

# iMac (Early 2009) – Technical Specifications

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## Size and weight

### 20-inch iMac

Height: 18.5 inches (46.9 cm)

Width: 19.1 inches (48.5 cm)

Depth: 7.4 inches (18.9 cm)

Weight: 20 pounds (9.1 kg)<sup>1</sup>

### 24-inch iMac

Height: 20.5 inches (52.0 cm)

Width: 22.4 inches (56.9 cm)

Depth: 8.1 inches (20.7 cm)

Weight: 25.4 pounds (11.5 kg)<sup>1</sup>

## Connections and expansion

- One FireWire 800 port; 7 watts
- Total of six USB 2.0 ports: four ports on computer, two ports on wired keyboard

## Communications

- Built-in AirPort Extreme Wi-Fi wireless networking (based on IEEE 802.11n draft specification);<sup>2</sup> IEEE 802.11a/b/g compatible
- Built-in Bluetooth 2.1 + EDR (Enhanced Data Rate)
- Built-in 10/100/1000BASE-T Gigabit Ethernet (RJ-45 connector)

## Audio

- Built-in stereo speakers
- Internal 24-watt digital amplifier
- Headphone/optical digital audio output (minijack)
- Audio line in/optical digital audio input (minijack)
- Built-in microphone
- Support for Apple Stereo Headset with microphone

## Software

- Mac OS X v10.5 Leopard (includes iTunes, Time Machine, Quick Look, Spaces, Spotlight, Dashboard, Mail, iChat, Safari, Address Book, QuickTime, iCal, DVD Player, Photo Booth, Front Row, Xcode Developer Tools)
- iLife '09 (includes iPhoto, iMovie, iDVD, iWeb, GarageBand)

## Environmental Status Report

- Arsenic-free display glass
- BFR-free
- PVC-free (internal cables)
- Highly recyclable aluminum and glass enclosures
- Meets ENERGY STAR 5.0 requirements
- Rated EPEAT Gold

## Acoustic Performance

	Sound Power Level $L_{WA,d}$ (B) 1 B = 10 dB			Sound Pressure Level Operator Position $L_{pAm}$ (dB)		
	2.66 GHz	2.93 GHz	3.06 GHz	2.66 GHz	2.93 GHz	3.06 GHz
<b>Idle</b>	3.2	3.3	3.1	21	21	20
<b>Hard drive accessing</b>	3.2	3.3	3.1	21	21	20
<b>CD drive accessing</b>	no value	no value	no value	no value	no value	no value

- $L_{WA,d}$  is the statistical upper-limit A-weighted sound power level (rounded to the nearest 0.1 B).
- $L_{pAm}$  is the mean A-weighted sound pressure level measured at the operator position (rounded to the nearest dB).
- 1 B (bel) = 10 dB (decibel).

## Display

- Built-in 20-inch (viewable) or 24-inch (viewable) glossy widescreen TFT active-matrix liquid crystal display
- Resolution
  - 20-inch model: 1680 by 1050 pixels
  - 24-inch models: 1920 by 1200 pixels
- Millions of colors at all resolutions
- Typical viewing angle
  - 20-inch model:
    - 160° horizontal
    - 160° vertical
  - 24-inch models:
    - 178° horizontal
    - 178° vertical
- Typical brightness: 290 cd/m<sup>2</sup> (20-inch model); 385 cd/m<sup>2</sup> (24-inch models)
- Typical contrast ratio: 800:1 (20-inch model); 750:1 (24-inch models)

## Graphics and video support

- 20-inch and 24-inch model with 2.66GHz processor
  - NVIDIA GeForce 9400M graphics processor with 256MB of DDR3 SDRAM shared with main memory<sup>3</sup>
- 24-inch model with 2.93GHz processor, one of the following:
  - NVIDIA GeForce GT 120 graphics processor with 256MB of GDDR3 memory
  - NVIDIA GeForce GT 130 graphics processor with 512MB of GDDR3 memory
  - ATI Radeon HD 4850 graphics processor with 512MB of GDDR3 memory
- 24-inch model with 3.06GHz processor, one of the following:
  - NVIDIA GeForce GT 130 graphics processor with 512MB of GDDR3 memory
  - ATI Radeon HD 4850 graphics processor with 512MB of GDDR3 memory
- Mini DisplayPort output port with support for DVI, VGA, and dual-link DVI via adapter<sup>4</sup>
- Built-in iSight camera
- Support for extended desktop and video mirroring modes
- Simultaneously supports full native resolution on the built-in display and up to a 30-inch display (2560 by 1600 pixels) on an external display

