

Criteria when choosing to buy SD memory card

Secure digital cards (Secure Digital - SD) are memory cards used in digital cameras, music players, smartphones, tablets and even laptops.

Secure digital cards (Secure Digital - SD) are memory cards used in digital cameras, music players, smartphones, tablets and even laptops. But not all SD cards are the same. You will see people divide them by speed class, physical size and capacity to match each price and user object.

Some devices (such as cameras) may require the use of an SD card as their primary storage area. Other devices (including smartphones, tablets and even computers) often have built-in memory, they simply support the ability to use SD cards to enhance for available storage or make them more portable. However, different devices will require different SD card types.

Among today's memory cards, SD cards have emerged and become the most popular data storage format, but not simply that. What makes the difference in each SD card is its unique characteristics in shape, capacity and read / write speed. Therefore, choosing an SD card that suits you may be embarrassing if you don't have a good understanding of this type of memory card. The following article will help you know how to distinguish and choose the right SD card.

Classification of speed

Not all SD cards have the same read and write speeds. This depends on the purpose of using the SD cards. For example, if you are a professional photographer taking quick, consecutive photos on a DSLR camera and saving them in high resolution RAW format, you will need high-speed SD cards for your camera. You can save photos as quickly as possible. SD card with fast read / write speed is also important when you want to record high resolution video and save directly to SD card. If you only take a few pictures on a regular camera or use an SD card to store a media file on a smartphone, for example, the speed is not so important.

While not providing outsiders with an accurate standard of speed of SD cards, the SD card association (SD Association - SD Card Technology Association) has provided a number of regulatory guidelines. What kind of card is used for which cases.

There are four different speed classes of SD cards, which are 10, 6, 4 and 2. Class 10 is the fastest, suitable for video recording from full HD to 4k. Layer 2 is the slowest, suitable for video recording with standard definition. In addition, grades 4 and 6 are considered suitable for high definition video recording. However, like card speed, this concept is also quite loosely defined. Different speed classes still have different speed differences, depending on how each manufacturer specifies. For example, according to Sandisk, Class 4 tags give read / write speeds of about 15 Mb / s, Class 6 has speeds of 20 Mb / s, while Class 10 can reach speeds of 30 Mb / s. Meanwhile, according to Kingston's regulations, Class 4 cards are capable of transferring data at a rate of about 4 Mb / s, Class 6 - 15Mb / s cards, and Class 10 - 40Mb / s cards.

There are also super high-speed (UHS) grades of 1 and 3, but they are more expensive and are designed only for professional use. UHS cards are designed for UHS supported devices.

Below are the speed icons between SD classes, in the order from the slowest (grade 2) to the fastest (UHS 3 class):



Overall, the Class (class) 4 and 6 memory cards will be sufficient if you only need to take photos during short-term picnics, or shoot some videos as a souvenir. If you want to shoot HD movies or frequently take high-resolution photos in large numbers, buy yourself a Class 10 SD card that's more reasonable. Class 2 cards are no longer popular because they are slow, not guaranteeing to shoot an HD video, not to mention this type of card may cause many restrictions on the device's features. suffered.

Speed ??class of SD card can be determined through the logo of the classes printed on the SD card itself. You will also see the speed layer displayed on the purchase information or on the packaging of the product when purchased. For example, in the image below, the middle SD card is Class 4, while the other two are Class 6.



If you don't see the class speed icon, chances are it's Class 0 SD card. These cards are designed and manufactured before the speed rating system for SD cards is introduced. The bad news is that they may be slower than Class 2 cards.

Physical size

SD cards also come in many different sizes. You will find standard SD cards, miniSD cards and microSD cards.

