch

AppleSearch information access and retrieval software provides an easy-to-use, powerful way for users of Macintosh or Windows 3.1 software-based computers (on an AppleTalk network) to find text-based information within documents stored on file servers—whether they're local servers in your office or remote WAIS servers connected to the Internet. AppleSearch lets users conduct concurrent, personalized searches on a server, and ranks the found documents in order of relevance. User-defined search criteria, called "reporters," track topics of interest—including on-line news feeds—and automatically formatted updates. Users can quickly find information on topics they specify, or they can let AppleSearch act as a personal agent that periodically provides updated information. AppleSearch processes natural-language queries, so users can ask for information in their own words.

- *AppleSearch server software.* Maintains a feature-rich search engine that processes the queries of AppleSearch client users.
- *AppleSearch client software.* Provides electronic reporters and newspaper-like updates as an intuitive way to retrieve information from the server. Lets users work in the operating system environment with which they are most familiar—whether it's the Mac OS or Windows 3.1.
- *AppleSearch Client Developer Kit.* Includes basic software for developers who want to write custom client interfaces to the

AppleSearch server or to integrate AppleSearch functionality into other applications.

PowerShare Collaboration Servers

With PowerShare Collaboration Server software, network administrators can centralize PowerTalk services (built into Macintosh System 7.5) for workgroup access. PowerShare provides mail and catalog server capabilities optimized for group use, and includes an additional level of network security.

- *Server-based mail.* PowerShare stores all messages on a remote server, rather than on each user's computer. This makes it easy for network administrators to monitor disk allocation and use, and frees space on users' hard disks. PowerShare also enables retrieval of mail when using someone else's computer, and permits those sharing a computer to have private mailboxes.

- *Shared catalogs.* With PowerShare, a single administrator handles everything—there's no need for individual users to maintain personal address books separately. Centralizing catalog administration makes your communications system more reliable—and makes users more productive.

- *Enhanced network security.* PowerShare keeps communications confidential by encrypting messages as they move along the network.

- *Easy installation and management.* An Easy Setup utility allows the administrator to configure servers in a matter of minutes—just give the system a name and password, and Easy Setup takes care of the rest. All that's left is to add users. Subsequent server administration is performed using a remote administration program, allowing the network administrator to manage servers from any Macintosh computer on the network.

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MacSNMP

MacSNMP is Apple's implementation of the industry-standard network management protocol. It allows easy management of Macintosh computers on a network using a variety of available third-party consoles. MacSNMP is supplied with all of the Connection for Macintosh products, including AppleTalk Connection for Macintosh and TCP/IP Connection for Macintosh.

Apple Internet Router

The Apple Internet Router implements the AppleTalk Update-based Routing Protocol (AURP), to substantially reduce network traffic over wide area networks (WANs) and to maximize use of network resources. It supports LocalTalk, Ethernet, and Token Ring connection, with wide-area linkage via dial-up modems, X.25, or TCP/IP.

- *Basic Connectivity Package.* Routes AppleTalk over local area networks (LANs) and dial-up modem connections.
- *AppleTalk/X.25 Wide Area Extension.* Routes AppleTalk over X.25 WANs.
- *AppleTalk/IP Wide Area Extension.* Routes AppleTalk over an IP internet via IP tunneling.

The Apple IP Gateway

- *Outstanding information access.* Lets mobile, remote, and local AppleTalk network users access Ethernet-based TCP/IP services, such as the Internet—even if the user's AppleTalk network does not directly support IP. Also provides access to Ethernet-based TCP/IP services such as SMTP-based electronic mail, Telnet, FTP, and NFS on UNIX hosts.
- *Flexible configuration.* In conjunction with the Apple Internet Router software, the Apple IP Gateway provides IP access to any Macintosh computer that is part of the router's internet. When used in conjunction with an Apple Remote Access server, it provides access to remote or mobile users. Can be used as a stand-alone product, and can be installed on a wide range of Macintosh computers and Workgroup Servers, including those based on PowerPC technology.
- *Ease of setup, use, and administration.* Installs in minutes. Lets users transparently access TCP/IP and Internet resources. Allows a single MacTCP configuration for all IP users, eliminating the need for individual IP addresses. Simplifies the maintenance of Internet firewalls; only one Ethernet address need be updated. Enables administrators to monitor gateway activity visually.
- *Increased security.* Dynamic address assignment reduces the chance of entry from external networks. IP access can be restricted to specific AppleTalk networks.

