

Video Capture Solutions

Video Capture Products & Industrial Camera

IEI provides complete video/audio capture solutions to fulfill the demands of various applications. IEI capture cards and boxes can compress and decompress full high-definition video in H.264 format in real time. The products enable recording, decoding and streaming HD video with high quality in the application of video streaming, distance education, broadcasting, medical video streaming and recording from the operating room, and game recording.

H.264 Hardware Compression Video Capture Products

■ 1080p30 Full HD



HDB-301L



HDC-301MS

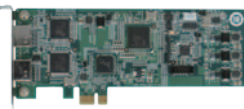


HDC-301EL

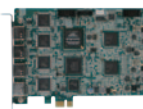


HDC-701EL

■ 1080p60 Full HD



HDC-301E



HDC-302E



HDC-304E

Uncompressed 4K/HD/SD Video Capture Products

■ Ultra HD



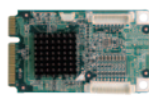
HSRC-302E

■ Full HD

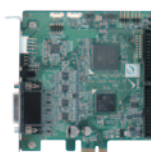


HDB-301R

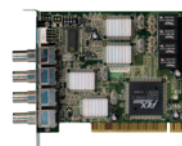
■ SD



IVCME-C604



IVCE-C608



IVC-200G



PM-1056

Industrial Camera



HSC-03M2-O

IEI Join AIA Association

To ensure IEI can develop the new industrial camera product line with advance technologies, IEI join the AIA Machine Vision Trade Association to get the world's leading resource for vision and imaging information. IEI industrial cameras will support USB3 Vision Standard and include a methodology for interoperating with machine vision software applications.



Video Capture Product Lines

Video Processing	Recording Format	Video Input Channel	Interface					
			PCIe	PCIe Mini	USB 2.0	USB 3.0	PCI	PCI-104
Hardware Compression	H.264 1080p60	1ch HDMI	HDC-301E					
		2ch HDMI	HDC-302E					
		2ch SDI	HDC-502E					
		4ch HDMI	HDC-304E					
Hardware Compression	H.264 1080p30	1ch HDMI	HDC-301EL	HDC-301MS	HDB-301L			
		1ch HDMI/DP/DVI/YpPr	HDC-701EL					
Software Compression	By software	4ch NTSC/PAL	IVCE-C604	IVCME-C604			IVC-200G-RS	PM-1056
		8ch NTSC/PAL	IVCE-C608					
Uncompressed Video	By software	1ch HDMI				HDB-301R		
		2ch HDMI	HSRC-302E					

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

4 Open Frame Monitor

5 Power Supply/Peripherals

6 All-in-One System

H.264 Hardware Compression Video Capture Solution

■ Diversification

IEI video capture solution includes hardware compression products, software compression products and uncompressed video capture products. HD video can be compressed to 1080p60 or 1080p30 by different products. In addition, IEI provides different types of video capture products, including cards and boxes, with a variety of interfaces such as PCIe, PCIe Mini, USB 2.0 and USB 3.0. Uncompressed video supports from NTSC/PAL to full HD and 4k video signal.

■ Compatibility

IEI video capture products are compatible with most of the industrial motherboards and HP ProLiant servers. There are a lot of Linux versions in the world. IEI can help to provide correct drivers for you to use IEI video capture products. Furthermore, IEI can offer you the source code to develop your UI and application under specific agreement. IEI's video capture products are the perfect choice to build up your encoder system or solution.

■ High Compression Ratio

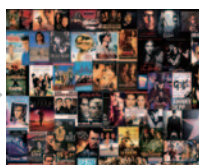
HD video/audio media data can occupy huge storage capacity. For example, an uncompressed full HD video with bitrate of 1920 x 1080 @ 60 fps (RGB 8-bit color) occupies about 373 MB/s (2.99 Gbps) of storage. With the IEI HDC series capture cards, HD data could be compressed through hardware codec, therefore being beneficial for storage usage, cost saving and transmission bandwidth in various applications.

1920 x 1080 x 3 (R.G.B.) x 60 frame/sec. = 373.248 MByte
Compressed video with encoding bit rate range from **30 Mbps to 2 Mbps (3.75MB to 0.25MB)**

Take 30-minute full HD video recording as an example. The uncompressed video is 671 GB, while the compressed video encoding with 0.25 MB (2 Mbps) bit rate is only 450 MB.



671 GB HDD with uncompressed file VS 450 MB HDD with compressed file



Saving around 99% of movie storage space

Encoding Bit Rate	Un-compressed	Compressed			
	373 MB	0.25 MB (min.)	1 MB	2 MB	3.75 MB (max.)
1 TB HDD Capacity	0.75 hr	1108 hrs	277 hrs	139 hrs	74 hrs
30-minute Full HD Video Recording	671 GB	450 MB	1.8 GB	3.6 GB	6.75 GB

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Industrial Computing Solutions

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Video Capture Solutions

Applications: H.264 Video Encoder through HDC Series Capture Cards

■ Video on demand (VoD)

◆ Distance Education/Training

An educational model is that the student and the teacher are in locations different from one another while the instruction is taking place. Ideal for this kind of education, the capture cards allow real-time capture or composition of two input sources, typically a live instruction with a powerpoint presentation.

◆ Sport/Game Broadcasting

The broadcasting of sport/game events is the coverage of sports/games as a television program. Spectators can engage in live conversations using broadcasting media. Through HD capture and broadcast, there is no virtually impact on the sport/ game performance.

◆ Traffic Broadcasting

The traffic systems now provide more informative and communicative broadcasting program that improve transport outcomes such as transport safety, transport productivity, travel reliability etc. Traffic media in vehicles or transportation is getting popular since wireless environment is getting mature.

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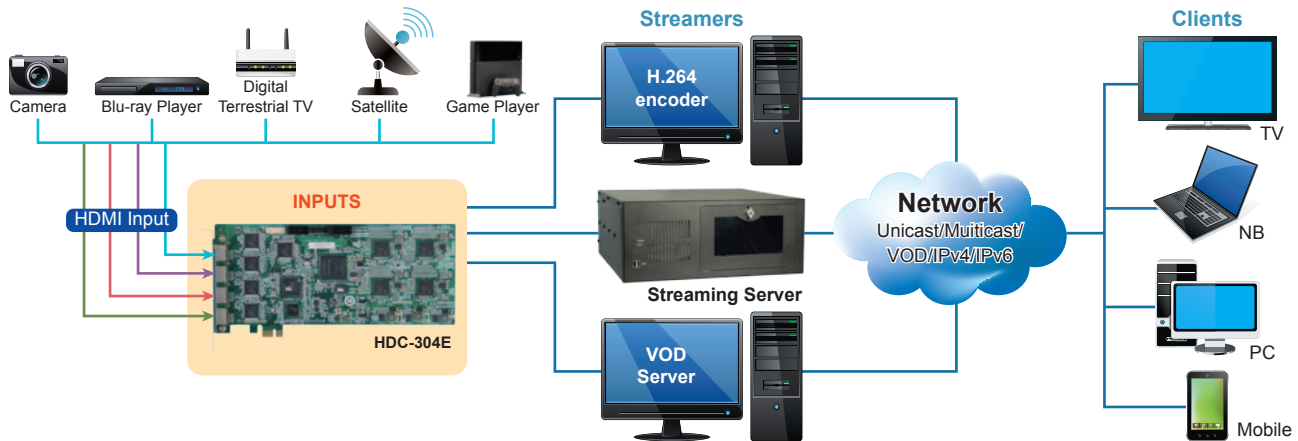
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All-in-One System



Streaming Solution

H.264 video encoder can be the part of streaming server system architecture



Medical HD Video Recording

Endoscopy Surgery

Endoscopy typically refers to looking inside the body for medical reasons using an endoscope. Unlike most other medical imaging devices, endoscopes are inserted directly into the organ or incision. Clear and detailed image is necessary for precise operations.



Ultrasound Scanner

An ultrasound scanner can be used for most imaging purposes. Usually specialty applications may be served only by use of a specialty transducer. Most ultrasound procedures are done using a transducer on the surface of the body, but improved diagnostic confidence is often possible if a transducer can be placed inside the body.



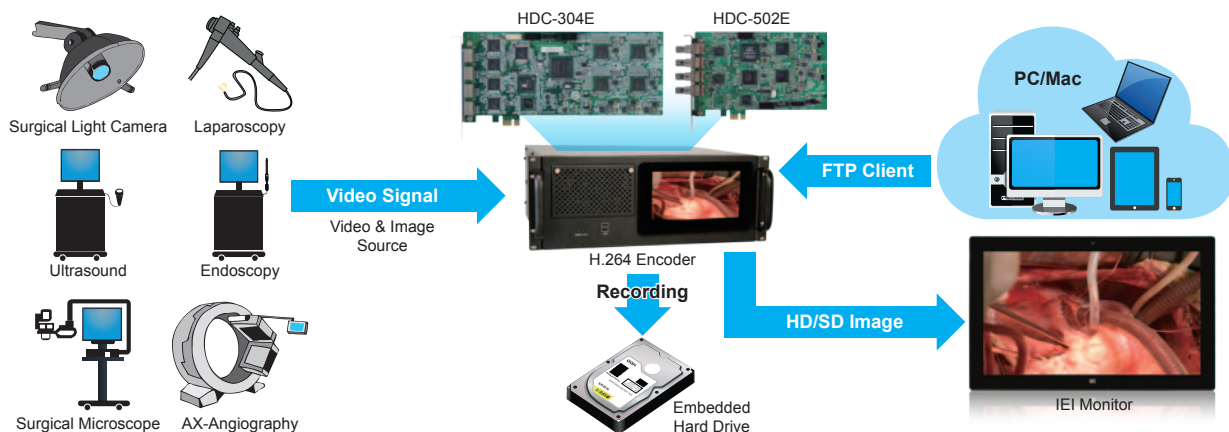
Microscope

Microscope is an instrument used to investigate objects that are too small for the naked eye. Recently, electron microscopic captures and displays the image through electric devices that allow people to see objects in detail.



Medical Video Solutions

H.264 video encoder can be the recording part of medical video system architecture



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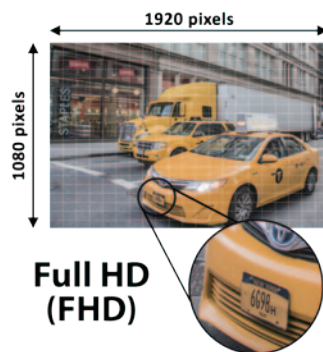
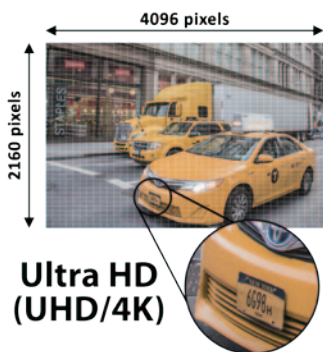
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All-in-One System

Uncompressed 4K/HD/SD Video Capture Solution

4K is a new resolution standard designed for digital cinema and computer graphics. It has following advantages: higher image definition quality, more detailed picture, better fast-action and larger projection surface visibility. Recently, many camcorder manufacturers adopt 4K resolution to their recordings like Sony, Panasonic and so on.

IEI 4K uncompressed video capture card can import video from 4K camcorder into your media editing software on PC. It's the best and most efficient way to work 4K videos with your editing software.



Uncompressed 4k video capture card - HSRC-302E



Uncompressed Full HD video capture box - HDB-301R

4K Video Capture Application: Upgrade from SD to 4K Resolution

■ Post-production

IEI HSRC-302E is the 4K video capture and playback card, supporting editing and video software which is compatible with DirectShow. You can do the real-time workflows in editing software while connecting 4K camcorder to IEI 4k uncompressed video capture card. HSRC-302E is a perfect part of your workflow!



■ 4K Medical Video Identification

Medical devices, including microscopes, endoscopes, true HD cameras, vision microscopes etc, are all going in the direction of 4K Ultra HD resolution. IEI 4K uncompressed capture card will be the perfect choice of your 4K medical video systems.



■ 4K Video Surveillance

◆ Improved quality of video surveillance

4K has several advantages in terms of video quality and resolution. More pixels added into the image allow the users to zoom into the picture without sacrificing image quality, therefore making this technology optimal for security. Covering a large warehouse or busy hallways would be easier with the added resolution. The IEI 4K uncompressed video capture card with smart surveillance software could be used in the applications like airports, shopping malls, mega stores and so on.

One 4K camera with IEI 4K uncompressed video capture card can help magnify and positively identify small details like a face, an unattended package or a car license plate.



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SD Video Capture Applications

Intelligent Transportation Systems (ITS)

Providing timely information on highway traffic conditions is a major function of intelligent transportation systems (ITS), and video surveillance systems are critical tools for ITS to monitor and control any emergency evacuation events. The toll road payment stations process large numbers of micro transactions. The surveillance system minimizes frauds by recording all transactions including those carried out by potential gatecrashers.

Automotive Video Surveillance

Automotive video surveillance is now widely used to monitor vehicle interiors on public transportation systems to ensure the passenger safety. Automotive video surveillance systems can record the interior of trains, cars and buses, and can also be adopted in police vehicles to monitor patrol activity.

Banking Security System

In a bank, the surveillance system can easily monitor a teller line and automated teller machine transactions. Bank surveillance systems can also record robberies, unauthorized withdrawals, and other disputed transactions.

Building, Airport, Road Surveillance System

Video surveillance has emerged as a vital technology in the war against terror. Video surveillance enables the easy identification of culprits behind terrorist bombings. As a result, since 911, governments around the world have started to leverage high-performance surveillance equipments in their efforts to protect their country and people from terrorist attacks.

Industrial Automation

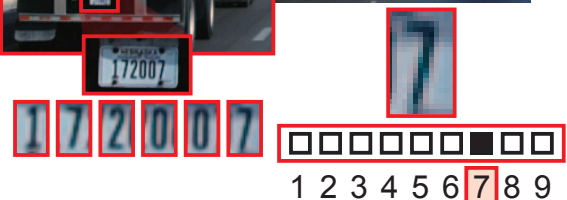
Latest Supervisory Control And Data Acquisition (SCADA) systems adopt video capturing technologies to collect factory data and thereby provide operators and supervisors with access to real-time data and video feeds which enable them to make increasingly accurate assessments faster.

Benefits

The software compression card is used to transfer analog NTSC/PAL signal to digital raw data signal. The uncompressed raw data can provide better video quality without distortion. It is useful for real-time video surveillance applications. The software compression process is first transferring data into PC through PCI or PCIe interface, then the CPU compresses the video and stores it in the HDD. Since compression and de-compression are handled by the CPU, the software compression card needs a more powerful hardware requirement.



Video Analytics



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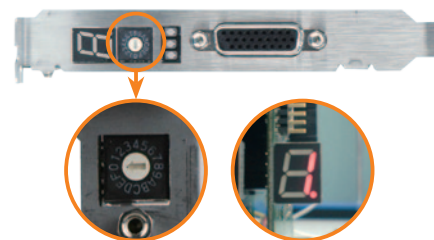
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Standard Definition Compression Capture Card

Multiple Card with Digit LED Card ID Support

One Digit LED for Card Identification (ID)

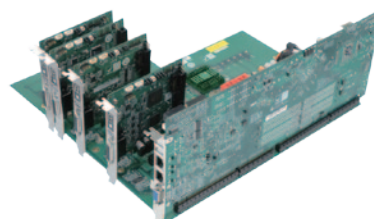
Because the IEI IVC series supports multiple IVC cards, users need to know which card is related to which device name in the Device Manager of Windows 7. Each IVC card provides one digit LED to show its ID (identification), and the ID is programmed by a rotate switch. The IEI IVC SDK also provides an application programming interface (API) to get device name and the demo application software shows how to display device names on screen. The advantages are for ease of maintenance and debugging. When a display channel malfunctions, the users can quickly find out which IVC card should be checked for error via the device name and LED ID.



