

August 2016 How to Buy Computers

This may seem to be a “fluff” article. After all, if you need a computer, you can just run down to BestBuy, Walmart or Office Depot and just pick one up, right? If you don’t have specific needs and just want to surf, get email, and check social media, it is true that computers these days are good, fast, and reliable – so it may not matter what you get. Or does it? I say it’s best to spend a few mental calories before spending the green stuff in your wallet.

First, consider how you will use your computer, and what you may do with it in the future. Many times people tell me they just want to surf and get email. But when asked, most people admit they want to do more with it in the future. The most common thing I hear from most folks is they wish to edit photos or home video someday. That simple statement is a game-changer: not just any computer will do, you need one with an excellent video processor and screen resolution.

In the case of laptops, there is a tug of war between long battery life, light weight, and file storage capacity. You only get to pick two: you can’t have all three... at least not yet. If you want long battery life and light weight, you’ll have to put up with small disk capacity. The reason? Solid-State Disks (basically Flash Disks on steroids) are light and great for saving battery life, but have small capacity. Flip side, if you pick large storage capacity because you have a lot of files, you will have to put up with more weight and shorter battery life, because traditional Hard Disks are heavy and use a lot of battery.

So how do you pick? Easy: look up the specifications on the manufacturer’s website. Here’s what to look for:

But First: A Word About Chromebooks.

If you really, truly only want to surf, get email, stream a movie, and maybe create a document or spreadsheet once in a while, get a Chromebook. You can’t get any cheaper system out there that does what a Chromebook can do. But recognize that’s all a Chromebook can do: surf, email, documents, spreadsheets. Don’t even think about editing photos/videos.

Now, on to traditional Laptop/Desktop computer selections:

Operating System: This is the software that comes with your computer, typically Windows, or OS-X if you choose a Mac computer. Get the 64-bit version, skip anything that is 32-bit version.

Processors (CPU): There are many types of processors, but stick with Intel-brand processors. The rest are nice, but typically cheaper because they are slower. Look for Intel processors beginning with “i3-xxxx”, “i5-xxxx”, or “i7-xxxx” numbers. The higher the prefix, the faster the processor. “i3-xxxx” is nice, but an “i5-xxxx” is faster, and the “i7-xxxx” is faster still.

RAM (working memory): If the computer is a desktop, get 8GB (gigabytes) of RAM, if the computer is a laptop, 4GB of RAM is OK, but 6GB or 8GB is better.

Video: This is the one specification that can cause buyer’s remorse very quickly. The reason is that generic web surfing, email, and document creation does not use much video power. However, if you venture into photo/video editing, Computer Aided Design (CAD), Engineering Simulations, or heavy-duty 3D Gaming, you need a heavy-duty video graphics card in your machine. There are two types: Shared Video and Discrete Video.

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Shared Video means the graphics processor shares RAM with the CPU. That's fine and dandy for generic computer use. But if you need video power, your graphics processor should have its own discrete RAM all to itself. Like the kindergartner who flunked sharing, the **Discrete Video** processor specification will have some amount of its own memory reserved just for video processing. If the video processor spec does not show a separate amount of memory, or explicitly says "shared" in the description, then it's not discrete video.

Disk Storage: Like video, there are two types: Hard Disk Drive (HDD) and Solid State Disk Drive (SSD). SSD has no moving parts, is super-fast, light, and almost shockproof. However, SSD is a new technology, is more expensive, and has lower capacity than an HDD. HDD is the familiar old hard disk with spinning platters. If you have a lot of photos, music or just plain old data files, you probably want a computer with an HDD. If you don't have a lot of files, and want ultimate speed, then get a computer with an SSD.

CD or DVD Player: Do you still have old CD's or DVD's with your favorite movies hanging around? Or do you stream everything off the Internet? Many current laptop computers do not have CD or DVD drives anymore: like Hard Disks, they eat up a lot of battery power, and add weight. Check the specifications list before buying a laptop if you need to use CD or DVD disks. If you have your heart set on a specific laptop that does not have a CD/DVD drive, there is hope: you can purchase an external, portable CD/DVD drive and plug it in with a USB cable.

Network Connections: **Wireless connection** speed is important for best performance: you should look for the "802.11ac" specification as the fastest available currently. If the spec only mentions "802.11n", that is somewhat an old standard, you might want to steer clear of it. **Wired connections** are also important: look for a spec like this: 10/100/1000 mbps. That tells you the wired connection can handle all the current network speeds, right up to the fastest. If you see a spec like "10/100" that manufacturer skimmed on a few nickels and gave you a slow network card.

I have used the MicroCenter.com website to create one sample comparison for laptops and one for desktops. In each comparison I have highlighted the differences in specifications and what they mean.

Laptop Comparison:

<http://medofficesystems.com/newsletter/2016-08-01-Laptops.pdf>

Desktop Comparison:

<http://medofficesystems.com/newsletter/2016-08-01-Desktops.pdf>

Happy Shopping!

-John Becker