RAM

Posted by JinaBrito - 2009/09/23 13:03

SRAM (static RAM): SRAM (static RAM) is random access memory (RAM) that retains data bits in its memory as long as power is being supplied. Unlike dynamic RAM (DRAM), which stores bits in cells consisting of a capacitor and a transistor, SRAM does not have to be periodically refreshed. Static RAM provides faster access to data and is more expensive than DRAM. SRAM is used for a computer's cache memory and as part of the random access memory digital-to-analog converter on a video card.

Dynamic random access memory (DRAM): Dynamic random access memory (DRAM) is the most common kind of random access memory (RAM) for personal computers, Web Design Firm and workstations. Memory is the network of electrically-charged points in which a computer stores quickly accessible data in the form of 0s and 1s. Random access means that the PC processor can access any part of the memory or data storage space directly rather than having to proceed sequentially from some starting place. DRAM is dynamic in that, unlike static RAM (SRAM), it needs to have its storage cells refreshed or given a new electronic charge every few milliseconds. Static RAM does not need refreshing because it operates on the principle of moving current that is switched in one of two directions rather than a storage cell that holds a charge in place. Static RAM is generally used for cache memory, which can be accessed more quickly than DRAM. DRAM stores each bit in a storage cell consisting of a capacitor and a transistor. Capacitors tend to lose their charge rather quickly; thus, the need for recharging. A variety of other RAM interfaces to the computer exist. These include: EDO RAM and SDRAM.

SDRAM (synchronous DRAM): SDRAM (synchronous DRAM) is a generic name for various kinds of dynamic random access memory (DRAM) that are synchronized with the clock speed that the microprocessor is optimized for. This tends to increase the number of instructions that the processor can perform in a given time. The speed of SDRAM is rated in MHz rather than in nanoseconds (ns). This makes it easier to compare the bus speed and the RAM chip speed. You can convert the RAM clock speed to nanoseconds by dividing the chip speed into 1 billion ns (which is one second). For example, an 83 MHz RAM would be equivalent to 12 ns.

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