With the Apple IP Gateway, Macintosh users with Apple Remote Access, LocalTalk, or any other AppleTalk network connection can connect easily to an Ethernet-based TCP/IP network to use the full range of Internet Protocol (IP) services—including the vast array of Internet services such as Telnet, File Transfer Protocol (FTP), Gopher, World Wide Web, and Wide Area Information Servers (WAIS).

Acting as a translator between AppleTalk and TCP/IP networks, the Apple IP Gateway allows data to move between them easily and transparently. As a stand-alone product, it allows Macintosh computers connected on an AppleTalk network to connect to an IP network and access any of its services. In conjunction with the Apple Internet Router software, Apple IP Gateway software provides IP access to any Macintosh computer on any AppleTalk network that is part of the router's network. And with an Apple Remote Access Personal or MultiPort Server, it provides Apple Remote Access clients with remote access to IP and AppleTalk services—just as if there was a local connection.

Administration is simple. Dynamic addressing allows network administrators to use a single MacTCP configuration for all IP users. The Apple IP Gateway automatically assigns new IP addresses whenever workgroup members change location, providing continuous access for PowerBook users whether they're in the office, at home, or on the road. And users don't have to change MacTCP settings as they move between IP subnets. In addition, the Apple IP Gateway makes it easier for administrators to control access through Internet firewalls. Firewall administrators don't have to continually add and delete user-specific IP addresses as a network grows; the single Ethernet address of the Apple IP Gateway provides access for all approved users.

To keep the network secure, the IP Gateway allows network administrators to restrict IP access to specific AppleTalk networks. This gives administrators tight control and allows them to track service use easily. The gateway also enables the monitoring of network activity and errors, keeping administrators up to date on network status. The Apple IP Gateway even has built-in support for the Simple Network Management Protocol (SNMP) so it can be easily monitored by any SNMP-based management station.

Multivendor Connectivity Software

Connecting to mainframe database servers using Data Access Language (DAL)

Data Access Language (DAL) lets users easily access information that resides on UNIX servers, minicomputers, or mainframes. DAL allows users to access a wide variety of relational databases, including Ingres, Informix/SQL, ORACLE, Sybase, Rdb/VMS, SQL/DS, and DB/2, on VAX and IBM computers.

DAL Servers are networking software products that provide DAL access to files and databases running on a variety of host systems. DAL for AS/400, for example, allows users to get at data stored on IBM AS/400 machines—and use the intuitive Macintosh user interface.

Connecting to IBM environments using SNA•ps

SNA•ps (Systems Network Architecture protocols and services) 3270 is a full-function 3270 terminal emulation program that enables Macintosh computers to communicate with IBM mainframes. SNA•ps 5250 is a full-function 5250 display terminal emulation program that enables Macintosh personal computers to communicate with IBM AS/400 midrange computer systems. SNA•ps products provide file-transfer and 3287 printer emulation capabilities for Macintosh computers over a LAN.


Connecting to DEC environments using Digital PATHWORKS

Digital PATHWORKS for Macintosh allows Macintosh users to access data residing on Digital VAX/VMS minicomputers, from the desktop—as if those systems were simply another node on an AppleTalk network.

Connecting to X Window environments using MacX

MacX is an X Window System display server for the Mac OS. The server allows users in multivendor environments to run a variety of network-based X client applications on the same Macintosh desktop.

Connecting to TCP/IP networks using TCP/IP Connection for Macintosh

TCP/IP Connection for Macintosh provides the software to connect a Macintosh computer to a TCP/IP network and to allow the Macintosh to be managed from a console using the Simple Network Management Protocol (SNMP). The product includes a TCP/IP protocol stack implementation (MacTCP); SNMP network management software (MacSNMP)  155; datalink drivers for LocalTalk, Ethernet, and Token Ring; a Domain Name Resolver; support for host files; and a ping text application (MacTCP Ping).

TCP/IP Administration for Macintosh is a companion product that includes additional documentation and software (MacSNMP Admin) for configuring and administering end-user systems with TCP/IP Connection installed.