The ID is programmed by a rotate switch

Multiple Card Support

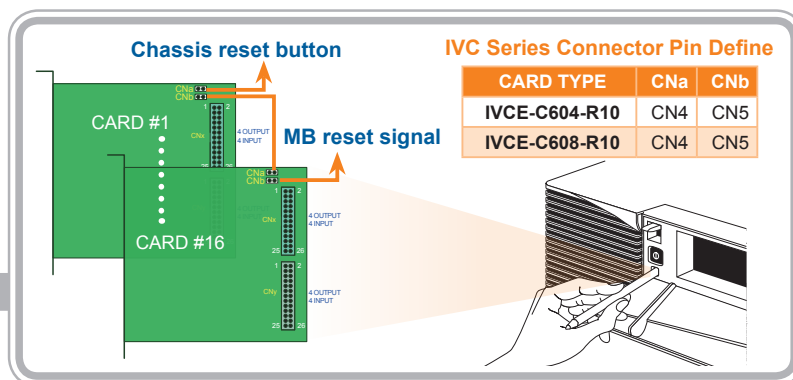
The IEI IVC series is designed to support multiple IVC cards in a system. Its driver can recognize and support multiple IVC cards plugged into a system. The limitation of how many IVC cards can be plugged into a system is dependent on system resources such as CPU performance, interface bandwidth, and number of available IRQs.



Multiple Card Cascade Reset

One Bottom Cascade Reset

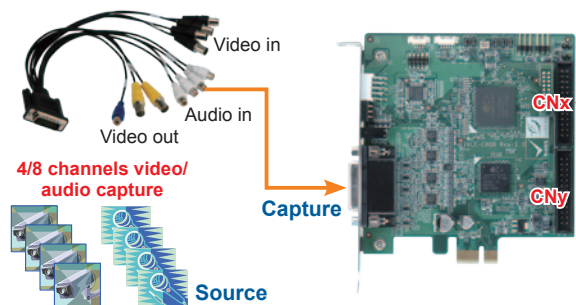
The latest IEI software compression capture card (IVC series) provides multiple card cascade reset function. It can enable system restore via external hardware reset button when system failure occurs.



GPIO Alarm

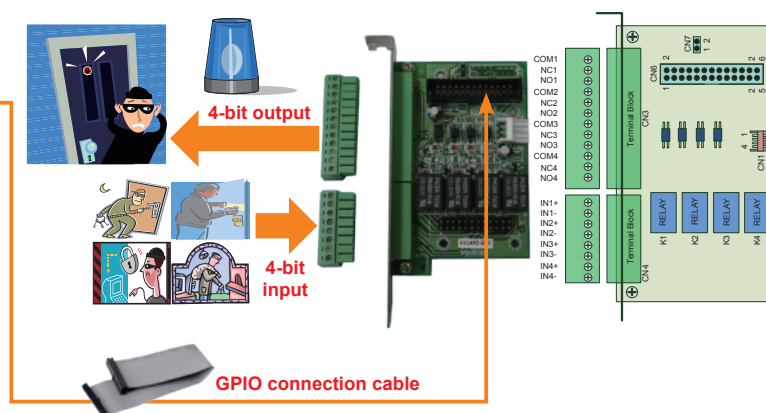
Optional GPIO Port Support

The optional IEI VIOCARD-GPIO card provides 4-bit alarm input and 4-bit alarm output with normal open relay. It is compatible with IVC software compression capture card to connect with external I/O sensors.



How to connect IEI VIOCARD-GPIO card to IVC/IVCE-C6 series capture cards

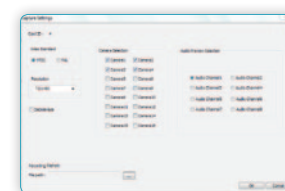
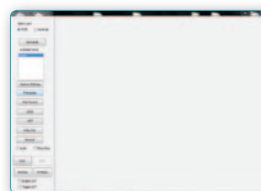
CARD TYPE	CNx	CNy
IVCME-C604-R10	CN1	
IVCE-C604-R10	CN3	
IVCE-C608-R10	CN3	CN2



Video Capture Software

IEI provides a test suite with SDK usage for Conexant solutions. The program demonstrates the following functions:

- Card ID and selection
- Video and audio capture settings
- Frame rate information and color property adjustment
- GPIO, WDT, video out and general settings



HSC-03M2-O

Lightweight USB 3.0 camera & opto-isolated external GPIO, Micron MT9V022 CMOS, global shutter, 60 FPS at 752x480, without Lens

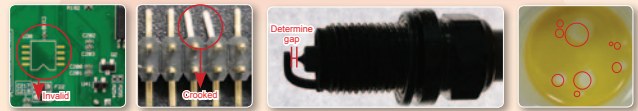


Demo Codes Provided



**Capture Card
= +
Camera**

HSC-03M2-O
USB 3.0 High Speed Camera



Machine Vision Application Examples

Features

- IEI Vision SDK available
- Compact and lightweight industrial camera with Aptina global shutter CMOS sensor
- Compatible with USB 3.0 SuperSpeed specification
- Opto-isolated external GPIO interface
- Resolutions up to 752x480
- Frame rates up to 90 FPS
- Support AMCap and other DirectShow compatible software
- Other commercial vision software supported through DirecShow, ex: Halcon
- IEI Similarity technology can provide image enhancement

Specifications

◆ Camera

Resolution (max.)	752 x 480
Frame Rate (max.)	90 FPS
Megapixels	0.3 MP
Chroma	Mono
Sensor Name	Micron MT9V022
Sensor Type	CMOS
Readout Method	Global shutter
Sensor Format	1/3-inch
Pixel Size	6.0 μm
Lens Mount	CS-mount
ADC	8-bit/10-bit
Opto-isolated I/O Ports	1 input, 1 output
Serial Port	1
Auxiliary Output	3.3 V, 100 mA max
Interface	USB 3.0 interface
Mass	79g
Compliance	CE, FCC

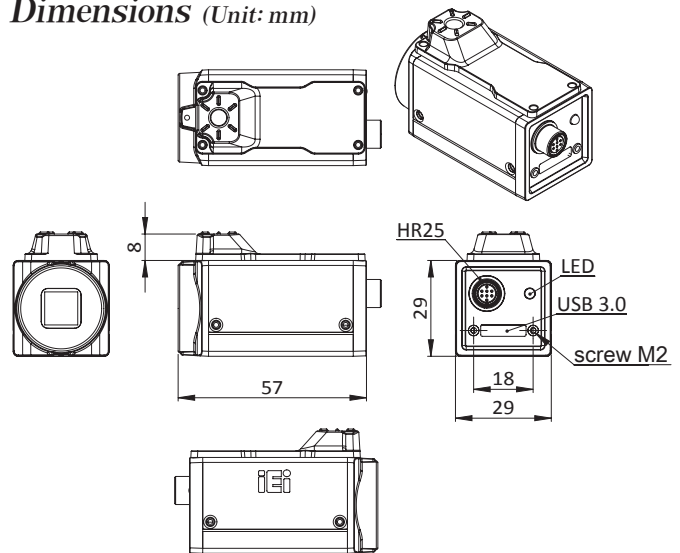
◆ System Requirement

System	Intel® Core™ i5 or above
Memory	2GB or more
OS Environment	Microsoft Windows 7/8.1/10 (32-bit/64-bit) Operating systems that support UVC

◆ Others

Dimensions (mm)	58.9 mm x 29 mm x 29 mm
Operating Temperature	0°C ~ 45°C
Storage Temperature	-30°C ~ 60°C
Operating Humidity	20% ~ 80%
Storage Humidity	20% ~ 95%
Power Requirements	5V via external connector or USB 3.0
Power Consumption (max.)	<3.5W

Dimensions (Unit: mm)



Packing List

1 x HSC-03M2-O	1 x CS to C mount adapter
1 x Mounting bracket	1 x QIG

Ordering Information

Part No.	Description
HSC-03M2-O-R10	Lightweight USB 3.0 camera & opto-isolated external GPIO, Micron MT9V022 CMOS, global shutter, 60 FPS at 752x480, without Lens
32001-019800-100-RS	USB 3.0 cable, 1800 mm, USB 3.0 A type male and micro USB 3.0 B type male+screw

Note: IEI does not offer Open eVision and MIL software licenses. Please buy the original version from their vendors.

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All-in-One System

ITDB-100 Series IoT High Speed 2D Barcode Reader



Features

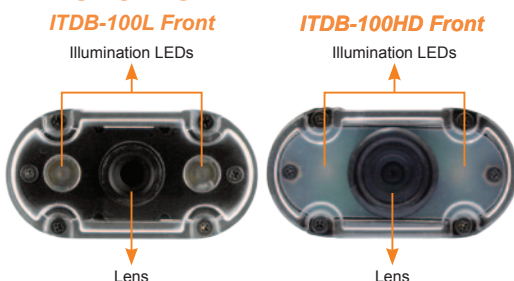
- Support remote monitoring and control via Android phones and tablets
- Connection I/O interface: USB, Ethernet TCP/IP
- Support hardware and software trigger modes, both with one shot, series shot, batch and presentation options
- Automatic or manual CMOS sensor configuration: exposure, gain and brightness options supported
- LED: External / Internal
- Image: Capture
- Image Format: BMP
- Region of Interest setting
- Firmware upgradable via USB / Ethernet
- Other Configurations:
 - » Decode Timeout / Decode Interval

Installing ITDB Series barcode reader with QNAP NAS system allows you to manage your production lines in a more efficient way. An ITDB system that runs over an IP network infrastructure enables the decoded images and results to be distributed to any number of sites (e.g. QNAP NAS, Android tablet or phone and Windows PC), within the constraints of available bandwidth. With the TCP interface supported by the ITDB Series, the information can be instantly transmitted to the NAS system making real-time production line monitoring more efficient.

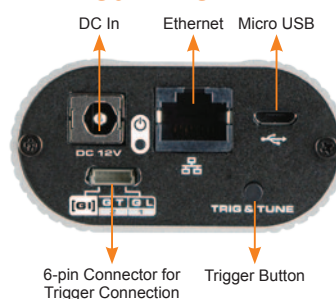


Fully Integrated I/O

Front View

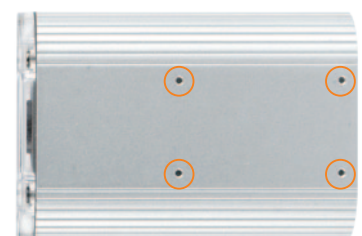


Rear View



Bottom View

The bottom surface of the ITDB-100 Series contains four retention screw holes for the mounting bracket.



Successful Product Features

Ease of Connectivity

Popular interfaces are on board:
USB, Ethernet TCP/IP

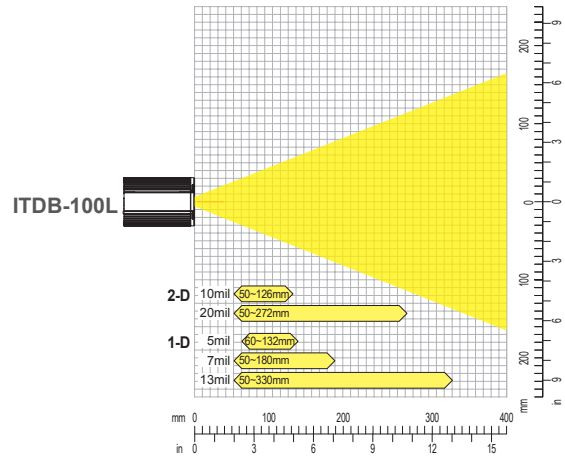


Easy to Read

Multiple focal options provide application-specific scanning, leading to improved productivity

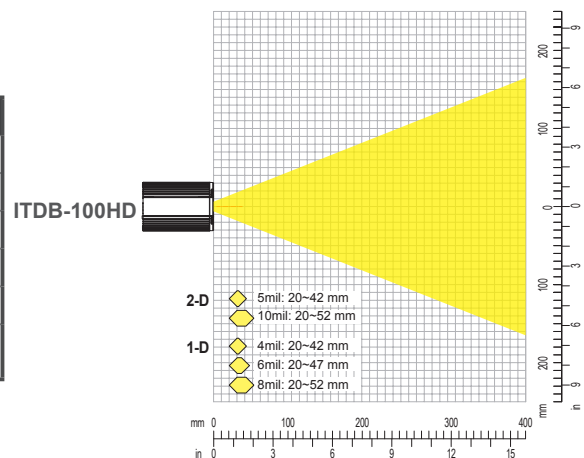
ITDB-100L Decode Range

Typical Performance*	ITDB-100L-R10
5 mil Code 39	60 mm - 132 mm
7 mil Code 39	50 mm - 180 mm
13 mil UPC	50 mm - 330 mm
10 mil Data Matrix	50 mm - 126 mm
20 mil QR	50 mm - 272 mm
* Performance may be impacted by barcode quality and environmental conditions	



ITDB-100HD Decode Range

Typical Performance*	ITDB-100HD-R10
4 mil Code 39	20 mm - 42 mm
6 mil Code 39	20 mm - 47 mm
8 mil Code 39	20 mm - 52 mm
5 mil Data Matrix	20 mm - 42 mm
10 mil Data Matrix	20 mm - 52 mm
* Performance may be impacted by barcode quality and environmental conditions	



Supported Barcode Types

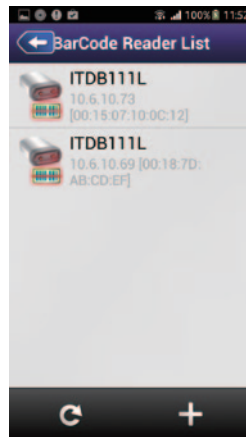
Linear					
Codabar (NW7)		Code 128		Code 39	
Code 93 and 93i		Interleaved 2 of 5		MSI (1/2 CRC check)	
UPC		ISBN		EAN	
Stacked					
PDF417		MicroPDF417			
Matrix					
Data Matrix		QR Code		Micro QR code	

* Besides the above barcode types, IEI has the ability to develop an algorithm for any barcode type upon customers' requests.

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IEI Barcode Solution

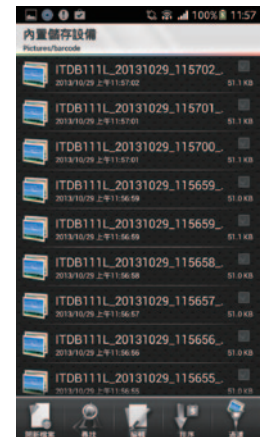
IEI barcode quick-setup solution allows you to easily and quickly setup your ITDB Series barcode reader through an Android phone or tablet that has IEI barcode reader APK installed.



Select an ITDB device



Quick setup & ready to decode



Can't decode? Report IEI with the saved image

Scan this code with your phone to go to the Android Market and download the app for **FREE**.

IEI offers a barcode verifier software for Windows systems which is used to guarantee that the barcodes you print are 100% compliant to the ITDB barcode reader. Verification is akin to insurance: you hope you'll never need it but it's risky to function without it.



Barcode verification



Barcode reader configuration

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Applications



Packaging
The ITDB-100 Series 2D barcode readers are ideally suited for a wide range of packaging applications.



Document Handling and Sorting
The ITDB-100 Series 2D barcode readers are perfect for sorting documents, envelopes, and more.

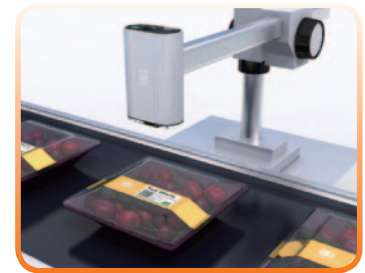
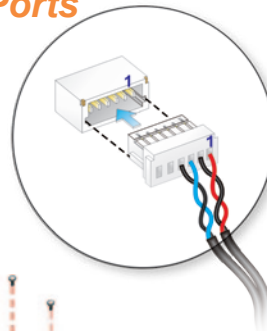


Pharmaceuticals
The ITDB-100 Series 2D barcode readers provide accurate reading of multiple code formats in a single view.

