

H.264 High Resolution Video & Audio Compression Board DS-4016HCI Card

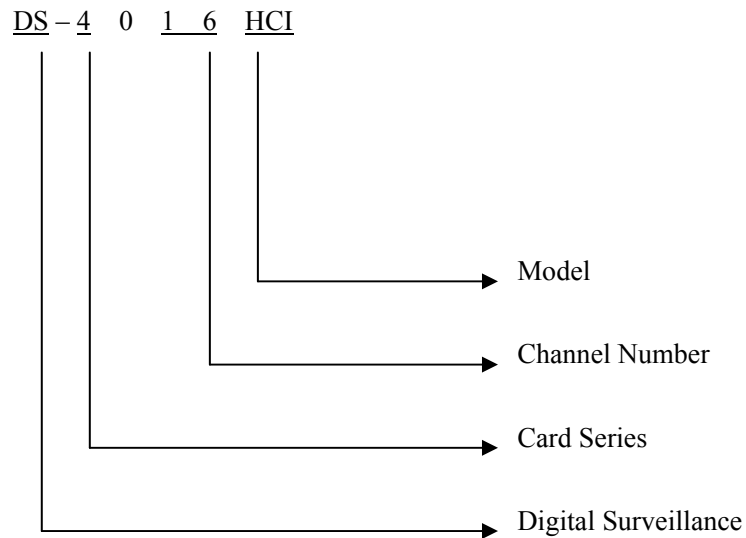
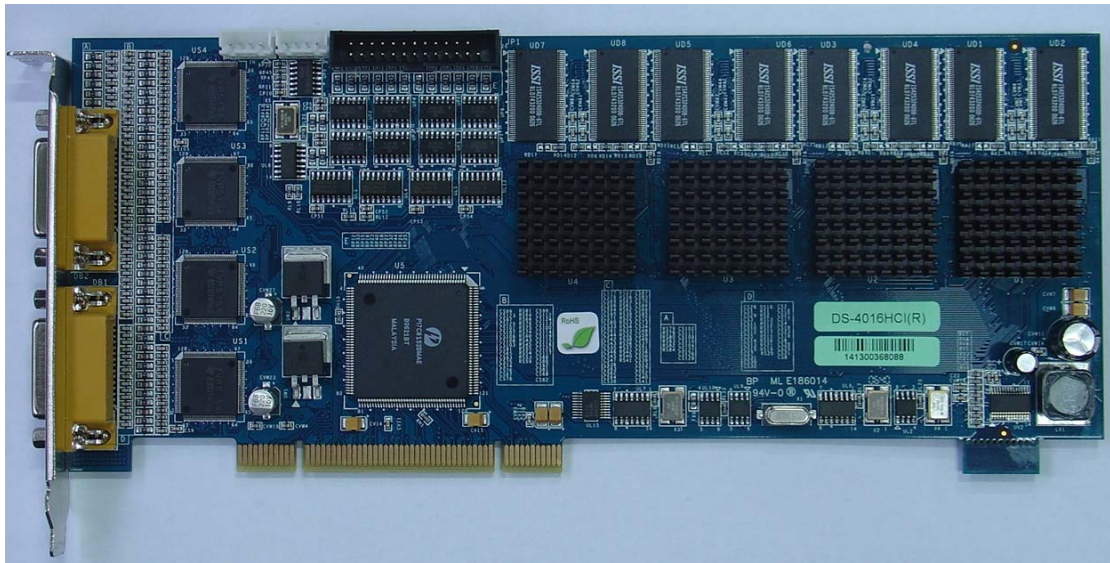
Brief Introduction of Hikvision DS-4016HCI card

DS-4016HCI compression board is a professional digital security product, which adopts most advanced H.264 video compression algorithm and OggVorbis audio compression technology. Compared with DS-4004HCI and DS-4008HCI board, **DS-4016HCI** can support 16 channels in one board, compress video at CIF/2CIF/DCIF/4CIF resolution and preview at 4CIF. Newly designed PCB of the card more compact and steady and compatible SDK interface makes development faster and easier.

DS-4016HCI board uses fully optimized algorithm based on DSP technology to implement video & audio real-time encoding, active video & audio preview and motion detection, etc. 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. 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.

DS-4016HCI compression board supports Windows 2000/XP/Server 2003 and Linux operating system at present, provides demonstration application with its source code, the whole SDK development package including system SDK, player SDK, networks SDK, media Player plug in, etc, and also provides technical support and good after- sale service.

