Power Macintosh 5400/120: Technical Specifications (7/96)

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TOPIC ---

This article contains the technical specifications for the Power Macintosh 5400 series computers.

DISCUSSION --

Microprocessor
==============
• PowerPC 603e processor
• 120 MHz processor clock
• 32K internal cache
• Built-in floating point unit (FPU)
• 40 MHz system bus
• 64-bit memory bus
• 32-bit PCI bus
• Optional High Performance Module (256K level 2 cache)

Memory
======
• 8 MB of dynamic random-access memory (DRAM) soldered to the main logic board, expandable to 136 MB using 168-pin JEDEC-standard DIMM devices.
• Two DIMM slots are provided for DRAM expansion.
• 1 MB of built-in video RAM
• 4 MB of read-only memory (ROM)
• 8K of nonvolatile parameter memory
• One socket for an optional 256K Level 2 cache DIMM card

Internal disk drives
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• Apple SuperDrive 1.4 MB high-density floppy disk drive
• Apple (Integrated Device Electronics) IDE hard disk drive
• Internal quadruple- or 8x-speed CD-ROM drive, depending on configuration.

Display
=======
• 15-in RGB color display (12.8-in diagonal viewable image size)
• 0.28-mm dot pitch
• Noninterlaced, flat, square cathode-ray tube (CRT)

- User-adjustable resolutions from 640 by 480 pixels to 832 by 624 pixels
- Resolution can be changed without restarting the computer
- Refresh rate up to 75 Hz
- Meets SWEDAC MPR2 international guidelines for magnetic-field emissions

Video
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Begin_Table

Graphics modes supported

Resolution	Colors	Scan frequencies
640 x 480	16-bit	60 Hz and 67 Hz
800 x 600	16-bit	60 Hz
800 x 600	8-bit	72 Hz
832 x 624	8-bit	75 Hz

End_Graphic

Video output

With the optional external video connector kit, your Power Macintosh 5400 Series
can be connected to a video presentation system or support video mirroring
(connecting a second monitor for display purposes) at 640 x 480 resolution on
the following monitors:
- Macintosh 12" Color Display
- Macintosh 13" Color Display
- Apple Color Plus 14" Display
- Macintosh Color Display
- Apple Multiple Scan 14 Display
- Apple Multiple Scan 15 Display
- Apple Multiple Scan 17 Display
- Apple Multiple Scan 20 Display
- VGA monitors (a plug adapter may be required)

You can use the following monitors for video mirroring at 800 x 600 and 832 x
624 resolutions:
- Apple SVGA displays
- Apple Multiple Scan 14 Display
- Apple Multiple Scan 15 Display
- Apple Multiple Scan 17 Display
- Apple Multiple Scan 20 Display

Video input

With the optional video input card, your Power Macintosh 5400 Series can connect
to a video camera, VCR, or other video equipment.
- Format: composite or S-video
- Transmission Format: industry standard NTSC/PAL/SECAM
- Polarity: sync negative
- Level: .8 Vpp minimum to 2.0 peak-to-peak (p-p) maximum ("S" chroma level 1.4

Vpp maximum)
- Impedance: 75 ohms ( ) internally terminated
- DC offset: +/- 1.0 volts (V) maximum
- 32-bit video data bus

Sound
=====
- 16-bit stereo input and output featuring SRS surround sound
- Sample rates of 11.025, 22.05 and 44.1 kilohertz (kHz)
- Sound input connector line level: 2 volts peak-to-peak (Vpp) nominal, into 10-kilohms (k) impedance (minimum)
- Sound output connector line level: 2 Vpp nominal, into 32- impedance
- Sound input signal-to-noise ratio (SNR): >70 decibels (dB)
- Sound output SNR: >70 dB (SRS disabled)

Clock/calendar
==============
- CMOS custom circuitry with long-life battery

Keyboard
========
- Supports all Apple Desktop Bus (ADB) keyboards

Mouse
=====
- Supports all models of the ADB mouse

Interfaces
==========
- One Apple Desktop Bus (ADB) port supporting up to three ADB input devices (such as a trackball, keyboard, or mouse) daisy-chained through a synchronous serial bus.
- Optional monitor port supporting the connection of color and grayscale monitors of various sizes and resolutions for video mirroring.
- One internal expansion slot supporting 6.88-inch 15 watt Peripheral Component Interconnect (PCI) expansion cards.
- One internal expansion slot supporting communications cards (i.e. modem, fax, high speed networking).
- One internal expansion slot supporting video input cards using NTSC.
- Two RS-232/RS-422 serial GeoPort-compatible ports,
- One 3.5 mm sound output port for headphones or line-level devices.
- One 3.5 mm sound input port for stereo sound input. The sound input port supports the Apple PlainTalk Microphone that comes with some Macintosh computers.
- One external standard SCSI interface that supports up to 6 external SCSI devices.

Additional features
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- Built-in microphone
- Built-in stereo speakers
- Support for optional infrared remote control
- Front panel push-button controls for volume and picture

• Power on and off from keyboard and optional remote control (included with the optional TV tuner card)

Size and weight
Weight: 47 lbs. (21.15 kg) Varies depending on installed options.
Height: 17.5 in. (445 mm)
Width: 15.1 in. (383 mm)
Depth: 16 in.(406 mm)

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.)

Power

AC line input
• Line voltage: 90-264 V alternating current (AC), RMS single phase, automatically configured.
• Frequency: 47-63 Hz
• Power: 220 watts maximum continuous

DC power
• Continuous output: 73 watts

Apple Desktop Bus (ADB)
• Mouse draws up to 10 milliamperes (mA)
• Keyboard draws 25–80 mA (varies with keyboard model used)
• Maximum current available for all ADB devices and all serial devices: 500 mA
• The ADB port can support up to three daisy-chained ADB devices.

Power Allowances for External Devices
The following table shows power allowances for external devices connected to input ports:

Device	Voltage	Current	Power
Microphone	+5 V	1 mA	5 mW
GeoPort telecom adapter & ADB devices	+5 V	500 mA	2.5 W
S-video input connector	+12 V	250 mA	3 W

Power Allowances for Expansion Cards
The following table shows power allowances for installed expansion cards.

Device	Voltage	Current	Power

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PCI expansion card (15 watts)*               +3.3 V       2 A          6.6 W
                                             +5 V         3 A          15 W
                                             -12 V        500 mA        6 W


Communications expansion card**              +5 V         500 mA       2.5 W
                                             +12 V        100 mA       1.2 W


Video expansion card***                      +5 V         200 mA       1 W


                                             +12 V        300 mA       3.6 W
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Notes:
*The PCI expansion card should not consume more than 15 watts of power total.
**The communications card should not consume more than 2.5 watts of power
total.
***The video input card should not consume more than 4.6 watts of power total.

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