

IVC Series Video Capture Card

• Introduction

Post 9/11 has seen increasing demand for security applications, and the video surveillance system has been a popular security tool for years. Security cameras are an everyday occurrence, and chances are, you're used to watching yourself walk into a store on a security monitor. Banks and retail stores have come to depend on the protection provided by video surveillance. Digital technology have made video surveillance more flexible and easy to use than ever, and allow you to create the security system that conforms exactly to your needs.



• Market Coverage

• 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 event.
- The toll road payment stations process large numbers of micro transactions. The surveillance system minimizes fraud 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 safety of the onboard passengers. Automotive video surveillance systems can record the interior of train cars and buses and can also be adopted in police vehicles to monitor patrol activity



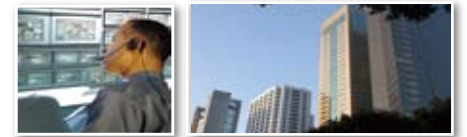
• Banking Security System

In a bank, the surveillance system easily monitors 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 equipment 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 providing operators and supervisors access to real-time data and video feeds enabling them to make increasingly accurate assessments faster.



• IEI Video Surveillance Solution

• Multiple Card Support

The IEI IVC series are designed to support multiple IVC card in a system, its driver can recognize and support multiple IVC card plugged into a system. As to the limitation of how many IVC cards can be plugged into a system is depend on system resources such as CPU performance, interface bandwidth, and number of available IRQ. The following table shows some example configurations of a system :

Model	Codec	Video / Audio Capture	Video Capture
IVC-168G / IVC-268G / IVCE-268G / PM-6814 / PM-6844	N/A	Yes	-
IVC-100 / IVC-200 / IVCE-8784 / PM-1056	N/A	-	Yes
IVC-8371 / PM-1059	Encoder Decoder	Yes	-
IVC-4300 / PM-1058	Encoder	Yes	-

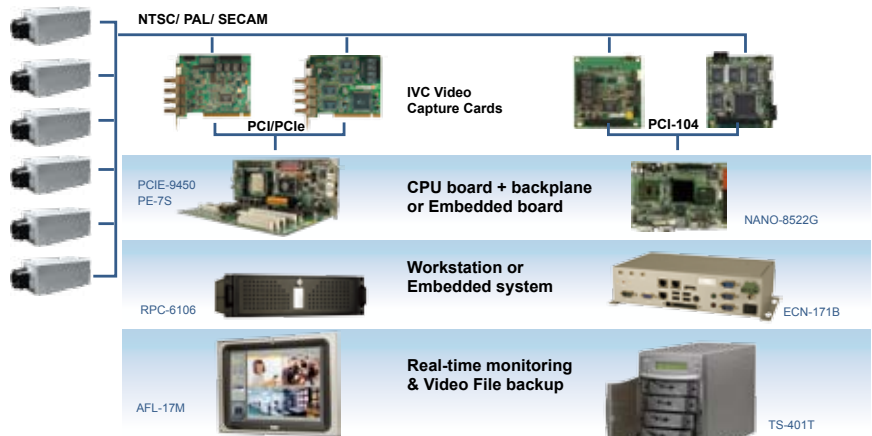
Powerful Functions



Digit LED to show its ID (identification)



The ID is programmed by a 4-digit DIP switch



• One Digit LED for Card Identification (ID)

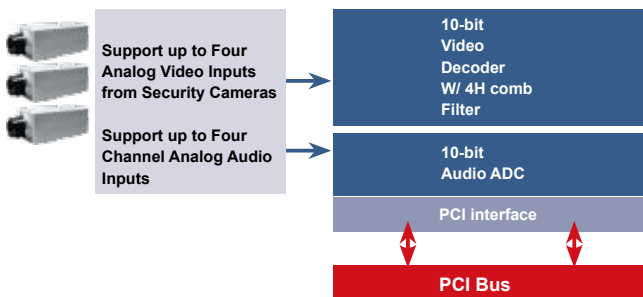
Since The IEI IVC series support multiple IVC card to be plugged into a system, sometimes users need to know which card is related to which device name in the Device Manger of Windows XP. Each IVC card provide one digit LED to show its ID (identification), and the ID is programmed by a 4-digit DIP switch. The IEI IVC SDK also provides application programming interface (API) to get device name, and demo application software shows how to display device names in screen. The advantage is for ease of maintenance and debugging. While some display channels work abnormal, through the device names and the LED ID, users can quickly find out which IVC card should be check.

- 1 Application Server Platform
- 2 Single Board Computer
- 3 IBX Series POS PC
- 4 AFOLUX POS Panel PC
- 5 Video Capture Card
- 6 KAMIO RISC
- 7 IOVU Open HMI
- 8 VITO Universal Controller
- 9 DINO BLADE
- 10 LCD Product Series
- 11 Embedded System
- 12 Industrial Computer Chassis
- 13 Power Supply
- 14 Peripherals

New Techwell TW6802/TW6805 Video Capture Controller

• Main Features :

- Best Video quality with 10-bit ADC and 4H Comb for NTSC/SECAM/PAL
- Best weak and non-standard signal performance (for far away security cameras and non-ideal environments).
- Fastest non-real time channel switching speed due to fast video locking time (more frames per second).
- 10-bit Audio ADC for better audio quality
- Support up to 4CH non-real time video and 4CH non-real time audio
- Integrated Remote Control Receiver for remote control of PC DVR
- Significant cost advantage over Conexant
- Low Power Consumption : 10W(1-ch)~12W(4-ch)
- No Thermal
- Video quality increase +/- 55% compares to Conexant 25878
- 5-year longevity



• Conexant v.s. Techwell

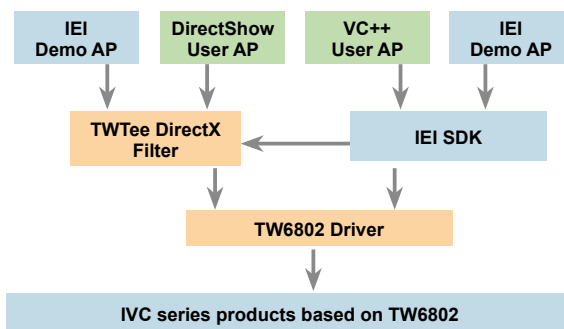
	Conexant BT878	Techwell TW6802/6805
PCI 2.2-3.0	Compliant	Compliant
Video ADC	8-bit	10-bit
Comb Filter NTSC/PAL	4H/4H	4H/4H
Remote Control Receiver	External	Integrated
Digital ITU-R 656 Output	None	Supported
4 CH Mono Audio Support	Supported	Supported
DVR Non-real time Switching Speed Per channel	3 fps	7 fps
Audio Capture	No	Yes
Power Supply Analog/Digital	5V/5V	2.5V/2.5V
Application Software	Ready	Ready
Driver Software	Ready	Ready
Availability	MP Now	MP Now

• Better Performance

	Current model	Newer model
Model	IVC-100G/200G/8784 PM-1056	IVC-168G/268G PM-6814/6844
Chipset	Conexant BT878A	Techwell TW6802/6805
Power Consumption	10.7W~15W	10W~12W
Heat sink	Yes	No
Capture	Video	Video/Audio
Interface	PCI/ PCIe/ PCI-104	PCI/ PCIe/ PCI-104
DVR Switching Speed	3 fps	7 fps

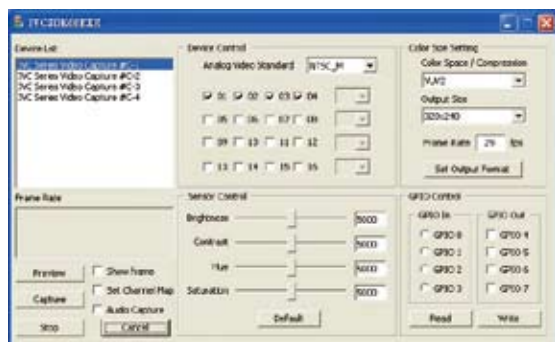
• Software Support

- IEI provides complete software solutions such as device drivers and software development kits (SDK), the flexible open architecture allows easy integration of cameras, video signal processing, storage, and video management/security.
- IEI IVC-SDK68 is a new IEI SDK which supports Techwell TW6802/TW6805 based video capture cards, it containing rich software development supports including :
 - Techwell TW6802/TW6805 drivers for Windows 2000/XP/XPe
 - TWTe, the DirectShow filter for DirectShow programming
 - DLL for Visual C++ programming
 - Demo application software with source code to show how to use IEI IVC-SDK68 to develop video capture system



