





AppleWorkgroupServer95

Apple Computer, Inc.
20525 Mariani Avenue
Cupertino, CA 95014
(408) 996-1010
TLX 171-576

©1993 Apple Computer, Inc. Apple, the Apple logo, AppleShare, AppleTalk, A/UX, Macintosh, and ProDOS are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. AppleColor, Apple Desktop Bus, Balloon Help, Macintosh Quadra, QuickTime, Apple SuperDrive, System 7, and TrueType are trademarks of Apple Computer, Inc. Motorola is a registered trademark of Motorola Corporation. MS-DOS is a registered trademark of Microsoft Corporation. NuBus is a trademark of Texas Instruments. OS/2 is a trademark of International Business Machines Corporation. Retrospect Remote is a registered trademark of Dantz Development Corporation. UNIX is a registered trademark of UNIX System Laboratories, Inc. Mention of non-Apple products is for informational purposes and constitutes neither an endorsement nor a recommendation. Apple assumes no responsibility with regard to the selection, performance, or use of these products.
February 1993. Product specifications are subject to change without notice. Printed in U.S.A.
L0186LL/A



Apple Workgroup Server 95



The Apple Workgroup Server 95 has the performance, reliability, scalability, and manageability you need to meet file and print or database server requirements for large workgroups. The most powerful and expandable member of Apple's server family, this system is based on the 33-megahertz Motorola 68040 microprocessor and offers SCSI-DMA support, parity memory, and a large second-level 68040 memory cache. These hardware features are especially important for a high-performance server. This hardware is driven by a highly-tuned server version of A/UX, Apple's implementation of the multitasking UNIX® operating system, enabling the system to deliver high performance network services to data-intensive workgroups of up to 50 active users.

Apple servers continue the "plug and play" tradition established by the Macintosh. Installation takes just minutes, and because it's a

snap to maintain, reconfigure, and expand, over the long run the Apple Workgroup Server 95 offers the lowest cost of ownership in its class. Every system ships with a powerful yet easy-to-use backup utility that quickly backs up server data on the optional internal DDS-DC 4mm tape drive. (The optional internal DDS-DC drive is included in the configuration pictured above.) A key lock switch is included to secure your server.

You can expand the server's power and capabilities by adding SCSI devices, increasing DRAM, and increasing the second-level memory cache. The server can quickly and flexibly grow to meet additional demands.

To provide file and print or database server resources for demanding desktop-publishing, business-administration, information-access, or document-management requirements, build your solutions around the Apple Workgroup Server 95.

Apple Workgroup Server 95 Features

- Power and speed
 - > 33MHz 68040 microprocessor
- Memory
 - > 16MB of RAM, expandable to 256MB
 - > 128KB of cache, expandable to 512KB
- Expansion
 - > Ten built-in ports for peripherals
 - > Up to four internal storage devices, 20 SCSI devices total
 - > Five NuBus expansion slots
- Display
 - > Built-in support for all Apple monitors
 - > Up to 32 bits per pixel for true color
- Usability
 - > Easy to set up, learn, and use
- System software
 - > A/UX, a complete, industry-standard version of the UNIX operating system with Macintosh System 7 features and interface
- Networking
 - > Built-in AppleTalk capability
 - > On-board Ethernet capability
- Compatibility
 - > Macintosh, MS-DOS, OS/2, and ProDOS floppy disk formats

Technical Specifications

Microprocessor

- > MC68040, 32-bit architecture, running at 33 MHz clock speed
- > Integral Paged Memory Management Unit (PMMU), Floating Point Unit (FPU), and 8K-cache architecture

Memory

- > Comes with 16 MB of parity RAM standard and 12 memory expansion slots for SIMMs (Single Inline Memory Modules)
- > Expands to up to 256 MB of RAM through installation of 16 MB SIMMs in the empty slots and replacement of existing 4 MB RAM SIMMs with 16 MB RAM chips
- > 128K second-level 68040 memory cache on board, expandable to 512K

Operating System

- > Version of multitasking, industry-standard UNIX operating system
- > Performance-tuned for file and database services (including asynchronous I/O and SCSI DMA driver support)