Abundant Trigger Connection Ports

Support up to 2 Trigger Connection Ports

Group	Pin	Description
1	1	Output of LED Flash Trigger
	2	Ground for the Output LED Flash Trigger
2	3	Input of Interrupt Trigger
	4	Ground for the Input of Interrupt Trigger

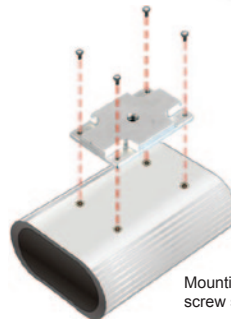


Applications for Logistics Schematic Diagram

Mounting Way



Mounting bracket size (50x31x8 mm)

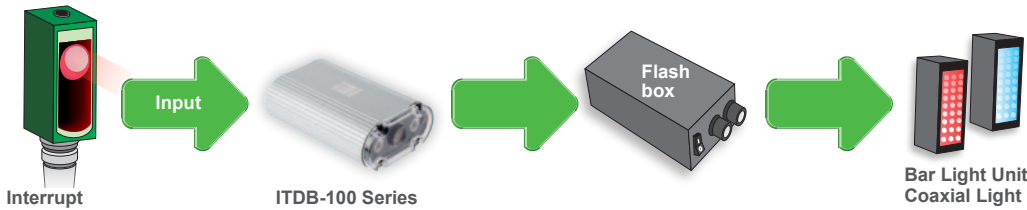


Mounting bracket screw size: M2



Digital Input and Output Connection

The ITDB digital input and output ports enable connection to external devices, such as detectors (e.g. proximity and photoelectric sensors), flash power controller box and lights (e.g. bar and coaxial light). When input and output mechanisms are connected, you can manually or automatically request through the ITDB management software either from a remote PC, android phone or tablet, QNAP NAS or using the ITDB's built-in logic.

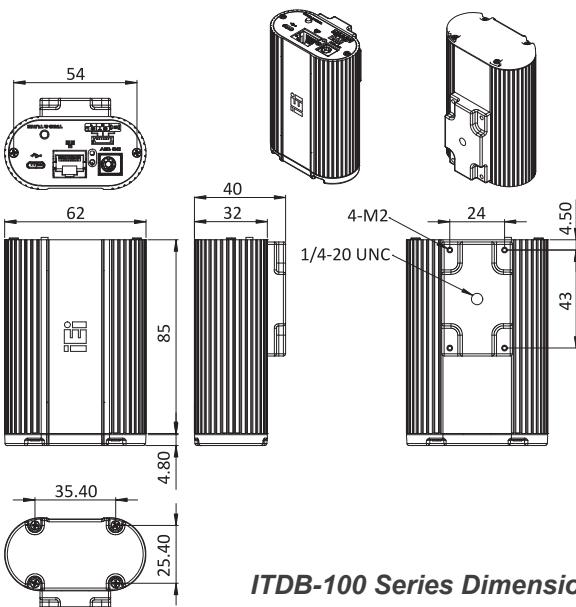


* I/O usage example: An ITDB attached to a photoelectric sensor and to a flash power controller system.

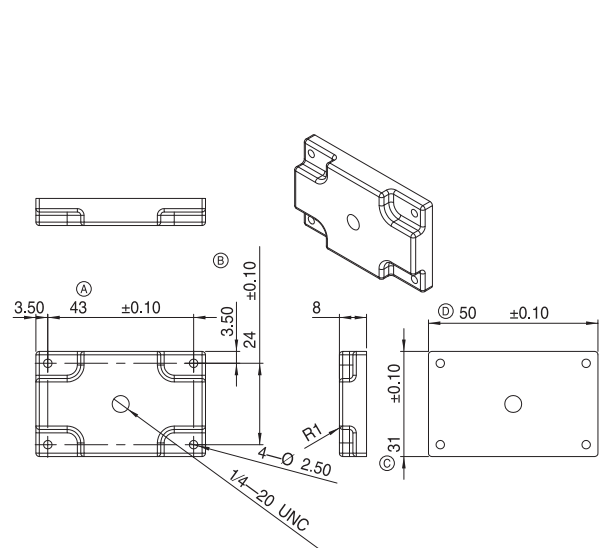
Accessories

- External Lighting
 - » Bar Light Unit
 - » Coaxial Light
- Power Controller Box
- Trigger Sensors
 - » Proximity sensor
 - » Photoelectric sensor

Dimensions (Unit: mm)



ITDB-100 Series Dimensions



Mounting Bracket Dimensions

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Specifications

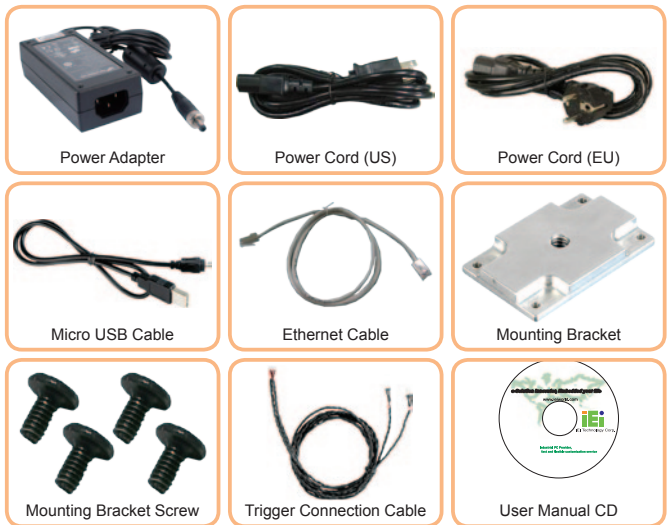
Supported 1D Symbologies	Code 39, code 93, interleaved 2 of 5, UPC/EAN (ISBN, UPCA, UPCE, EAN13, EAN8) EAN 128, code 128, MSI, codabar	Power Supply	Operating voltage: 12V/3.3A Power consumption: Power on = 7.7 W Max. PD = 9.9 W
Supported 2D Symbologies	PDF-417, Micro PDF-417, QR Code/microQR Code, Data Matrix	Operating Limits of the 6-pin Connector for Trigger Connection	Output of LED Flash Trigger Current: 8mA Voltage: 3.3VDC Input of Interrupt Trigger Current: 1.4mA@5VDC, 4mA@12VDC, 6.2mA@18VDC Recommended operating voltage: 5VDC ~ 18VDC Absolute voltage limits: 4.5VDC ~ 24VDC
Sensor Major Specifications	Sensor: 1/3 inch CMOS with global shutter Resolution: 752 x 480 Acquisition: Max. rate 60fps		Supported OS
Lens Major Specifications	Focus: Fixed ITDB-100L Code resolution: ≥ 0.33 mm Reading distance (at code resolution): 50 mm ~ 330 mm ITDB-100HD Code resolution: ≥ 0.2 mm Reading distance (at code resolution): 20 mm ~ 52 mm	Mechanical Specifications	Housing: Die-casting aluminum Housing color: Silver Front cover: Transparent plastic Weight: 290 g (without mounting bracket) Dimensions (LxWxH): 89.8 mm x 62 mm x 32 mm
Illumination Element (nm)	2 x Red LEDs Visible red light ($\lambda = 650$ nm ~ 660 nm)	Environment	RoHS compliant Operating temperature: 0°C ~ 50°C Storage temperature: -10°C ~ 60°C Permissible relative humidity: 90% (non-condensing) Ambient light safety: 2,000 lx, on code
I/O Interfaces	1 x Micro USB port (USB 2.0 data transmission rate: 480 Mbit/s) 1 x Ethernet port (Ethernet data transmission rate: 10/100 Mbit/s) 1 x DC in jack ($\Phi 2.5/\Phi 5.5$) 1 x 6-pin connector for trigger connection 1 x Trigger and tuning control button 1 x power indicator Acoustic indicators: Beeper	Shock Resistance	EN 60068-2-27 (2009-05)
		Vibration	MIL-STD-810F 514.5C-1 and IEC-60068-2-06

1

Industrial Computing Solutions

Packing List

Item	Part No.	Q'ty
ITDB-100 Series	ITDB-100L-R10/ ITDB-100HD-R10	1
Power Adapter	63000-FSP040DGAA1106-RS	1
Power Cord (US)	32701-000700-100-RS	1
Power Cord (EU)	32702-000200-100-RS	1
Micro USB Cable	32001-016100-100-RS	1
Ethernet Cable	32000-113100-RS	1
Mounting Bracket	42010-0172E4-00-RS-N	1
Mounting Bracket Screw	44045-020061-RS	4
Trigger Connection Cable	32125-008200-100-RS	1
User Manual and Utility CD	7B000-000966-RS	1



2

Video Capture Solutions

3

Industrial Computer Chassis

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Open Frame Monitor

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Power Supply/ Peripherals

6

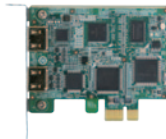
All-in-One System

Ordering Information

Part No.	Description
ITDB-100L-R10	Image-based code reader system with 1D, 2D decoding code types, 752x480, 2 x LEDs, Reading distance (at code resolution): 50mm ~ 330mm, 12V DC Input, RoHS, I/O interface with 1 x USB 2.0, 1 x DC jack ($\Phi 2.5 \times \Phi 6.3$), 1 x ethernet, 1x6-pin trigger port, 1 x trigger button
ITDB-100HD-R10	Image-based code reader system with 1D, 2D decoding code types, 752x480, 2 x LEDs, Reading distance (at code resolution): 20mm ~ 52mm, 12V DC Input, RoHS, I/O interface with 1 x USB 2.0, 1 x DC jack ($\Phi 2.5 \times \Phi 6.3$), 1 x ethernet, 1x6-pin trigger port, 1 x trigger button

H.264 Hardware Compression Video Capture Product Selection Guide

1080p30 Full HD

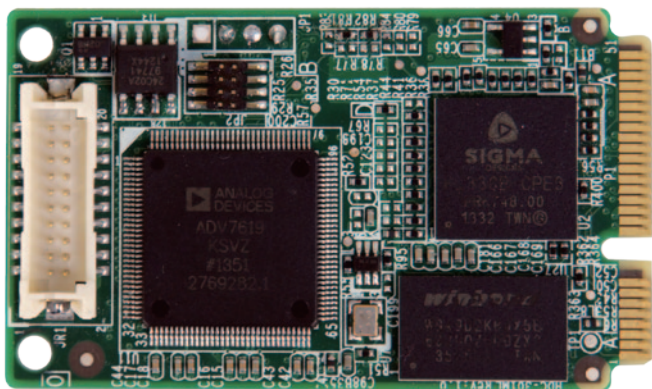


Products	HDC-301MS	HDC-301EL	HDC-701EL New	HDB-301L
◆ Input				
Video Input Channel	1 channel			
Video Input Type	HDMI		HDMI/DP/DVI/YPbPr	HDMI
Audio Input Channel	1 channel			
Audio Input Type	HDMI (stereo)			
◆ No Delay Passthrough				
Video Output Channel	None	1 channel (1080p60)		
Video Output Type	None	HDMI		
Audio Output Channel	None	1 channel		
Audio Output Type	None	HDMI (stereo)		
◆ Pc Interface				
Type	PCIe Mini	PCIe x1	PCIe x1	USB 2.0
◆ 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 800 60p 1280 x 768 60p 1280 x 720 50p/60p 1024 x 768 60p 800 x 600 60p 720 x 576 50p 720 x 480 60p 640 x 480 60p			
Recording Formats	1920 x 1080 24p/25p/30p 1280 x 1024 30p 1920 x 1080 24p/25p/30p 1280 x 800 60p 1280 x 720 50p/60p 1024 x 768 60p 800 x 600 60p 720 x 576 50p 720 x 480 60p 640 x 480 60p			
◆ Audio Processing				
Audio Sampling Frequencies	44.1k, 48k Hz			
Audio Compression	MPEG4-AAC			
Recording Datarate	128kbps			
◆ Functionality				
Multiple Card Support	8 channels			
Scaling	video scaling down compression		video scaling support, OSD, PIP	video scaling down compression
◆ Others				
Dimensions	51 x 30 (mm)	83.8 x 68.9 (mm)	155 x 111 (mm)	89 x 74.83 x 21.6 (mm)
Operation Temperture	0°C - 60°C (32°F - 140°F), non-condensing			
Power Consumption	3W	4.5W	15W	4.5W
◆ Software Support				
Device Driver	Windows 7 32-bit Windows 7 64-bit Linux: Ubuntu 10.04 (kernel 2.6.35)			
Sdk	Provide SDK and Demo program			

- 1 Industrial Computing Solutions
- 2 Video Capture Solutions
- 3 Industrial Computer Chassis
- 4 Open Frame Monitor
- 5 Power Supply/ Peripherals
- 6 All-in-One System

HDC-301MS

PCIe Mini video/audio capture card with one HDMI input channel, 1920x1080@30p, and H.264 hardware codec



Features

- Compatible with Microsoft Windows 7 for 32-bit & 64-bit
- Equipped with one HDMI input port
- Encode up to 1080p30 HD video
- Pass through for transmitting uncompressed video up to 1080p resolution
- Record and stream video over networks or the Internet: VideoLAN VLC, AMCap and other DirectShow compatible software

Specifications

Interface

Input	Video input channel	1 channel
	Video input type	HDMI
	Audio input channel	1 channel
	Audio input type	HDMI (stereo)

PC Interface

Type	PCIe Mini
------	-----------

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
	1280 x 800 60p 1280 x 720 50p/60p 800 x 600 60p 720 x 480 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 1024 30p 1280 x 768 60p
	1280 x 720 50p/60p 800 x 600 60p 720 x 480 60p	1024 x 768 60p 720 x 576 50p 640 x 480 60p

Audio Processing

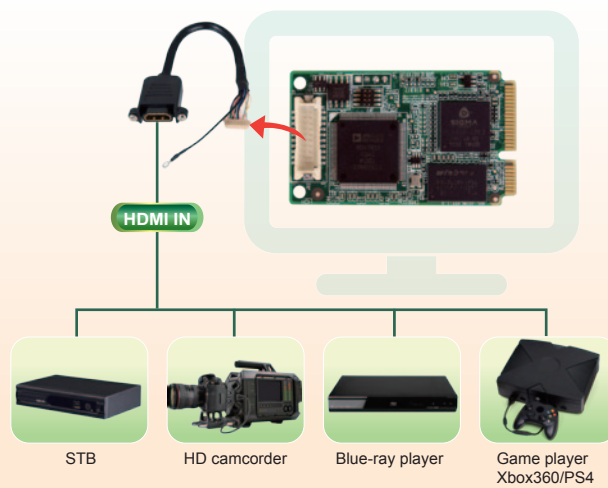
Audio Sampling Frequencies	44.1k, 48k Hz
Audio Compression	MPEG4-AAC
Recording Datarate	128kbps

Software Support

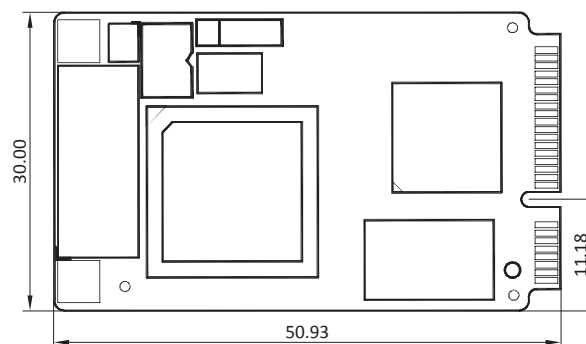
Device Driver	Microsoft Windows 7 32-bit Microsoft Windows 7 64-bit Linux: Ubuntu 10.04 (kernel 2.6.35)
SDK	Provide SDK and demo program

H.264 Hardware Codec

Video Recording/Streaming



Dimensions (Unit: mm)



System Requirement

System	Intel® Core™2 Duo 2.4GHz or above
Memory	2GB or more
OS Environment	Microsoft Windows 7 32-bit/64-bit Microsoft DirectX 10.0 or above Linux: Ubuntu 10.04 (kernel 2.6.35)

Functionality

Multiple Card Support	8 channels
Scaling	Video scaling down compression

Others

Dimensions	51 mm x 30 mm
Operating Temperature	0°C ~ 60°C (32° ~ 140°F), non-condensing
Power Consumption	3W

Packing List

1 x HDC-301MS
1 x HDMI output kit
1 x QIG
1 x Utility CD

Ordering Information

Part No.	Description
HDC-301MS-R10	PCIe mini video/audio capture card with one HDMI input channel, 1920x1080@30p, and H.264 hardware codec