• IEI IVC68 Demo Application

- Channel settings
- Video preview/capture
- Accessing GPIO ports
- Frame rate info
- Image attribute settings
- WDT settings
- Fast configuration and ready-to-run
- Completed source code provided



Video Capture Card Selection Guide

Low Power Consumption No Heatsink Required RealTime Audio/Video Capture



Model Name	IVC-168G		IVC-268G		IVCE-268G		PM-6814		PM-6844			
Formfactor	PCI		PCI		PCIe		PCI-104		PCI-104			
◆ Interface												
Video input	4 channels composite video NTSC/PAL/SECAM auto sensing		4 channels composite video NTSC/PAL/SECAM auto sensing		4 channels composite video NTSC/PAL/SECAM auto sensing		4 channels composite video NTSC/PAL/SECAM auto sensing		4 channels composite video NTSC/PAL/SECAM auto sensing			
Video input type	BNC		BNC		BNC		BNC		BNC			
Audio input	1 channel analog audio Active channel selectable by software		4 channel analog audio		4 channel analog audio		1 channel analog audio Active channel selectable by software		4 channel analog audio			
Audio input type	Audio kit with 3.5 mm audio jack connector		Audio kit with 3.5 mm audio jack connector		Audio kit with 3.5 mm audio jack connector		Audio kit with 3.5 mm audio jack connector		Audio kit with 3.5 mm audio jack connector			
PCI / PCI-104 interface	PCI Rev 2.1 compliance		PCI Rev 2.1 compliance		PCIe x1		PCI Rev 2.1 compliance		PCI Rev 2.1 compliance			
Alarm I/O	Yes		Yes		Yes		Yes		Yes			
Card ID	DIP switch selectable with LED for ID indication		DIP switch selectable with LED for ID indication		DIP switch selectable with LED for ID indication		DIP switch selectable with LED for ID indication		DIP switch selectable with LED for ID indication			
◆ Video processing												
Video compression	Software compression		Software compression		Software compression		Software compression		Software compression			
Video engine	1 x Techwell 6802/6805		4 x Techwell 6802/6805		4 x Techwell 6802/6805		1 x Techwell 6802/6805		4 x Techwell 6802 / 6805			
Resolution & frame rate	PAL/SECAM: PAL / SECAM: 720 x 480 720 x 576 704 x 480 720 x 288 640 x 480 704 x 576 320 x 240 640 x 576 352 x 288 176 x 144		NTSC: PAL / SECAM: 720 x 480 720 x 576 704 x 480 720 x 288 640 x 480 704 x 576 320 x 240 640 x 576 352 x 288 176 x 144		NTSC: PAL / SECAM: 720 x 480 720 x 576 704 x 480 720 x 288 640 x 480 704 x 576 320 x 240 640 x 576 352 x 288 176 x 144		NTSC: PAL / SECAM: 720 x 480 720 x 576 704 x 480 720 x 288 640 x 480 704 x 576 320 x 240 640 x 576 352 x 288 176 x 144		NTSC: PAL / SECAM: 720 x 480 720 x 576 704 x 480 720 x 288 640 x 480 704 x 576 320 x 240 640 x 576 352 x 288 176 x 144		NTSC: PAL / SECAM: 720 x 480 720 x 576 704 x 480 720 x 288 640 x 480 704 x 576 320 x 240 640 x 576 352 x 288 176 x 144	
	NTSC: Total 30fps@D1 for 4 channels PAL/SECAM: 25fps@D1 for 4 channels		NTSC: Total 120fps@D1 for 4 channels PAL/SECAM: 100fps@D1 for 4 channels		NTSC: Total 120fps@D1 for 4 channels PAL/SECAM: 100fps@D1 for 4 channels		NTSC: Total 30fps@D1 for 4 channels PAL/SECAM: 25fps@D1 for 4 channels		NTSC: Total 120fps@D1 for 4 channels PAL/SECAM: 100fps@D1 for 4 channels		NTSC: Total 120fps@D1 for 4 channels PAL/SECAM: 100fps@D1 for 4 channels	
◆ Audio processing												
Audio compression	Software compression		Software compression		Software compression		Software compression		Software compression			
Sampling rate	8 kHz, 32 kHz, 44.1 kHz and 48 kHz (hardware spec.)		8 kHz, 32 kHz, 44.1 kHz and 48 kHz (hardware spec.)		8 kHz, 32 kHz, 44.1 kHz and 48 kHz (hardware spec.)		8 kHz, 32 kHz, 44.1 kHz and 48 kHz (hardware spec.)		8 kHz, 32 kHz, 44.1 kHz and 48 kHz (hardware spec.)			
Quantization	8-bit, 16-bit and 24-bit (hardware spec.)		8-bit, 16-bit and 24-bit (hardware spec.)		8-bit, 16-bit and 24-bit (hardware spec.)		8-bit, 16-bit and 24-bit (hardware spec.)		8-bit, 16-bit and 24-bit (hardware spec.)			
◆ Functionality												
Video /audio synchronization	Yes		Yes		Yes		Yes		Yes			
Video loss detection	Yes		Yes		Yes		Yes		Yes			
On-screen display	Yes		Yes		Yes		Yes		Yes			
Motion detection	Yes		Yes		Yes		Yes		Yes			
Watermarking	N/A		N/A		N/A		N/A		N/A			
◆ System requirement												
System	x86 compatible computer		x86 compatible computer		x86 compatible computer		x86 compatible computer		x86 compatible computer			
Memory	256 MB or above		256 MB or above		256 MB or above		256 MB or above		256 MB or above			
Graphic	DirectX compatible VGA card supporting YUV overlay mode		DirectX compatible VGA card supporting YUV overlay mode		DirectX compatible VGA card supporting YUV overlay mode		DirectX compatible VGA card supporting YUV overlay mode		DirectX compatible VGA card supporting YUV overlay mode			
◆ Software support												
Device driver	Windows® 2000, XP Linux kernel 2.6		Windows® 2000, XP Linux kernel 2.6		Windows® 2000, XP Linux kernel 2.6		Windows® 2000, XP Linux kernel 2.6		Windows® 2000, XP Linux Kernel 2.6			
SDK	Provide SDK and demo program with sample source code in C++		Provide SDK and demo program with sample source code in C++		Provide SDK and demo program with sample source code in C++		Provide SDK and demo program with sample source code in C++		Provide SDK and demo program with sample source code in C++			
◆ Others												
Dimensions	119.91 mm x 106.68 mm		119.91 mm x 106.68 mm		119.91 mm x 106.68 mm		95.89 mm x 90.17 mm		95.89 mm x 90.17 mm			
Operation temperature	0°C~60°C (32°F~140°F), non-condensing		0°C~60°C (32°F~140°F), non-condensing		0°C~60°C (32°F~140°F), non-condensing		0°C~60°C (32°F~140°F), non-condensing		0°C~60°C (32°F~140°F), non-condensing			
Power consumption	10W, 2A@5V (with relay)		12W, 2.4A@5V (with relay)		12W, 1A@12V (with relay)		10W, 2A@5V (with relay)		4.5W, 0.9A@5V (without relay)			

1
Application
Server
Platform

2
Single
Board
Computer

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IBX Series
POS PC

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AFOLUX
POS
Panel PC

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Video
Capture
Card

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KAMIO
RISC

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IOVU
Open HMI

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VITO
Universal
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Product
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Embedded
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Industrial
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Peripherals

