



# Technical Information



*Specifications for Macintosh Performa 6300 series computers*

# Technical Information

## Main unit

### Processor

- PowerPC™ 603e processor at 120 megahertz (MHz) clock frequency (includes built-in floating-point unit)

### Memory

- A minimum of 12 megabytes (MB) of dynamic random-access memory (DRAM) installed in one 72-pin DRAM SIMM socket.
- A second 72-pin DRAM SIMM socket; RAM can be expanded to 64 MB (80 nanoseconds)
- 4 MB of read-only memory (ROM)
- 256K level 2 cache memory on 64-bit PowerPC bus
- 1 MB DRAM frame buffer on board (for video support)

**WARNING** To avoid damage to your computer, Apple recommends that only an Apple-certified technician install additional RAM. Consult the service and support information that came with your Apple product for instructions on how to contact an Apple-authorized service provider or Apple for service. If you attempt to install additional RAM yourself, any damage you may cause to your equipment will not be covered by the limited warranty on your computer. See an Apple-authorized dealer or service provider for additional information about this or any other warranty question.

### Disk drives

- Apple SuperDrive 1.4 MB with auto-eject
- Internal IDE hard disk drive (several capacities available)
- Optional internal, tray-loading CD-ROM drive (5.25-inch, 1/2-height 8X-speed)
- A combination of up to seven internal and external SCSI devices can be used.



## CD-ROM specifications

- Disc diameter 120 millimeters (4.7 inches)  
and 80 mm (3.1 inches)
- Scanning velocity 1.2–1.4 meters per second (normal speed)
- Rotation speed (varies over radius):
  - Normal speed ~530 to 230 revolutions per minute (rpm)
  - Double speed ~1060 to 460 rpm
  - Eight-times speed ~4240 to 1840 rpm
- Average latency (varies over radius):
  - Normal speed ~55 to 130 milliseconds (ms)
  - Double speed ~27.5 to 65 ms
  - Eight-times speed ~6.88 to 16.25 ms
- Blocks per rotation ~8.4 to 19.5 variable
- Average access time (typical):
  - Normal speed 380 ms
  - Double speed 270 ms
  - Eight-times speed 160 ms

### Data

- Data capacity 656 megabytes (MB), Mode 1  
748 MB, Mode 2
- Number of blocks per disc 336,150
- Data per block 2048 bytes, Mode 1  
2336 bytes, Mode 2
- Address description Minutes, seconds, blocks

### Audio capacity

- Playing time 74 minutes, 42 seconds

### **Modes supported**

- Audio CD
- CD-ROM Modes 1 and 2
- CD-ROM XA Mode 2, Forms 1 and 2
- CD-I Mode 2, Forms 1 and 2
- Photo CD Single session and multisession
- Video CD

### **Data streaming and transfer rates**

- Blocks per second:
  - Normal speed 75
  - Double speed 150
  - Eight-times speed 600
- User kilobytes (KB) per second:
  - Normal speed 150 KB, Mode 1  
171.1 KB, Mode 2
  - Double speed 300 KB, Mode 1  
342.2 KB, Mode 2
  - Eight-times speed 1200 KB, Mode 1  
1368.8 KB, Mode 2
- SCSI bus burst rate (typical):
  - Asynchronous 5.0 MB per second
  - Synchronous 5.0 MB per second

### **Power consumption (typical)**

- +5 V DC 350 milliamperes (mA)
- +12 V DC 300 mA

### **Laser**

- Type: Semiconductor GaAlAs laser
- Wavelength: 770 to 795 nanometers
- Output power: 0.2 to 0.6 milliwatts
- Beam divergence: 55°



## Video modes

- 512 x 384 resolution with 16-bit color
- 640 x 480 resolution with 16-bit color
- 800 x 600 resolution with 8-bit color
- 832 x 624 resolution with 8-bit color (does not support video input)

## Compatible monitors

- All 12", 13", and 14" Apple Macintosh monitors
- The 15", 16", 17", and 20" Apple Macintosh multiple synchronous monitors

The computer is strong enough for you to place on top of it any monitor that is 15" or smaller.

## Sound

- 16-bit monophonic sound input
- 16-bit stereophonic sound output
- Sound input port for optional microphone or line input
- Two sound output ports, level nominally 0.5 volts RMS into 39 ohms
- Internal speaker, muted whenever a plug is inserted into either sound output port

## Clock/calendar

- CMOS custom chip with battery

**WARNING** If the clock begins to lose accuracy, see your authorized Apple dealer or service provider for a battery replacement. Do not attempt to replace the clock battery yourself.

## Keyboard

- Supports all Apple Desktop Bus (ADB) keyboards

## **Additional interfaces**

- ADB port for keyboard, mouse, and other input devices using a low-speed, synchronous serial bus
- Two serial ports for printers, modems, and other serial devices. If a modem is installed, only one serial port is available.
- Monitor port (DB-15 connector)
- High-performance SCSI port for a chain of up to seven hard disk drives, scanners, printers, and other devices
- LC-compatible 68030 processor-direct slot (96/114-pin)
- Communication slot for optional internal modem or Ethernet card (112-pin) (depending on the configuration of your computer, a modem or card may already be installed in this slot)
- Video-in slot for optional expansion card providing real-time video display, video capture, and overlay (60-pin) (depending on the configuration of your computer, a card may already be installed in this slot)
- Port for optional internal TV tuner card (depending on the configuration of your computer, a card may already be installed in this port)

## **Additional features**

- Support for optional infrared remote control
- Front panel push-button controls for volume
- Front panel stereo headphone jack
- Power on and off from keyboard and optional remote control

## **Environment**

### **Operating temperature**

- 10° C to 40° C (50° F to 104° F)

### **Storage temperature**

- -40° C to 47° C (-40° F to 116.6° F)



**Relative humidity**

- 5% to 95% noncondensing

**Altitude**

- Works below 3048 m (10,000 ft.)

**Weight**

The following measurements do not include the weight of the monitor.

- 7.7 kg (17 lb.) without CD-ROM player
- 8.6 kg (19 lb.) with CD-ROM player

*Note:* The weight varies depending on the options you purchase.

**Dimensions**

- 320 mm x 419.5 mm x 109.5 mm (12.6" x 16.5" x 4.3")

**Apple Desktop Bus power requirements**

- Maximum current draw for all ADB devices is 500 mA.
- Mouse draws up to 10 mA.
- Keyboard draws 25–80 mA (varies with model).

*Note:* The maximum number of ADB devices recommended in a daisy chain connected to the ADB port is three.

**AC line input**

- Line voltage: 100–240 volts AC, RMS, single phase, nominal
- Frequency: 50–60 hertz
- Power consumption: 55 watts maximum, not including monitor



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