

HDC-701EL Video Capture Card Solution

The HDC-701EL video capture card supports full HD video compression using H.264 technology. It offers one-channel HDMI/DP/DVI-I/YPbPr input and one-channel HDMI bypass output. It supports multiple input types, and allows one-channel encode, PiP screen encode from two video sources, OSD screen encode, and cropping video for later encode. User can preview the video from HDMI bypass output during editing or encoding video.

Multiple input types supported by HDC-701EL:

- HDMI interface
- DP interface
- DVI-I interface
- VGA interface
- YPbPr interface which supports sync on green

Video Scaler Functions

- It can convert a signal from a lower resolution to a higher resolution without affecting the video quality.
- It can convert a non-standard resolution (such as 1280*960) to the resolution supported by the HDC-701EL.

◆ Picture in Picture (PiP) Function

The video sources from two interfaces can be displayed on the same screen simultaneously and the PiP screen can be encoded by the HDC-701EL.



◆ OSD (on-screen display)

Information such as date, resolution etc. and the video source can be displayed on the same screen simultaneously and the OSD screen can be encoded by the HDC-701EL.



◆ Cropping

Cuts the outer part of an image in order to improve the composition, emphasize the subject or change the ratio.

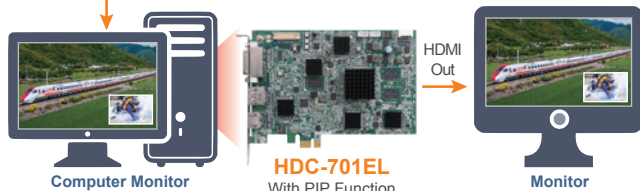


Applications

◆ PIP Application



Video Input Source
(choose two different interfaces from the five)



Computer Monitor with HDC-701EL

1. Can display two different sources together.
2. Allows you to adjust where to put the small video.
3. Can display two videos and record the videos at the same time.

Monitor

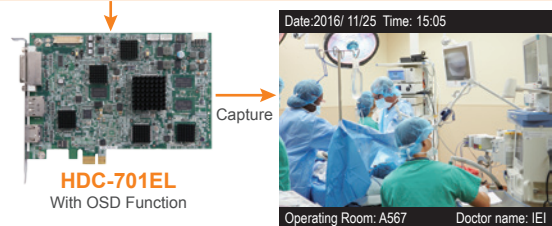
The raw data from two different signals can be displayed at the same time.

◆ OSD Application

Healthcare Solution



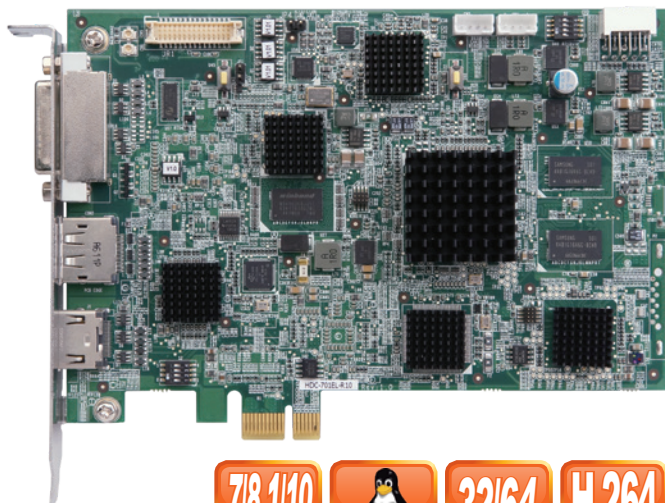
Video Input Source
(choose one interface from the five)



With the OSD function, for example, the date, time, operating room's number and doctor's name can be displayed on the monitor when using in a surgery room. The surgery with the OSD information can be recorded by using the HDC-701EL capture card and the file can be saved for future reference. The scenario described above is just one of many possible scenarios in which the HDC-701EL is used to capture video with OSD information. In addition to that, IEI is capable to customize the OSD information to be displayed for other applications based on customer's needs.

