

MOTHERBOARD CHIPSET

The "Chipset" is the set of components that control most of the activities that take place on the motherboard, and interfaces most of the parts of the otherboard.

First, the "chipset" is more than just the BIOS and the CPU. In fact, the CPU is not actually part of the CHIP set, but the chipset specifies what components the system will support. Among them are:

- The type and number of CPU slots.
- Size and type of L2 cache.
- Type of DRAM you can use.
- Amount of DRAM.
- DRAM Error Correction Code
- Universal Serial Bus support
- PCI Specifications
- and more

So, what can you do about the chipset you have in your computer. Nothing. Basically, you can update your BIOS, but the other chips are in the "you are stuck with what you got" category.

What you need to be concerned with is "what chipset is on the motherboard of the new computers we are buying?". There are several manufacturers of chipsets and I will include a little information (and opinions) about some of the chipsets. Intel is the best known manufacturer of processors and chipsets, but VIA, SIS, UMC, and ALI also manufacturer superior chipsets.

Intel has the "leg-up" on most other manufacturers because they have the fastest chipsets, and they were the inventors of the "Universal Serial Bus (USB)" and the "Advanced Graphics Bus (AGP)" technology.

So, what do you do about chipsets? When you decide to purchase a new computer or motherboard, you need to do some research on the manufacturers WEB sites, and on other independent WEB sites, look at evaluations conducted by periodicals such as PC Magazine, etc.

Now, let's list a few chipsets and some of their attributes:

Intel 430FX - This is the Intel "TRITON" chipset. It introduced the ability to use EDO RAM. It was limited in its support of RAM (DRAM), and allows no support for the USB technology. You may still find a few motherboards with this chipset, but newer chipsets offer more capabilities.

Its general characteristics are:

Single CPU; 512 KB L2 Cache - Async/Sync/Pipelined Burst; FPM and EDO RAM; 128 MB RAM (DRAM) – maximum; No ECC support; PCI 2.0; No USB or AGP support.

Intel 430HX - This is the "TRITON 2" chipset. It supports more memory than the 430FX and has ECC and USB and AGP support! It is supposed to be the best performing of the Intel chipsets, but does not have SDRAM capability.

Its general characteristics are:

Dual CPU; 512 KB L2 Cache - Pipelined Burst; FPM and EDO RAM; 512 MB RAM (DRAM) – maximum; ECC support = yes; DRAM timing at 66 MHz; PCI 2.1; USB and AGP support.

Intel 430VX - This is the "low-end" chipset - supposedly, but it has some great features including the "SDRAM" support! But basically it is a 430FX with a couple of enhancements.

Its general characteristics are:

Single CPU; 512 KB L2 Cache - Async/Sync/Pipelined Burst; FPM, EDO RAM, and SDRAM types of RAM!; 128 MB RAM (DRAM) – maximum; DRAM timings at 66 MHz; No ECC support; PCI 2.1; USB Support = yes; AGP Support = no.

Intel 430TX - Its general characteristics are: Single CPU; 512 KB L2 Cache - Pipelined Burst; FPM, EDO, and SDRAM types of RAM; 256 MB RAM (DRAM) – maximum; No ECC support; PCI 2.1; USB Support = yes; AGP Support = no.