

HARDWARE UPDATES

Desktop CPU Movement Updates...

Athlon XP and Duron are no longer available in the supply chain. Replacing them is Sempron from AMD. Sempron has 256KB Level 2 cache- double of Duron but half of Athlon XP. Sempron competes with Celeron D from Intel and targets the standard office, school, process work, and entry level system market. It is in the familiar Socket-A form factor, and continues the performance naming convention of 2400, 2600, and 2800 etc.

For the performance sector, AMD supplies Athlon64 and Athlon64FX. They have more L2 cache and stay on the same naming convention of 3000+, 3200+ and 3400+ etc. They are in the K8 family and 64bit capable. Unfortunately, they are not in the traditional Socket-A form factor but have 2 versions of 754 and 939 pins. AthlonFX has higher performance and is promoted for its cinematic effects by AMD. It only comes in 939pin format.

On the Intel side, Pentium4 and Celeron D are the mainstream processors. P4 Extreme Edition is the higher performance type comparable to Athlon64FX. They come in both the familiar 478pin and the new 775pin form factor. Owing to reasons not published, the 775pin version consumes more power than 479pin version and generates more heat for dissipation. The standard fan for 775pin is circular in shape and bigger. Intel has adopted the 300, 500 and 600 series naming convention for the 3 types of desktop processors respectively and remove a direct link to CPU speed.

Desktop Hard Disk Movement Update...

While hard disks with Serial ATA interface are slowly gaining popularity,

Seagate has released 250GB, 300GB and 400GB hard disks with IDE or parallel ATA interface (along with SATA/NCQ). These models come with 8MB cache and 7200RPM spin speed. The releases have definitely extended the dominance of IDE HDD for entry level use. In the meantime, SATA has got an NCQ series (native command queue) that performs better and is more expensive than non-NCQ models. However, most motherboards and controllers do not support NCQ yet so the benefits will take time to be effective. NCQ is a standard SCSI HDD feature that allows performance and reliability of the HDD to go up without a material change.



Small Form Factor Product Update...

Several readers have commented that the little Shuttle XPC looks really cool and prompted us to adopt a similar form factor. The so-called SFF small form factor is not an industry standard and applies to any desktop box smaller than a PC. It is accompanied by many proprietary designs including heat dissipation and use of components. It may not comply with some regulations such as electromagnetic interference. Vendors have put their effort on the exterior look rather than issues affecting total cost of ownership. They target the consumer market by appealing to emotions to buy. Intel is now promoting

a new standard called pico-BTX to compete with it.

Gigabit Ethernet Switch Product Update...

Planet has released a low cost 24 port twisted pair Gigabit Ethernet switch. The switch has one extra port for optic fibre cable as an uplink to another core switch over a maximum distance of 70KM. The switch supports a full suite of protocols including 802.1P for Quality of Service, 802.1Q for Virtual LAN, full SNMP for management, web, TFTP and Telnet for administration links, and 802.1X, Radius, SSH and SSL for security and protection. The price is amazingly low.

Optical Drive Product Updates...

LG has gained an inroad in the optical drive market. The LG branded CD Rom, CD Writers and DVD Writers are in fact designed and manufactured by Hitachi Data Storage- those of the fame that bought out IBM's disk manufacturing business in 2003. LG Optical Storage is just a retail brand. We mention this because our previous experiences with LG products have not been that wonderful and we were originally concerned with the use of the LG drives in Compucon systems. Needless to say we have a lot more faith in Hitachi's track record in Data Storage. The current model LG DVD Writer GSA-4163B is un-officially ranked as one of the top 2 favourite DVD Burners on the market according to several review sites.