MacX25 software

MacX25 software links Macintosh computers to packet-switched data networks (PSDNs) supporting CCITT Recommendation X.25. Access to host computers and end-user services on the PSDN is then distributed from the server to Macintosh computers over the AppleTalk network system. MacX25 supports AppleTalk routing over X.25 when used with the Apple Internet Router, and it supports standard messaging when used with MacX.400 software.

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MacX.400 software

MacX.400 software turns the Macintosh computer into an X.400 server that supports the OSI messaging standards over OSI and TCP/IP networks. With MacX.400, you can send electronic mail from a Macintosh to users connected to X.400 networks—even if they're on different platforms. And if you use MacX.400 on a WAN with MacX25, you can exchange mail with remote sites over X.25 networks.

MacX.400 SD software

MacX.400 SD (single domain) software is the more affordable version of MacX.400 for small and medium-size businesses. With MacX.400 SD, your computer is connected to a single adjacent Message Transfer Agent (MTA), making it very easy to exchange electronic mail with users who work on different computer platforms.

AppleTalk Connection for Macintosh software

AppleTalk Connection for Macintosh software provides the most current version of AppleTalk networking software and Apple's implementation of the industry-standard SNMP network management protocol.  155 The AppleTalk transport stack includes the latest software drivers for LocalTalk, Ethernet, and Token Ring.

AppleTalk Administration for Macintosh is a companion product that includes additional documentation and software (MacSNMP Admin) for configuring and administering end-user systems with AppleTalk Connection installed.

QuickCharts

Desktop & Portable Computers QuickChart

Model	Processor	Memory	Storage	Key features
Macintosh LC 475	50/25-MHz 68LC040 with integrated PMMU, 8K memory cache	4MB or 8MB–36MB	160MB or 250MB	Most affordable modular 68040-based Macintosh; PowerPC upgrade capability; Energy Star compliant
★ Macintosh LC 580	66/33-MHz 68LC040 with 32-bit data bus	8MB–52MB	500MB; CD-ROM drive ¹	All-in-one multimedia Macintosh; PowerPC upgrade capability; Energy Star compliant
Macintosh LC 630	66/33-MHz 68LC040 with integrated PMMU, 8K memory cache	4MB or 8MB–36MB	250MB or 350MB; one half-height 5.25-inch peripheral	Unique multimedia expansion options; PowerPC upgrade capability; Energy Star compliant
★ Macintosh LC 630 DOS Compatible	66/33-MHz 68LC040; 66-MHz 486DX2 with 32-bit data bus	8MB–52MB (Mac OS); 4MB–32MB (DOS Compatibility Card)	500MB; CD-ROM drive	Hardware-level MS-DOS 6.2 and Windows 3.1 compatibility; unique multimedia expansion options
Macintosh Quadra 630	66/33-MHz 68040 with integrated math coprocessor, PMMU, 8K memory cache	4MB or 8MB–36MB	250MB; one half-height 5.25-inch peripheral	Unique multimedia expansion options; PowerPC upgrade capability; Energy Star compliant
Macintosh Quadra 950	66/33-MHz 68040 with integrated math coprocessor, PMMU, 8K memory cache	8MB–256MB	230MB, 500MB, or 1GB ¹ ; three half-height 5.25-inch peripherals	Most expandable Macintosh system; PowerPC upgrade capability; Energy Star compliant

★ Macintosh Performa 580	66/33-MHz 68LC040 with 32-bit data bus	5MB or 8MB–52MB	250MB or 500MB; CD-ROM drive ¹	All-in-one multimedia Macintosh; PowerPC upgrade capability; Energy Star compliant
Macintosh Performa 630 series	66/33-MHz 68LC040	5MB or 8MB–36MB	250MB or 350MB; CD-ROM drive ¹	Display, keyboard, software, and mouse included; unique multimedia expansion options; PowerPC upgrade capability; Energy Star compliant
★ Macintosh Performa 630 DOS Compatible	66/33-MHz 68LC040; 66-MHz 486DX2 with 32-bit data bus	8MB–52MB (Mac OS); 4MB–32MB (DOS Compatibility Card)	500MB; CD-ROM drive	Hardware-level MS-DOS 6.2 and Windows 3.1 compatibility; unique multimedia expansion options
★ Macintosh Performa 5200CD	75-MHz PowerPC 603 with integrated math coprocessor, 16K on-chip cache; 256K level 2 cache	8MB–64MB	500MB; CD-ROM drive	PowerPC performance in an innovative all-in-one design; unique multimedia expansion options; Energy Star compliant
Macintosh Performa 6100 series	60-MHz PowerPC 601 with integrated math coprocessor, 32K on-chip cache	8MB–72MB	250MB, 350MB, or 500MB; CD-ROM drive ¹	High performance; PowerPC processor; display, keyboard, software, and mouse included; Energy Star compliant
★ Macintosh Performa 6200CD	75-MHz PowerPC 603 with integrated math coprocessor, 16K on-chip cache; 256K level 2 cache	8MB–64MB	500MB; CD-ROM drive	PowerPC performance in a flexible modular design; unique multimedia expansion options

