Apple – Mac Pro – Tech Specs 7/27/10 7:25 AM

Design

Features

Performance

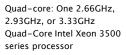
Environment

**Tech Specs** 

# **Technical Specifications**

### **Processing**

8-core: Two 2.26GHz, 2.66GHz, or 2.93GHz Quad-Core Intel Xeon 5500 series processors





Next-generation Intel microarchitecture

- 8MB of fully shared L3 cache per processor
- Integrated memory controller
- Turbo Boost dynamic performance (up to 3.33GHz on 8-core 2.93GHz system, up to 3.6GHz on quad-core 3.33GHz system)
- Hyper-Threading technology for up to 16 virtual cores
- 128-bit SSE4 SIMD engine
- 64-bit data paths and registers
- Optimized for energy efficiency

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### Memory

1066MHz DDR3 ECC SDRAM

8-core: Eight memory slots (four per processor) supporting up to 32GB of main memory using 1GB, 2GB, or 4GB DIMMs

Quad-core: Four memory slots supporting up to 16GB of main memory using 1GB, 2GB, or 4GB DIMMs

### Graphics and displays

Double-wide, 16-lane PCI Express 2.0 graphics slot with one of the following graphics cards installed:

- NVIDIA GeForce GT 120 with 512MB of GDDR3 memory, PCI Express 2.0, one Mini DisplayPort, and one dual-link DVI port
- ATI Radeon HD 4870 with 512MB of GDDR5 memory, PCI Express 2.0, one Mini DisplayPort, and one dual-link DVI port





Multiple graphics card configurations available with two. three. or four NVIDIA GeForce GT 120 cards

### Storage

Four 3.5-inch cable-free, direct-attach hard drive bays with built-in independent 3Gb/s Serial ATA channels; four internal hard drive carriers included



Up to 8TB of internal storage <sup>3</sup> in hard drive bays 1 through 4 using hard drives in the following capacities:

- 640GB Serial ATA 3Gb/s, 7200 rpm, 16MB cache
- 1TB or 2TB Serial ATA 3Gb/s, 7200 rpm, 32MB cache
- Optional Mac Pro RAID Card with 512MB cache and 72-hour cache battery backup
- 18x SuperDrive with double-layer support (DVD¬±R¬†DL/DVD¬±RW/CD-RW)
  - Writes DVD+R and DVD-R discs at up to 18x speed
  - Writes DVD+R DL and DVD-R DL discs at up to 8x speed
  - Writes DVD+RW discs at up to 8x speed
  - Writes DVD-RW discs at up to 6x speed
  - Reads DVDs at up to 18x speed
  - Writes CD-R and CD-RW discs at up to 32x speed
  - Reads CDs at up to 32x speed
- One open optical drive bay for optional second SuperDrive

### Electrical and operating requirements

- Line voltage: 100-120V AC or 200-240V AC (wide-range power supply input voltage)
- Frequency: 50Hz to 60Hz single phase
- Current: Maximum of 12A (low-voltage range) or 6A (high-voltage range)
- Operating temperature: 50° to 95° F (10° to 35°
   C)
- Storage temperature: -40° to 116° F (-40° to 47° C)
- Relative humidity: 5% to 95% noncondensing
- Maximum operating altitude: 10,000 feet

### Connections and audio

Four FireWire 800 ports (two on front panel, two on back panel)

Five USB 2.0 ports (two on front panel, three on back panel)

Two USB 2.0 ports on included keyboard

Front-panel headphone minijack and internal speaker

Optical digital audio input and output TOSLINK ports

Analog stereo line-level input and output minijacks



### PCI Express expansion

Three open full-length PCI Express expansion slots  $^{5}$ 

- One PCI Express 2.0 x16 slot
- Two PCI Express 2.0 x4 slots

All slots provide mechanical support for 16-lane cards

300W combined maximum for all PCI Express slots

### Software

Mac OS X v10.6 Snow 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 (includes iPhoto, iMovie, iDVD, iWeb, and GarageBand)

You can also have the following software preinstalled, only at the Apple Online Store:

- iWork
- Final Cut Express
- Aperture
- Logic Express
- FileMaker
- MobileMe

### Size and weight

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Support for up to eight 30-inch displays 1

Support for digital resolutions up to 2560 by 1600 pixels

Support for analog resolutions up to 2048 by 1536 pixels

Video adapters available for:

- Additional DVI output using Mini DisplayPort to DVI Adapter (optional)
- Additional dual-link DVI output using Mini DisplayPort to Dual-Link DVI Adapter (optional)
- VGA output using Mini DisplayPort to VGA Adapter or DVI to VGA Display Adapter (optional)

Two independent



Bluetooth 2.1 + Enhanced Data Rate (EDR) wireless technology

- BFR-free
- PVC-free (internal cables)
- Highly recyclable aluminum enclosure
- Meets ENERGY STAR 5.0 requirements 4
- Rated EPEAT Gold<sup>4</sup>





JIEC 4114 17CIGIIC

Height: 20.1 inches (51.1 cm) Width: 8.1 inches (20.6 cm) Depth: 18.7 inches (47.5 cm) Weight (standard configuration):