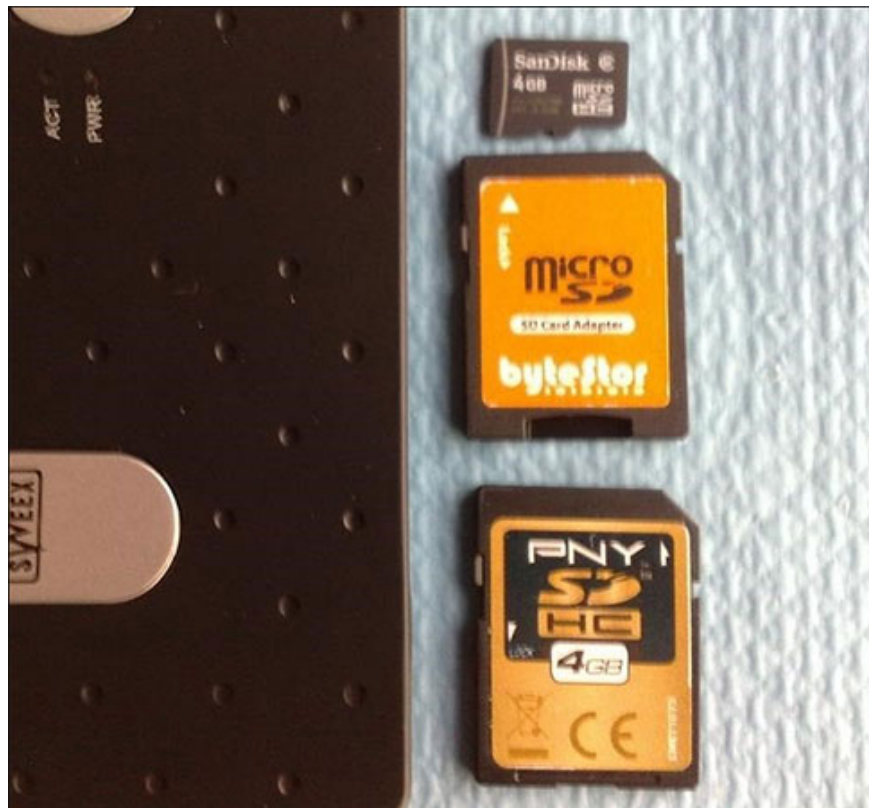
The standard type SD card is the largest size (although you may find that this size is not too large, at least compared to the CompactFlash card that professional photographers often use on digital cameras. High-end

algorithms) and also has the oldest development history. The standard SD card measures 32x24x2.1 mm (length x width x thick), weighs 2 grams and cuts beveled at the familiar card corner. Most cameras on the market today use standard sized SD cards.

MiniSD cards are smaller than standard SD cards, size 21.5x20x1.4 mm and weigh about 0.8 grams. This is the least used card format available today. The miniSD memory card is designed with a special size for mobile phones, but now we have a microSD card instead. Instead of being cut corners, miniSD cards are often rounded at the top to help users navigate easily when inserted into the slot.

MicroSD is the youngest of the SD cards with the size of 15x11x1 mm and only about half a gram. These cards are used in most mobile phones and smartphones that support SD cards today. They are also used in many other devices, such as tablets.

A prerequisite for choosing an SD card is that it must be compatible with the device you are using. Different types of cameras, camcorders, smartphones, music players . will use different sized cards. You cannot plug the microSD card into the standard SD card slot. However, the good news is that you can use an adapter, which allows you to insert a smaller SD card into a larger SD card form and insert it into the appropriate slot. In the image below, you can see the adapter allows you to use the microSD card in the standard SD card slot.



SD card capacity

Just like USB, hard drives, solid-state drives and other storage media, different SD cards may also have different storage capacities. But the difference in capacity between SD cards doesn't stop there. Standard SD card (SD Standard Capacity - SDSC) ranges in size from 1MB to 2GB (and sometimes up to 4 GB). High-capacity SD card (SD High Capacity - SDHC) is created later and allows SD cards to be able to hold capacities from 2GB to

32GB. The largest capacity card is the Secure Digital Extended Capacity (SDXC), which is theoretically available in the range of 64GB to 2TB. (However, currently there are no cards that reach this capacity, the largest card is only 128GB).



To use SDHC or SDXC cards, you need to make sure your device supports those standards. At this time, most devices support SDHC. In fact, the SD cards you have are probably SDHC cards. SDXC is newer and therefore less popular.

Many people think that the larger the card, the better, it is also true, but not completely because you need to make sure your device is compatible with such large capacity cards. For example, older camera models can only read SD cards but are not compatible with SDHC cards.

summary

When choosing to buy an SD card, you will need to refer to the read / write speed, size and capacity factors to suit your needs. Also don't forget to check if your device supports that type of memory card.

Wish you can choose the right SD card for you!

See more:

1. The real difference between SD Card and SSD card
2. Instructions for fixing memory card errors are corrupted
3. Check SD and USB memory card performance
4. Causes that SD memory cards work 'sluggish'

You finished reading the article "**Criteria when choosing to buy SD memory card**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.