¹ Optional

★ New model—introduced after October 1, 1994

Desktop & Portable Computers QuickChart

Model	Processor	Memory	Storage	Key features	(continued)
★ Power Macintosh 5200/75 LC	75-MHz PowerPC 603 with integrated math coprocessor, 16K on-chip cache; 256K level 2 cache	8MB–64MB	500MB; CD-ROM drive	PowerPC performance in an innovative all-in-one design; unique multimedia expansion options; Energy Star compliant	
★ Power Macintosh 6100/66	66-MHz PowerPC 601 with integrated math coprocessor, 32K on-chip cache; 256K level 2 cache	8MB or 16MB–72MB	350MB or 500MB; one half-height 5.25-inch peripheral	Most affordable Power Macintosh computer; Ethernet capability	
★ Power Macintosh 6100/66 DOS Compatible	66-MHz PowerPC 601; 66-MHz 486DX2 with 32-bit data bus	8MB or 16MB–72MB (Mac OS); 0MB–32MB (DOS Compatibility Card)	500MB; one half-height 5.25-inch peripheral	Hardware-level MS-DOS 6.2 and Windows 3.1 compatibility; PowerPC performance	
★ Power Macintosh 6200/75	75-MHz PowerPC 603 with integrated math coprocessor, 16K on-chip cache; 256K level 2 cache	8MB–64MB	500MB; CD-ROM drive	High performance; PowerPC processor; unique multimedia expansion options	
★ Power Macintosh 7100/80	80-MHz PowerPC 601 with math coprocessor, 32K on-chip cache; 256K level 2 cache	8MB or 16MB–136MB	500MB or 700MB; one half-height 5.25-inch peripheral	More memory and expansion options; faster performance; Ethernet capability; Energy Star compliant	

★ Power Macintosh 8100/100 and 8100/110	100-MHz or 110-MHz PowerPC 601 with integrated math coprocessor, 32K on-chip cache, 256K level 2 cache	8MB or 16MB–264MB	700MB, 1GB, or 2GB; two 3.5-inch peripherals and one half-height 5.25-inch peripheral	Most powerful Power Macintosh computers; Ethernet capability; Energy Star compliant; dual SCSI buses
PowerBook 150	33-MHz 68030	4MB–40MB	250MB	Most affordable PowerBook notebook computer; Energy Star compliant
PowerBook 520	50/25-MHz 68LC040	4MB–36MB	240MB	FSTN display; Apple trackpad; Ethernet capability; supports PCMCIA; Energy Star compliant; PowerPC upgrade capability
PowerBook 520c	50/25-MHz 68LC040	4MB–36MB	240MB or 320MB	Dual-scan 256-color display; supports PCMCIA; PowerPC upgrade capability; Energy Star compliant
PowerBook 540c	66/33-MHz 68LC040	4MB–36MB	320MB or 500MB	Active-matrix 256-color display; can support thousands of colors; supports PCMCIA; PowerPC upgrade capability; Energy Star compliant
PowerBook Duo 280c	66/33-MHz 68LC040	4MB–40MB	320MB	Active-matrix color display; can support thousands of colors; PowerPC upgrade capability; Energy Star compliant
★ PowerBook Duo Dock Plus	—	1MB of VRAM	One 3.5-inch peripheral	Built-in Ethernet capability

