

DESKTOP BUYING GUIDE

Finding the right desktop specs

Like most consumers, you probably have an idea of how much you want to spend on a desktop. But how do you ensure that you get exactly what you need? The different shapes and sizes, the wide range of configurations, and the seemingly constant arrival of new and faster technology all make for a difficult decision. To help you find the right mix, I've outlined three basic types of PC users.

General purpose user

These days, \$500 to \$1,500 will net you a desktop with a dual-core CPU and enough power to run productivity apps, view and edit vacation photos, manage MP3s and videos, and even play many of today's games--the core activities most common to families, students, and the general purpose PC user. At \$1,000 and up, you should easily be able to perform those tasks. Spend around \$500, and in most cases you'll still be able to run common tasks without delay, although 3D gaming becomes a stretch.

You will definitely find a dual-core chip in a \$500 PC, and you're likely to encounter a quad-core processor near this price point as well. (Entry-level Nettops--the desktop version of a Netbook--are really the only PC you'll find using a single-core processor; they often feature the Intel Atom processor, the energy-efficient chip used in many Netbooks.) A good low-end to midrange desktop will feature 4GB of memory at minimum, and as you climb closer to \$1,000, PCs will offer 6GB or 8GB of RAM. Integrated graphics are the norm for PCs hovering around the \$500 mark, but a midrange graphics card from Nvidia or ATI with 256B or 512MB of video RAM is common as you move closer to \$1,000.

If you're leaning toward Apple, your desktop options are the Mac Mini and the iMac. Either will get the job done for the majority of home users. Apple's pricey Mac Pro is strictly for digital media professionals and serious hobbyists.

What to look for:

Quad-core CPU (Intel Core 2 Quad, Intel Core i5, AMD Phenom II X4, AMD Athlon II X4)
or Dual-core CPU (Intel Core 2 Duo, Intel Core i3, AMD Phenom II X2, AMD Athlon II X2)

4GB to 8GB of DDR2 SDRAM or DDR3 SDRAM

Integrated graphics chip from Intel, ATI, or Nvidia, or discrete ATI or Nvidia graphics card with 256MB to 1GB of video memory

500MB to 1TB hard drive - Dual-layer DVD burner or plain DVD burner

Windows 7 Home Premium (64-bit)

Digital media enthusiast

Whether you're editing photos or videos, or simply using your PC as a DVR, storage capacity is of the utmost importance to the digital media enthusiast. You'll also want a fairly robust configuration to run demanding editing programs such as Photoshop or Final Cut, but you'd be best served putting your money toward a fast processor rather than a high-end graphics cards. Graphics cards are needed for 3D games, but 2D graphics most heavily tax the CPU and memory. So, buy the best six-core or quad CPU and as much RAM as you can afford. Storage is relatively affordable, so it won't cost you too much to get a 1TB or 2TB hard drive (or two) to store your photos, videos, and music.

If your enthusiasm for digital media stops short of editing and includes merely recording, storing, and watching, you can get by with lower-end components. Your focus should be on storage capacity and video connections. Video files are large, so we suggest at least 1TB of storage space. Also make sure your PC's video- and audio-out connections match the connections on your HDTV. Most likely you'll use HDMI, with DVI or DisplayPort being the other suspects. Living-room-friendly desktops typically come in a slim tower like Gateway's SX2800 series, or another small form factor such as Apple's Mac Mini, or Dell's Inspiron Zino HD. Because of their size and design, these smaller PCs have limited room for expansion, if they offer any at all. You may get only one hard-drive bay, for example, or you may need to stick with half-height expansion cards.

A pertinent question to ask yourself with a media PC: do you want to use your TV as your primary display? Queuing up Netflix streaming or Hulu.com is easy enough on your PC-connected TV, but simple PC tasks, such as writing e-mail and instant messaging, aren't ideal with the 10-foot interface that comes with sitting on your couch and squinting at small text and icons. This is why we think that wireless networking and smaller, cheaper PCs have helped the media PC come a long way. By minimizing the cables and their own footprint, these less offensive computers make it easy to justify owning two PCs: one that's hooked up to the TV and a more traditional system that sits on your desk (or lap). The desk-bound PC can even store the bulk of your media files if your smaller system doesn't have a large enough hard drive. You can also look for a Windows Home Server or another centralized file storage device to share files with every PC in your home.

What to look for:

For editing video:

Six-core or quad-core CPU (Intel Core 2 Quad, Intel Core i5, Intel Core i7, AMD Phenom II X4, AMD Athlon II X4)

For watching video:

Dual-core CPU (Intel Core 2 Duo, Intel Core i3, AMD Phenom II X2, AMD Athlon II X2)

4GB to 8GB of DDR2 SDRAM or DDR3 SDRAM

For editing video:

Discrete ATI or Nvidia graphics card with 256MB to 1GB of video memory

For watching video:

Integrated graphics chip from Intel, ATI, or Nvidia

1TB or larger hard drive(s)

Dual-layer DVD burner or Blu-ray player and/or burner

Windows 7 Home Premium (64-bit) or Mac OS X Snow Leopard

Home office worker

Graphics are less of a concern for most businesses, unless you run a design shop. At minimum, you'll want a system with enough power for multitasking your daily office chores. A dual-core processor will get the job done for most workers, though quad-core CPUs are trickling down into mainstream PCs and are a good bet for heavy multitaskers and any worker who spends a chunk of his or her day running graphic apps. A graphics card isn't required, and the money you save there can be put toward a larger flat-panel display and a better warranty. Of course, an iMac will get the job done, too, though at a higher price than your typical business PC.

What to look for:

Quad-core CPU (Intel Core 2 Quad, Intel Core i5, AMD Phenom II X4, AMD Athlon II X4)
or Dual-core CPU (Intel Core 2 Duo, Intel Core i3, AMD Phenom II X2, AMD Athlon II X2)

4GB to 8GB of DDR2 SDRAM or DDR3 SDRAM

Integrated graphics chip from Intel, ATI, or Nvidia, or discrete ATI or Nvidia graphics card with 256MB to 1GB of video memory

5TB or larger hard drive

Dual-layer DVD burner

Windows 7 Home Premium (64-bit), Windows 7 Professional (64-bit), or Mac OS X Snow Leopard

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