



Know Your Definitions

Cheat Sheet: Computing Definitions Explained

As technology races ahead at a speed that most consumers can't keep up with, Intel® is providing a cheat sheet outlining what you need to look for in a new notebook. Each component is explained with information to remember so you can make a smart decision when buying a new PC.

Processor/CPU

DEFINITION: The processor, also known as the 'chip' or 'CPU' is the 'brain' of the computer and controls everything the computer does. Your PC does a lot of things, usually at the same time, like browsing the Internet, sending email, downloading music and working on documents.

So how do you choose the right Intel processor for you? Below is a list of available Intel processors arranged in order of technology and performance.

- 3rd generation Intel® Core™ i7 Processor: Top-of-the-line performance and speed. Visibly smart performance at its best.
- 3rd generation Intel® Core™ i5 Processor: Better adaptive speed with built-in visuals. Visibly smart performance with a boost.
- 3rd generation Intel® Core™ i3 Processor: Your first step to a better-looking PC experience with built-in visuals. Visibly smart performance starts here.
- Intel® Pentium® Processor: Intel's classic processor
- Intel® Celeron® Processor: Entry-level processing

REMEMBER: Upgrading a processor is not a DIY project. It is complex and expensive, particularly for notebook PCs. It is more practical to invest in the best Intel processor you can afford when buying a PC. Look for the Intel badge and make sure you are getting the best processor for your needs.

Gigahertz (Clock Speed)

DEFINITION: Clock speed is the rate at which a processor executes a task and is measured in Gigahertz (GHz). Once upon a time a higher number meant a faster processor, but advances in technology have made chips more efficient so they can do more with less.

For example: A 3rd generation Intel® Core™ i5 Processor running at 2.50 GHz is not necessarily faster than a 3rd generation Intel® Core™ i7 Processor running at 2.10 GHz.

REMEMBER: Don't compare computers based on clock speeds, unless they use processors from the same 'family' (such as Intel® Celeron®, Intel® Pentium® and 3rd generation Intel® Core™ i5 Processors)

WHAT'S NEW? Intel® Turbo Boost Technology 2.0 is one of the exciting new features built into 3rd generation Intel® Core™ i5 and i7 processors. It automatically delivers a greater boost of speed when your PC needs extra performance.



Hard Drive

DEFINITION: Think of the hard disk drive (HDD) as a computer's long-term memory. This acts like a filing cabinet for documents, photos, music, videos and so on. The size or capacity of a hard drive is measured in gigabytes (GB).

REMEMBER: Most notebook hard drives start at 160 gigabytes, and should be enough to start with. If you find yourself needing more storage space later, a cost-effective solution is to purchase an external USB 2.0 hard drive. You can also use this to back up your important files.



RAM

DEFINITION: Think of RAM as a computer's short-term memory. The computer uses RAM (also known as system memory) to process what you are doing while you are doing it. This includes doing multiple tasks at one time such as writing a letter while browsing a web site and downloading a video.

How much RAM do you need? 1GB is enough for running a number of programs like photo editing and basic 3D gaming. For flexibility, 2GB is recommended and should be enough for your everyday needs.

REMEMBER: Many notebook manufacturers now offer 4GB RAM as standard, so make sure not to spend too much money for extra RAM as it can be easily upgraded later on.

Graphics

DEFINITION: All computers need a graphics component to let you view images on your PC screen. There are two types of graphics:

- Integrated graphics: Offers the performance for everyday tasks such as watching High Definition online videos, viewing photos and working on presentations. Standard in 3rd generation Intel® Core™ i3, i5 and i7 processors, integrated graphics improve visual performance and notebook battery life.
- Discrete graphics: This comes in the form of an additional graphics card. They are ideal for high-end 3D gamers and professional designers and video editors, but they don't add much performance for everyday users.

REMEMBER: It's important to consider the right balance between your computer's processor, its graphics requirements and your needs.

WHAT'S NEW? 3rd generation Intel® Core™ processors come with built-in technology features that enable amazing visual experiences. From picture-perfect HD and 3D graphics capability to faster editing and sharing of videos, you can have it all – without needing to buy a graphics card.



Processor/CPU

The brain of the computer. Buy the best Intel processor you can afford, as it's difficult and expensive to upgrade later on.

GHz

The speed at which the processor runs. A higher GHz number does not always mean better performance.

Hard Drive

160GB is plenty of storage for everyday users. You can always upgrade the drive later, or get an external USB 2.0 hard drive if needed.

RAM

2GB of RAM is ideal for everyday use. You can always add more memory cheaply and easily later on.

Graphics

Integrated (built-in) graphics are ideal for everyday users. Only serious 3D gamers, designers and video editors need discrete graphics.