¹ Optional

★ New model—introduced after October 1, 1994

Upgrades QuickChart

If you currently have this...	You can upgrade to this...	By purchasing this...
Macintosh LC 475	PowerPC processor	See Apple dealer
Macintosh LC 550	PowerPC processor	See Apple dealer
Macintosh LC 575	PowerPC processor	See Apple dealer
★ Macintosh LC 580	PowerPC processor	See Apple dealer
Macintosh LC 630	PowerPC processor	Macintosh Processor Upgrade Card
★ Macintosh Performa 580	PowerPC processor	See Apple dealer
Macintosh Performa 630 series	PowerPC processor	Power Macintosh Processor Upgrade
Macintosh Ilvi	Power Macintosh 7100/66	Power Macintosh 7100/66 Logic Board Upgrade
Macintosh Ilvx	Macintosh Quadra 650	Macintosh Quadra 650 Logic Board Upgrade
	Power Macintosh 7100/66	Power Macintosh 7100/66 Logic Board Upgrade Power Macintosh 7100/66Av Logic Board Upgrade

Macintosh Centris 610	PowerPC processor	Power Macintosh Upgrade Card
Macintosh Quadra 610	Power Macintosh 6100/60	Power Macintosh 6100/60 Logic Board Upgrade
Macintosh Quadra 630	PowerPC processor	Macintosh Processor Upgrade
Macintosh Centris 650	Power Macintosh 7100/66	Power Macintosh 7100/66 Logic Board Upgrade
Macintosh Quadra 650		Power Macintosh 7100/66av Logic Board Upgrade
Macintosh Performa 600 series		
	PowerPC processor	Power Macintosh Upgrade Card
Macintosh Centris 660av	Power Macintosh 6100/60	Power Macintosh 6100/60 Logic Board Upgrade
Macintosh Quadra 660av		Power Macintosh 6100/60av Logic Board Upgrade
Macintosh Quadra 700	PowerPC processor	Power Macintosh Upgrade Card
Macintosh Quadra 800	Power Macintosh 8100/80	Power Macintosh 8100/80 Logic Board Upgrade
Macintosh Quadra 840av		Power Macintosh 8100/80av Logic Board Upgrade
Macintosh Quadra 900	PowerPC processor	Power Macintosh Upgrade Card
Macintosh Quadra 950	PowerPC processor	Power Macintosh Upgrade Card
PowerBook 520, 520c, 540	Color active-matrix display	PowerBook Active-Matrix Color Display Upgrade

★ New model—introduced after October 1, 1994.

Memory Configurations QuickChart

Model	Minimum configuration		Amount of memory (RAM) you want...	And how to get it...
	Built-in RAM on logic board	Number of SIMM and card slots		
Macintosh LC 475	4MB	One empty SIMM slot	4MB configuration	= 4MB on logic board
Macintosh LC 630			5MB configuration	= 4MB on logic board + one 1MB SIMM
Macintosh Quadra 630			6MB configuration	= 4MB on logic board + one 2MB SIMM
Macintosh Performa 630 series			8MB configuration	= 4MB on logic board + one 4MB SIMM
			12MB configuration	= 4MB on logic board + one 8MB SIMM
	20MB configuration ⁴	= 4MB on logic board + one 16MB SIMM		
		36MB configuration ⁴	= 4MB on logic board + one 32MB SIMM	
★ Macintosh LC 580	4MB	One SIMM slot filled with a 1MB or 4MB SIMM, and one empty SIMM slot	5MB configuration	= 4MB on logic board + one 1MB SIMM
★ Macintosh Performa 580 ¹			8MB configuration	= 4MB on logic board + one 4MB SIMM
			52MB configuration	= 4MB on logic board + one 16MB SIMM + one 32MB SIMM
★ Macintosh LC 630	4MB	One SIMM slot filled with a 4MB SIMM, and one empty SIMM slot	8MB configuration	= 4MB on logic board + one 4MB SIMM
DOS Compatible ^{1,2}			12MB configuration	= 4MB on logic board + two 4MB SIMMs
★ Macintosh Performa 630			52MB configuration	= 4MB on logic board + one 16MB SIMM + one 32MB SIMM
DOS Compatible ^{1,2}				
Macintosh Quadra 950	None	Eight SIMM slots filled with 1MB SIMMs, and eight empty SIMM slots	8MB configuration	= Eight 1MB SIMMs
			40MB configuration	= Eight 1MB SIMMs + eight 4MB SIMMs
			72MB configuration	= Eight 1MB SIMMs + eight 8MB SIMMs
			256MB configuration ³	= Eight 16MB SIMMs + eight 16MB SIMMs