Video Capture Card Selection Guide

RealTime Video Capture



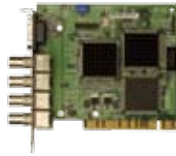
Model name	IVC-100G-RS		IVC-200G-RS		IVCE-8784		PM-1056	
Formfactor	PCI		PCI		PCIe		PCI-104	
◆ Interface								
Video input	4 channels composite video NTSC / PAL / SECAM auto sensing		4 channels composite video NTSC / PAL / SECAM auto sensing		4 channels composite video NTSC/PAL/SECAM auto sensing		4 channels composite video NTSC/PAL/ SECAM auto sensing	
Video input type	BNC		BNC		BNC		BNC	
Audio Input	N/A		N/A		N/A		4 channels	
Audio input type	N/A		N/A		N/A		DB9 to 3.5mm phone jack audio cable	
PCI / PCI-104 interface	PCI rev 2.1 compliance		PCI rev 2.1 compliance		PCIe x1		PCI Rev 2.1 compliance	
Alarm I/O	Yes		Yes		Yes		Yes	
Card ID	DIP switch selectable with LED for ID indication		DIP switch selectable with LED for ID indication		DIP switch selectable with LED for ID indication		DIP switch selectable with LED for ID indication	
◆ Video processing								
Video compression	Software compression		Software compression		Software compression		Software Compression	
Video engine	1 x Conexant Fusion BT878A		4 x Conexant Fusion BT878A		4 x Conexant Fusion BT878A		1 x Conexant FusionTM BT878A	
Resolution & frame rate	NTSC: 720x480 704x480 640x480 352x240 320x240 176x112	PAL/SECAM : 720x576 704x576 640x576 352x288 176x144	NTSC: 720x480 704x480 640x480 352x240 320x240 176x112	PAL/SECAM : 720x576 704x576 640x576 352x288 176x144	NTSC: 720 x 480 704 x 480 640 x 576 352 x 240 320 x 240 176 x 112	PAL/SECAM: 720 x 576 704 x 576 640 x 576 352 x 288 176 x 144	NTSC: 720x480 704x480 640x480 352x240 320x240 176x112	PAL/SECAM: 720x576 704x576 640x576 352x288 176x144
	NTSC: up to 30fps at all resolutions PAL/SECAM: up to 25fps at all resolutions		NTSC: up to 120fps at all resolutions PAL /SECAM: up to 100fps at all resolutions		NTSC: up to 120fps at all resolutions PAL/SECAM: up to 100fps at all resolutions		NTSC: Total 30fps @D1 for 4 channels PAL/SECAM: 25fps @D1 for 4 channels	
◆ Audio processing								
Audio compression	N/A		N/A		N/A		G.726(ADPCM/PCM)	
Sampling rate	N/A		N/A		N/A		44.1 KHz and 48 KHz	
Quantization	N/A		N/A		N/A		128 bit secrete key, adjustable length	
◆ Functionality								
Video /audio synchronization	N/A		N/A		Yes		Yes	
Video loss detection	Yes		Yes		Yes		Yes	
On-screen display	Yes		Yes		Yes		Yes	
Motion detection	N/A		N/A		Yes		Hardware Build-in	
Watermarking	N/A		N/A		N/A		128-bit secrete key, adjustable length	
◆ System requirement								
System	x86 compatible computer		x86 compatible computer		x86 compatible computer		x86 PC compatible computer	
Memory	256 MB or above		256 MB or above		256 MB or above		256 MB or above	
Graphic	DirectX compatible VGA card supporting YUV overlay mode		DirectX compatible VGA card supporting YUV overlay mode		DirectX compatible VGA card supporting YUV overlay mode		DirectX compatible VGA card supporting YUV overlay mode	
◆ Software support								
Device driver	Windows® 98 SE, ME, 2000, XP Linux kernel 2.4		Windows® 98 SE, ME, 2000, XP Linux kernel 2.4		Windows® 98, SE, ME, 2000, XP		Windows 98 SE, ME, 2000, XP, Linux kernel 2.4	
SDK	Provide SDK and demo program with sample source code in C++		Provide SDK and demo program with sample source code in C++		Provide SDK and demo program with sample source code in C++		Provide SDK and demo program with sample source code in C++	
◆ Others								
Dimensions	119.91 mm x 106.68 mm		119.91 mm x 106.68 mm		95.89 mm x 90.17 mm		11 9.91 mm x 106.68 mm	
Operation temperature	0°C~60°C (32°F~140°F), non-condensing		0°C~60°C (32°F~140°F), non-condensing		0°C~60°C (32°F~140°F), non-condensing		0°C~60°C (32°F~140°F), non-condensing	
Power consumption	10.7W, 2.14A@5V (with relay)		15W, 3A@5V (with relay)		7.8W, 0.65A@12V (without relay)		3.5W@5V (with relay)	

Video Capture Card Selection Guide

H.263 / MPEG 4 Hardware Compression

RealTime Audio/Video Capture

Hardware Encode / Decode



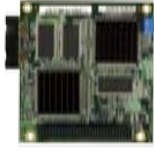
Hardware Encode



Hardware Encode



Hardware Encode / Decode



Model name	IVC-8371P	IVC-4300-RS	PM-1058	PM-1059
Formfactor	PCI	PCI	PCI-104	PCI-104
◆ Interface				
Video input	4 channels Composite video NTSC/PAL/SECAM	4 channels composite video NTSC / PAL / SECAM auto sensing	4 channels composite video NTSC / PAL / SECAM auto sensing	4 channels composite video NTSC/PAL/SECAM auto sensing
Video input type	BNC	BNC	BNC	BNC
Audio input	4 channels	4 channels	2 channels	4 channels
Audio input type	DB9 to 3.5mm phone jack audio cable	DB9 to 3.5 mm phone jack audio cable	DB9 to 3.5 mm phone jack audio cable	DB9 to 3.5 mm phone jack audio cable
PCI / PCI-104 interface	PCI Rev 2.1 compliance	PCI Rev 2.1 compliance	PCI Rev 2.1 compliance	PCI Rev 2.1 compliance
Alarm I/O	Yes	Yes	Yes	Yes
Card ID	DIP switch selectable	DIP switch selectable	DIP switch selectable with LED for ID indication	DIP switch selectable

◆ Video processing

Video compression	MPEG 4 Advanced Simple Profile @ Level 5 (ISO/IEC 14496-2) MPEG-2 Main Profile @ Main Level (ISO/IEC 13818-2) MPEG-1 (ISO/IEC 11172-2) H.263 (ITU-T Recommendation H.263)	MPEG 4 Advanced Simple Profile @ Level 3 (ISO/IEC 14496-2) MPEG-2 Main Profile @ Main Level (ISO/IEC 13818-2) MPEG-1 (ISO/IEC 11172-2)	MPEG 4 Advanced Simple Profile @ Level 3 (ISO/IEC 14496-2) MPEG-2 Main Profile @ Main Level (ISO/IEC 13818-2) MPEG-1 (ISO/IEC 11172-2)	MPEG 4 Advanced Simple Profile @ Level 5 (ISO/IEC 14496-2) MPEG-2 Main Profile @ Main Level (ISO/IEC 13818-2) MPEG-1 (ISO/IEC 11172-2)
Video engine	MPEG 4 Hardware Encode / Decode	MPEG 4 Hardware Encode	MPEG 4 Hardware Encode	MPEG 4 Hardware Encode / Decode
Resolution & frame rate	NTSC: 720x480 @ 1~30fps PAL SECAM : 720x576 @1~25fps 720x240 @ 1~60fps 720x288 @ 1~50fps 360x240 @ 1~120fps 360x288 @1~100fps	NTSC: 720x480 720x240 640x480 320x240 176x144 PAL SECAM : 720x576 720x288 352x288 480x586	NTSC: 720x480 352x240 PAL/SECAM: 720x576 352x288	NTSC: 720x480 @1~30fps 720x240 @1~60fps PAL / SECAM: 720x576 @1~25fps 720x288 @1~50fps 360x288 @1~100fps
	NTSC: Total 30fps@D1 for 4 channels PAL/SECAM: Total 25fps@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: 25fps @D1 for 4 channels	NTSC: Total 30fps @D1 for 4 channels PAL/SECAM: 25fps @D1 for 4 channels

◆ Audio processing

Audio compression	Encoding Standard G.726 (ADPCM/PCM)	ADPCM / PCM	Software compression	G.726(ADPCM/PCM)
Sampling rate	8K, 44.1 KHz and 48 KHz	44.1 KHz and 48 KHz	8 K, 32 K, 44.1 KHz, and 48 KHz (hardware spec.)	8K, 44.1 KHz and 48 KHz
Quantization	8 bit data depth	16-bit	8-bit, 16-bit, and, 24-bit (hardware spec.)	8-bit data depth

◆ Functionality

Video /audio synchronization	Yes	Yes	Yes	Yes
Video loss detection	Yes	Yes	Yes	Yes
On-screen display	Yes	Yes	Yes	Yes
Motion detection	Hardware built-in	N/A	Yes	Hardware built-in
Watermarking	128 bit secret key, adjustable length	N/A	N/A	128-bit secret key, adjustable length

◆ System requirement

System	x86 PC compatible computer	Intel® Pentium®4 2.0 GHz or above	x86 compatible computer	x86 compatible computer
Memory	256MB or above	256 MB or above	256 MB or above	256 MB or above
Graphic	DirectX compatible VGA card supporting YUV overlay mode	DirectX compatible VGA card supporting YUV overlay mode	DirectX compatible VGA card supporting YUV overlay mode	DirectX compatible VGA card supporting YUV overlay mode