## Processor and memory

- 2.66GHz, 2.93GHz, or 3.06GHz Intel Core 2 Duo processor
- 6MB shared L2 cache at full processor speed
- 1066MHz frontside bus
- 2GB (two 1GB SO-DIMMs) or 4GB (two 2GB SO-DIMMs) of 1066MHz DDR3 SDRAM; two SO-DIMM slots support up to 8GB

## Storage

### Hard drive<sup>5</sup>

- 20-inch model with 2.66GHz processor
  - 320GB 7200-rpm Serial ATA hard drive<sup>5</sup>
  - Optional 640GB or 1TB 7200-rpm Serial ATA hard drive
- 24-inch model with 2.66GHz or 2.93GHz processor
  - 640GB 7200-rpm Serial ATA hard drive
  - Optional 1TB 7200-rpm Serial ATA hard drive
- 24-inch model with 3.06GHz processor
  - 1TB 7200-rpm Serial ATA hard drive

### Optical drive

- Slot-loading 8x SuperDrive (DVD±R DL/DVD±RW/CD-RW)
  - Writes DVD+R DL and DVD-R DL discs at up to 4x speed
  - Writes DVD-R and DVD+R discs at up to 8x speed
  - Writes DVD-RW discs at up to 6x speed and DVD+RW discs at up to 8x speed
  - Reads DVDs at up to 8x speed
  - Writes CD-R discs at up to 24x speed
  - Writes CD-RW discs at up to 16x speed
  - Reads CDs at up to 24x speed

### Electrical and operating requirements

- Line voltage: 100–240V AC
- Frequency: 50Hz to 60Hz, single phase
- Maximum continuous power: 200W (20-inch model); 280W (24-inch models)
- Operating temperature: 50° to 95° F (10° to 35° C)
- Storage temperature: –40° to 185° F (–40° to 85° C)
- Relative humidity: 5% to 95% noncondensing
- Maximum altitude: 10,000 feet

### What's in the box

- iMac
- Apple Keyboard
- Mighty Mouse
- Cleaning cloth
- Power cord
- Install/restore DVDs
- Printed and electronic documentation

### Configurations

	20-inch iMac(MB417LL/A)	24-inch iMac(MB418LL/A)	24-inch iMac(MB419LL/A)	24-inch iMac(MB420LL/A)
Processor	2.66GHz Intel Core 2 Duo	2.66GHz Intel Core 2 Duo	2.93GHz Intel Core 2 Duo	3.06GHz Intel Core 2 Duo
L2 cache	6MB shared			
Frontside bus	1066MHz			
Memory	2GB (two 1GB SO-DIMMs) of 1066MHz DDR3 SDRAM; supports up to 8GB	4GB (two 2GB SO-DIMMs) of 1066MHz DDR3 SDRAM; supports up to 8GB		
Hard drive	320GB Serial ATA <sup>5</sup> ; 7200 rpm	640GB Serial ATA <sup>5</sup> ; 7200 rpm		1TB Serial ATA <sup>5</sup> ; 7200 rpm