★ Macintosh Performa 5200CD and 6200CD	None	One SIMM slot filled with an 8MB SIMM, and one empty SIMM slot	8MB configuration 16MB configuration 32MB configuration 64MB configuration	= One 8MB SIMM = One 8MB SIMM + one 8MB SIMM = One 16MB SIMM + one 16MB SIMM = One 32MB SIMM + one 32MB SIMM
Macintosh Performa 6100 series	8MB	Two empty SIMM slots	8MB configuration 16MB configuration 24MB configuration 40MB configuration 72MB configuration	= 8MB on logic board = 8MB on logic board + two 4MB SIMMs = 8MB on logic board + two 8MB SIMMs = 8MB on logic board + two 16MB SIMMs = 8MB on logic board + two 32MB SIMMs
★ Power Macintosh 6100/66				
★ Power Macintosh 6100/66 DOS Compatible²				
★ Power Macintosh 7100/80	8MB	Four empty SIMM slots	8MB configuration 24MB configuration 40MB configuration 72MB configuration 136MB configuration	= 8MB on logic board = 8MB on logic board + four 4MB SIMMs = 8MB on logic board + four 8MB SIMMs = 8MB on logic board + four 16MB SIMMs = 8MB on logic board + four 32MB SIMMs
★ Power Macintosh 8100/100 and 8100/110	8MB	Eight empty SIMM slots	8MB configuration 40MB configuration 72MB configuration 136MB configuration 264MB configuration	= 8MB on logic board = 8MB on logic board + eight 4MB SIMMs = 8MB on logic board + eight 8MB SIMMs = 8MB on logic board + eight 16MB SIMMs = 8MB on logic board + eight 32MB SIMMs

¹ These computers can be configured in a variety of ways, using 1MB, 4MB, 8MB, 12MB, 16MB, and 32MB SIMMs. It is not necessary to have equal amounts of memory in the two SIMM slots. Maximum amount for one slot is 16MB; for the other, 32MB.

² The DOS Compatible models also come with a single, Macintosh-compatible 72-pin SIMM slot for up to 32MB of local RAM on the DOS Compatibility Card. A 4MB SIMM has been installed in this slot at the factory for the Macintosh LC 630 DOS Compatible and the Macintosh Performa 630 DOS Compatible.

³ For 256MB, install 16 noncomposite 16MB DRAM SIMMs (16-megabyte technology).

⁴ Requires third-party product.

★ New model—introduced after October 1, 1994.

Memory Configurations QuickChart

(continued)

Minimum configuration

Model	Built-in RAM on logic board	Number of SIMM and card slots	Amount of memory (RAM) you want...	And how to get it...
PowerBook 150	4MB	One memory expansion slot	4MB configuration 8MB configuration 12MB configuration 24MB configuration ⁴ 40MB configuration ⁴	= 4MB on logic board = 4MB on logic board + 4MB memory card = 4MB on logic board + 8MB memory card = 4MB on logic board + 20MB memory card = 4MB on logic board + 36MB memory card
PowerBook 520 PowerBook 520c PowerBook 540c	4MB	One memory expansion slot	4MB configuration 6MB configuration 8MB configuration 14MB configuration ⁴ 36MB configuration ⁴	= 4MB on logic board = 4MB on logic board + 2MB memory card = 4MB on logic board + 4MB memory card = 4MB on logic board + 10MB memory card = 4MB on logic board + 32MB memory card

PowerBook Duo 280c

4MB

One memory
expansion slot

4MB configuration	= 4MB on logic board
8MB configuration	= 4MB on logic board + 4MB memory card
12MB configuration	= 4MB on logic board + 8MB memory card
24MB configuration ⁴	= 4MB on logic board + 20MB memory card
40MB configuration ⁴	= 4MB on logic board + 36MB memory card

⁴ Requires third-party product.