◆ Software support

Device driver	Windows 2000/ XP	Windows® 2000/ XP	Windows® 2000, XP	Windows® 2000, XP
SDK	Provide SDK and demo program Complete source code of demo program in C++	Provide SDK and demo program with source code in C++	Provide SDK and demo program with source code in C++	Provide SDK and demo program with source code in C++

◆ Others

Dimensions	119.91mm x 106.68mm	180.73 mm x 113 mm	95.89 mm x 90.17 mm	95.89 mm x 90.17 mm
Operation temperature	0~60° C (32~140° F), non-condensing	0~60° C (32~140° F), non-condensing	0° C~65° C	0° C~60° C (32° F~140° F), non-condensing
Power consumption	7.5W, 1.5A@5V (without relay)	7.5W, 1.5A@5V (without relay)	7.5 W, 1.5 A@5V(without relay)	7.5W, 1.5A@5V (without relay)

1

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Single
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POS PC

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AFOLUX
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Capture
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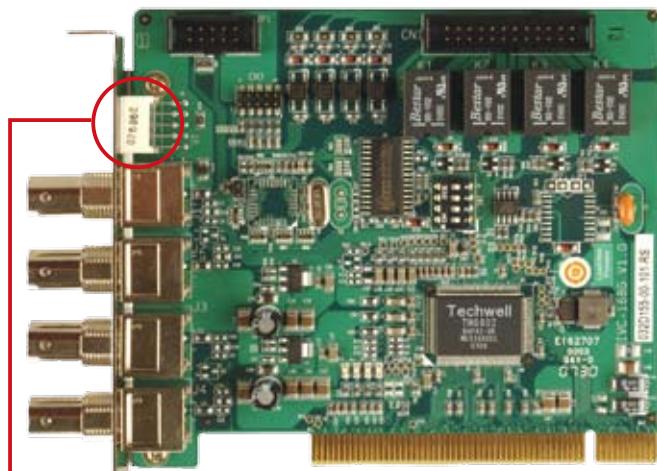
IVC-168G

PCI Video/Audio Capture Card with Four Video Input Channels, Total 30 fps@720x480(NTSC), and One Audio Input Channel



Low Power

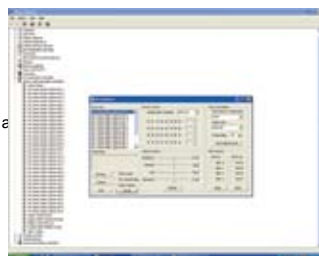
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The ID is programmed by a 4-digit DIP switch



Digit LED to show its ID (identification)



The IEI IVC SDK provides API to get device name

Specifications

◆ Interface

Video input	4 channels composite video NTSC, PAL and SECAM auto sensing
Connector	BNC
Audio input	1 channel analog audio Active channel selectable by software
Connector	Audio kit with 3.5 mm audio jack connector
PCI interface	PCI 2.1 compliance
Card ID	Selectable with LED for ID indication
Alarm I/O	GPIO daughter board with 4 inputs and 4 outputs

◆ Software Support

Device driver	Windows® 2000, XP Linux kernel 2.6
SDK	Provide SDK and demo program with sample source code in C++

◆ Video Processing

Video engine	1 x Techwell 6802/6805	
Resolution	NTSC:	PAL / SECAM:
	720 x 480	720 x 576
	704 x 480	720 x 288
	640 x 480	704 x 576
	320 x 240	640 x 576
Frame rate	NTSC: Four video channels with 30 fps @ D1 per channel	
	PAL and SECAM: Four video channels with 25 fps @ D1 per channel	
	PAL and SECAM: Four video channels with 25 fps @ D1 per channel	

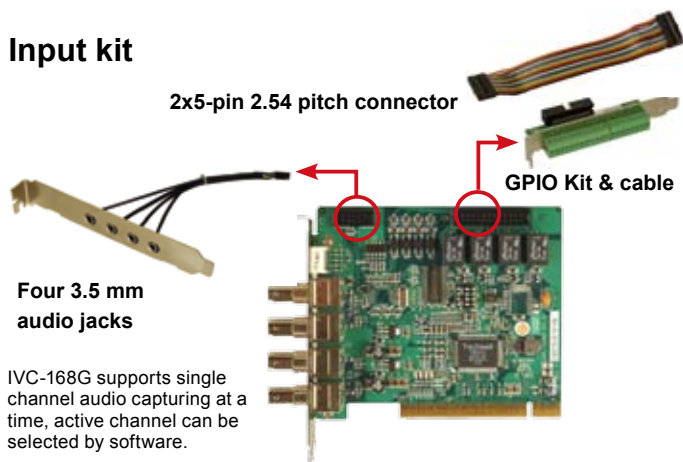
Packing List

1 x IVC-168G	1 x GPIO kit
1 x GPIO cable	1 x audio input kit
1 x utility CD	1 x QIG

Features

- 10 W only ultra low power consumption
- No thermal issues, no heat sink required
- Best Video quality with 10-bit ADC and 4H composite for NTSC / PAL / SECAM auto sensing
- 10-bit ADC for Analog Sound digitizing for better audio quality
- 30 fps @ D1 per channel, for entry level surveillance market
- One channel audio capturing, channel selectable by software
- Eight GPIO relay channels (4 in / 4 out) on board, included I/O kit & cable
- Support Multiple Card
(maximum 64 ports video input and 16 ports audio input)
- Windows® 2000, XP and Linux kernel 2.6 drivers available
- Applications: Video surveillance, security, public transportations, police and government

Input kit



IVC-168G supports single channel audio capturing at a time, active channel can be selected by software.

◆ Multiple Card Support

Card	Video Port	Audio Port	Support max. Channel / Resolution	Total Frame (NTSC/PAL)
1	4	1	4 channels, D1 (720 x 480)	30/25 fps
4	16	4	16 channels, D1 (720 x 480)	120/100 fps
8	32	8	32 channels, QVGA (320 x 240)	240/200 fps
16	64	16	64 channels, QVGA (320 x 240)	480/400 fps



Support Multiple Card (maximum 64 ports video input)

◆ System Requirement

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

◆ Others

Dimensions	119.91 mm x 106.68 mm
Operation temperature	0°C~60°C (32°F~140°F), non-condensing
Power consumption	10W, 2A@5V (with relay)

Ordering Information

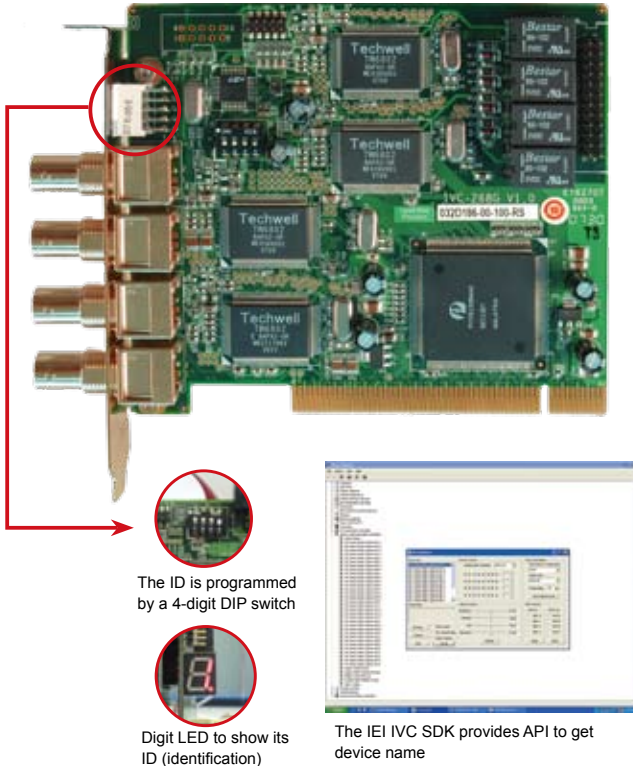
Part No.	Description
IVC-168G-R10	PCI video/audio capture card with four video input channels, total 30 fps@720x480(NTSC), and one audio input channel

IVC-268G

PCI Video/Audio Capture Card with Four Video Input Channels, Total 120 fps@720x480(NTSC), and One Audio Input Channel



