A solid-state drive (SSD) (also known as a solid-state disk or electronic disk, though it contains no actual disk) is a data storage device using integrated circuit assemblies as memory to store data persistently. SSD technology uses electronic interfaces compatible with traditional block input/output (I/O) hard disk drives, thus permitting simple replacement in common applications. Additionally, new I/O interfaces, like SATA Express, have been designed to address specific requirements of the SSD technology.

SSDs have no moving (mechanical) components. This distinguishes them from traditional electromechanical magnetic disks such as hard disk drives (HDDs) or floppy disks, which contain spinning disks and movable read/write heads. Compared with electromechanical disks, SSDs are typically more resistant to physical shock, run silently, have lower access time, and less latency. However, while the price of SSDs has continued to decline over time, SSDs are still roughly seven to eight times more expensive per unit of storage than HDDs.

As of 2014, most SSDs use NAND-based flash memory, which retains data without power. For applications requiring fast access, but not necessarily data persistence after power loss, SSDs may be constructed from random-access memory (RAM). Such devices may employ separate power sources, such as batteries, to maintain data after power loss.

Hybrid drives or solid state hybrid drives (SSHD) combine the features of SSDs and HDDs in the same unit, containing a large hard disk drive and an SSD cache to improve performance of frequently accessed data.

* solid-state drive – твердотельный накопитель
* floppy disk – дискета
* latency – задержка
* to decline – снижаться, спадать
* roughly – примерно
* thus permitting – что позволяет
* persistence – постоянство
* performance – производительность
* power source – источник питания
* to distinguish – различать

1. What technology SDD uses?
2. What distinguishes SSDs from HDDs?
3. What does SSD for in SSHD?