

Tech News: Which memory card should I use for my digital camera?

It is the most common question asked by millions of people who purchase their first digital camera / camcorder / hand-held device. Memory cards come in different shapes and sizes, and they are designed differently to perform specific duties. We will introduce some of most popular formats and explain their uses.

What is a memory card?

A memory card is a device which offers a fast, easy and reliable way of transferring and storing digital content. It acts like a hard disk drive but has important advantages. Unlike a traditional hard disk drive, memory cards are based on flash memory technology, so that their form factor and energy usage can be greatly reduced. Being non-volatile and solid state, memory cards are far more durable and reliable than hard disk drives, as well as being a tiny fraction of the size.



Types of memory card

Depend on the application, memory cards can be used by cell phones, camcorders, digital cameras, portable audio/video players, PDAs, game consoles and personal computers. As we move gradually away from our offices, mobile devices are the biggest driving force behind the growth of memory cards. The following is a brief history of memory card formats:

- In 1994, the CompactFlash (CF card) was introduced. Its small form factor and durability quickly penetrated the consumer market.
- In 1996, the SmartMediaCard was introduced as a competitive standard to CompactFlash. However, lack of market/manufacture support hindered the growth of this particular memory card.
- In 1998, Sony introduced the first MemoryStick. It was designed to be mainly used with Sony electronic/mobile devices.
- In the year 2000, the MultiMediaCard (MMC) and the SecureDigitalCard (SD card) were introduced in respond to the growth in digital cameras and other mobile devices.
- In 2002, Fuji Film and Olympus introduced xD-Picture Card. Just like SmartMediaCard back in 1996, its popularity quickly diminished due to weak market/manufacture support.

In theory, you would purchase the format of your memory according to your host device. For example, suppose you've just purchased a brand new Canon digital camera which supports both MMC and SD cards. These are the only memory card formats that you can use with your camera. Other card types such as CF, MemoryStick, or any other formats are not compatible with your new Canon digital camera. Almost 90% of all current digital still cameras now support the SD memory card.

A higher-capacity version of the SD card, called SDHC, was introduced in 2007, increasing the maximum capacity to 32GB. Its form factor is the same as SD, but it is not compatible with older SD devices.

To ensure full compatibility with your camera, visit the manufacturer's website before purchase to find out the correct memory card format.

Due to the popularity of smaller mobile devices, both the Memory Stick and SD families of cards introduced memory devices in new, smaller, form factors.

- In 2003, Sony introduced Memory Stick PRO Duo which is about 2/3 the size of the original Memory Stick.
- In 2005, the M2, or Memory Stick Micro was introduced by Sony which is about 1/4 of the original Memory Stick PRO Duo.
- Designed for the SD format, the MiniSD card was released in 2003.
- In 2004, MicroSD, or T-Flash, was introduced. About the size of a fingernail, it was mainly being used in mobile phones and audio/video devices.

All small form factor memory cards come with adaptors which allow them to be used as regular-size memory cards.

PEAK offers a wide range of memory cards; for more information, please visit our website at www.peakhardware.com



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