Model Description:



Note: The DS-4016HCI supports:
 8 channel video and audio realtime encode at 4CIF resolution in one card
 Or 16 channel video and audio realtime encode at CIF resolution in one card
 Or 16 channel video and audio realtime encode at 2CIF resolution in one card
 Or 16 channel video and audio encode at 4CIF resolution in one card with frame 13fps(PAL video standard), 15fps(NTSC video standard)

Features & Functions :

H.264 (MPEG-4/Part 10) video compression standard leads to high compression ratio and good video quality

OggVorbis audio compression standard, with 16 kHz sampling rate and 16 kbps output bitrate

Real-time Video and Audio compression, No frame lost

4CIF preview resolution

Comply with PCI 2.2 standard, Support PCI-X slot, One PC can support up to 64 channels

Support Windows2000/XP/Server 2003 and Linux operation system

Provide full SDK, demonstration with source code

Provide player SDK and network SDK for PC platform. Less than 1 second delay in LAN.

Setable I.B.P frame sequence

Setable video quality and bit rate

Setable brightness, contrast, saturation and hue of Video signal

Support motion detection

Support OSD, LOGO, and MASK overlay

Support Dual stream encode

Merits of Adopting Hikvision H.264 Compression Board

H.264 encoding has the advantage of high image quality , low bitrate and low storage requirement, especially suitable for digital video security. Hikvision H.264 compression board is the state-of-the-art video / audio compression board, which adopts H.264 ACE (ADVANCED CODE EFFICIENCY). Compared with other compression board, its advantage embodies the following aspects:

Save storage space

Hikvision board compression ratio is higher than those that adopt MPEG-1 or other standards. Given the same capacity of hard disk, Hikvision board leads to longer recording time, thus reduces storage costs and maintenance expenses and improves systematic reliability.

Excellent image quality

Hikvision board adopts variable bitrate coding. It assures constant image quality to different scene and motion picture. Even violent motion cannot bring the mosaic phenomenon. Hikvision board supports real time preview without wobble or time delay.

Preminent characters of network transmission

Hikvision board adjust parameter dynamically, which is suitable to assure excellent and fluent image quality in network transmission. It supports 4CIF, DCIF, 2CIF, CIF, QCIF coding, variable bitrate and variable frame rate. This is more suitable for narrowband transmission, for instance, through PSTN,ISDN,DDN, etc.

Convenient control

Hikvision board's parameter, such as image quality, frame rate, and sensitive tolerance of motion detection can be adjusted when encoding. It can capture original image. Actively setting parameter is significant in video security.

Flexible and reliable motion detection

Hikvision board adopts most advanced motion detecting technology whose analytical precision can be adjusted dynamically. It can not only detect micro-motion but also throw away misinformation. Reliable motion detection and video setting reduce storage requirement. The whole detecting procedure is completely done on board. Motion detection is completely independent from compression. It can detect both fast and slow motion.

Convenient video overlay function

Hikvision board supports flexible title overlay function. It can overlap time on active video with transparent processing. Its location can be adjusted conveniently.

Outstanding stability and sustainability

Hikvision board adopts encoding algorithm, SDK function and decoding software, which are specially designed for digital video security. All of these make Hikvision board reliable and stable

Specifications:

Model	DS-4016HCI
Video Input	16 Channels(PAL/NTSC) BNC(V _{p-p} = 1.0V, 75 Ω)
Audio Input	16 Channels BNC(V _{p-p} =2.0V,SNR > 83DB,Linear Electrical Level ,1000Ω)
Encode DSP number	4
Preview Resolution	Resolution: 704*576(PAL),704*480(NTSC)
Video Compression	H.264, Support CBR, VBR; Frame rate: 25F/s(PAL),30F/s(NTSC) Output: 32kbps-1000kbps(CIF) or 70kbps-2000kbps(4CIF)
Compression Resolution	4CIF:704*576(PAL),704*480(NTSC) DCIF:528*384(PAL),528*320(NTSC) 2CIF:704*288(PAL),704*240(NTSC) CIF:352*288(PAL),352*240(NTSC) QCIF:176*144(PAL),176*120(NTSC)
Audio Compression	OggVorbis, Sample ratio is 16KHz, Output ratio is 16kbps
Alarm In/Out	-----
WatchDog	-----
Power Consumption	Less than 22W
Working Temperature	-10°C--+50°C
Working Humidity	10%--90%
Dimension	250mm*106mm
System Requirements	OS : Windows 2000/XP/Server 2003 ,Redhat 9.0,Fedora 3 ,Fedora 4,Fedora 5 CPU : Intel Series Motherboard: based on Intel 845 / 865 /915/925/945 Chipset Memory: 256MB or above Display Adapter: Nvidia Geforce Mx400/440/4000 serials, FX 5200/5600 GeForce 6600 ATI Radeon 7000/7500/8500/9000/9200/9550/9600 serials, ATI X300/X550/X700/X1300/X1600 Intel 845G/865G/915G integrated Graphics Controller