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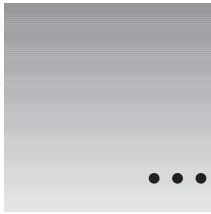
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# Technical Information for the PowerBook 520, 520c, 540, and 540c

## General specifications

### Processor

- *PowerBook 520 and 520c:*  
68LC040; 50/25 MHz clock frequency
- *PowerBook 540 and 540c:*  
68LC040; 66/33 MHz clock frequency

### Memory

- 4 MB low power DRAM; with one expansion slot, expandable to 36 MB
- 2 MB ROM

### Hard disk drive

- *PowerBook 520 and 520c:*  
160 MB hard disk drive
- *PowerBook 540:*  
240 MB hard disk drive
- *PowerBook 540c:*  
320 MB hard disk drive

### Floppy disk drive

- Built-in 1.44 MB floppy disk drive, reads Macintosh 800K and 1.4 MB floppy disks, as well as Windows, DOS, and OS/2 720K and 1.44 MB floppy disks

### **Video display**

- *PowerBook 520:*  
9.5" diagonal, 640 x 480 dual scan passive matrix (FSTN), 16 grays
- *PowerBook 520c:*  
9.5" diagonal, 640 x 480 dual scan passive matrix (FSTN),  
256 colors
- *PowerBook 540:*  
9.5" diagonal, 640 x 480 active matrix (TFT), 64 grays
- *PowerBook 540c:*  
9.5" diagonal, 640 x 480 active matrix (TFT), 256 colors  
(also supports thousands of colors in 640 x 400 mode)

### **Battery**

- Rechargeable nickel-metal-hydride batteries provide up to 4 hours of operation each, depending on battery-saving features used and machine configuration
- Built-in processor communicates directly with the computer's power management system

### **Backup battery**

- 30 mAh rechargeable lithium battery for calendar/clock maintenance, also backs up the contents of RAM for up to 3 minutes while you change batteries when your PowerBook is in sleep mode

### **Sound**

- 16-bit stereo sound in and out supporting 44.1 kHz ("CD quality" sound), 22 kHz, and 11 kHz sample rates
- Stereo speakers housed in the PowerBook's display

## **Interfaces**

- Apple Desktop Bus (ADB) port for keyboard, mouse or other input devices using a low speed, synchronous serial bus
- Serial port for printers, modems, LocalTalk network, or other serial devices (RS-422)
- SCSI port (HDI-30 connector) for hard disk drives, CD-ROMs, 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 (micro DV-14) for 8-bit/256-color video output to most Apple monitors, VGA monitors (640 x 480), and SVGA monitors (600 x 800)
- Ethernet network interface (with AUI adapter)
- Optional internal modem interface
- One 90-pin processor-direct slot (PDS) for connecting PDS devices or optional PowerBook PCMCIA Adapter.

## **Power adapter**

- Input: AC 100-240 V, 50/60 Hz
- Output: two outputs, DC 16.6 V, 1.0 A and DC 16.6 V, 1.5 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**

- *PowerBook 520:*  
With one battery in the PowerBook: 2.9 kg (6.3 lb)
- *PowerBook 520c:*  
With one battery in the PowerBook: 2.9 kg (6.4 lb)
- *PowerBook 540:*  
With two batteries in the PowerBook: 3.2 kg (7.1 lb)
- *PowerBook 540c:*  
With two batteries in the PowerBook: 3.2 kg (7.3 lb)

## **Dimensions**

- 292 mm x 245 mm x 57 mm (11.5 in. x 9.65 in. x 2.25 in.)

## **Apple Desktop Bus 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 4 MB of RAM on the main logic board. Additional RAM may be installed by means of a memory expansion card; Apple recommends that you have additional RAM installed by an Apple-authorized dealer. If your machine came with 12 MB of RAM, the expansion slot is already used, and the card will need to be removed before RAM can be installed.

Memory expansion cards must use RAM chips rated at 70 ns access time or faster.

## **Microphone/Sound**

The internal microphone is an omnidirectional electret type. An external audio source may be used with these PowerBooks if it generates line level output.

*Note:* To input sound from audio equipment with line level outputs, you need the appropriate adapters which are available from most electronics stores. The Apple Omni-microphone and Apple PlainTalk microphones are 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

#### **Altitude**

- Operating: 3048 m (10,000 ft.) maximum
- Shipping (non-operating): 4572 m (15,000 ft.) maximum

## **Options and accessories**

The following are available as options and accessories for your PowerBook computer:

<b>Item</b>	<b>Part number</b>
PowerBook AC Adapter	M1910LL/A
PowerBook 8MB Memory Expansion Kit	M1913LL/A
PowerBook Intelligent Battery	M1908LL/A
PowerBook PCMCIA Expansion Module	M2995LL/A
PowerBook Expansion Bay Cover	M3061LL/A
PowerBook Active Matrix Color Screen Upgrade	M3063LL/A