HDC-701EL

PCI Express Video/Audio Capture Card with One Channel HDMI/DP/DVI-I/ YPbPr Input and One Channel HDMI Output, 1920x1080@30p, and H.264 Hardware Encoder



Features

- 1-channel HDMI/DP/DVI-I/YPbPr input with H.264 hardware compression and 1-channel HDMI output
- High quality video recording up to 1080p30
- HDMI output supports video preview up to 1080p60, so you can watch video while recording or editing
- Provides DirectShow filter
- Equipped with video scaler for PIP, OSD, cropping (optional)
- Windows/Linux OS supported

Specifications

◆ Interface

Input	Video input channel	1 channel
	Video input type	HDMI/DP/DVI-I/YPbPr
	Audio input channel	1 channel
	Audio input type	HDMI (stereo video)
Output	Video output channel	1 channel (1080p 60)
	Video output type	HDMI
	Audio output channel	1 channel
	Audio output type	HDMI (stereo)

◆ PC Interface

Type	PCIe x1
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◆ Video Processing

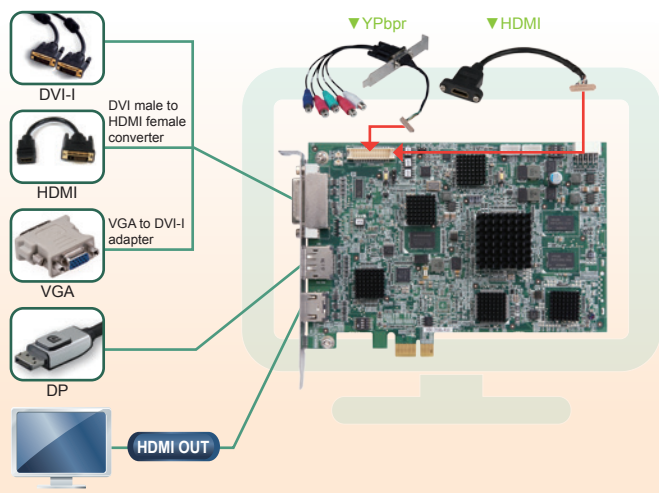
Hardware Encoder	H.264/AVC High Profile Level 4.1	
Recording Datarate	Up to 30Mbps	
Video Input Resolution	1920 x 1080 24p/25p/30p/50p/60p 1920 x 1080 60i/59.94i/50i	1280 x 1024 30p 1280 x 768 60p 1024 x 768 60p 720 x 576 50p 640 x 480 60p
	1280 x 800 60p 1280 x 720 50p/60p 800 x 600 60p 720 x 480 60p	1280 x 1024 30p 1280 x 768 60p 1024 x 768 60p 720 x 576 50p 640 x 480 60p
Recording Formats	1920 x 1080 24p/25p/30p 1280 x 800 60p 1280 x 720 50p/60p 800 x 600 60p 720 x 480 60p	1280 x 1024 30p 1280 x 768 60p 1024 x 768 60p 720 x 576 50p 640 x 480 60p
	1920 x 1080 24p/25p/30p 1280 x 800 60p 1280 x 720 50p/60p 800 x 600 60p 720 x 480 60p	1280 x 1024 30p 1280 x 768 60p 1024 x 768 60p 720 x 576 50p 640 x 480 60p

◆ Audio Processing

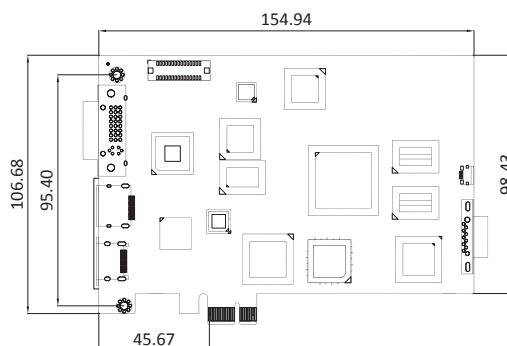
Audio Sampling Frequencies	44.1k, 48k Hz
Audio Compression	MPEG4-AAC
Recording Datarate	128kbps

H.264 Hardware Encoder

Video Recording/Streaming



Dimensions (Unit: mm)



◆ System Requirement

System	Intel® Core™2 Duo 2.4GHz or above
Memory	2GB or more

◆ Software Support

OS Support	Microsoft Windows 7/8. 1/10 (32-bit & 64-bit) Linux: Ubuntu 16.04 (64-bit) (Kernel version: 4.4.0-21-generic)
SDK	Windows: Provides SDK and demo program with sample source code Linux: Provides SDK and demo program with sample source code

◆ Functionality

Multiple Card Support	4 cards, 4 channels
Scaling	Video scaling support, OSD, PIP, Cropping

◆ Others

Dimensions	155 mm x 111 mm
Operating Temperature	0°C ~ 60°C (32° ~ 140°F), non-condensing
Power Consumption	15W

Packing List

1 x HDC-701EL
1 x QIG

Ordering Information

Part No.	Description
HDC-701EL-R10	PCI Express video/audio capture card with one channel HDMI/DP/DVI-I/YPbPr input and one channel HDMI bypass output, 1920x1080@30p, and H.264 hardware encoder