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

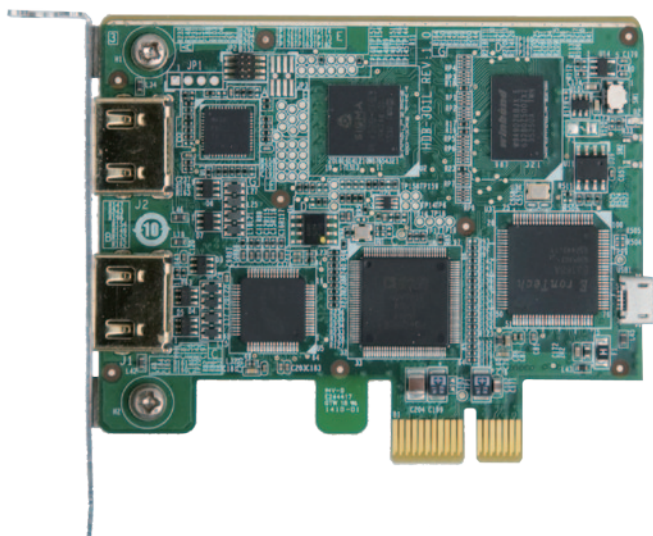
4 Open Frame Monitor

5 Power Supply/Peripherals

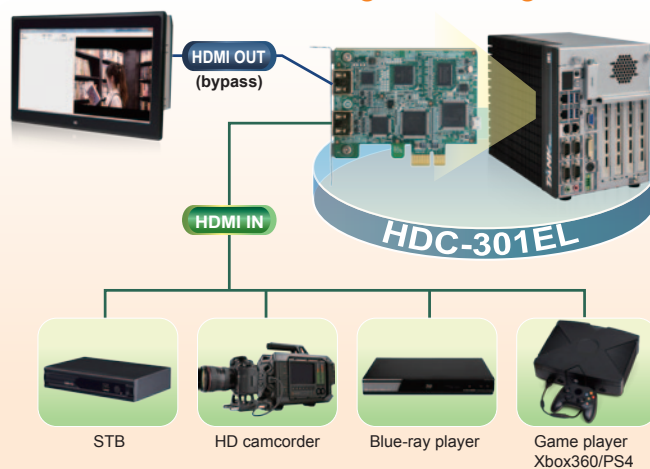
6 All-in-One System

HDC-301EL

PCI Express video/audio capture card with one HDMI input channel and one HDMI output channel, 1920x1080@30p, and H.264 hardware codec



H.264 Hardware Codec Video Recording/Streaming



Features

- Compatible with Microsoft Windows 7 for 32-bit & 64-bit
- Equipped with one HDMI input port
- Encode up to 1080p30 HD video
- Record and stream video over networks or the Internet: VideoLAN VLC, AMCap and other DirectShow compatible software

Specifications

◆ Interface

Input	Video input channel	1 channel
	Video input type	HDMI
	Audio input channel	1 channel
	Audio input type	HDMI (stereo)
No Delay HDMI Passthrough	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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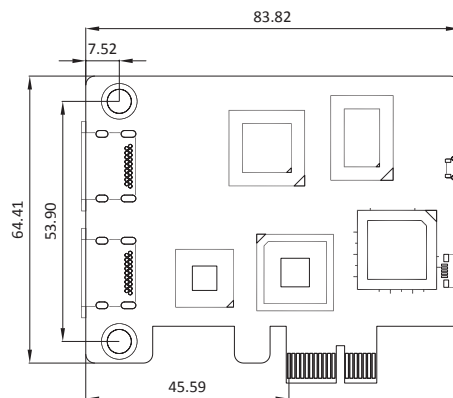
◆ Video Processing

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	
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

◆ Audio Processing

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

Dimensions (Unit: mm)



◆ System Requirement

System	Intel® Core™2 Duo 2.4GHz or above
Memory	2GB or more
OS Environment	Microsoft Windows 7 32-bit/64-bit Microsoft DirectX 10.0 or above Linux: Ubuntu 10.04 (kernel 2.6.35)

◆ Software Support

Device Driver	Microsoft Windows 7 32-bit Microsoft Windows 7 64-bit Linux: Ubuntu 10.04 (kernel 2.6.35)
SDK	Provide SDK and demo program

◆ Functionality

Multiple Card Support	8 channels
Scaling	Video scaling down compression

◆ Others

Dimensions	83.8 mm x 68.9 mm
Operating Temperature	0°C ~ 60°C (32° ~ 140°F), non-condensing
Power Consumption	4.5W

Packing List

1 x HDC-301EL	
1 x QIG	1 x Utility CD

Ordering Information

Part No.	Description
HDC-301EL-R10	PCI Express video/audio capture card with one HDMI input and one HDMI output, 1920x1080@30p, and H.264 hardware codec

1
Industrial
Computing
Solutions

2
Video
Capture
Solutions

3
Industrial
Computer
Chassis

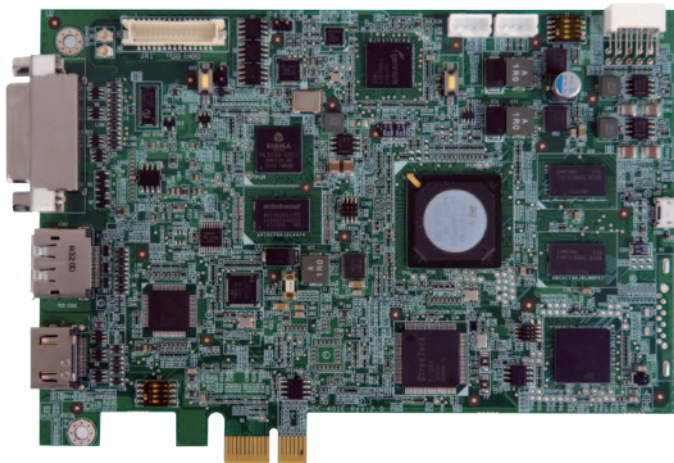
4
Open
Frame
Monitor

5
Power Supply/
Peripherals

6
All-in-One
System

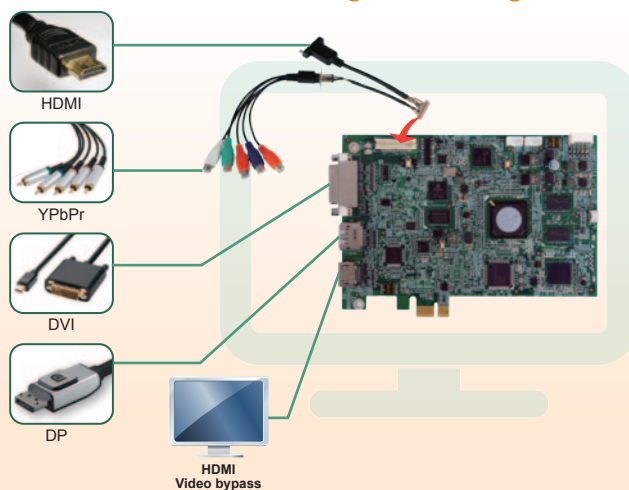
HDC-701EL

PCI Express video/audio capture card with one HDMI/DP/DVI/YPbPr input channel and one HDMI output channel, 1920x1080@30p, and H.264 hardware codec



H.264 Hardware Codec

Video Recording/Streaming



Features

- Compatible with Microsoft Windows 7 for 32-bit & 64-bit
- Equipped with one input port of HDMI/DP/DVI/YPbPr
- Encode up to 1080p30 HD video
- Record and stream video over networks or the Internet: VideoLAN VLC, AMCap and other DirectShow compatible software

Specifications

◆ Interface

Input	Video input channel	1 channel
	Video input type	HDMI/DP/DVI/YPbPr
	Audio input channel	1 channel
	Audio input type	HDMI (stereo video)
No Delay HDMI Passthrough	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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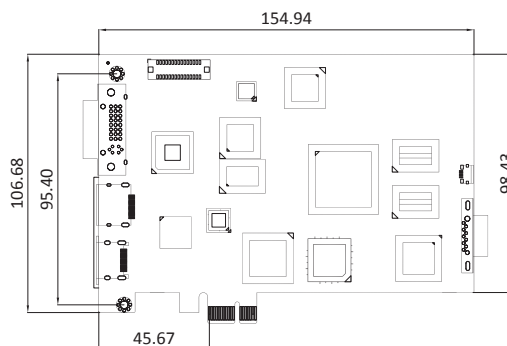
◆ Video Processing

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 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	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

Dimensions (Unit: mm)



◆ System Requirement

System	Intel® Core™2 Duo 2.4GHz or above
Memory	2GB or more
OS Environment	Microsoft Windows 7 32-bit/64-bit Microsoft DirectX 10.0 or above Linux: Ubuntu 10.04 (kernel 2.6.35)

◆ Software Support

Device Driver	Microsoft Windows 7 32-bit Microsoft Windows 7 64-bit Linux: Ubuntu 10.04 (kernel 2.6.35)
SDK	Provide SDK and demo program

◆ Functionality

Multiple Card Support	8 channels
Scaling	Video scaling support, OSD, PIP

◆ 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
2 x Cable	1 x Utility CD

Ordering Information

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

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

4 Open Frame Monitor

5 Power Supply/Peripherals

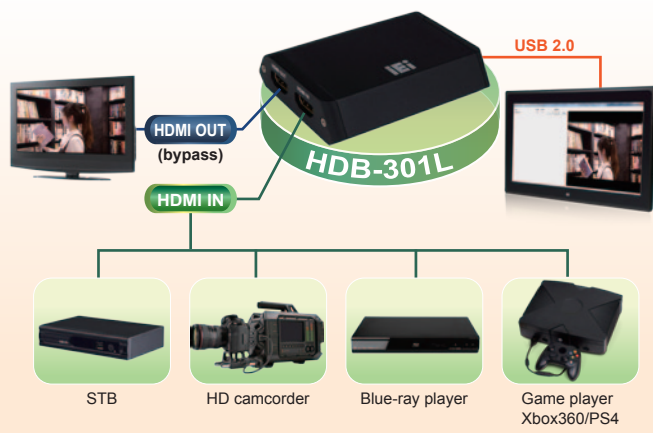
6 All-in-One System

HDB-301L

USB 2.0 video/audio capture box with one HDMI input channel and one HDMI output channel, 1920x1080@30p, and H.264 hardware codec



H.264 Hardware Codec Video Recording/Streaming



Features

- Compatible with Microsoft Windows 7 for 32-bit & 64-bit
- Equipped with one HDMI input port
- Encode up to 1080p30 HD video
- Record and stream video over networks or the Internet: VideoLAN VLC, AMCap and other DirectShow compatible software

Specifications

◆ Interface

Input	Video input channel	1 channel
	Video input type	HDMI
	Audio input channel	1 channel
	Audio input type	HDMI (stereo)
No Delay HDMI Passthrough	Video output channel	1 channel (1080p 60)
	Video output type	HDMI
	Audio output channel	1 channel
	Audio output type	HDMI (stereo)

◆ PC Interface

Type	USB 2.0
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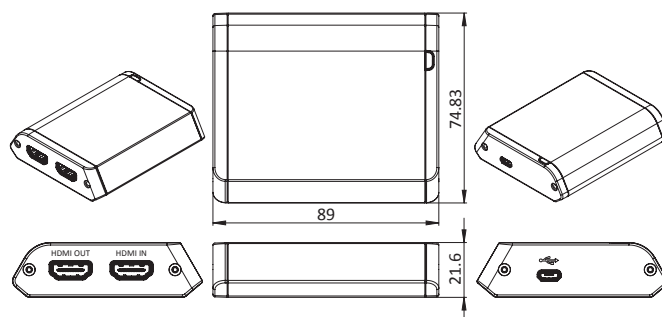
◆ Video Processing

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
	1280 x 720 50p/60p 800 x 600 60p 720 x 480 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

◆ Audio Processing

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

Dimensions (Unit: mm)



◆ System Requirement

System	Intel® Core™2 Duo 2.4GHz or above
Memory	2GB or more
OS Environment	Microsoft Windows 7 32-bit/64-bit Microsoft DirectX 10.0 or above Linux: Ubuntu 10.04 (kernel 2.6.35)

◆ Software Support

Device Driver	Microsoft Windows 7 32-bit Microsoft Windows 7 64-bit Linux: Ubuntu 10.04 (kernel 2.6.35)
SDK	Provide SDK and demo program

◆ Functionality

Multiple Card Support	8 channels
Scaling	Video scaling down compression

◆ Others

Dimensions	89 mm x 74.83 mm x 21.6 mm
Operating Temperature	0°C ~ 60°C (32° ~ 140°F), non-condensing
Power Consumption	4.5W

Packing List

1 x HDB-301L	1 x QIG
1 x USB cable	1 x Utility CD

Ordering Information

Part No.	Description
HDB-301L-R10	USB 2.0 video/audio capture box with one HDMI input, one HDMI output, 1920x1080@30p, and H.264 Hardware codec

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

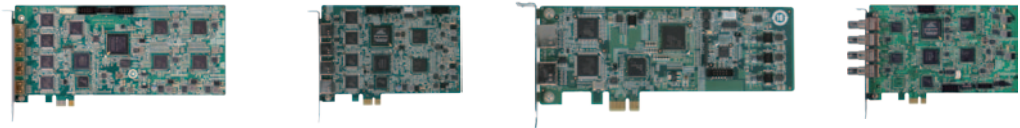
4 Open Frame Monitor

5 Power Supply/ Peripherals

6 All-in-One System

H.264 Hardware Compression Video Capture Product Selection Guide

1080p60 Full HD



Products	HDC-304E	HDC-302E	HDC-301E	HDC-502E
◆ Input				
Video Input Channel	4 channels	2 channels	1 channel	2 channels
Video Input Type	HDMI	HDMI	HDMI	SDI
Audio Input Channel	4 channels	2 channels	1 channel	2 channels
Audio Input Type	HDMI (stereo)	HDMI (stereo)	HDMI (stereo)	SDI
◆ No Delay Passthrough				
Video Output Channel	1 channel (1080p60)	2 channels	1 channel	2 channels
Video Output Type	HDMI output cable kit	HDMI	HDMI	SDI
Audio Output Channel	1 channel	2 channels	1 channel	2 channels
Audio Output Type	HDMI output cable kit	HDMI	HDMI	SDI
◆ Pc Interface				
Type	PCIe x1	PCIe x1	PCIe x1	PCIe x1
◆ Video Processing				
Hardware Encoder	H.264/AVC High Profile Level 4.2			
Recording Datarate	2Mbps ~ 20Mbps			
Video Input Resolution	1920 x 1080 60p / 59.94p / 50p 1920 x 1080 60i / 59.94i / 50i 1280 x 720 60p / 59.94p / 50p 720 x 480 60i / 59.94i 720 x 576 50i		1920 x 1080 60p / 50p / 30p / 25p / 24p 1920 x 1080 60i / 50i 1280 x 720 60p / 50p / 30p / 25p / 24p 720 x 480 60i 720 x 576 50i	
Recording Formats	1920 x 1080 60p / 59.94p / 50p 1920 x 1080 60i / 59.94i / 50i 1280 x 720 60p / 59.94p / 50p 720 x 480 60i / 59.94i 720 x 576 50i		1920 x 1080 60p 1280 x 720 60p	
◆ Audio Processing				
Audio Sampling Frequencies	44.1k, 48k Hz			
Audio Compression	MPEG-1 Audio Layer 2			
Recording Datarate	256kbps			
◆ Functionality				
Multiple Card Support	YES			
Scaling	NA			
◆ Others				
Dimensions	230 x 116 (mm)	155 x 98.6 (mm)	168 x 69 (mm)	188 x 125 (mm)
Operation Temperature	0°C - 65°C (32°F - 140°F), non-condensing			
Power Consumption	12.7W	9.53W	6.07W	14.2W
◆ Software Support				
Device Driver	Windows 7 32-bit Windows 7 64-bit Linux: Fedora 17 (kernel 3.3.4-5)			
Sdk	Provide SDK and Demo program			

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Industrial Computing Solutions

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Video Capture Solutions

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Industrial Computer Chassis

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Open Frame Monitor

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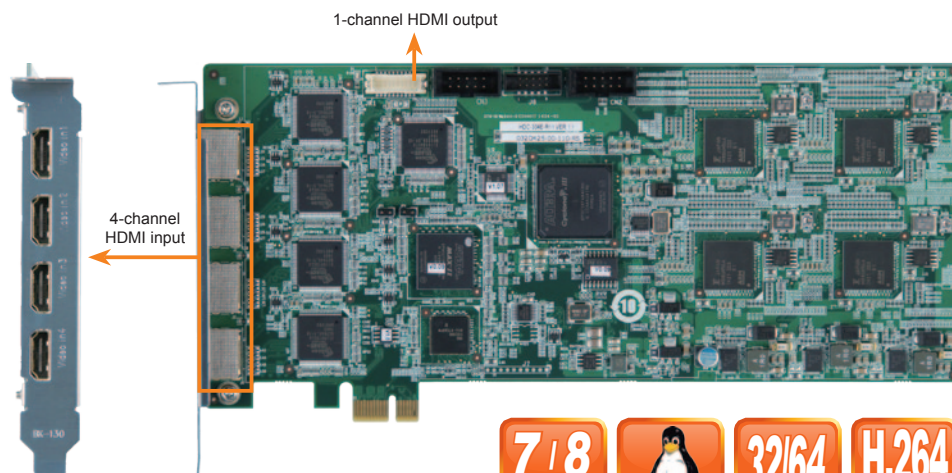
Power Supply/Peripherals