Apple Printers QuickChart

Model	Resolution (dots per inch)	Printing speed (pages per minute)	Recommended number of users	Fonts	Key features
ImageWriter II	144 dpi	.5 ppm (best mode) 2 ppm (draft mode)	1 user	Built-in character sets for many languages	Prints on forms; color printing capability; Energy Star compliant
StyleWriter 1200	720 by 360 dpi (black & white); 360 dpi (gray scale)	3 ppm (black & white mode) 2 ppm (normal mode)	1-3 users with GrayShare	64 TrueType fonts	High-resolution ink-jet printing; GrayShare software; Energy Star compliant
Portable StyleWriter	360 dpi	.5 ppm (best mode) 1 ppm (draft mode)	1 user	39 TrueType fonts	Portable; battery-operation mode; perfect for PowerBook computers; Energy Star compliant
Color StyleWriter Pro Color StyleWriter 2400	360 dpi	2 ppm (gray scale—Color StyleWriter Pro) .5 ppm (color—Color StyleWriter Pro) 3 ppm (gray scale—Color StyleWriter 2400) .3 ppm (color—Color StyleWriter 2400)	1-3 users with ColorShare	64 TrueType fonts	Superior-quality color ink-jet printing; low cost per page; ColorShare software; Energy Star compliant
Personal LaserWriter 300	300 dpi	4 ppm	1-3 users with GrayShare	39 TrueType fonts	Most affordable laser printer; Energy Star compliant; GrayShare software

Personal LaserWriter 320	300 dpi FinePrint	4 ppm	1-3 users with GrayShare	39 TrueType and PostScript fonts	Most affordable PostScript printer; PhotoGrade option; Energy Star compliant
LaserWriter Select 360	600 dpi	10 ppm	2-6 users	64 TrueType and PostScript fonts	Can send, receive, and print plain-paper faxes with fax card option; autoemulation switching between Macintosh and Windows systems; Energy Star compliant
LaserWriter 16/600 PS	600 dpi FinePrint PhotoGrade ¹	16 ppm (A4); 17 ppm (letter)	7-10 users	64 TrueType and PostScript fonts	Ethernet-support; SCSI ports support hard disks for font storage; supports Macintosh and Windows systems; Energy Star compliant

¹ Requires minimum 12MB of RAM.

Video Support QuickChart

Model and Video RAM	Apple Color Plus 14" Display	Macintosh Color Display (14-inch)	Apple AudioVision 14 Display	Apple Multiple Scan 15 Display	Apple Multiple Scan 17 Display	Apple Multiple Scan 20 Display
Macintosh LC 475						
Built-in video (512K)	256 colors	256 colors	256 colors	256 colors	256 colors	16 colors
Expanded to 1MB	32,768 colors	32,768 colors	32,768 colors	32,768 colors	32,768 colors	256 colors
★ Macintosh LC 580						
Built-in video (1MB)	32,768 colors	32,768 colors	32,768 colors	32,768 colors	—	—
★ Macintosh LC 630 and Macintosh Quadra 630						
Built-in video (1MB)	32,768 colors	32,768 colors	32,768 colors	32,768 colors	—	—
★ Macintosh LC 630 DOS Compatible¹						
Built-in video (1MB)	32,768 colors	32,768 colors	32,768 colors	32,768 colors	256 colors	—
Macintosh Quadra 950						
Built-in video (1MB)	32,768 colors	32,768 colors	32,768 colors	32,768 colors	32,768 colors	256 colors
Expanded to 2MB	16.7 million colors	16.7 million colors	16.7 million colors	16.7 million colors	16.7 million colors	32,768 colors

★ **Power Macintosh 5200/75 LC**

Built-in video (1MB)	32,768 colors	32,768 colors	32,768 colors	32,768 colors	—	—
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★ **Power Macintosh 6100/66 and 6100/66 DOS Compatible¹**

Built-in video (DRAM)	32,768 colors	32,768 colors	32,768 colors	32,768 colors	256 colors	—
Expanded to 2MB (Standard in Apple AV Technologies configuration)	16.7 million colors	16.7 million colors	16.7 million colors	16.7 million colors	32,768 colors	32,768 colors

★ **Power Macintosh 6200/75**

Built-in video (1MB)	32,768 colors	32,768 colors	32,768 colors	32,768 colors	—	—
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★ **Power Macintosh 7100/80**