Mass storage devices

- > Built-in Apple SuperDrive 1.4 MB floppy disk drive
- > Support for up to three additional internal devices, such as a DDS-DC 4 mm tape drive, CD-ROM drive, or Apple SCSI hard disk drive (several capacities available)
- > Support for additional non-Apple drives

Interfaces

- > One Apple Desktop Bus (ADB) port, supporting a keyboard, mouse, and other devices daisy-chained through a synchronous serial bus
- > Two serial (RS-232/RS-422) ports, 230.4 Kbit/sec. maximum (up to 0.920 Mbit/sec if clocked externally)
- > Two SCSI DMA channels, four SCSI bus interfaces total
- > Video port to support RGB and monochrome monitors of various sizes and resolutions
- > Five internal NuBus expansion slots (one used by PDS card)
- > Sound-input port for monaural sound input
- > Dual mono line input ports
- > AAUI Ethernet connector

Video display

- > Supports Apple monochrome and color monitors, including:
 - Macintosh 12" RGB Display
 - Macintosh 12" Monochrome Display
 - Apple Color High-Resolution RGB Monitor
 - Macintosh Portrait Display
 - Macintosh 16" Color Display
 - Macintosh Two-Page Monochrome Monitor
 - Macintosh 21" Color Display
- > Supports other non-Apple monitors, including some 19", VGA, SVGA, NTSC, and PAL

Video RAM (VRAM)

- > Can support up to 2 MB
- > 1 MB standard supports:
 - 32,768 colors on the Macintosh 12-inch RGB Display
 - 256 colors on the Apple Color High-Resolution RGB Display (13"), Macintosh Color Display (14"), and Macintosh 16" Color Display
 - 256 shades of gray on the Macintosh Portrait Display (15")
 - 16 colors on the Macintosh 21" Color Display

Keyboard and mouse

- > Supports all Apple Desktop Bus keyboards
- > Apple Desktop Bus Mouse II

Clock/calendar

- > Custom chip with long-life lithium battery

Electrical requirements

- > Line voltage: 100 to 240 V AC, RMS automatically configured
- > Frequency: 50 to 60 Hz, single phase
- > Power: 303 W maximum, not including display power

ADB power requirements

- > Maximum current draw for all ADB devices: 500 mA (recommended maximum of three ADB devices)
- > Mouse draws 80 mA
- > Keyboard draws 25 to 80 mA, depending on the keyboard model used

Operating environment

- > Operating temperature: 50° F to 104° F (10° C to 40° C)
- > Storage temperature: -40° F to 116.6° F (-40° C to 47° C)
- > Relative humidity: 20% to 80% noncondensing
- > Maximum altitude: 10,000 ft. (3,048 m)

Size and weight

Main unit:

- > Height: 18.6 in. (47.3 cm)
- > Width: 8.9 in. (22.4 cm)
- > Depth: 20.6 in. (52.3 cm)
- > Weight: 36 lb. 12 oz. (16.7 kg)*

Mouse:

- > Height: 1.3 in. (3.3 cm)
- > Width: 2.4 in. (6.2 cm)
- > Depth: 4.2 in. (10.7 cm)
- > Weight: 4.0 oz. (0.10 kg)

*Weight will be greater with internal hard disks and additional internal storage devices.

Ordering Information

Apple Workgroup Server 95

16/SD/230/128

OrderNo.M6855LL/A

- > Apple Workgroup Server 95 computer with 16 MB of RAM, 230 MB internal hard disk, built-in 1.4 MB Apple SuperDrive, and 128K of memory cache
- > Mouse
- > System software for file and print service environment, Apple documentation viewer, and Retrospect Remote backup software preloaded on hard drive
- > System software installer CD-ROM (one button installation of above software)
- > Complete on-line and hard-copy documentation
- > Limited warranty statement