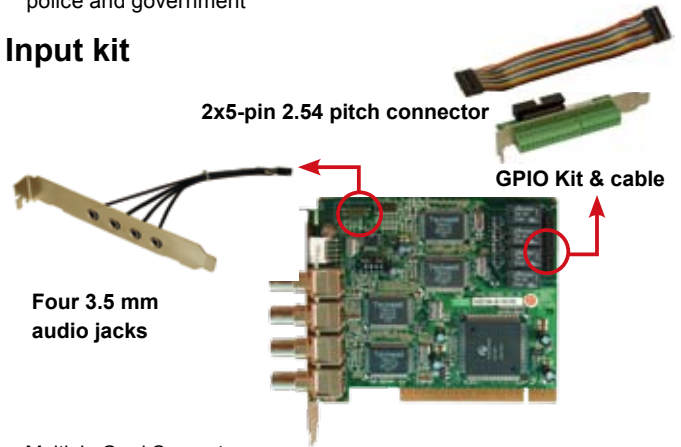
Low Power



Features

- Ultra low power consumption, only 12 W for 30 fps @ D1 per channel
- No thermal issues, no heat sink required
- Best Video quality with 10-bit ADC and 4H composite for NTSC / PAL / SECAM auto sensing
- 10-bit ADC for Analog Sound digitizing for better audio quality
- Four channels with 120 fps @ 720 x 480 (NTSC) per channel
- Eight GPIO relay channels (4 in / 4 out) on board, included I/O kit & cable
- Support Multiple Card (maximum 16 ports video input and 16 ports audio input)
- Windows® 2000, XP and Linux kernel 2.6 drivers available
- Applications: Video surveillance, security, public transportations, police and government

Input kit



Specifications

◆ Interface

Video input	4 channels composite video NTSC, PAL and SECAM auto sensing
Connector	BNC
Audio input	4 channels analog audio
Connector	Audio kit with 3.5 mm audio jack connector
PCI interface	PCI 2.1 compliance
Card ID	Selectable with LED for ID indication
Alarm I/O	GPIO daughter board with 4 inputs and 4 outputs

◆ Software support

Device driver	Windows® 2000, XP Linux kernel 2.6
SDK	Provide SDK and demo program with sample source code in C++

◆ Video Processing

Video engine	4 x Techwell 6802/6805	
Resolution	NTSC: 720 x 480 704 x 480 640 x 480 320 x 240	PAL / SECAM: 720 x 576 720 x 288 704 x 576 640 x 576 352 x 288 176 x 144
	Frame rate	NTSC: Four video channels with 120 fps @ D1 per channel PAL and SECAM: Four video channels with 100 fps @ D1 per channel

Packing List

1 x IVC-268G	1 x GPIO kit
1 x GPIO cable	1 x audio input kit
1 x utility CD	1 x QIG

◆ Multiple Card Support

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

◆ System Requirement

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

◆ Others

Dimensions	119.91 mm x 106.68 mm
Operation temperature	0°C~60°C (32°F~140°F), non-condensing
Power consumption	12W, 2.4A@5V (with relay)

Ordering Information

Part No.	Description
IVC-268G-R10	PCI video/audio capture card with four video input channels, total 120 fps@720x480(NTSC), and one audio input channel

1 Application Server Platform

2 Single Board Computer

3 IBX Series POS PC

4 AFOLUX POS Panel PC

5 Video Capture Card

6 KAMIO RISC

7 IOVU Open HMI

8 VITO Universal Controller

9 DINO BLADE

10 LCD Product Series

11 Embedded System

12 Industrial Computer Chassis

13 Power Supply

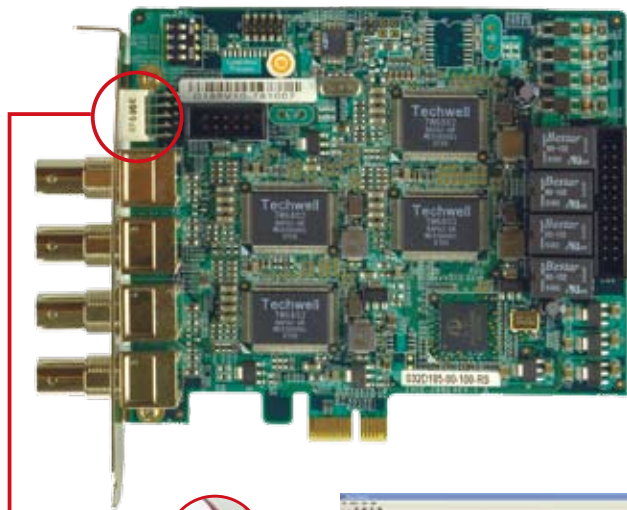
14 Peripherals

IVCE-268G

PCI Express Video/Audio Capture Card with
Four Video Input Channels, Total 120
fps@720x480(NTSC), and One Audio Input Channel



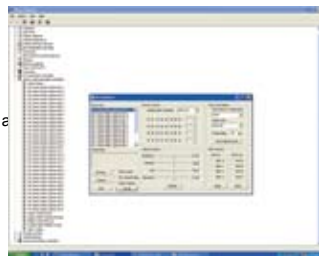
- 1 Application Server Platform
- 2 Single Board Computer
- 3 IBX Series POS PC
- 4 AFOLLUX POS Panel PC
- 5 Video Capture Card
- 6 KAMIO RISC
- 7 IOVU Open HMI
- 8 VITO Universal Controller
- 9 DINO BLADE
- 10 LCD Product Series
- 11 Embedded System
- 12 Industrial Computer Chassis
- 13 Power Supply
- 14 Peripherals



The ID is programmed by a 4-digit DIP switch



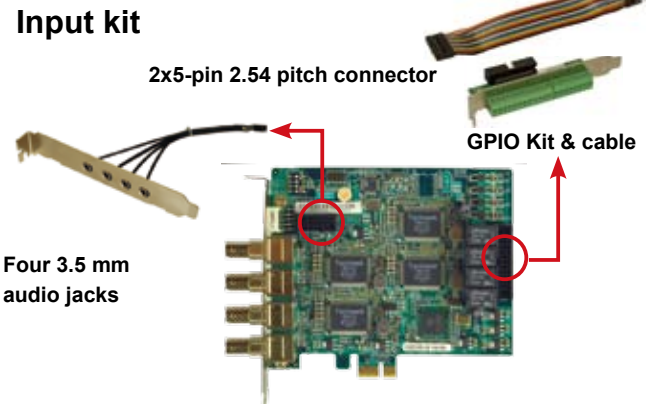
Digit LED to show its ID (identification)



The IEI IVC SDK provides API to get device name

Features

- PCIe x1 high speed interface
- Ultra low power consumption, only 12 W for 30 fps @ D1 per channel
- No thermal issues, no heat sink required
- Best Video quality with 10-bit ADC and 4H composite for NTSC / PAL / SECAM auto sensing
- 10-bit ADC for Analog Sound digitizing for better audio quality
- Eight GPIO relay channels (4 in / 4 out) on board, included I/O kit & cable
- Support Multiple Card (maximum 32 ports video input and 32 ports audio input)
- Windows® 2000, XP and Linux kernel 2.6 drivers
- Applications: Video surveillance, security, public transportations, police and government



Specifications

◆ Interface

Video Input	4 channels composite video NTSC, PAL and SECAM auto sensing
Connector	BNC
Audio Input	4 channels analog audio
Connector	Audio kit with 3.5 mm audio jack connector
PCI Interface	PCIe x1
Card ID	Selectable with LED for ID indication
Alarm I/O	GPIO daughter board with 4 inputs and 4 outputs

◆ Software support

Device Driver	Windows® 2000, XP Linux kernel 2.6
SDK	Provide SDK and demo program with sample source code in C++

◆ Video Processing

Video engine	4 x Techwell 6802/6805	
Resolution	NTSC:	PAL / SECAM:
	720 x 480	720 x 576
	704 x 480	720 x 288
	640 x 480	704 x 576
	320 x 240	640 x 576
Frame rate	NTSC: Four video channels with 120 fps @ D1 per channel	
	PAL and SECAM: Four video channels with 100 fps @ D1 per channel	

◆ Multiple Card Support

Card	Video Port	Audio Port	Support max. Channel / Resolution	Total Frame (NTSC/PAL)
1	4	4	4 channels, D1 (720 x 480)	120/100 fps
4	16	16	16 channels, D1 (720 x 480)	480/400 fps
8	32	32	32 channels, QVGA (320 x 240)	960/800 fps