Built-in video (1MB)	32,768 colors	32,768 colors	32,768 colors	32,768 colors	32,768 colors	256 colors
Expanded to 2MB (Standard in Apple AV Technologies configuration)	16.7 million colors	16.7 million colors	16.7 million colors	16.7 million colors	16.7 million colors	32,768 colors

★ **Power Macintosh 8100/100 and 8100/110**

Built-in video (2MB)	16.7 million colors	16.7 million colors	16.7 million colors	16.7 million colors	16.7 million colors	32,768 colors
Expanded to 4MB	16.7 million colors	16.7 million colors	16.7 million colors	16.7 million colors	16.7 million colors	16.7 million colors

¹ 512K video RAM included for MS-DOS 6.2 and Windows 3.1 environments.

★ New model—introduced after October 1, 1994.

Display resolution

Model
and
Video RAM

640 by 480
pixels

832 by 624
pixels

1,024 by 768
pixels

1,152 by 870
pixels

★ Power Macintosh 6100/66 and 6100/66 DOS Compatible

Built-in video (DRAM)	32,768 colors	256 colors	—	—
Expanded to 2MB (Standard in Apple AV Technologies configuration)	16.7 million colors	16.7 million colors	32,768 colors	32,768 colors

★ Power Macintosh 7100/80

Built-in video (1MB)	32,768 colors	32,768 colors	256 colors	256 colors
Expanded to 2MB (Standard in Apple AV Technologies configuration)	16.7 million colors	16.7 million colors	32,768 colors	32,768 colors

★ Power Macintosh 8100/100 and 8100/110

Built-in video (2MB)	16.7 million colors	16.7 million colors	32,768 colors	32,768 colors
Expanded to 4MB	16.7 million colors	16.7 million colors	16.7 million colors	16.7 million colors

² With PowerBook Duo Dock Plus only.

★ New model—introduced after October 1, 1994.

Apple Displays QuickChart

Model	Screen size	Screen refresh rate	Resolution	Dimensions (HWD) and weight	Key features
Apple Color Plus 14" Display	14-inch (diagonal); 11.9-inch diagonal viewable image size; RGB	67 hertz	640 by 480 pixels; 76 dots per inch	14.2 by 14.2 by 16.0 in.; 26.0 lb.	Most affordable color display; Energy Star compliant (requires additional software)
Macintosh Color Display	14-inch (diagonal); 11.5-inch diagonal viewable image size; Sony Trinitron tube	67 hertz	640 by 480 pixels; 70 dots per inch	13.0 by 13.4 by 14.0 in.; 25.0 lb.	Provides both color and gray-scale capabilities; Energy Star compliant (requires additional software)
Apple AudioVision 14 Display	14-inch (diagonal); Sony Trinitron tube	66.7 hertz	640 by 480 pixels; 70 dots per inch	13.0 by 13.4 by 14.0 in.; 25.0 lb.	Built-in stereo speakers and microphone; Energy Star compliant
Apple Multiple Scan 15 Display	15-inch (diagonal); 13.5-inch diagonal viewable image size; flat, square screen	67–75 hertz (varies by resolution)	Selectable from 640 by 480 pixels to 832 by 624 pixels ¹	16.7 by 15.9 by 17.8 in. ² ; 31.0 lb.	Multiple-scan technology for user-adjustable resolution settings; works with Macintosh and Windows software-based computers; Energy Star compliant

Apple Multiple Scan 17 Display	17-inch (diagonal); 16.1-inch diagonal viewable image size; Sony Trinitron tube	67–75 hertz (varies by resolution)	Selectable from 640 by 480 pixels to 1,024 by 768 pixels ¹	16.7 by 15.9 by 17.8 in.; 50.0 lb.	Multiple-scan technology for user- adjustable resolution settings; works with Macintosh and Windows software-based computers; Energy Star compliant
Apple Multiple Scan 20 Display	20-inch (diagonal); 19.1-inch diagonal viewable image size; Sony Trinitron tube	67–75 hertz (varies by resolution)	Selectable from 640 by 480 pixels to 1,152 by 870 pixels ¹	18.7 by 18.7 by 19.7 in.; 66.0 lb.	Largest Apple display available; multiple- scan technology for adjustable resolution settings; Energy Star compliant

¹ Resolution range given is for Macintosh computers.

² Two designs available worldwide—dimensions and weight may vary.

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