Apple Workgroup Server 95

16/SD/500/256/DDS-DC

OrderNo.M6865LL/A

- > Apple Workgroup Server 95 computer with 16 MB of RAM, 500 MB internal hard disk, built-in 1.4 MB Apple SuperDrive, 256K of second-level 68040 memory cache, and an internal digital data storage-data compression (DDS-DC) 4mm tape backup drive
- > All other features included with the Apple Workgroup Server 95 16/SD/230/128

Apple Workgroup Server 95

32/SD/1000/512/DDS-DC/AppleShare Pro

OrderNo.M6875LL/A

- > Apple Workgroup Server 95 computer with 32 megabytes of RAM, built-in 1.4-megabyte Apple SuperDrive, 1000-megabyte internal hard disk, 512K of second-level 68040 memory cache, and an internal digital data storage-data compression (DDS-DC) 4mm tape backup drive
- > AppleShare Profile and print servers software preloaded on hard drive, on-line documentation for AppleShare Pro, and installer software on CD-ROM
- > All other features included with the Apple Workgroup Server 95 16/SD/230/128

Apple Workgroup Server 95

32/SD/230/500/256/DDS-DC

OrderNo.M6885LL/A

- > Apple Workgroup Server 95 computer with 32 megabytes of RAM, built-in 1.4-megabyte Apple SuperDrive, 230- and 500-megabyte internal hard disk, 256K of second-level 68040 memory cache, and an internal digital data storage-data compression (DDS-DC) 4mm tape backup drive
- > System software for database service environment, Apple documentation viewer and Retrospect Remote backup software preloaded on hard drive
- > System software installer CD-ROM (one-button installation of above software)
- > Complete on-line and hard-copy documentation
- > Limited warranty statement

Apple Workgroup Server 95

48/SD/230/1000/512/DDS-DC

OrderNo.M6895LL/A

- > Apple Workgroup Server 95 computer with 48 megabytes of RAM, built-in 1.4-megabyte Apple SuperDrive, 230- and 1000-megabyte internal hard disk, 512K of second-level 68040 memory cache, and an internal digital data storage-data compression (DDS-DC) 4mm tape backup drive
- > All other features included with the Apple Workgroup Server 95 32/SD/230/500/256/DDS-DC

Ordering Information for Upgrade Kits and Accessory Kits

Apple Workgroup Server PDS Card

Upgrade Kit*

OrderNo.M6940Z/A

- > Processor direct slot card for the Macintosh Quadra 900 or 950 (128K second-level memory cache on-board)
- > System software installer CD-ROM (one-button installation of system software, Apple documentation viewer and Retrospect Remote backup software)
- > Complete documentation
- > Limited warranty statement
- > CPU labels

Apple Workgroup Server PDS Card/DDS-DC

Drive Upgrade Kit*

OrderNo.M6945Z/A

- > Processor-direct slot card for the Macintosh Quadra 900 or 950 (128K second-level cache on-board)
- > Internal digital data storage-data compression (DDS-DC) 4mm tape backup drive
- > All other features included with the Apple Workgroup Server PDS Card Upgrade Kit for the Macintosh Quadra 900 or 950

*These kits upgrade a Macintosh Quadra 900 or 950 to an Apple Workgroup Server 95. A CD-ROM drive is required to install system software.

Apple Workgroup Server 95—128KB/Tag

Second-Level Memory Cache Upgrade Kit

OrderNo.M6810Z/A

Adds an additional 128K and Tag second-level 68040 memory cache to the PDS card, for a total of 256K of second-level memory cache

Apple Workgroup Server 95 - 256KB Second-

Level Memory Cache Upgrade Kit

OrderNo.M6815Z/A

Adds an additional 256K of second-level 68040 memory cache to the PDS card for a total of 512K second-level memory (Requires installation of 128KB/Tag kit)

Apple Workgroup Server 95—16MB Parity

DRAM Upgrade Kit

OrderNo.M6820Z/A

Adds an additional 16 MB of parity DRAM to the Apple Workgroup Server 95

Blank DDS Tape 5 Pak

OrderNo.M2092Z/A

Blank DDS tape for use with internal DDS-DC drive. (Tape uses the Media Recognition System (MRS) standard.)