



# Tech Info Library

## PowerBook 520c: Specifications (5/96)

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TOPIC -----

This article provides technical specifications for the PowerBook 520c computer.

DISCUSSION -----

Provides Macintosh Quadra performance in an all-in-one notebook computer

### Microprocessor

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- 50/25-MHz 68LC040 microprocessor (no FPU). (the two speeds refer to the internal processor and bus interface, respectively)
- 32-bit Address and Data bus
- Daughterboard (memory expansion) runs at 32-bit

### RAM

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- 4 MB RAM on logic board.
- One slot for expansion.
- Expandable to 36 MB with 70ns low power self-refreshing DRAM (Apple 8 MB RAM Expansion Kit, or Third Party higher density RAM card)

### Storage

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- One built-in 1.4 MB Apple SuperDrive disk drive that uses high-density floppy disks; it reads, writes, and formats Macintosh, MS-DOS, OS/2, and ProDOS disks.
- One internal 160 MB hard disk.

### Display/Video Out

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- 9.5-inch (diagonal), backlit, dual-scan, color passive-matrix LCD
- 640 x 480 pixels, 256 colors
- Sleeps on close
- User-configurable
- External display port (mini DB-15) supports 8-bit video
- External display options:
  - Macintosh 12" Monochrome Display

Macintosh 12" RGB Display  
AppleColor High Resolution RGB Display  
Macintosh Color Display  
Macintosh 16" Color Display  
Macintosh Portrait Display  
Some VGA and SVGA monitors (third party adapter required)

- Two video-out modes:
  - Video mirroring for simultaneous display of the same image on two screens.
  - Dual display for full use of both screens.

#### Networking

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- Serial/LocalTalk
- Built-in High Speed Ethernet with Apple AUI connector

#### System Software

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- Requires System 7.1.1 or later (5 High Density Disks)
- PowerBook 500 Series Enabler version 1.0.2 or later

#### Battery

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- Nickel-metal-hydride PowerBook Intelligent Batteries each provide up to 3.5 hours of use before recharge.
- EverWatch battery-saver technology
- Batteries recharge in two hours when computer is in sleep or shutdown; four hours when running.
- PowerBook Control Strip allows user to monitor time remaining, charge time, and battery usage
- Backup rechargeable lithium battery maintains RAM in sleep mode while main battery is removed for up to three minutes.

#### Keyboard and Tracking Device

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- Built-in keyboard with standard size keyboard with 76 (US) or 77 (ISO) keys including 12 function keys
- Two-level tilt adjustment
- Power-on key located on Keyboard
- Solid-state trackpad provides precise cursor control in response to the user's fingertip over its surface

#### Clock/Calendar

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- CMOS custom chip with long-life lithium battery.

#### Microphone

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- Built-in omnidirectional; output voltage is 4 mV, peak to peak, at normal volume

#### Interfaces

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- One Apple Desktop Bus (ADB) port for keyboard, mouse, and other devices.
- One RS-422 serial port for LocalTalk networking, printers, modems, and other devices.
- One high-speed Ethernet port
- One HDI-30 SCSI port for hard disks, scanners, CD-ROM drives, and other devices (up to 6 devices can be chained).
- One slot for optional modem.
- One video-out port, supporting 8 bit density and 256 colors.
- One stereo sound output port for external audio amplifier or headphones.
- One mono sound-in port.
- Security slot for use with third-party equipment to lock the computer.
- 90-pin processor direct slot (PDS) for connecting PDS devices or optional PowerBook PCMCIA Expansion Module allows use of two Type II or one Type III PCMCIA-type card).
- Power adapter port
- One RAM slot

#### Modem

- Optional Global Village PowerPort Mercury modem supports 19,200 bps data transmission and 14,440 bps fax

#### Built-in Stereo Sound

- CD-quality, 16-bit stereo sound capable of driving headphones or other stereo equipment.
- Two built-in stereo speakers
- Digital-to-analog and analog-to-digital conversion sampled at 11.035, 22.050, or 44.100 kHz.

#### Disability Access

- Easy Access and the ability to substitute visual cue for beep included with system software. These built-in solutions and third-party options provide alternative input and output devices for people with disabilities.

#### ADB Power Requirements

- Maximum current draw for all ADB devices is 200 mA (a maximum of three ADB devices is recommended)

#### Electrical Requirements

- Line voltage: 100 to 240 volts, 50 to 60 Hz

#### Environmental Requirements

- Operating temperature: 50 to 104° F (10 to 40° C)
- Storage Temperature: -40°F to +149°F (-40 to +65° C)
- Relative humidity: 20% to 80% noncondensing
- Altitude: max. 10,000 ft. (3,048 m)
- Maximum Storage Altitude: 15,000 ft. (4,722 m)

## Size and Weight

- Height: 2.3 in. (5.7 cm)
- Width: 11.5 in. (29.2 cm)
- Depth: 9.7 in. (24.5 cm)
- Weight: 6.4 lb. (2.9 kg)

## Noise Level

- Noise free except for disk drive use.

## Security

- Slot for security cable

## Ordering Information

### Ordering Information

PowerBook 520c 4/160

Order No. M1845LL/A

- PowerBook 520c computer with 4 MB of RAM, built-in 1.4MB Apple SuperDrive, and internal 160 MB hard disk drive
- PowerBook Intelligent Battery and AC adapter
- System 7
- Complete setup, learning, and reference documentation
- Training software
- Limited warranty
- PowerBook Mobility Bundle

PowerBook 520c 12/320

Order No. M3728LL/A

Same as Order No. M1845LL/A, but with 12 MB of RAM, 320 MB hard drive and a Global Village PowerPort Mercury Fax/Data Modem.

PowerBook Active-Matrix

Color Display Upgrade

Order No. M3063LL/A

PowerBook 8MB Memory Expansion Kit

Order No. M1913LL/A

PowerBook Intelligent Battery

Order No. M1908LL/A

PowerBook AC Adapter

Order No. M1910LL/A

PowerBook PCMCIA Expansion Module

Order No. M2995LL/C

Apple HDI-30 SCSI Disk Adapter

Order No. M2539LL/A

Apple HDI-30 SCSI System Cable  
Order No. M2538LL/A

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31 May 1996 - Updated part number.  
12 Dec 1994 - Additional configuration documented.

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