



Laptop Buying Guide

Finding the right laptop to buy can be an overwhelming and intimidating experience for many people. There are a lot of different factors to consider when choosing the perfect laptop, such as its processor, memory, weight and accessories. Sometimes, prioritizing these features in order to make an informed decision that is within your budget can be difficult. That is why Intel Corporation has put together a laptop buying guide to help people make informed decisions when buying their next laptop.

It's important to remember that a computer is often the backbone of your daily activities. It may be your source of entertainment, your personal assistant, your confident and your friend. It's also often your connection to friends and family and the hub of your digital life. When determining what kind of laptop is best for you, a good starting point is to ask yourself "what am I going to do with my computer?" The answer to this question will help determine the answers to the more detailed areas below.

For example, are you going to primarily keep your laptop at home or will it go places with you? This may impact the how highly you prioritize the size and weight of your computer. Do you travel frequently? Again, this may impact your ideal laptop's size and weight. Do you primarily just surf the Internet and do e-mail, or are you capturing and sharing lots of photos, downloading music and watching videos online? Your answers to these questions could impact the type of processor, amount of RAM, and graphics you choose. In the end, it's most important to keep in mind your intended use for a laptop, and that will help make the laptop buying process easier. Find additional tips from Intel below.

Tips to Consider When Buying a New Laptop

- **Processor – The brains inside the computer.** Choosing the right processor is very important because it plays a major role in the style, battery life, responsiveness and weight of the laptop. The processor also helps determine how fast the computer runs and adjusts to your activities. **Approximately eighty percent of the world's personal computers have Intel processors inside them.**¹ Intel's latest family of processors is called the Intel® Core™ processor family. In early 2011, Intel is coming out with the 2nd generation Intel® Core™ processor family. Specifically, the Intel Core i3, i5 and i7 processors. The higher the number, the better and more powerful the processor. But how powerful of a processor you need depends entirely on what you want to do with your computer.

The point: To decide which processor you need inside of a new laptop, choose from the following descriptions that best portrays your laptop needs.

- If you only need a very basic, entry-level system that is sufficient for word-processing, Internet surfing, and basic DVD viewing, then a laptop with [Intel Core i3](#) inside will work.
 - If you want to surf the web, tend to have numerous applications open at once, download and listen to music, upload pictures, create content such as blogs and watch online videos, then look for a laptop with [Intel Core i5](#) inside. Intel Core i5 gives that extra boostⁱⁱ for productivity and running multiple applications at one time. Intel recommends Core i5 for the majority of laptop users, including students.
 - If you're a serious multi-tasker, gamer, or multimedia enthusiast, you want to look for a laptop with [Intel Core i7](#) inside. The chips deliver unmatched processing power for the most demanding laptop users.
 - For more help with choosing the right processor, check out Intel's "[How to Choose the Right Processor](#)."
- **Battery Life – How long the computer keeps its charge.** The term “battery life” refers to how long a computer can function away from its power source after it’s charged. Some laptops have better battery lives than others. A number of factors affect the battery life of a laptop, including processor, screen size and multimedia activities. The Intel Core processors can actually aid in longer battery life because they are smart enough to know when extra power isn’t needed, so they slow down to conserve battery during those times. If you plan to travel with your laptop, then battery life is something you should pay attention to when you purchase your computer. Look for a laptop that has at least two hours of “standard battery life” and an Intel Core processor. And if you’re really concerned about battery life, you can usually purchase a larger battery when you buy the laptop. Larger batteries tend to mean more weight, so that’s something to keep in mind. Check out Intel’s tips for “[Extended Battery Life](#)” and getting the most out of your battery, whatever its size.