◆ System Requirement

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

◆ Others

Dimensions	119.91 mm x 106.68 mm
Operation temperature	0°C~60°C (32°F~140°F), non-condensing
Power consumption	12W, 1A@12V (with relay)

Packing List

1 x IVCE-268G	1 x GPIO kit
1 x GPIO cable	1 x audio input kit
1 x utility CD	1 x QIG

Ordering Information

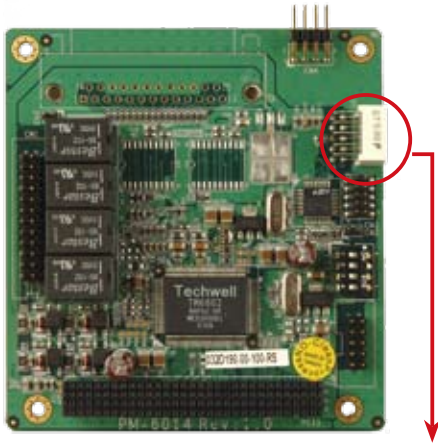
Part No.	Description
IVCE-268G-R10	PCI Express video/audio capture card with four video input channels, total 120 fps@720x480(NTSC), and one audio input channel

PM-6814

PCI-104 Video/Audio Capture Card with Four Video Input Channels, Total 30 fps@720x480(NTSC), and One Audio Input Channel

Low Power

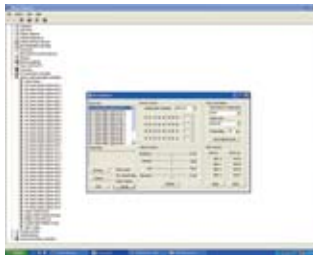
NEW



The ID is programmed by a 4-digit DIP switch



Digit LED to show its ID (identification)

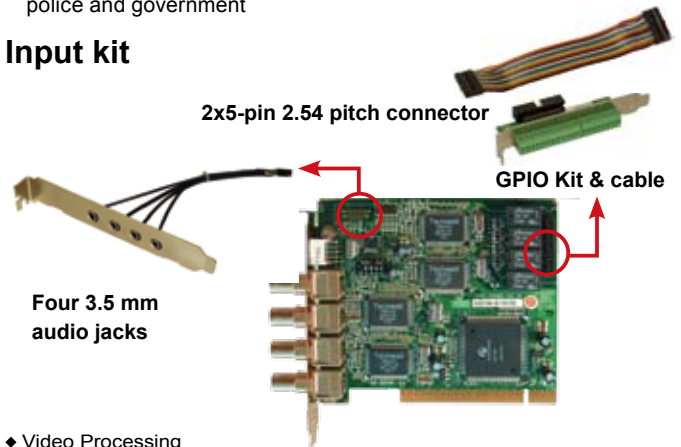


The IEI IVC SDK provides API to get device name

Features

- 10 W ultra low power consumption
- No thermal issues, no heat sink required
- Best Video quality with 10-bit ADC and 4H composite for NTSC / PAL / SECAM auto sensing
- 10-bit ADC for Analog Sound digitizing for better audio quality
- Four video channels with 30 fps @ D1 per channel for entry level surveillance market
- One channel audio capture, channel selectable by software
- Eight GPIO relay channels (4 in / 4 out) on board, included I/O kit & cable
- Support Multiple Card
(maximum 16 ports video input and 4 ports audio input)
- Windows® 2000, XP and Linux kernel 2.6 drivers available
- Applications: Video surveillance, security, public transportations, police and government

Input kit



Specifications

◆ Interface

Video Input	4 channels composite video NTSC, PAL and SECAM auto sensing
Connector	BNC
Audio Input	1 channel analog audio Active channel selectable by software
Connector	Audio kit with 3.5 mm audio jack connector
PCI Interface	PCI Rev 2.1 compliance
Card ID	Selectable with LED for ID indication
Alarm I/O	GPIO daughter board with 4 inputs and 4 outputs

◆ Software support

Device Driver	Windows® 2000, XP Linux kernel 2.6
SDK	Provide SDK and demo program with sample source code in C++

◆ Multiple Card Support

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

Packing List

1 x PM-6814	1 x GPIO kit
1 x GPIO cable	1 x audio input kit
1 x utility CD	1 x QIG
1 x video input daughter board with cable	

◆ Video Processing

Video engine	1 x Techwell 6802/6805	
Resolution	NTSC:	PAL / SECAM:
	720 x 480	720 x 576
	704 x 480	720 x 288
	640 x 480	640 x 576
	320 x 240	352 x 288 176 x 144
Frame rate	NTSC: Four video channels with 30 fps @ D1 per channel PAL and SECAM: Four video channels with 25 fps @ D1 per channel	

◆ System Requirement

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

◆ Others

Dimensions	95.89 mm x 90.17 mm
Operation temperature	0°C~60°C (32°F~140°F), non-condensing
Power consumption	10W, 2A@5V (with relay)

Ordering Information

Part No.	Description
PM-6814-R10	PCI-104 video/audio capture card with four video input channels, total 30 fps@720x480(NTSC), and one audio input channel

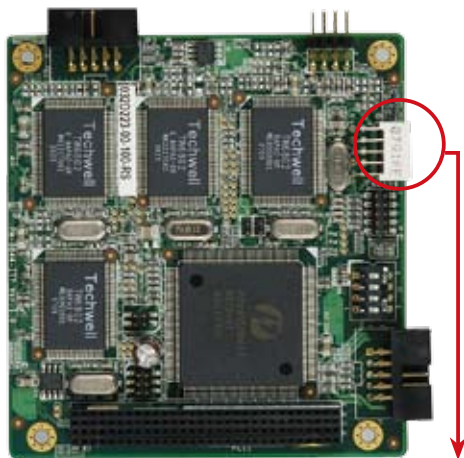
- Application Server Platform
- Single Board Computer
- IBX Series POS PC
- AFOLUX POS Panel PC
- Video Capture Card
- KAMIO RISC
- IOVU Open HMI
- VITO Universal Controller
- DINO BLADE
- LCD Product Series
- Embedded System
- Industrial Computer Chassis
- Power Supply
- Peripherals

PM-6844

PCI-104 Video/Audio Capture Card with Four Video Input Channels, Total 120 fps@720x480(NTSC), and One Audio Input Channel



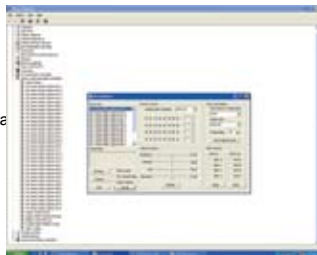
Low Power



The ID is programmed by a 4-digit DIP switch



Digit LED to show its ID (identification)

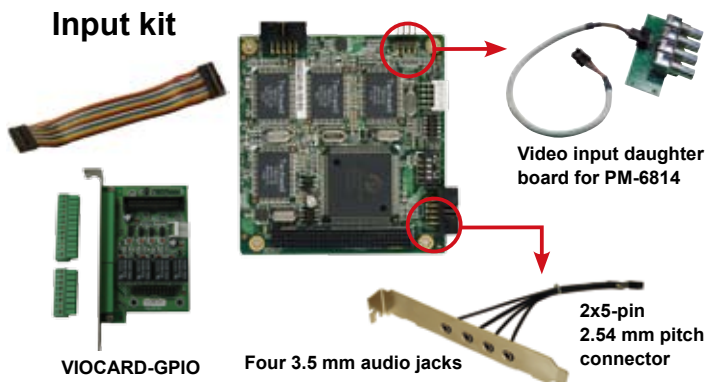


The IEC IVC SDK provides API to get device name

Features

- Ultra low power consumption, only 4.5 W for 30 fps @ D1 per channel
- No thermal issues, no heat sink required
- Best Video quality with 10-bit ADC and 4H composite for NTSC / PAL / SECAM auto sensing
- 10-bit ADC for Analog Sound digitizing for better audio quality
- 120 fps @ 720 x 480 (NTSC) per channel
- One channel audio capture, channel selectable by software
- External GPIO relay board with eight channels (4 in / 4 out), included I/O kit & cable
- Support Multiple Card (maximum 16 ports video input and 16 ports audio input)
- Windows® 2000, XP and Linux kernel 2.6 drivers available
- Applications: Video surveillance, security, public transportations, police and government