■ 8-core: 41.2 pounds (18.7 kg)<sup>6</sup> ■ Quad-core: 39.9 pounds (18.1 kg)<sup>6</sup>

### In the box

Mac Pro

Power cord

Apple Keyboard with Numeric Keypad and Apple Mouse

USB keyboard extension cable

Install/restore DVDs

Printed and electronic documentation

# Communications

10/100/1000BASE-T Ethernet (RJ-45) interfaces with support for iumbo frames



Optional AirPort Extreme 802.11n Wi-Fi wireless networking card; 2 IEEE 802.11a/b/g compatible

## Configuration Options See detailed pricing and configurations

### Ouad-Core (MB871LL/A)

2.66GHz Quad-Core Intel Xeon

640GB Serial ATA (3Gb/s); 7200 rpm

8MB fully shared L3 cache

3GB (three 1GB DIMMs) of 1066MHz DDR3 ECC SDRAM

8-Core (MB535LL/A)

Two 2.26GHz Quad-Core Intel Xeon

8MB fully shared L3 cache per processor

6GR (six 1GR DIMMs) of 1066MHz DDR3 ECC SDRAM

PCI Express 2.0 graphics

Hard disk drive

Processor

Cache

Memory

Optical drive

Wireless

**PCI Express** 

Build-to-Order Options

18x SuperDrive with double-layer support (DVD±R DL/DVD±RW/CD-RW)

Built-in Bluetooth 2.1 + EDR (Enhanced Data Rate) wireless technology

NVIDIA GeForce GT 120 with 512MB GDDR3 memory, Mini DisplayPort, and dual-link DVI video output

Three open full-length PCI Express 2.0 expansion slots with mechanical support for 16-lane cards; 300W combined maximum for

all PCI Express slots

2.93GHz Quad-Core Intel Xeon

3.33GHz Quad-Core Intel Xeon

6GB memory (three 2GB DIMMs)

8GB memory (four 2GB DIMMs)

12GB memory (three 4GB DIMMs) 16GB memory (four 4GB DIMMs)

ATI Radeon HD 4870 with 512MR GDDR5

Two NVIDIA GeForce GT 120

Three NVIDIA GeForce GT 120

Two 2.66GHz Quad-Core Intel Xeon

Two 2.93GHz Quad-Core Intel Xeon

8GB memory (four 2GB DIMMs)

12GB memory (six 2GB DIMMs)

16GB memory (eight 2GB DIMMs)

32GB memory (eight 4GB DIMMs)

ATI Radeon HD 4870 with 512MB GDDR5

Two NVIDIA GeForce GT 120

Three NVIDIA GeForce GT 120

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Four NVIDIA GeForce GT 120

Hard drive bays 1–4: 640GB, 1TB, or 2TB Serial ATA 3Gb/s (7200 rpm)  $^{\rm 3}$ 

Mac Pro RAID Card

Two 18x SuperDrive optical drives

AirPort Extreme Wi-Fi card with 802.11n<sup>2</sup>

Apple Keyboard

Apple Wireless Keyboard

Dual-Channel 4Gb Fibre Channel card

Quad-Channel 4Gb Fibre Channel card

Four NVIDIA GeForce GT 120

Hard drive bays 1–4: 640GB, 1TB, or 2TB Serial ATA 3Gb/s (7200 rpm)  $^{3}$ 

Mac Pro RAID Card

Two 18x SuperDrive optical drives

AirPort Extreme Wi-Fi card with 802.11n <sup>2</sup>

Apple Keyboard

Apple Wireless Keyboard

Dual-Channel 4Gb Fibre Channel card

Quad-Channel 4Gb Fibre Channel card

# Learn more about options for Mac Pro.



### **Upgrades**

1GB Memory Kit

2GB Memory Kit

4GB Memory Kit

640GB SATA Drive Kit

1TB SATA Drive Kit

2TB SATA Drive Kit

Promise 450GB SAS Drive for Mac Pro

Mac Pro RAID Card

ATI Radeon HD 4870 Graphics Upgrade Kit

Apple Dual-Channel 4Gb Fibre Channel PCI Express Card

Apple Quad-Channel 4Gb Fibre Channel PCI Express Card



### Accessories

Apple LED Cinema Display

Time Capsule

AirPort Extreme Base Station

AirPort Express Base Station

Apple Keyboard

Apple Wireless Keyboard

Magic Mouse

MobileMe Subscription

AppleCare Protection Plan



### **Applications**

Final Cut Studio

Final Cut Express

Aperture

Logic Pro

Logic Express

Mac OS X Server v10.6 (Unlimited-client license)

Apple Remote Desktop

iWork

### **Apple Online Store**



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Configure your Mac Pro now

- $1. \ \ \mbox{Requires installation of four NVIDIA GeForce GT 120 graphics cards.}$
- 2. Wireless Internet access requires a wireless access point and Internet access; fees may apply.
- 3. 1GB = 1 billion bytes and 1TB = approximately 1 trillion bytes; actual formatted capacity less.
- 4. Mac Pro systems configured with a Mac Pro RAID card or Fibre Channel card do not meet ENERGY STAR and EPEAT requirements.
- $5.\,$  PCI Express slots are not compatible with PCI or PCI-X expansion cards.

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6. Actual weight varies by configuration and manufacturing process.

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