The point: Look for an Intel Core processor, which can help extend battery life. Additionally, if you’re going to be traveling with your computer, be sure to read up on the manufacturer’s listed battery life and make sure it’s over two hours “standard battery life” before you buy.
- **Graphics – How images appear on the screen.** Graphics is the word used to describe anything that you see on your computer’s screen other than text. It can include pictures, photos, windows, video and games. Traditionally, to display graphics you needed a special chip or card that was separate from the computer’s main processor. Beginning in 2009, Intel took the separate graphics chip and integrated it into the main Intel Core processors.

Today’s laptops with Intel Core inside will give you excellent performance for watching Blu-ray* or high definition Internet video. Intel will introduce its 2nd Generation Intel Core processors in early 2011 and they are suitable for all tasks including watching high definition video, 3D Blu-Ray*, and even running popular games like ‘World of Warcraft’ and ‘Starcraft 2.’ Intel’s graphics technologies also offer other benefits such as Intel® Wireless Displayⁱⁱⁱ, a feature that allows you to wirelessly project the contents of your laptop screen onto your big-screen TV. However if you are a hard-core gamer, you may still want to buy a separate add-in graphics chip along with the more powerful Intel processor, as together they allow for an even better gaming experience.

The point: Intel's integrated processor graphics are sufficient for most laptop users. However, if you're a hard-core gamer who enjoys very high screen resolutions, you may want to spend the extra money to buy a separate add-in graphics card, along with a more powerful Intel processor such as Intel Core i7, for the optimal gaming experience.

- **Networking – Ability to connect to the Internet.** Most people want wireless Internet-connected laptops these days and there are a few ways to do that. Most laptops come with Wi-Fi, which allows you to connect to the Internet wirelessly at hotspots or if you have a WiFi network at home. [Intel® WiMAX](#) is 4G mobile broadband access technology that comes with certain laptops. WiMAX wireless broadband covers large areas, often entire cities, so instead of having to go to a coffee shop to get connected to the Internet, you could be anywhere in a WiMAX-enabled city like on the train or in a park^{iv}. You do need to be in an area where [WiMAX service](#) is available, but the technology is spreading quickly. Service agreements are offered as day passes and for longer-term plans. Several Intel Core processor-based laptops come with WiMAX technology built right inside the computer. Be sure to look for this in the product description.

Some Intel Core processor-powered notebooks can also come with a new wireless technology, Intel's [Wireless Display \(WiDi\)](#), for projecting the content of your laptop wirelessly onto your HD television screen. It's very simple to set up and allows for easy video watching and multimedia enjoyment. An additional adapter is necessary to make this work and is typically sold at the same place as the Intel WiDi-enabled laptops.

The point: Look for a laptop that has built-in Intel WiFi, and add Intel WiMAX so that you can connect to the Internet wirelessly. To easily share photos and videos on your TV consider a laptop with Intel WiDi.

- **RAM – How much memory is available on your computer.** Random Access Memory (RAM) is measured in gigabytes (GB). Your computer uses RAM to temporarily store information while you're using it (before you manually save it to your hard drive). The amount of RAM affects how your computer performs, particularly while running multiple applications simultaneously. The higher the number of gigabytes, the more temporary memory you have. However, that doesn't mean you need to have the highest number of GB possible in order to have a computer that suits your needs. What you want to do with your computer determines how high GB you need.

The point: For basic computing, a laptop with a RAM of 1 GB is probably sufficient. If you plan to have many documents open at once and require a lot of data storage from your laptop, you should probably get a laptop with RAM of 2 to 4 GB. If you want to edit videos, photography or play games, you likely want to consider a laptop with 8 GB of RAM.

- **Hard Drives and Solid-State Drives (SSD) – Computer data storage.** Traditionally, when you purchase a laptop, it comes with a hard drive that stores your data. However, one of the single most significant improvements you can make to the performance of your computer is to replace a conventional hard disk drive with one of the new [solid-state drives from Intel](#). Traditional hard drives have mechanical parts and a spinning platter that takes longer to access data and make you vulnerable to a hard disk crash. Solid-State Drives (SSDs) have no moving parts, so are more rugged, consume less power and can improve your overall system responsiveness by up to 56 percent^v. A laptop with an SSD will boot up faster and open files quicker than a laptop with a conventional hard drive.