Input kit



VIOCARD-GPIO

Four 3.5 mm audio jacks

Video input daughter board for PM-6814

2x5-pin 2.54 mm pitch connector

Specifications

◆ Interface

Video Input	4 channels composite video NTSC, PAL and SECAM auto sensing
Connector	BNC
Audio Input	4 channels analog audio
Connector	Audio kit with 3.5 mm audio jack connector
PCI Interface	PCI 2.1 compliance
Card ID	Selectable with LED for ID indication
Alarm I/O	GPIO daughter board with 4 inputs and 4 outputs

◆ Software support

Device Driver	Windows® 2000, XP Linux kernel 2.6
SDK	Provide SDK and demo program with sample source code in C++

◆ Multiple Card Support

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

◆ Video Processing

Video engine	4 x Techwell 6802 / 6805	
Resolution	NTSC: 720 x 480 704 x 480 640 x 480 320 x 240	PAL / SECAM: 720 x 576 720 x 288 704 x 576 640 x 576 352 x 288 176 x 144
	Frame rate	
	NTSC: Four video channels with 120 fps @ D1 per channel PAL and SECAM: Four video channels with 100 fps @ D1 per channel	

◆ System Requirement

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

◆ Others

Dimensions	95.89 mm x 90.17 mm
Operation temperature	0°C~60°C (32°F~140°F), non-condensing
Power consumption	4.5W, 0.9A@5V (without relay)

Packing List

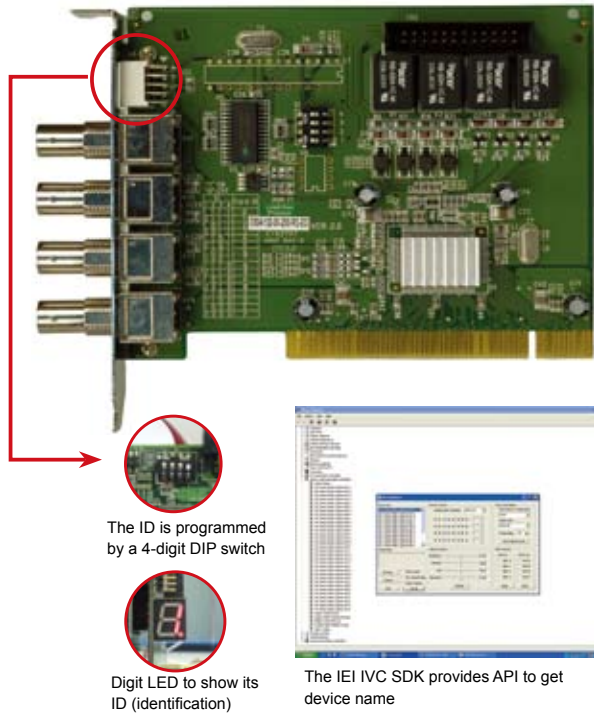
1 x PM-6844	1 x GPIO kit
1 x GPIO cable	1 x audio input kit
1 x utility CD	1 x QIG
1 x video input daughter board with cable	

Ordering Information

Part No.	Description
PM-6844-R10	PCI-104 video/audio capture card with four video input channels, total 120 fps@720x480(NTSC), and one audio input channel

IVC-100G-RS

PCI 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)

The IEI IVC SDK provides API to get device name

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-100G-RS-R20 only)

◆ Software support

Device Driver	Windows® 2000, XP Linux kernel 2.6
SDK	Provide 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	720 x 576
	704 x 480	704 x 576
	640 x 480	640 x 576
	352 x 240	352 x 288
	320 x 240	176 x 144
Frame rate	NTSC: up to 30 fps per channel	
	PAL /SECAM: up to 25fps at all resolutions	

Packing List

IVC-100G-RS-R20	1 x IVC-100G-RS-R20 video capture card
	1 x GPIO daughter board with cable
	1 x utility CD
	1 x QIG (quick installation guide)
IVC-100-RS-R20	1 x IVC-100-RS-R20 video capture card
	1 x utility CD
	1 x QIG (quick installation guide)

Notice: IVC-100-RS-R20 does not support GPIO function and has no relay components on board.

Features

- Eight GPIO relay channels (4 in / 4 out) on board, included I/O kit & cable
- Four video channels with 30 fps @ 720 x 480 (NTSC) per channel
- Support Multiple Card (maximum 64 ports video input)
- Drivers for Windows® and Linux available
- Applications: Video surveillance, security, public transportations, police and government



IVC-100G-RS-R20 GPIO-daughter board and cable

◆ Multiple Card Support

Card	Video Port	Audio Port	Support max. Channel / Resolution	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
8	32	N/A	32 channels, QVGA(320 x 240)	240/200 fps
16	64	N/A	64 channels, QVGA(320 x 240)	480/400 fps



Support Multiple Card
(maximum 64 ports video input)

◆ System Requirement

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

◆ Others

Dimensions	119.91 mm x 106.68 mm
Operation temperature	0°C~60°C (32°F~140°F), non-condensing
Power consumption	10.7W, 2.14A@5V (with relay)

Ordering Information

Part No.	Description
IVC-100G-RS-R20	PCI video capture card with four video input channels, total 30 fps@720x480(NTSC), and GPIO daughter board
IVC-100-RS-R20	PCI video capture card with four video input channels, total 30 fps@720x480(NTSC)

1
Application
Server
Platform

2
Single
Board
Computer

3
IBX Series
POS PC

4
AFOLUX
POS
Panel PC

5
Video
Capture
Card

6
KAMIO
RISC

7
IOVU
Open HMI

8
VITO
Universal
Controller

9
DINO
BLADE

10
LCD
Product
Series

11
Embedded
System

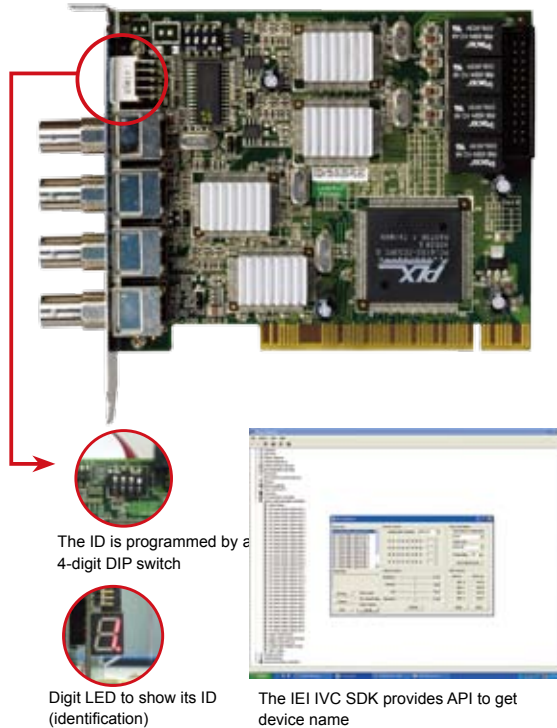
12
Industrial
Computer
Chassis

13
Power
Supply

14
Peripherals

IVC-200G-RS PCI Video Capture Card with Four Video Input Channels, Total 120 fps@720x480(NTSC)

- 1 Application Server Platform
- 2 Single Board Computer
- 3 IBX Series POS PC
- 4 AFOLLUX POS Panel PC
- 5 Video Capture Card
- 6 KAMIO RISC
- 7 IOVU Open HMI
- 8 VITO Universal Controller
- 9 DINO BLADE
- 10 LCD Product Series
- 11 Embedded System
- 12 Industrial Computer Chassis
- 13 Power Supply
- 14 Peripherals



The ID is programmed by a 4-digit DIP switch

Digit LED to show its ID (identification)

The IEI IVC SDK provides API to get device name

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

Features

- Eight GPIO relay channels (4 in / 4 out) on board, included I/O kit & cable
- Four video channels with 120 fps @ 720 x 480 (NTSC) per channel
- Support Multiple Card (maximum 16 ports video input)
- Drivers for Windows® and Linux available
- Applications: Video surveillance, security, public transportations, police and government



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	Provide 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	720 x 576
	704 x 480	704 x 576
	640 x 480	640 x 576
	320 x 240	352 x 288
	320 x 240	176 x 144
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	Support max. Channel / Resolution	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
Operation temperature	0°C~60°C (32°F~140°F), non-condensing
Power consumption	15W, 3A@5V (with relay)

