# **Technical Information**

# **General specifications**

# Processor

PowerPC<sup>™</sup> 603e at 180 or 200 megahertz (MHz) clock frequency, depending on the Macintosh PowerBook model you have

# Cache

256 kilobyte (KB) level 2 (L2) cache

# Memory

- 16 megabytes (MB) of low power dynamic random-access memory (DRAM), expandable to 144 MB
- 4 MB read-only memory (ROM)

# **Disk drives**

- 1.3 gigabyte (GB) or 2.0 GB 2.5" ATA hard drive (Hard drive sizes may vary, depending on the model you have.)
- Removable 1.44 MB floppy disk drive (in the expansion bay), reads and writes Macintosh 800K and 1.4 MB floppy disks, as well as Windows, DOS, and OS/2 720K and 1.44 MB floppy disks
- Optional 6x-speed CD-ROM drive (for use in the expansion bay)

# Video display

12.1" diagonal, 800 x 600 active matrix (SVGA), thousands of colors

# Battery

Rechargeable lithium ion (LiIon) battery provides 2–4 hours of operation, depending on battery-saving features used and machine configuration

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#### **Backup battery**

60 milliampere-hour (mAh) rechargeable nickel-metal-hydride (NiMH) battery for calendar/clock maintenance, also backs up the contents of RAM for a few minutes while you change batteries when your Macintosh PowerBook is in sleep mode

#### Sound

- 16-bit stereo sound in and out supporting 44.1 kilohertz (kHz) ("CD quality" sound), 22 kHz, and 11 kHz sample rates
- Four built-in speakers; two housed in the PowerBook's display and two at the top of the keyboard

#### Interfaces

- Two PC Card (PCMCIA card) slots support either two Type I or Type II cards, or one Type III card; the lower slot also supports "zoom video," a method of displaying video signals sent from a PC Card
- Expansion bay slot accepts a removable expansion bay module, including the 1.44 MB floppy disk drive (installed at the factory), optional CD-ROM drive, or other modules
- Built-in infrared, with support for two types of transmission—230 kilobitper-second IRTalk and 1 megabit-per-second IrDA
- Internal PCI card slot, optionally with Ethernet/modem card or Ethernet card installed
- Apple Desktop Bus (ADB) port for keyboard, mouse, or other input devices using a low-speed, synchronous serial bus
- Serial port for printer, modem (including GeoPort support), LocalTalk network, or other serial devices (RS-422)
- SCSI port (HDI-30 connector) for hard disk drives, scanners, printers, and other devices; also supports PowerBook SCSI disk mode
- Sound output port for external audio amplifier/powered speakers, stereo mini-jack, 3-connector, standard 3.5-mm stereo miniplug
- Sound input port for stereo sound input (line level), stereo mini-jack,
  3-connector, standard 3.5-mm stereo miniplug
- Video port for up to 16-bit/thousands-of-color video output to most Apple monitors (with the supplied adapter), VGA monitors (640 x 480), and SVGA monitors (800 x 600, 1024 x 768)

#### Power adapter

- *Input:* AC 100–240 volts (V), 50/60 hertz (Hz)
- Output: DC 24 V, 1.875 A nominally

#### Keyboard

- 3.0-mm travel keyboard
- 19-mm vertical pitch, 19-mm horizontal pitch

#### Trackpad

Integrated, solid-state trackpad provides precise cursor movement

#### Weight

- Macintosh PowerBook 3400c with the floppy drive expansion bay module:
  3.2 kg (7.2 lb.)
- Macintosh PowerBook 3400c with the CD-ROM drive expansion bay module: 3.3 kg (7.4 lb.)

#### Dimensions

293 mm x 239.5 mm x 65.6 mm (11.5 in. x 9.5 in. x 2.4 in.)

#### Apple Desktop Bus (ADB) power requirements

Maximum current draw for all ADB devices is 200 mA.

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

#### **RAM configurations**

All models ship with 16 MB of RAM on the main logic board. Additional RAM may be installed by means of a RAM expansion card. Additional RAM cards are available from any Apple-authorized dealer.

RAM expansion cards must use RAM chips rated at 60 nanosecond (ns) access time or faster, and must have TSOP low-profile RAM chips only. Installing a card with high-profile chips may damage your computer.

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#### Microphone/sound

The internal microphone is an omnidirectional electret type.

An external audio source may be used with this PowerBook if it generates line level output. To input sound from audio equipment with line level output, you need the appropriate adapters, which are available from most electronics stores.

The Apple PlainTalk microphone may be used with PowerBook 3400 series computers.

Note: The Apple Omni microphone is not compatible with this computer.

#### Environment

- Operating temperature: 10° C to 40° C (50° F to 104° F)
- *Storage temperature:* -25° C to 60° C (-13° F to 140° F)
- Relative humidity: 20% to 80% noncondensing
- Operating altitude: 3048 m (10,000 ft.) maximum
- Shipping (non-operating) altitude: 4572 m (15,000 ft.) maximum

#### Laser (in optional CD-ROM drive)

- Type: Semiconductor laser GaAlAs
- Wavelength: 780 nanometers (nm)
- Output power: 0.6 milliwatts (mW)
- Beam divergence:  $53.4^{\circ} \pm 1$

# **Options and accessories**

The following are available as options and accessories for your Macintosh PowerBook computer. (Part numbers have additional letters at the end to indicate localized versions; asterisks are placeholders for those letters.)

Item	Part number
Macintosh PowerBook Power Adapter for Macintosh PowerBook 3400 series and 1400 series	M4895**/A
Macintosh PowerBook Lithium-Ion Rechargeable Battery for Macintosh PowerBook 3400 series	M5146**/A
Macintosh PowerBook 16MB RAM Expansion Card for Macintosh PowerBook 3400 series	M5141**/A
Macintosh PowerBook 6x CD-ROM for Macintosh PowerBook 3400 series	M5139**/A
VGA-to-Macintosh Monitor Adapter for Macintosh PowerBook 3400 series	M0289**/A
Apple HDI-30 SCSI Disk Adapter for SCSI disk mode	M2539**/A
Apple SCSI Peripheral Interface Cable for SCSI to SCSI connection	M0207
Apple HDI-30 SCSI System Cable for PowerBook to SCSI connection	M2538**/A

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