

What is Secure Digital High-Capacity (SDHC)?



SDHC (Secure Digital High-Capacity) is a new Flash memory card based on the SDA (Secure Digital Association) 2.00 specification. SDHC provides removable memory storage for compatible digital devices, including cameras, camcorders, PDAs, MP3 players and more.

The increasing use of high-definition video and high-resolution digital photography demands higher storage capacity and more demanding data transfer rates. Because of this, the new SDHC cards guarantee a minimum sustained data transfer speed, not a maximum speed. There are three available speeds — Class 2, Class 4 and Class 6.

SDHC vs. SD Card Compatibility

The previous versions of SDA specifications did not provide such common standards for sustained data transfer speeds to be shared by all manufacturers. The new speed classification approach allows users to select card performance based on the needs of particular applications, such as HD video, and other MPEG applications, rather than just a maximum speed rating.

SDHC cards use the same physical format as SD cards but cannot be used with SD host devices that do not comply with SDA Specifications Version 2.00.

Host devices complying with SDA Version 2.00 can use both SD Memory Cards and the new SDHC Memory Cards.

Current SD cards complying with Version 1.01 and Version 1.10 use either the FAT12 or FAT16 file system, whereas Version 2.00 uses FAT32. This latest specification was established to support SDHC card applications with higher capacity needs. If the approved SDHC logo appears on the card or package, the product is compliant with SDA 2.00 specifications.

*Please note: Some of the listed capacity is used for formatting and other functions and thus is not available for data storage. For more information, please consult Kingston's Flash Memory Guide at kingston.com/Flash_Memory_Guide. SDHC, the SDHC logo and SD are trademarks of the SD Association.

Product specifications subject to change without notice.

Compatibility Quick Reference

	SD up to 2 GB	SDHC 4 GB
SD Host (SDA V 1.01 or 1.10)	Y	N
SDHC Host (SDA V 2.00)	Y	Y

The new specifications continue to offer highly reliable copyright protection function, which is one of the SD Memory Card's most distinguishing features, making it an ideal solution for digital content distribution.

SDHC Specifications Ver. 2.00

- **Capacities*** 4 GB–32 GB
- **Dimensions**** 0.94" X 1.26" X 0.08"
(24mm X 32mm X 2.1mm)
- **No. of pins** 9 pins
- **Voltage** 2.7 to 3.6V
- **File System** FAT32

Data Transfer Rate (DTR)

Speed class logo indicates device performance.

CLASS 2 guaranteed minimum DTR
2 MB/sec.

CLASS 4 guaranteed minimum DTR
4 MB/sec.

CLASS 6 guaranteed minimum DTR
6 MB/sec.

**Same as the current SD Memory Card size standard.

Examples of performance class use

CLASS 2
MPEG2(DVD)
MPEG4(STV)
Digital Camera

CLASS 4
MPEG2(DVD)
H.264(HDV)
Hi-speed D-SLR

CLASS 6
HDV Professional
devices
Hi-Speed D-SLR

Higher resolution needs higher capacity

Source: SDA 2006