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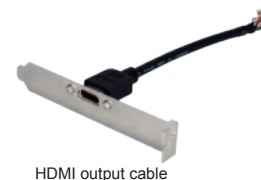
All-in-One System

HDC-304E

PCI Express video/audio capture card with four HDMI input channels and one HDMI output channel, 1920x1080@60p, and H.264 hardware codec



H.264 Hardware Codec



HDMI output cable



Features

- Compatible with Windows XP, Windows 8, Windows 7 and Linux
- Equipped with four HDMI input ports
- Encoding or decoding up to 1080p HD video
- Pass through for transmitting uncompressed video up to 1080p resolution
- Reduces the amount of hard disk space needed by real-time H.264 recording compression capability
- Enables the system to support up to 8-channel input by adding multiple video capture cards
- SDK available for customer to create customized applications
- PCI Express interface provides higher bandwidth and great performance

Specifications

Interface

Video Input	4 channels
Video Input type	HDMI
Audio Input	4 channels
Audio Input Type	HDMI
Video Output	1 channel
Video Output Type	HDMI output cable kit
Audio Output	1 channel
Audio Output Type	HDMI output cable kit
Bus Interface	PCIe x1
Loop Through	1 channel

Video Processing

Video Compression	H.264/AVC High Profile Level 4.2	
Input Resolution & Frame Rate	1920 x 1080 x 60p / 59.94p / 50p	720 x 480 x 60i / 59.94i
	1920 x 1080 x 60i / 59.94i / 50i	720 x 576 x 50i
	1280 x 720 x 60p / 59.94p / 50p	
Record Resolution / Frame Rate / Bit Rate	1920 x 1080 x 60p / 59.94p / 50p, encoding video bit rate from 6Mbps to 20Mbps	
	1920 x 1080 x 60i / 59.94i / 50i, encoding video bit rate from 6Mbps to 20Mbps	
	1280 x 720 x 60p / 59.94p / 50p, encoding video bit rate from 4Mbps to 20Mbps	
	720 x 480 x 60i / 59.94i, encoding video bit rate from 2Mbps to 10Mbps	
	720 x 576 x 50i, encoding video bit rate from 2Mbps to 10Mbps	

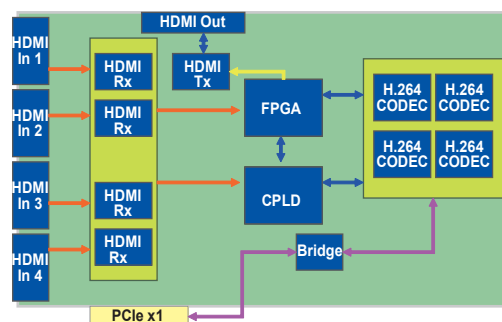
Functionality

Multiple Card Support	Yes
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Audio Processing

Audio Compression	MPEG-1 Audio Layer 2
Bit Rate	256k

System Block



System Requirement

System	x86 PC compatible computer, Intel® Pentium® 4 2.0GHz or above for video record Recommends using a DXVA or CUDA capable graphics card for real-time video playback
Memory	1GB or more
OS Environment	Microsoft Windows XP Service Pack 2 (SP2) (32-bit version) Microsoft Windows 7 (32-bit/64-bit) Microsoft DirectX 9.0c Microsoft .NET Framework 2.0 Linux Fedora 17 Kernel 3.3.4-5 (32-bit/64-bit)

Software Support

Device Driver	Compatible with Windows XP, Windows 7, Linux Fedora 17 Kernel 3.3.4-5
SDK	Windows: Provides SDK and demo program with sample source code in C# Linux: Provides SDK and driver/demo program with sample source code in C

Others

Dimensions	230 mm x 116 mm
Operating Temperature	0°C ~ 65°C, non-condensing
Power Consumption	12.7W (12V@0.61A, 3.3V@1.63A)

Packing List

1 x HDC-304E capture card	
1 x HDMI output kit	
1 x Utility CD	1 x QIG

Ordering Information

Part No.	Description
HDC-304E-R11	PCI Express video/audio capture card with four HDMI input channels, 1920x1080@60p, and H.264 hardware codec

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

4 Open Frame Monitor

5 Power Supply/ Peripherals

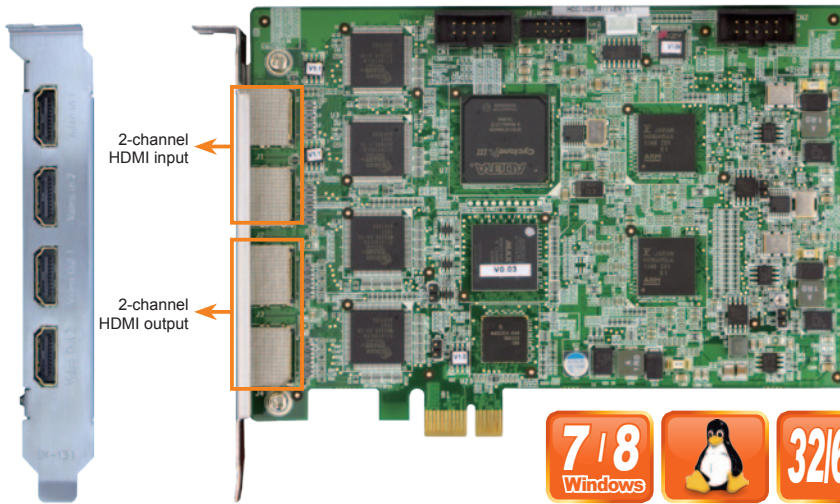
6 All-in-One System

HDC-302E

PCI Express video/audio capture card with two HDMI input channels and two HDMI output channels, 1920x1080@60p, and H.264 Hardware Codec



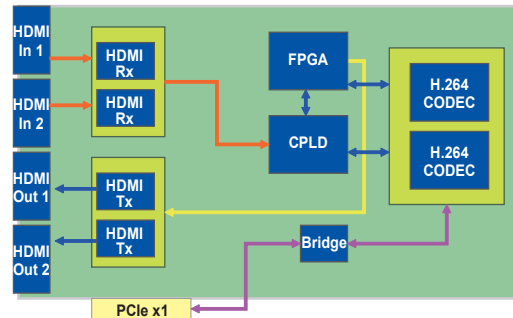
H.264 Hardware Codec



Features

- Compatible with Windows XP, Windows 8, Windows 7 and Linux
- Equipped with two HDMI input ports
- Encoding or decoding up to 1080p HD video
- Pass through for transmitting uncompressed video up to 1080p resolution
- Captures or records HD video in H.264 format
- Playbacks the recordings on HDMI display
- SDK available for customer to create customized applications

System Block



Specifications

◆ Interface

Video Input	2 channels
Video Input Type	HDMI
Audio Input	2 channels
Audio Input Type	HDMI
Video Output	2 channels
Video Output Type	HDMI
Audio Output	2 channels
Audio Output Type	HDMI
Bus Interface	PCIe x1
Loop Through	2 channels

◆ Video Processing

Video Compression	H.264/AVC High Profile Level 4.2
Input Resolution & Frame Rate	1920 x 1080 x 60p / 59.94p / 50p 720 x 480 x 60i / 59.94i 1920 x 1080 x 60i / 59.94i / 50i 720 x 576 x 50i 1280 x 720 x 60p / 59.94p / 50p
Record Resolution / Frame Rate / Bit Rate	1920 x 1080 x 60p / 59.94p / 50p, encoding video bit rate from 6Mbps to 20Mbps 1920 x 1080 x 60i / 59.94i / 50i, encoding video bit rate from 6Mbps to 20Mbps 1280 x 720 x 60p / 59.94p / 50p, encoding video bit rate from 4Mbps to 20Mbps 720 x 480 x 60i / 59.94i, encoding video bit rate from 2Mbps to 10Mbps 720 x 576 x 50i, encoding video bit rate from 2Mbps to 10Mbps

◆ Functionality

Multiple Card Support	4 cards, 8 channels
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◆ Audio Processing

Audio Compression	MPEG-1 Audio Layer 2
Bit Rate	256k

◆ System Requirement

System	x86 PC compatible computer, Intel® Pentium® 4 2.0GHz or above for video record Recommends using a DXVA or CUDA capable graphics card for real-time video playback
Memory	1GB or more
OS Environment	Microsoft Windows XP Service Pack 2 (SP2) (32-bit version) Microsoft Windows 7 (32-bit/64-bit) Microsoft DirectX 9.0c Microsoft .NET Framework 2.0 Linux Fedora 17 Kernel 3.3.4-5 (32-bit/64-bit)

◆ Software Support

Device Driver	Compatible with Windows XP, Windows 7, Linux Fedora 17 Kernel 3.3.4-5
SDK	Windows: Provides SDK and demo program with sample source code in C# Linux: Provides SDK and driver/demo program with sample source code in C

◆ Others

Dimensions	155 mm x 98.6 mm
Operating Temperature	0°C ~ 65°C, non-condensing
Power Consumption	9.53W (12V@0.46A, 3.3V@1.21A)

Packing List

1 x HDC-302E
1 x Utility CD
1 x QIG

Ordering Information

Part No.	Description
HDC-302E-R11	PCI Express video/audio capture card with two HDMI input channels and two HDMI output channels, 1920x1080@60p, and H.264 Hardware Codec

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

4 Open Frame Monitor

5 Power Supply/Peripherals

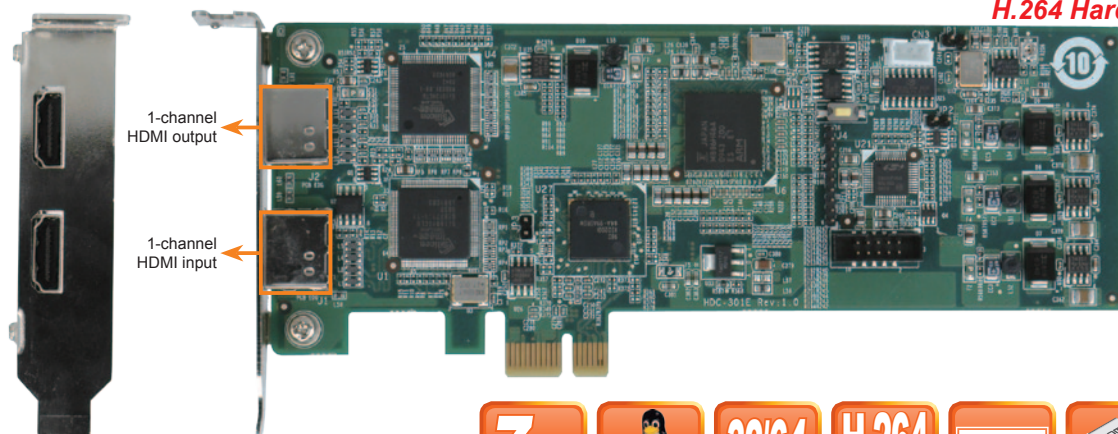
6 All-in-One System

HDC-301E

PCI Express video/audio capture card with one HDMI input channel and one HDMI output channel, 1920x1080@60p, and H.264 Hardware Codec



H.264 Hardware Codec



Features

- Compatible with Windows XP, Windows 7 and Linux
- Equipped with one HDMI input port
- Encoding or decoding up to 1080p HD video
- Pass through for transmitting uncompressed video up to 1080p resolution
- Captures or records HD video in H.264 format
- Playbacks the recordings on HDMI display
- SDK available for customer to create customized applications

Specifications

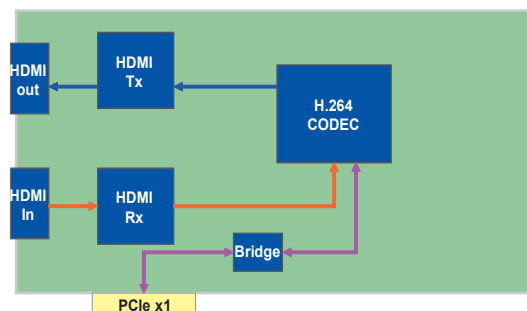
Interface

Video Input	1 channel
Video Input type	HDMI
Audio Input	1 channel
Audio Input Type	HDMI
Video Output	1 channel
Video Output Type	HDMI
Audio Output	1 channel
Audio Output Type	HDMI
Bus Interface	PCIe x1
Loop Through	1 channel

Video Processing

Video Compression	H.264/AVC High Profile Level 4.2	
Input Resolution & Frame Rate	1920 x 1080 x 60p / 59.94p / 50p 1920 x 1080 x 60i / 59.94i / 50i 1280 x 720 x 60p / 59.94p / 50p	720 x 480 x 60i / 59.94i 720 x 576 x 50i
Record Resolution / Frame Rate / Bit Rate	1920 x 1080 x 60p / 59.94p / 50p, encoding video bit rate from 6Mbps to 20Mbps 1920 x 1080 x 60i / 59.94i / 50i, encoding video bit rate from 6Mbps to 20Mbps 1280 x 720 x 60p / 59.94p / 50p, encoding video bit rate from 4Mbps to 20Mbps 720 x 480 x 60i / 59.94i, encoding video bit rate from 2Mbps to 10Mbps 720 x 576 x 50i, encoding video bit rate from 2Mbps to 10Mbps	

System Block



Functionality

Multiple Card Support	No
-----------------------	----

Audio Processing

Audio Compression	MPEG-1 Audio Layer 2
Bit Rate	256k

System Requirement

System	x86 PC compatible computer, Intel® Pentium® 4 2.0GHz or above for video record Recommends using a DXVA or CUDA capable graphics card for real-time video playback
Memory	1GB or more
OS Environment	Microsoft Windows XP Service Pack 2 (SP2) (32-bit version) Microsoft Windows 7 (32-bit/64-bit) Microsoft DirectX 9.0c Microsoft .NET Framework 2.0 Linux: Fedora 16 (Kernel 3.1)

Software Support

Device Driver	Compatible with Windows XP, Windows 7, Linux Kernel 3.1
SDK	Windows: Provides SDK and demo program with sample source code in C# Linux: Provides SDK and driver/demo program with sample source code in C

Others

Dimensions	168 mm x 69 mm
Operating Temperature	0°C ~ 65°C, non-condensing
Power Consumption	6.07 W (12V@0.3A, 3.3V@0.72A)

Packing List

1 x HDC-301E	
1 x Full size bracket	
1 x Utility CD	1 x QIG

Ordering Information

Part No.	Description
HDC-301E-R10	PCI Express video/audio capture card with one HDMI input channel and one HDMI output channel, 1920x1080@60p, and H.264 Hardware Codec

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

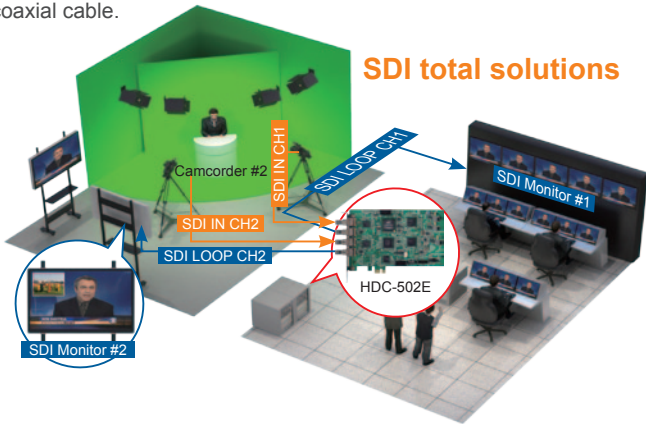
4 Open Frame Monitor

5 Power Supply/Peripherals

6 All-in-One System

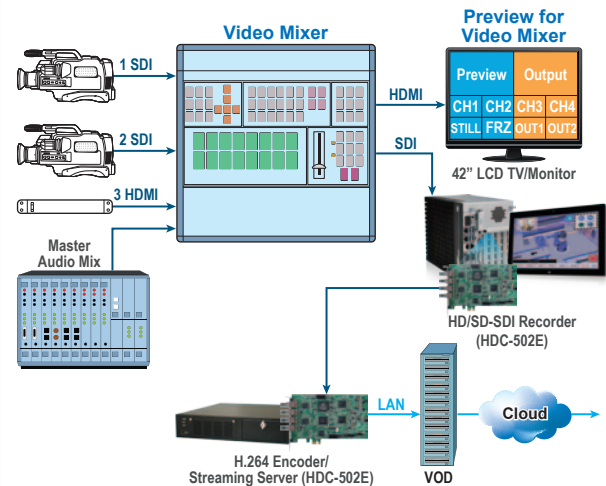
Long Distance High-Definition Compression Solution

Nowadays, more and more equipments are equipped with SDI output for television studios and other broadcasting applications. SDI is a high capacity interface used as a way of exporting uncompressed digital video in real time. That makes it ideal for live feed productions (such as a live TV show), as well as for editing and monitoring video at the highest possible quality. Since SDI is designed primarily for professional use, it is also compatible with a variety of video devices found in broadcast studios, including monitors, tape decks and switchers. SDI exports uncompressed SD and HD video over a coaxial cable.



