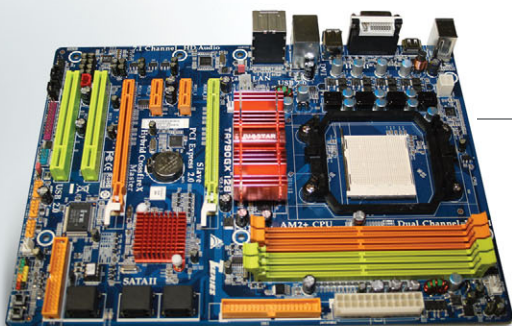


Anatomy Of A Computer

We can't tell you how many times we've heard someone confuse memory with hard drive space, as in, "My new laptop has 500GB of memory." And sometimes, even if the person knows there is a difference between the two, he couldn't tell you exactly what it is.

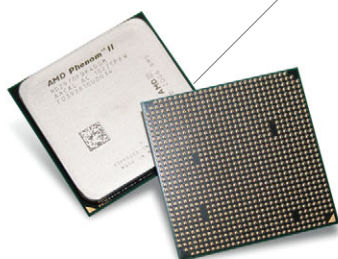
Let's clear up this and other mysteries with a primer on PC parts. Here are the main components of a desktop computer, lovingly depicted and annotated, as an introduction for new users or a refresher course for old hands.

by Marty Sems



Motherboard

This circuit board provides the foundation for all the components of a PC. It supplies connections between the CPU and everything else, aided and abetted by a chipset of one or two chips called the northbridge and southbridge.



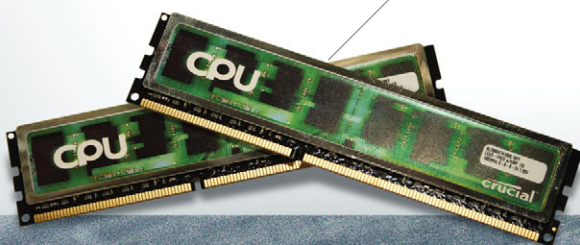
Processor

The CPU (central processing unit) is the main computational chip in a PC. The chipset, GPU, and other chips may handle various functions, but it's the processor that makes everything work together. Speaking very generally, a CPU with multiple cores (such as two or six) can run more applications at once without being bogged down, while a chip with a higher clock speed (such as 3.2GHz) can process data more quickly.



Graphics Card

Also called a video adapter or GPU (graphics processing unit). Many motherboards have integrated graphics, but dedicated cards are often necessary to play demanding games and accelerate certain applications such as video-editing programs.



RAM

The memory, or random access memory, gives the CPU fast, temporary storage space (such as 4GB) for data pulled from the hard drive or SSD (solid-state drive). RAM "forgets" data when you turn off the PC.



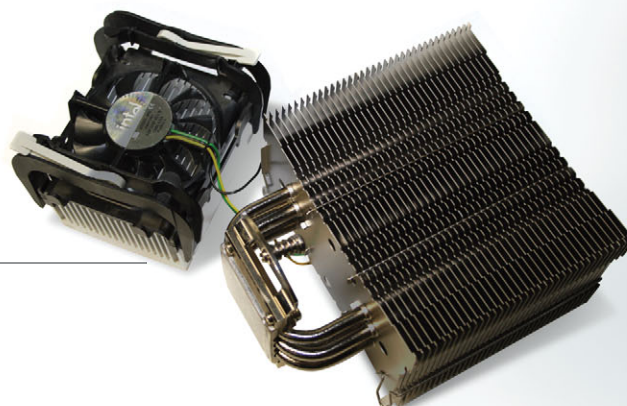
Hard Drive, SSD

A hard drive represents the most common and least expensive form of mass storage (such as 320GB or 2TB [terabytes]). It stores the OS (operating system), programs, and user data as magnetic fields on spinning disks. However, pricey solid-state drives (typically 30 to 256GB) are growing in popularity because of their extreme speed and other benefits.



Optical Drive

This type of storage drive can read and optionally write CDs, DVDs, and sometimes BDs (Blu-ray Discs).



Heatsink

CPUs, GPUs, and motherboard chipsets can burn out without these finned metal cooling units. Most wear fans and many have heatpipes (metal tubes with liquid inside) to dissipate even more heat.

Case Fan

Fans move air through a computer case to get rid of heat buildup. PC builders install fans in intake and/or exhaust positions and use bigger and/or thermally controlled models to minimize noise.



Power Supply Unit

Often abbreviated as PSU, a power supply unit turns AC house current into DC power for drives, the motherboard, and many graphics cards.

