Tech News:

SSD (Solid State Disk) Part II

As you probably know, the SSD is said to be the next "big idea" in the global IT industry. More and more notebook PC manufactures are introducing SSDs as their primary storage solution. From Asus's super-compact 1kg Eee PC to Apple's ultra-thin MacBook Air, the SSD can be applied to various fields with ease. Today we'll take a closer look at how the SSD is attached to different devices. Each type of interface has its own unique attributes and features.

IDE

IDE (Integrated Drive Electronics) was first introduced by Western Digital in 1986. it uses a 40 pin parallel cable for its data connection. IDE is sometimes referred to as **ATA (Advanced Technology Attachment)** or **PATA (Parallel ATA)** to distinguish it from SATA. Technically speaking, there are several IDE standards, all different from each other; their speeds and the types of cables they use are also different. However, they all fall under one general category: "IDE"

Each IDE cable can connect up to two IDE devices to the IDE controller on the motherboard. IDE devices include hard drives, CD-ROMs, or even SSDs. The device needs to be set as "Master", "Slave" or "Cable-Select" via the jumpers on the rear. The connection speed for IDE varies from generation to generation and tops out at 133MB/s for UDMA 6.

SATA

SATA (Serial ATA) is a dramatic change from PATA (or IDE). The transfer rate increases to 1.5Gbit/s. With SATA 2, the transfer rate doubles, reaching 3.0Gbit/s. SATA uses a brand new cable design which allows better air flow for temperature reduction. It also supports hot swapping, the ability to remove or add devices while operating. SATA also supports an external connection named "eSATA", which is used as a faster alternative to USB for external HDDs.

	IDE (PATA)	SATA
Cable	40 pin parallel cable	7 pin serial cable
Transfer Speed	Up to 133 MB/s	Up to 300 MB/s
External device supported	No	Yes

SATA will eventually replace PATA as the dominant connection interface for hard drives and SSDs. Its serial point-to-point architecture greatly improves the transfer speed and data integrity. PEAK SSDs will also feature the SATA interface for maximum data transfer speed. For more information, please visit our website at www.peakhardware.com

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