Broadcasting Solutions

H.264 video encoder can be the part of streaming server in the application for broadcasting

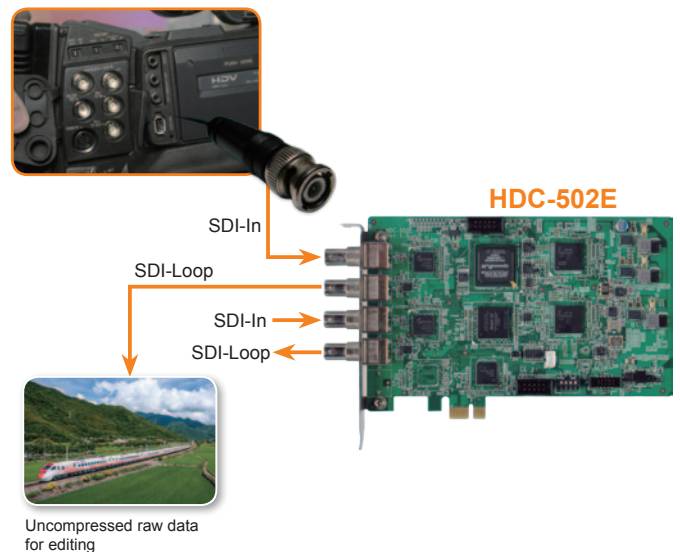


Long Distance and High Quality Capture Card

SDI in studio editing field

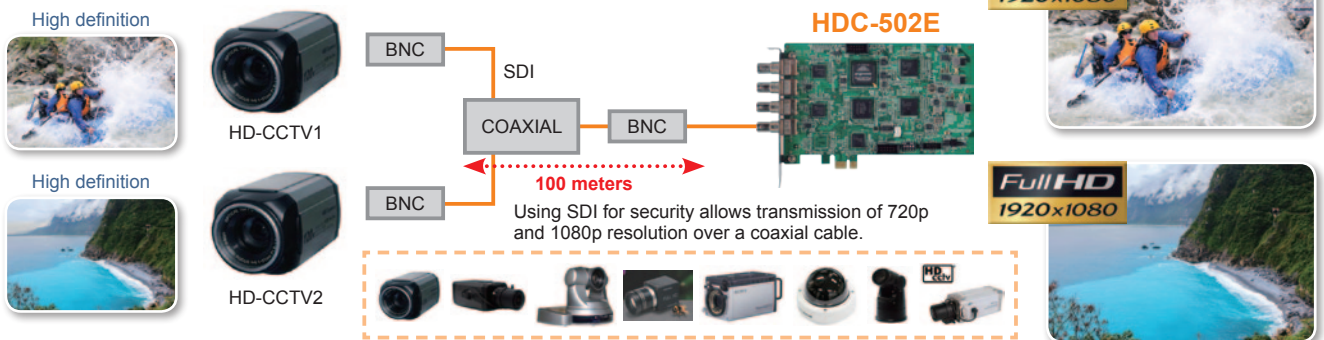
SDI (Serial Digital Interface) is a family of video interfaces used for broadcast-grade video. A related standard known as high-definition serial digital interface (HD-SDI) provides a nominal data rate of 1.485 Gbit/s. IEI SDI product HDC-502E is designed with 2 channels SDI input, 2 channels SDI loop and 1 channel SDI output for high quality and long distance signal transmission. It achieves this through a 100 m (HD-SDI)/300 m (SD-SDI) coaxial cable without compression and with no data loss for professional studio, broadcast and transportation video applications.

High definition capturing has become a trend of the industrial surveillance. The HD-CCTV camera with SDI interface provides long distance transmission compared to analog camera and IP camera. The advantage is SDI interface can transmit high-definition 1080p video via coaxial cable instead of network cable. In other words, users can enjoy 1080p HD video over existing analog system without any changes.



SDI in high quality surveillance field

HD-CCTV1 camera V.S. IP camera



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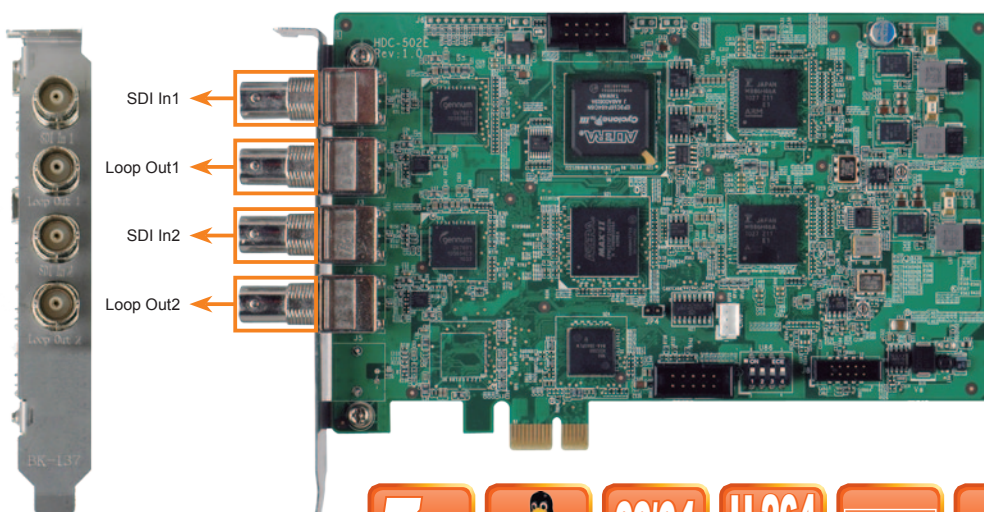
Power Supply/Peripherals

6

All-in-One System

HDC-502E

PCIe video/audio capture card with 2 channel SDI loop inputs, 2 channel SDI loop outputs and H.264 hardware codec up to 1920x1080@60p



Features

- Compatible with Windows XP, Windows 7 and Linux
- High quality and long distance video compression solution
- Encoding or decoding up to 1080p HD video
- Reduces the amount of hard disk space needed by real-time H.264 recording compression capability
- Applications: professional studio, broadcast and transportation video applications
- SDK available for customer to create customized applications

Specifications

Interface

Video Input	2 channels
Video Input Type	SDI
Audio Input	2 channels
Audio Input Type	SDI
Loop Through Output	2 channels
Loop Through Type	SDI
Bus Interface	PCIe x1

Video Processing

Video Compression	H.264/AVC High Profile Level 4.2
Input Resolution & Frame Rate	1920 x 1080 x 60p / 50p / 30p / 25p / 24p 720 x 480 x 60i 1920 x 1080 x 60i / 50i 720 x 576 x 50i 1280 x 720 x 60p / 50p / 30p / 25p / 24p
Record Resolution / Frame Rate / Bit Rate	1920 x 1080 x 60p, encoding video bit rate from 6Mbps to 20Mbps 1280 x 720 x 60p, encoding video bit rate from 4Mbps to 20Mbps

Audio Processing

Audio Compression	MPEG-1 Audio Layer 2
Bit Rate	256k

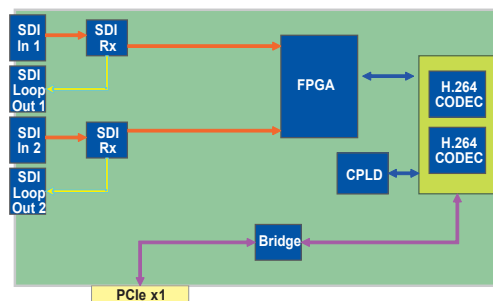
Functionality

Multiple Card Support	Yes
-----------------------	-----

Packing List

1 x HDC-502E capture card
1 x Utility CD
1 x QIG

System Block



Software Support

Device Driver	Compatible with Windows XP, Windows 7 and Linux Fedora 16
SDK	Windows: Provides SDK and demo program with sample source code in C# Linux: Provides SDK and driver/demo program with sample source code in C

System Requirement

System	x86 PC compatible computer, Intel® Pentium® 4 2.0GHz or above for video record Recommends using a DXVA or CUDA capable graphics card for real-time video playback
Memory	1GB or more
OS Environment	Microsoft Windows XP Service Pack 2 (SP2) (32-bit version) Microsoft Windows 7 (32-bit/64-bit) Microsoft DirectX 9.0c Microsoft .NET Framework 3.0/3.5/4.0 Visual C++ 2005 & 2008 Redistributable Linux: Fedora 16 (Kernel: 3.1)

Others

Dimensions (WxH) (mm)	188 mm x 125 mm
Operating Temperature	0°C ~ 60°C (32°F ~ 140°F), non-condensing
Power Consumption	14.2W (12V@0.76A, 3.3V@1.52A)

Ordering Information

Part No.	Description
HDC-502E-R10	PCI Express video/audio capture card with 2 SDI input channels, 2 loop-out channels, 1920x1080@60p, and H.264 Hardware Codec

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

4 Open Frame Monitor

5 Power Supply/Peripherals

6 All-in-One System

Uncompressed Video Capture Product Selection Guide



Products	HDB-301R New	HSRC-302E New
◆ Input		
Video Input Channel	1 channel	2 channels
Video Input Type	HDMI	HDMI 1.4a
Audio Input Channel	1 channel	2 channels
Audio Input Type	HDMI (stereo)	HDMI 1.4a (stereo)
◆ No Delay Passthrough		
Video Output Channel	1 channel	2 channels
Video Output Type	HDMI	HDMI 1.4a
Audio Output Channel	1 channel	2 channels
Audio Output Type	HDMI (stereo)	HDMI 1.4a (stereo)
◆ Pc Interface		
Type	USB 3.0	PCIe x4
◆ Video Processing		
Color Space	YUV 4:2:2	RGB / YUV
◆ Video Input Resolution		
Video Input Resolution	1920 x 1080 24p/25p/30p/50p/59.54p/60p 1920 x 1080 60i/59.94i/50i 1280 x 1024 60p 1280 x 720 60p/59.94p/50p 1024 x 768 60p 800 x 600 60p 720 x 576 50p 720 x 480 60p 640 x 480 60p	3840 x 2160 24p/25p/30p 1920 x 1080 24p/25p/30p/50p/60p 1920 x 1080 60i/59.94i/50i 1280 x 720 60p/50p
Video Preview	1920 x 1080 24p/25p/30p/50p/59.54p/60p 1920 x 1080 60i/59.94i/50i 1680 x 1050 60p 1440 x 900 60p 1360 x 768 60p 1280 x 1024 60p 1280 x 800 60p 1280 x 768 60p 1280 x 720 60p/59.94p/50p 1024 x 768 60p 800 x 600 60p 720 x 576 50p 720 x 480 60p 640 x 480 60p	3840 x 2160 24p/25p/30p 1920 x 1080 24p/25p/30p/50p/60p 1920 x 1080 60i/59.94i/50i 1280 x 720 60p/50p
◆ Audio Processing		
Audio Sampling Frequencies	44.1k, 48k Hz	
◆ Functionality		
Multiple Card Support	N/A	2 channels
◆ Others		
Dimensions	105 x 58 x 18 (mm)	155 x 111 (mm)
Operation Temperature	0°C - 60°C (32°F - 140°F), non-condensing	
Power Consumption	4W	15W
◆ Software Support		
Device Driver	Driver not needed	Windows 7 32-bit Windows 7 64-bit Linux
Sdk	Provide SDK and Demo program	

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All-in-One System

HDB-301R

USB 3.0 uncompressed video/audio capture box with one HDMI input channel and one HDMI output channel, 1920x1080@60p



Features

- Equipped with one HDMI input port and one HDMI output port
- Supports for 4:2:2 color spaces to provide the highest quality for your images
- Designed for professional video, machine vision, broadcast & post production industries
- For audio mastering, 24-bit 48kHz audio provides the power you need to integrate into any audio environment
- Works with all DirectShow-compliant software

Specifications

◆ Interface

Input	Video input channel	1 channel
	Video input type	HDMI
	Audio input channel	1 channel
	Audio input type	HDMI (stereo)
No Delay HDMI Passthrough	Video output channel	1 channel
	Video output type	HDMI
	Audio output channel	1 channel
	Audio output type	HDMI (stereo)

◆ PC Interface

Type	USB 3.0
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◆ Video Processing

Color Space	YUV 4:2:2		
Video Input Resolution	1920 x 1080 24p/25p/30p/50p/59.54p/60p	800 x 600 60p	
	1920 x 1080 60i/59.94i/50i	720 x 576 50p	
	1280 x 1024 60p	720 x 480 60p	
	1280 x 720 60p/59.94p/50p	640 x 480 60p	
	1024 x 768 60p		
Video Preview	1920 x 1080 24p/25p/30p/50p/59.54p/60p	1280 x 720 60p/59.94p/50p	
	1920 x 1080 60i/59.94i/50i	1024 x 768 60p	
	1680 x 1050 60p	800 x 600 60p	
	1440 x 900 60p	720 x 576 50p	
	1360 x 768 60p	720 x 480 60p	
	1280 x 1024 60p	640 x 480 60p	
	1280 x 800 60p		
	1280 x 768 60p		

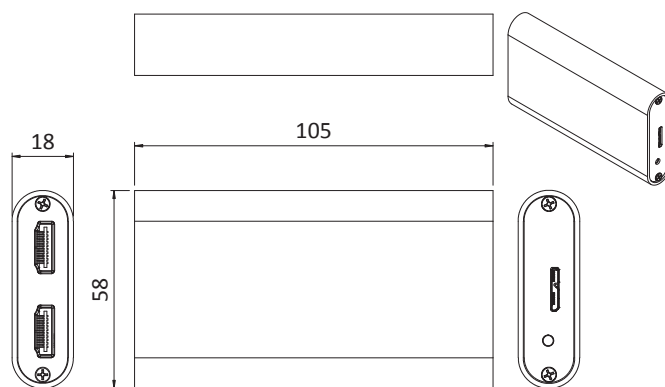
◆ Audio Processing

Audio Sampling Frequencies	44.1k, 48k Hz
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Machine Vision/Broadcast & Post Production



Dimensions (Unit: mm)



◆ System Requirement

System	Intel® Core™ i5-3400 or above
Memory	4GB or more
OS Environment	Microsoft Windows 7/8.1/10 (32-bit/64-bit) Microsoft DirectX 10.0 or above Ubuntu 14.04.3

◆ Software Support

SDK	Provide SDK and demo program
-----	------------------------------

◆ Others

Dimensions	105 mm x 58 mm x 18 mm
Operating Temperature	0°C ~ 60°C (32° ~ 140°F), non-condensing
Power Consumption	4W

Packing List

1 x HDB-301R
1 x USB 3.0 cable
1 x QIG
1 x Utility CD

Ordering Information

Part No.	Description
HDB-301R-R10	USB 3.0 Uncompressed video/audio capture box with one HDMI input and one HDMI output, 1920x1080@60p