The point: For more reliable data storage and a more responsive computer, make sure to check the box to upgrade to an SSD, or purchase a Lenovo, HP or other system with an Intel® SSD already installed.

- **Weight – How much laptop can you carry?** Standard laptops weigh about five to seven pounds. Some laptops designed for gaming can weigh up to 15 pounds. Weight is determined by a number of factors: screen size, power, keyboard, and more. If you're willing to spend a little extra money, you can get a full functioning laptop that is ultra-slim and in turn, ultra-light. To go down in weight without going up in cost, you can still get a laptop in a smaller size, but you may have to skimp on a few features. What is most important to you? Functionality? Gaming? Light weight? Price?

The point: You have to decide if light weight is a big priority for you, or if enhanced performance and features are more important. Again, this comes down to the question: “what are you going to do with your computer?” If you're going to be using your laptop as a desktop replacement, and you're not going to be carrying your computer with you often, you probably don't need a light laptop. If you do plan to carry your computer back and forth from work, class, or other activities, or if you are a frequent traveler, having a light laptop is likely something you should prioritize.

- **Screen Size – The laptop screen measured in inches.** Laptop screens usually range from 12 to 20 inches, measured diagonally from one corner to the other. Screen size usually comes down to personal preference. Some people prefer to watch movies and play games on larger screens. Larger screens also usually have higher screen resolution, making images appear clearer. However, larger screens also take up more space, weigh more, and can decrease the computer's battery life.

The point: If you're going to be using your computer primarily for movie watching, gaming, multi-media editing, or as a desktop replacement, you may want a large screen. If you're going to be using your computer for more basic tasks, or if you're going to be carrying your computer out of your home, you may want a smaller, lighter screen.

- **Keyboard and mouse.** Attached to the laptop's keyboard is usually a variation of a “mouse” called a track pad or a pointing stick (some laptops have both). Before you buy a laptop, try out whichever mouse replacement the computer comes with and make sure it's something that is going to be comfortable for you to work with. If not, you can always purchase a wired or wireless external mouse that will work with the laptop. The size of the keyboard will depend on the size of the laptop. Again, the perfect size usually comes down to personal preference, so it's good to try typing on the keyboard before you purchase the computer. If you can't live with a small keyboard, there is also the option to purchase an external keyboard that you can use for your laptop.

The point: Laptop track pads, pointing sticks and keyboards come down to personal preference, so it's a good idea to try before you buy.

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ⁱ Need to cite to the 3rd party report that supports this. (Gartner, IDC, etc.)

ⁱⁱ Requires a system with Intel® Turbo Boost Technology capability. Consult your PC manufacturer. Performance varies depending on hardware, software and system configuration. For more information, visit <http://www.intel.com/technology/turboboost>

ⁱⁱⁱ Requires an Intel® Wireless Display enabled PC, TV Adapter, and compatible television. Available on select Intel® Core processors. Does not support Blu-Ray or other protected content playback. Consult your PC manufacturer. For more information, see www.intel.com/go/wirelessdisplay.

^{iv} Requires a WiMAX-enabled device and subscription to a WiMAX broadband service. May require purchase of additional software or hardware. WiMAX availability is limited; consult your service provider for details and network limitations. Actual performance will vary depending on your service provider and other variables. See www.intel.com/go/wimax for more information.

^v Measured by PCMark* Vantage*. Performance tests and ratings measured using a Toshiba* T410 laptop with 160GB 2.5" Intel® X25-M SATA Solid-State Disk and 320GB Hitachi* SATA Hard Disk Drive. Tests reflect approximate performance of Intel products as measured by those tests. For more information on performance tests and performance of Intel products, visit <http://www.intel.com/performance>.

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