Optical drive	Slot-loading 8x SuperDrive with 4x double-layer burning (DVD±R DL/DVD±RW/CD-RW)			
Display	20-inch (viewable) glossy widescreen TFT active-matrix LCD, 1680 by 1050 pixels, millions of colors	24-inch (viewable) glossy widescreen TFT active-matrix LCD, 1920 by 1200 pixels, millions of colors		
Video	Built-in iSight camera; Mini DisplayPort output with support for DVI, dual-link DVI, and VGA video connections via adapter <sup>4</sup>			
Graphics	NVIDIA GeForce 9400M with 256MB of DDR3 SDRAM shared with main memory <sup>3</sup>	NVIDIA GeForce GT 120 with 256MB of GDDR3 memory	NVIDIA GeForce GT 130 with 512MB of GDDR3 memory	
FireWire	One FireWire 800 port; 7 watts			
USB	Four USB 2.0 ports on computer; two USB 2.0 ports on keyboard			
Audio	Built-in stereo speakers with 24-watt digital amplifier, built-in microphone, optical digital audio output/headphone out, optical digital audio input/audio line in			
Ethernet	Built-in 10/100/1000BASE-T (Gigabit)			
Wireless	Built-in AirPort Extreme Wi-Fi (802.11n) <sup>2</sup> ; built-in Bluetooth 2.1 + EDR (Enhanced Data Rate)			
Hardware accessories	Apple Keyboard and Apple Mighty Mouse			
Other	Built-in IR receiver	Built-in IR receiver, optional VESA mount adapter kit		
Configure-to-order options	<ul style="list-style-type: none"> <li>• 4GB Memory Upgrade (two 2GB)</li> <li>• 8GB Memory Upgrade (two 4GB)</li> <li>• 640GB or 1TB Hard Drive</li> <li>• Apple Keyboard with Numeric Keypad</li> <li>• Apple Wireless Keyboard</li> <li>• Apple Wireless Mighty Mouse</li> <li>• Apple USB Modem</li> <li>• Apple Remote</li> <li>• Software: iWork '09, Aperture, Logic Express, Final Cut Express</li> </ul>	<ul style="list-style-type: none"> <li>• 8GB Memory Upgrade (two 4GB)</li> <li>• 1TB Hard Drive</li> <li>• Apple Keyboard with Numeric Keypad</li> <li>• Apple Wireless Keyboard</li> <li>• Apple Wireless Mighty Mouse</li> <li>• Apple USB Modem</li> <li>• Apple Remote</li> <li>• Software: iWork '09, Aperture, Logic Express, Final Cut Express</li> </ul>	<ul style="list-style-type: none"> <li>• 3.06GHz Intel Core 2 Duo</li> <li>• NVIDIA GeForce GT 130 or ATI Radeon HD 4850 with 512MB of GDDR3 Memory</li> <li>• 8GB Memory Upgrade (two 4GB)</li> <li>• 1TB Hard Drive</li> <li>• Apple Keyboard with Numeric Keypad</li> <li>• Apple Wireless Keyboard</li> <li>• Apple Wireless Mighty Mouse</li> <li>• Apple USB Modem</li> <li>• Apple Remote</li> <li>• Software: iWork '09, Aperture, Logic Express, Final Cut Express</li> </ul>	<ul style="list-style-type: none"> <li>• ATI Radeon HD 4850 with 512MB GDDR3 of Memory</li> <li>• 8GB Memory Upgrade (two 4GB)</li> <li>• Apple Keyboard with Numeric Keypad</li> <li>• Apple Wireless Keyboard</li> <li>• Apple Wireless Mighty Mouse</li> <li>• Apple USB Modem</li> <li>• Apple Remote</li> <li>• Software: iWork '09, Aperture, Logic Express</li> </ul>
Limited warranty and service	Your iMac comes with 90 days of free telephone support and a one-year limited warranty. Purchase the AppleCare Protection Plan to extend your service and support to three years from your computer's purchase date. Only the AppleCare Protection Plan provides you with direct telephone support from Apple technical experts and the assurance that repairs will be handled by Apple-authorized technicians using genuine Apple parts. For more information, visit Apple support or call 800-823-2775.			
Apple and the global environment	Learn more about Apple's dedication to reducing the environmental impact of our products and process. The Apple Product Environmental Specification details the environmental attributes of our products.			
Recycling	Apple takes a holistic view of materials management and waste minimization. Learn more about how to recycle your Mac.			

## Options Accessories

- Time Capsule (MB276LL/A)
- AirPort Express Base Station (MB321LL/A)
- AirPort Extreme Base Station (MB053LL/A)
- Apple Wireless Keyboard (MB167LL/A)
- Apple Wireless Mighty Mouse (MB111LL/A)
- Apple 8x DVD-R Media Kit (M9472G/A)
- Apple Mini DisplayPort to DVI Adapter (MB570)

- Apple Mini DisplayPort to VGA Adapter (MB572)
- Apple Mini DisplayPort to Dual-Link DVI Adapter (MB571)
- Apple FireWire Cable (M8706G/A)
- AppleCare Protection Plan (MA520LL/A)
- iMac 24-inch VESA Mount Adapter (MB060G/A)

## **Applications**

- iWork (MB3942Z/A)
- Aperture (MB284Z/A)
- Logic Express (MA806LL/A)
- Final Cut Express (MB278Z/A)
- MobileMe Subscription (MB824Z/A)

1. Weight varies by configuration and manufacturing process.
2. Wireless Internet access requires a wireless access point and Internet access; fees may apply.
3. Memory available to Mac OS X may vary depending on graphics needs. Minimum graphics memory usage is 256MB.
4. Adapters are sold separately.
5. 1GB = 1 billion bytes and 1TB = 1 trillion bytes; actual formatted capacity less.