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

4 Open Frame Monitor

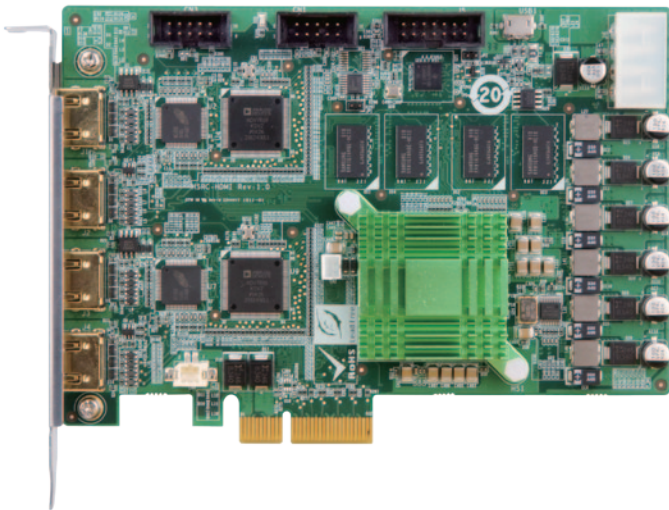
5 Power Supply/ Peripherals

6 All-in-One System

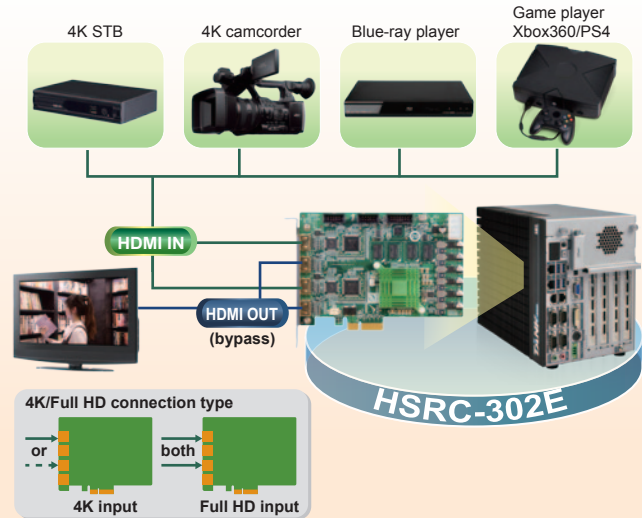
HSRC-302E

PCI Express uncompressed video/audio capture card with two HDMI input channels and two HDMI output channels, 4k@30p, 1920x1080@60p

New



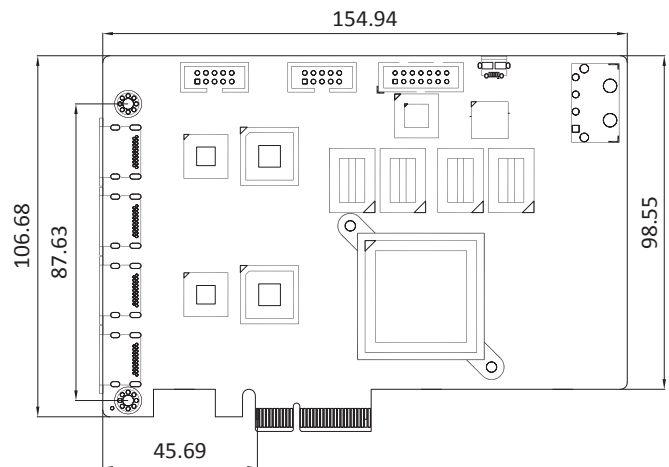
Machine Vision/Broadcast & Post Production



Features

- Equipped with two HDMI input ports and two HDMI output ports
- One HDMI port supports 4K video input
- Supports for 4:2:2 color spaces to provide the highest quality for your images
- Designed for professional video, machine vision, broadcast & post production industries
- For multi-channel audio mastering, 24-bit 48kHz audio provides the power you need to integrate into any audio environment
- Works with all DirectShow-compliant software

Dimensions (Unit: mm)



Specifications

◆ Interface

Input	Video input channel	2 channel
	Video input type	HDMI 1.4a
	Audio input channel	2 channel
	Audio input type	HDMI 1.4a (stereo)
No Delay HDMI Passthrough	Video output channel	2 channel
	Video output type	HDMI 1.4a
	Audio output channel	2 channel
	Audio output type	HDMI 1.4a (stereo)

◆ PC Interface

Type	PCIe x4
------	---------

◆ Video Processing

Color Space	RGB / YUV
Video Input Resolution	3840 x 2160 24p/25p/30p
	1920 x 1080 24p/25p/30p/50p/60p
	1920 x 1080 60i/59.94i/50i
	1280 x 720 60p/50p
Video Preview	3840x2160 24p/25p/30p
	1920 x 1080 24p/25p/30p/50p/60p
	1920 x 1080 60i/59.94i/50i
	1280 x 720 60p/50p

◆ Audio Processing

Audio Sampling Frequencies	44.1k, 48k Hz
----------------------------	---------------

◆ Software Support

Device Driver	Microsoft Windows 7 32-bit Microsoft Windows 7 64-bit Ubuntu 14.04.1
SDK	Provide SDK and demo program

◆ Functionality

Multiple Card Support	2 channels
-----------------------	------------

◆ Others

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

Packing List

- 1 x HSRC-302E
- 1 x QIG
- 1 x Utility CD

Ordering Information

Part No.	Description
HSRC-302E-R10	PCI Express Uncompressed video/audio capture card with two HDMI inputs and two HDMI outputs, 4k@30p, 1920x1080@60p

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

4 Open Frame Monitor

5 Power Supply/Peripherals

6 All-in-One System

Standard-Definition Software Compression Capture Card Selection Guide



Model Name	IVCME-C604	IVCE-C608	IVCE-C604	IVC-200G-RS	PM-1056
Form Factor	PCIe Mini	PCIe	PCIe	PCI	PCI-104

◆ Interface

Video Input	4 channels composite video NTSC/PAL auto sensing	8 channels composite video NTSC/PAL auto sensing	4 channels composite video NTSC/PAL auto sensing	4 channels composite video NTSC/PAL/SECAM auto sensing	
Video Input Type	BNC (BNC+RCA to DB-26 cable included)			BNC	BNC
Audio Input	4 channels	8 channels	4 channels	N/A	N/A
Audio Input Type	RCA (BNC+RCA to DB-26 cable included)			N/A	N/A
Bus Interface	Mini PCIe x1	PCIe x1	PCIe x1	PCI Rev. 2.1 compliant	PCI Rev. 2.1 compliant
Alarm I/O	Yes	Yes	Yes	Yes	Yes
Card ID	N/A	Rotate switch selectable with LED for ID indication		DIP switch selectable with LED for ID indication	
LED Indicator	N/A	Red LED for system alarm Green LED for AP running Yellow LED for watchdog			N/A

◆ Video Processing

Video Compression	Software compression				
Video Engine	1 x Conexant CX25854	1 x Conexant CX25853	1 x Conexant CX25850	4 x Conexant CX25878	1 x Conexant CX25878
Resolution & Frame Rate	NTSC: 720 x 576 720 x 480 720 x 288 720 x 240 352 x 240 320 x 240 160 x 120 PAL: 720 x 576 720 x 480 720 x 288 720 x 248 352 x 288 352 x 240 320 x 240 160 x 120		PAL/SECAM: 720 x 576 720 x 480 704 x 576 640 x 288 640 x 240 352 x 288 320 x 240 240 x 176 160 x 120 88 x 72		PAL/SECAM: 720 x 576 720 x 480 720 x 240 640 x 288 640 x 240 352 x 288 352 x 240 240 x 180 176 x 144 128 x 96 80 x 60
	NTSC: Total 120fps @ D1 for 4 channels PAL: Total 100fps @ D1 for 4 channels	NTSC: Total 240fps @ D1 for 8 channels PAL: Total 200fps @ D1 for 8 channels	NTSC: Total 120fps @ D1 for 4 channels PAL: Total 100fps @ D1 for 4 channels	NTSC: Up to 120fps at all resolutions PAL/SECAM: Up to 100fps at all resolutions	NTSC: Total 30fps @ D1 for 4 channels PAL/SECAM: Total 25fps @ D1 for 4 channels

◆ Audio Processing

Audio Compression	Software compression			N/A	N/A
Sampling Rate	32kHz, 44.1kHz, 48kHz, 96kHz (hardware spec.)			N/A	N/A
Quantization	24-bit (hardware spec.)			N/A	N/A

◆ System Requirement

System	x86 PC compatible computer	x86 PC compatible computer, PCI Express 1 lane, compatible with 1, 4, 8 and 16 lane PCIe slots		x86 PC compatible computer	
Memory	512MB or above			256MB or above	
Graphics	DirectX compatible VGA card supporting YUV overlay mode			DirectX compatible VGA card supporting YUV overlay mode	

◆ Software Support

Device Driver	Windows XP/7 Linux Fedora (Kernel 3.1)			Windows 98/SE/ME/2000/XP Linux Kernel 3.1	
SDK	Provides SDK and demo program with source code in C++			Provides SDK and demo program with source code in C++	

◆ Others

Dimensions	51 mm x 30 mm	111 mm x 102.4 mm	111.23 mm x 102.39 mm	119.91 mm x 106.68 mm	95.89 mm x 90.17 mm
Operating Temperature	0°C ~ 60°C (32°F~140°F), non-condensing				
Power Consumption	1.65W, 3.3V@0.5A	5.3W, 3.3V@1.39A, 12V@0.06A	3.51W, 3.3V@0.9A, 12V@0.045A	15W, 3A@5V (with relay)	3.5W, 0.7A@5V (with relay)

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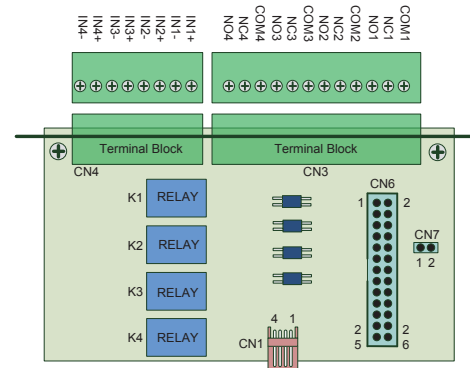
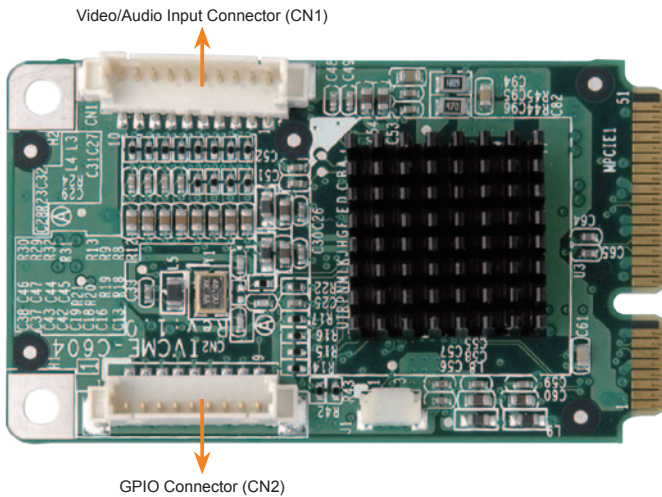
Power Supply/Peripherals

6

All-in-One System

IVCME-C604

PCIe Mini video/ audio capture card with 4-channel video/ audio input, total 120fps@D1 for 4 channels (NTSC)



Features

- Single card 4-channel composite video (NTSC/PAL) solution
- PCIe Mini card interface supported
- Compatible with Linux, Windows XP and Windows 7 (32-bit and 64-bit)
- Total 120fps @ D1 for 4 channels (NTSC)
- External GPIO daughter board with 4 inputs and 4 outputs (optional)
- SDK available for customer to create customized applications

Specifications

Interface

Video Input	4 channels composite video NTSC/PAL auto sensing
Video Input Type	BNC (BNC to DB-9 cable included)
Audio Input	4 channels analog
Audio Input Type	RCA (RCA to DB-9 cable included)
Bus Interface	PCIe Mini x1
Alarm IO	Yes

Video Processing

Video Compression	Software compression	
Video Engine	1 x Conexant CX25854	
Resolution	NTSC:	PAL:
	720 x 576	720 x 576
	720 x 480	720 x 480
	720 x 288	720 x 288
	720 x 240	720 x 248
352 x 240		
Frame Rate	NTSC: Total 120fps @ D1 for 4 channels PAL: Total 100fps @ D1 for 4 channels	

Audio Processing

Audio Compression	Software compression
Sampling Rate	8kHz, 16kHz, 32kHz, 44.1kHz and 48kHz
Quantization	16-bit

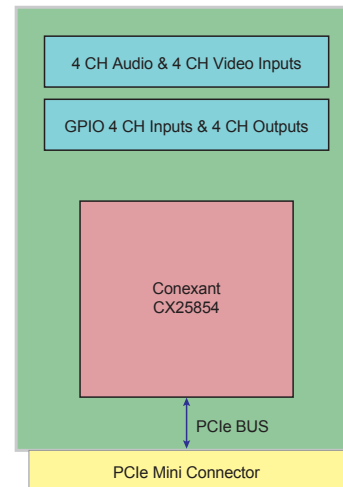
System Requirement

Platform	x86 PC compatible computer
Memory	512MB or above
OS Environment	Windows XP, Windows 7, Linux Kernel 3.1

Others

Dimensions	51 mm x 30 mm
Operating Temperature	0°C ~ 60°C, non-condensing
Power Consumption	1.65W (3.3V@0.5A)

System Block



Video/Audio Input Connector (CN1)

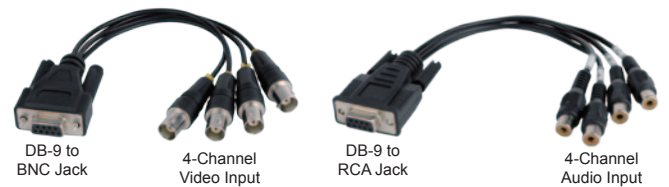
Pin No.	Signal
1	GND
2	Video In CH1
3	Video In CH2
4	Video In CH3
5	Video In CH4
6	Audio In CH1
7	Audio In CH2
8	Audio In CH3
9	Audio In CH4
10	GND

GPIO Connector (CN2)

Pin No.	Signal
1	GND
2	DI1
3	DI2
4	DI3
5	DI4
6	DO1
7	DO2
8	DO3
9	DO4

Packing List

- 1 x IVCME-C604 capture card
- 1 x BNC to DB-9 cable
- 1 x RCA to DB-9 cable
- 1 x Video/Audio input cable kit
- 1 x Utility CD
- 1 x QIG



Ordering Information

Part No.	Description
IVCME-C604-R10	PCIe Mini video/audio capture card with 4-channel video/ audio input, total 120fps@D1 for 4 channels (NTSC)
VIOCARD-GPIO-RS-R10	8 GPIO channels (4 digital inputs and 4 relay outputs)
32031-000100-100-RS	GPIO card to IVCME capture card connection cable

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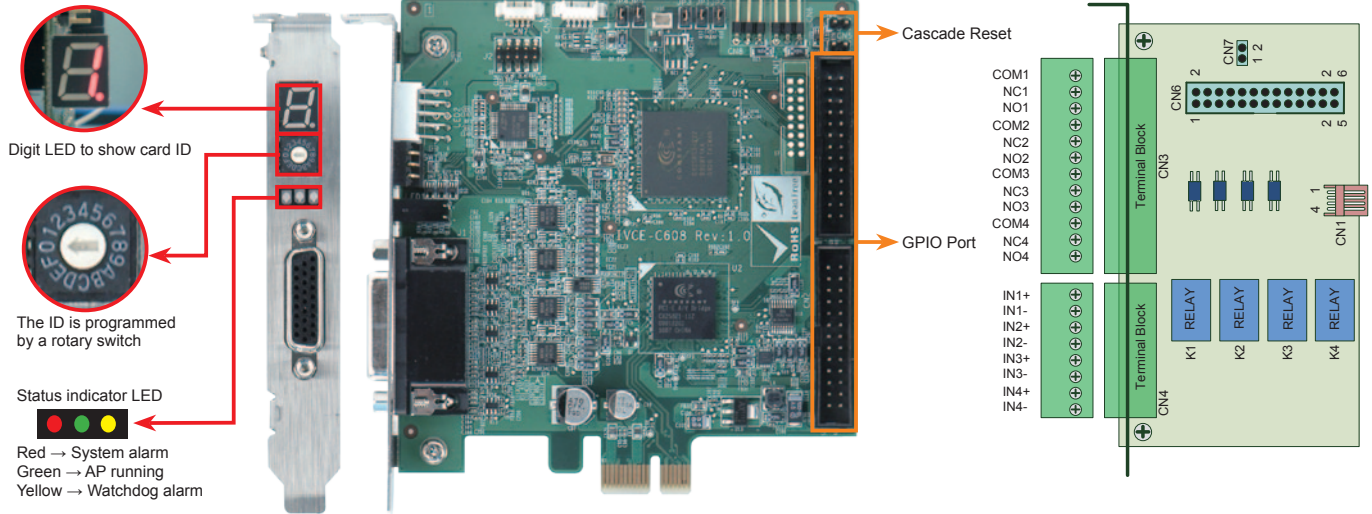
4 Open Frame Monitor

5 Power Supply/ Peripherals

6 All-in-One System

IVCE-C608

PCIe video/audio capture card with 8-channel video/audio input, total 240fps for 8 channels (NTSC)



Specifications

Interface

Video Input	8 channels composite video NTSC/PAL auto sensing
Video Input Type	BNC (BNC+RCA to DB-26 cable included)
Audio Input	8 channels
Audio Input Type	RCA (BNC+RCA to DB-26 cable included)
Video Output	2 channels
Video Output Type	BNC (BNC+RCA to DB-26 cable included)
Bus Interface	PCIe x1
Alarm I/O	Yes
Card ID	Rotary switch selectable with LED for ID indication
LED Indicator	Red LED for system Green LED for AP running Yellow LED for watchdog

Video Processing

Video Compression	Software compression	
Video Engine	1 x Conexant CX25853	
Resolution	NTSC:	PAL:
	720 x 576	720 x 576
	720 x 480	720 x 480
	720 x 288	720 x 288
	720 x 240	720 x 248
	352 x 240	352 x 288
	320 x 240	352 x 240
Frame Rate	NTSC: Total 240fps for 8 channels	
	PAL: Total 200fps for 8 channels	

Audio Processing

Audio Compression	Software compression
Sampling Rate	32kHz, 44.1kHz, 48kHz, 96kHz (hardware spec.)
Quantization	24-bit (hardware spec.)

