

Ways to find good compression cards

There are hundreds of video compression cards in the world. Some of them are of good quality, while many of them are of bad quality. Here are some ways to distinguish good cards:

Compression technology

Compression technology affects compression efficiency and stability. There are some compression technologies such as MJPEG, MPEG1, MPEG2, MPEG4, H.264, etc. By now, H.264 is one of the most efficient technologies. Compared with traditional technologies, it provides up to 40% higher image quality and over 60% savings on recording storage space, this lead to good image experience and remote access performance.

Hardware or software compression

Most of cards adopt software compression mechanism. It means the work of compression, encoding is processed by CPU, instead of DSP hardware. Due to the processing limitation of PC system, generally, DVR system using software compression cards supports less than 16 channels in one PC. And the system may not provide fully real-time recording and playback for each channel. On the other hand, hardware compression card utilizes DSP processing instead of CPU. Video image is directly transmitted from board to display frame buffer and compressed stream is also directly sent to host's memory. The whole transmit doesn't need any intervention of host computer processor, saving resources of host computer's processor greatly. As a result, one PC can support up to 64 channels Video and audio input, parameters of each channel can be set independently and will not affect each other. Moreover, due to high performance processing, hardware compression cards lead to more stable.

Real-time recording

Most of compression cards can not support real-time recording for each channels (25fps for PAL or 30fps for NTSC is called real-time). They use system resource to dynamically allocate to channels. Generally, most of cards' total processing resource is less than the sum of 25fps or 30fps time channel number. It means if some channels are in real-time recording, the remains can non real-time recording only. For example, for a 4 channels system, 100fps (PAL) or 120(NTSC) can ensure real-time recording for all the channels.

Image quality

The most popular recording / playback resolutions include PAL:4CIF (704x576), DCIF(528x384), 2CIF(704x288),CIF(352x288), QCIF(176x144); NTSC: 4CIF (704x480), DCIF(528x320), 2CIF(704x240),CIF(352x240), QCIF(176x120). Most of low end cards support CIF resolution only, which can not meet the requirements of high quality surveillance field.

Stability

Stability is the most important criteria for security products. So cards proved to work well in several years are the good cards.

Other important factors

- If it supports audio compression and synchronization also
- If it supports multiple motion detection area, and support sensitivity set for each area
- If it supports dual stream mode (provides an independent higher compressed encoding sub-stream for remote access), ensuring fluent network transmission
- If it supports independent configuration of video quality and frame rate for each channel
- If it supports position configurable Over Screen Display (OSD) & LOGO
- If there is good software application running on it
- And so on

From criteria above, you will see the CO-4000C series cards are the best cars in the world.

- It adopts the most advanced H.264 technology.
- It is the most stable hardware compression card, with choice of many applications
- It supports real-time recording and playback for all the channels
- It provides the highest image quality
- It is proved stable

You can see more information on our website:

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