System Requirement

Platform	x86 PC compatible computer, PCI Express 1 lane, compatible with 1, 4, 8 and 16 lane PCIe slots
Memory	512MB or above
OS Environment	Windows XP, Windows 7, Linux Kernel 3.1

Others

Dimensions	111 mm x 102.4 mm
Operating Temperature	0°C ~ 65°C, non-condensing
Power Consumption	5.3W (3.3V@1.39A, 12V@0.06A)



Features

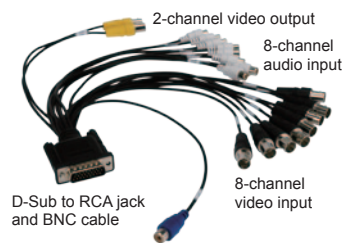
- Single card 8-channel solution
- PCI Express interface provides higher bandwidth and great performance
- Compatible with Linux, Windows XP and Windows 7 (32-bit and 64-bit)
- Total 240fps for 8 channels (NTSC)
- Supports multiple cards up to 128 channels video/audio input
- External GPIO daughter board supports up to 8 inputs and 8 outputs (optional)
- SDK available for customer to create customized applications
- Supports 8 channels video/audio input and 2 channels video output

Packing List

1 x IVCE-C608 capture card	
1 x Video/Audio input cable kit	1 x Utility CD
1 x Reset cable	1 x QIG



VIOCARD-GPIO (optional)



D-Sub to RCA jack and BNC cable

Ordering Information

Part No.	Description
IVCE-C608-R10	PCIe video/audio capture card with 8-channel video/audio input, total 240fps@D1 for 8 channels (NTSC)
VIOCARD-GPIO-RS-R10	4-bit input and 4-bit output GPIO card
32225-002200-100-RS	GPIO card to IVC capture card connection cable

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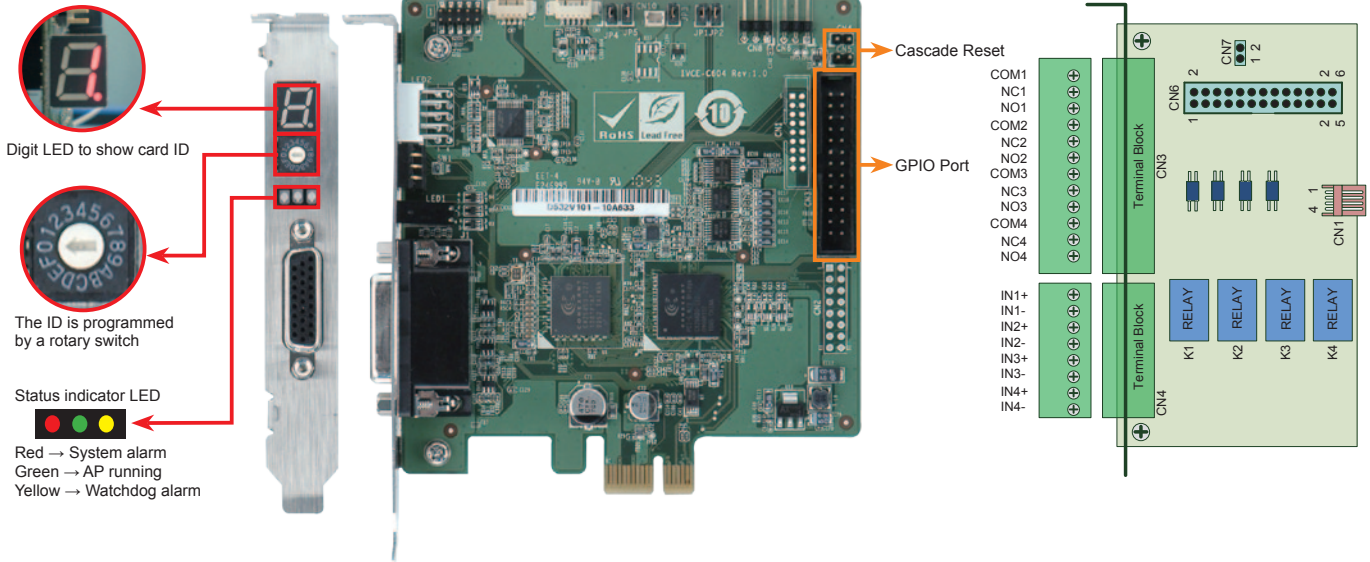
4 Open Frame Monitor

5 Power Supply/Peripherals

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IVCE-C604

PCIe video/audio capture card with 4-channel video/audio input, total 120fps@D1 for 4 channels (NTSC)



Specifications



Interface

Video Input	4 channels composite video NTSC/PAL auto sensing
Video Input Type	BNC (BNC+RCA to DB-26 cable included)
Audio Input	4 channels
Audio Input Type	RCA (BNC+RCA to DB-26 cable included)
Video Output	2 channels
Video Output Type	BNC (BNC+RCA to DB-26 cable included)
Bus Interface	PCIe x1
Alarm I/O	Yes
Card ID	Rotary switch selectable with LED for ID indication
LED Indicator	Red LED for system Green LED for AP running Yellow LED for watchdog

Video Processing

Video Compression	Software compression	
Video Engine	1 x Conexant CX25850	
Resolution	NTSC:	PAL:
	720 x 576	720 x 576
	720 x 480	720 x 480
	720 x 288	720 x 288
	720 x 240	720 x 248
	352 x 240	352 x 288
Frame Rate	NTSC: Total 120fps @ D1 for 4 channels	
	PAL: Total 100fps @ D1 for 4 channels	

Audio Processing

Audio Compression	Software compression
Sampling Rate	32kHz, 44.1kHz, 48kHz, 96kHz (hardware spec.)
Quantization	24-bit (hardware spec.)

System Requirement

Platform	x86 PC compatible computer, PCI Express 1 lane, compatible with 1, 4, 8 and 16 lane PCIe slots
Memory	512MB or above
OS Environment	Windows XP, Windows 7, Linux Kernel 3.1

Others

Dimensions	111.23 mm x 102.39 mm
Operating Temperature	-5°C ~ 65°C, non-condensing
Power Consumption	3.51W (3.3V@0.9A, 12V@0.045A)

Features

- Single card 4-channel solution
- PCI Express interface provides higher bandwidth and great performance
- Compatible with Linux, Windows XP and Windows 7 (32-bit and 64-bit)
- Total 120fps @ D1 for 4 channels (NTSC)
- Supports multiple cards up to 64 channels video/audio input
- External GPIO daughter board with 4 inputs and 4 outputs (optional)
- SDK available for customer to create customized applications
- Supports 4 channels video/audio input and 2 channels video output

Packing List

1 x IVCE-C604 capture card	
1 x Video/Audio input cable kit	1 x Utility CD
1 x Reset cable	1 x QIG



Ordering Information

Part No.	Description
IVCE-C604-R10	PCIe video/audio capture card with 4-channel video/audio input, total 120fps@D1 for 4 channels (NTSC)
VIOCARD-GPIO-RS-R10	4-bit input and 4-bit output GPIO card
32225-002200-100-RS	GPIO card to IVC capture card connection cable

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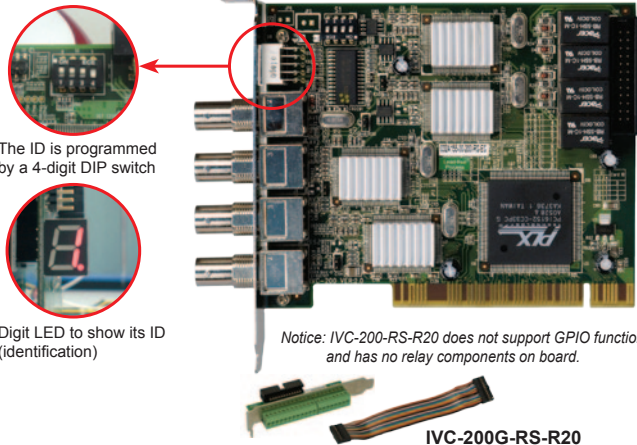
4 Open Frame Monitor

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6 All-in-One System

IVC-200G-RS

PCI video capture card with four video input channels, total 120 fps@720x480 (NTSC)



The ID is programmed by a 4-digit DIP switch



Digit LED to show its ID (identification)

Notice: IVC-200-RS-R20 does not support GPIO function and has no relay components on board.



IVC-200G-RS-R20
GPIO daughter board and cable

Specifications

Interface

Video Input	4 channels composite video NTSC, PAL and SECAM auto sensing
Video Input Type	BNC
PCI Interface	PCI Rev 2.1 compliance
CARD ID	DIP switch selectable with LED for ID indication
Alarm I/O	GPIO daughter board with 4 inputs and 4 outputs (IVC-200G-RS-R20 only)

Software Support

Device Driver	Windows 98 SE, ME, 2000, XP / Linux kernel 2.4
SDK	Provides SDK and demo program with sample source code in C++

Video Processing

Video Engine	4 x Conexant Fusion BT878A			
Resolution	NTSC:	PAL / SECAM:		
	720 x 480	640 x 288	720 x 576	640 x 480
	720 x 288	640 x 240	720 x 480	640 x 288
	720 x 240	352 x 288	720 x 288	640 x 240
	640 x 480	352 x 240	720 x 240	352 x 288
Frame Rate	NTSC:	Up to 120 fps per channel		
	PAL / SECAM:	Up to 100 fps per channel		

Multiple Card Support

Card	Video Port	Audio Port	Max. Channel / Resolution Support	Total Frame (NTSC/PAL)
1	4	N/A	4 channels, D1 (720 x 480)	120/100 fps
4	16	N/A	16 channels, QVGA (320 x 240)	480/400 fps

System Requirement

System	x86 compatible computer
Graphic	DirectX compatible VGA card supporting YUV overlay mode

Functionality

Video Loss Detection	Yes
Multi-screen Support	Yes

Others

Dimensions	119.91 mm x 106.68 mm
Operating Temperature	0°C ~ 60°C (32°F~140°F), non-condensing
Power Consumption	15W, 3A@5V (with relay)

Packing List

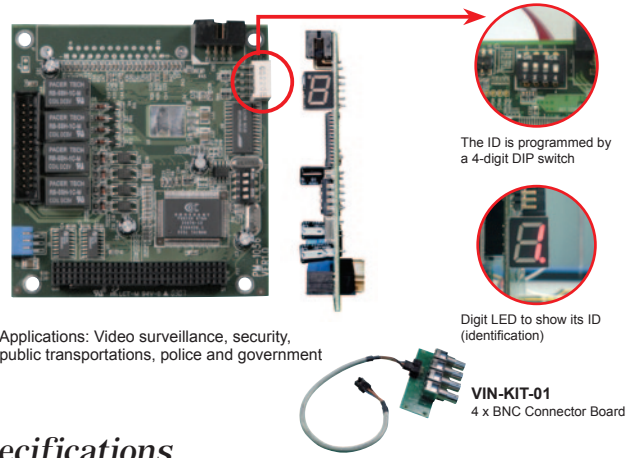
IVC-200G-RS-R20	1 x IVC-200G-RS-R20	
	1 x GPIO daughter board with cable	
	1 x Utility CD	1 x QIG
IVC-200-RS-R20	1 x IVC-200-RS-R20	
	1 x Utility CD	

Ordering Information

Part No.	Description
IVC-200G-RS-R20	PCI video capture card with four video input channels, total 120 fps@720x480 (NTSC), and GPIO daughter board
IVC-200-RS-R20	PCI video capture card with four video input channels, total 120 fps@720x480 (NTSC)

PM-1056-RS-R21

PCI-104 video capture card with four video input channels, total 30 fps@720x480 (NTSC)



The ID is programmed by a 4-digit DIP switch



Digit LED to show its ID (identification)

Applications: Video surveillance, security, public transportations, police and government



VIN-KIT-01
4 x BNC Connector Board

Specifications

Interface

Video Input	4 channels composite video NTSC, PAL and SECAM auto sensing
Connector	BNC
Audio Input	4-channel analog audio
Connector	DB9 to 3.5mm phone jack audio cable
PCIe Interface	PCI 2.1 compliance
Card ID	Selectable with LED for ID indication
Alarm I/O	External GPIO daughter board with 4 inputs and 4 outputs (optional)

Software support

Device Driver	Windows 2000, XP, Linux Kernel 2.4
SDK	Provides SDK and demo program with sample source code in C++

Video Processing

Video Engine	1 x Conexant Fusion™ BT878A			
Resolution	NTSC:	PAL / SECAM:		
	720 x 480	640 x 288	720 x 576	640 x 480
	720 x 288	640 x 240	720 x 480	640 x 288
	720 x 240	352 x 288	720 x 288	640 x 240
	640 x 480	352 x 240	720 x 240	352 x 288
Frame Rate	NTSC:	Total 30fps @D1 for 4 channels		
	PAL/SECAM:	25fps @D1 for 4 channels		

Multiple Card Support

Card	Video Port	Audio Port	Max. Channel / Resolution Support	Total Frame (NTSC/PAL)
1	4	N/A	4 channels, D1 (720 x 480)	30/25 fps
4	16	N/A	16 channels, D1 (720 x 480)	120/100 fps

System Requirement

System	x86 compatible computer
Graphics	DirectX compatible VGA card with YUV overlay mode supporting

Functionality

Video / Audio Synchronization	Yes
Video Loss Detection	Yes
Motion Detection	Hardware built-in
Watermarking	128-bit secret key, adjustable length

Others

Dimensions	95.89 mm x 90.17 mm
Operating Temperature	0°C ~ 60°C (32°F~140°F), non-condensing
Power Consumption	3.5W@5V (with relay)

Packing List

1 x PM-1056	1 x Utility CD	1 x User manual
1 x Audio cable (P/N: 32000-038100-RS)		1 x Video flat cable (P/N: 32000-038100-RS)

Ordering Information

Part No.	Description
PM-1056-4P-RS-R21	PCI-104 video capture card with four video input channels, total 30 fps@720x480 (NTSC)
PM-1056-4PB-RS-R21	PCI-104 video capture card with four video input channels, total 30 fps@720x480 (NTSC), and VIN-Kit-01

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Open Frame Monitor

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Power Supply/Peripherals

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All-in-One System