Packing List

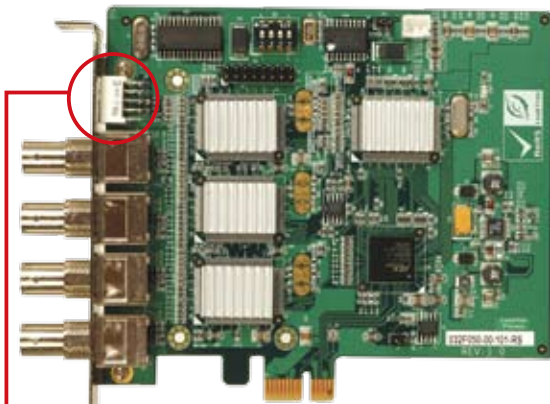
IVC-200G-RS-R20	1 x IVC-200G-RS-R20 video capture card
	1 x GPIO daughter board with cable
	1 x utility CD
	1 x QIG (quick installation guide)
IVC-200-RS-R20	1 x IVC-200-RS-R20 video capture card
	1 x utility CD
	1 x QIG (quick installation guide)

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)

IVCE-8784

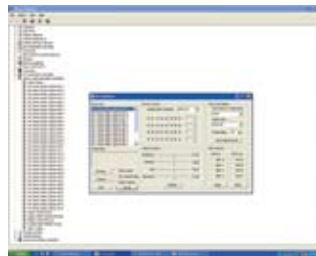
PCI Express Video Capture Card with Four Video Input Channels,
Total 120 fps@720x480(NTSC)



The ID is programmed by a 4-digit DIP switch



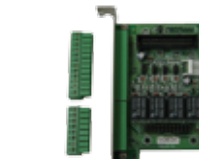
Digit LED to show its ID (identification)



The IEI IVC SDK provides API to get device name

Features

- External GPIO relay board with eight channels (4 in / 4 out), included I/O kit & cable
- PCI Express x1 interface with PCIe-to-PCI bridge onboard
- Four video channels with 120 fps @ D1 per channel
- NTSC/PAL/SECAM auto sensing
- Support Multiple Card (maximum 32 ports video input)
- SDK with Windows® drivers
- Applications: Video surveillance, security, public transportations, police and government



VIOCARD-GPIO (optional)



Advantages of PCIe over PCI

Feature	PCIe x1	PCI
Bandwidth	500 MBps	133 MBps
Bus characteristics	Point-to-point serial, independent bandwidth for every device	Parallel, share by all PCI devices

Specifications

◆ Interface

Video input	4 channels composite video NTSC, PAL and SECAM auto sensing
Connector	BNC
PCIe interface	PCIe x1
Card ID	DIP switch selectable with LED for ID indication
Alarm I/O	GPIO daughter board with 4 inputs and 4 outputs (optional)

◆ Software support

Device Driver	Windows® 98, SE, ME, 2000, XP
SDK	Provide 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	720 x 576
	704 x 480	704 x 576
	640 x 480	640 x 576
	352 x 240	352 x 288
Frame rate	NTSC: up to 120 fps per channel	
	PAL /SECAM: up to 100 fps per channel	
		176 x 144

◆ Multiple Card Support

Card	Video Port	Audio Port	Support max. Channel / Resolution	Total Frame (NTSC/PAL)
1	4	N/A	4 channels, D1(720 x 480)	120/100 fps
4	16	N/A	16 channels, D1(720 x 480)	480/400 fps
8	32	N/A	32 channels, QVGA(320 x 240)	960/800 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
Operation temperature	0°C~60°C (32°F~140°F), non-condensing
Power consumption	7.8W, 0.65A@12V (without relay)

Ordering Information

Part No.	Description
IVCE-8784-R10	PCI Express video capture card with four video input channels, total 120 fps@720x480(NTSC)
VIOCARD-GPIO-RS-R10	8 GPIO channels (4 digital inputs and 4 relay outputs)

Packing List

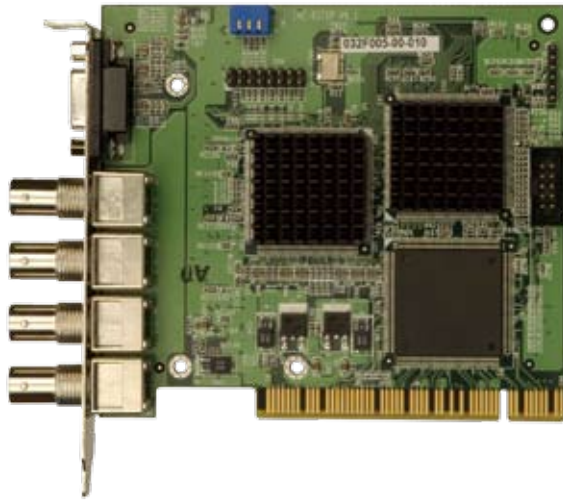
1 x IVCE-8784 video capture card
1 x utility CD
1 x QIG (quick installation guide)

- 1 Application Server Platform
- 2 Single Board Computer
- 3 IBX Series POS PC
- 4 AFOLUX POS Panel PC
- 5 Video Capture Card
- 6 KAMIO RISC
- 7 IOVU Open HMI
- 8 VITO Universal Controller
- 9 DINO BLADE
- 10 LCD Product Series
- 11 Embedded System
- 12 Industrial Computer Chassis
- 13 Power Supply
- 14 Peripherals

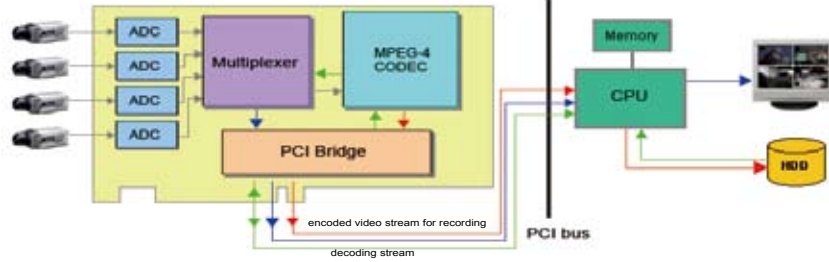
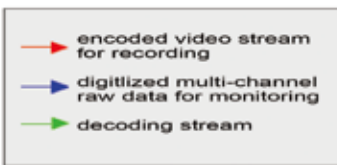
IVC-8371P

PCI Video/Audio Capture Card with Four Video Input Channels, Total 30 fps@720x480(NTSC), Four Audio Input Channels, and Hardware MPEG 4 Codec

H.263/MPEG4 Hardware Codec



Encoding & Decoding Diagram



Features

- External GPIO relay board with eight channels (4 in / 4 out), included I/O kit & cable
- Four video channels with 30 fps @ 720 x 480 per channel
- Multi-channel real time encoding/decoding
- Video and audio synchronizing
- Supports On-Screen-Display (OSD)
- Built-in camera lost detection
- Hardware motion detection
- Digital watermarking
- Applications: Video conference, DVB-H/T, VOD

Specifications

◆ Interface

Video input	4 channels composite video NTSC, PAL and SECAM
Video input type	BNC
Audio Input	4 channels
Audio input type	DB9 to 3.5 mm phone jack audio cable
PCI interface	PCI Rev 2.1 compliance
Card ID	Dip-switch selectable

◆ Software support

Device Driver	Driver for Windows® 2000/ XP
SDK	Provide SDK and demo program with source code in C++

◆ Video Processing

Video engine	MPEG 4 advanced simple profile @ level 5 (ISO/IEC 14496-2) MPEG 2 main profile @ main level (ISO/IEC 13818-2) MPEG 1 (ISO/IEC 11172-2) H.263 (ITU-T recommendation H.263)	
Resolution	NTSC: 720 x 480 @ 1~30fps 720 x 240 @ 1~60fps 360 x 240 @ 1~120fps	PAL / SECAM: 720 x 576 @ 1~25fp 720 x 288 @ 1~50fps 360 x 288 @ 1~100fps

◆ System Requirement

System	x86 compatible computer works perfectly with system using 400MHz CPU
Graphic	DirectX compatible VGA card supporting YUV overlay mode

◆ Functionality

Video /audio synchronization	Yes
On-screen display	Yes
Camera loss detection	Yes
Motion detection	Hardware built-in
Watermarking	128-bit secret key, adjustable length
Encoding bitrate control	VBR, CBR for each channel

◆ Others

Dimensions	119.91 mm x 106.68 mm
Operation temperature	0°C~60°C (32°F~140°F), non-condensing
Power consumption	7.5W, 1.5A@5V (without relay)

Packing List

1 x IVC-8371P video capture card
1 x DB-9 to 3.5 mm phone jack 4 channel audio cable
1 x utility CD
1 x QIG (quick installation guide)

Ordering Information

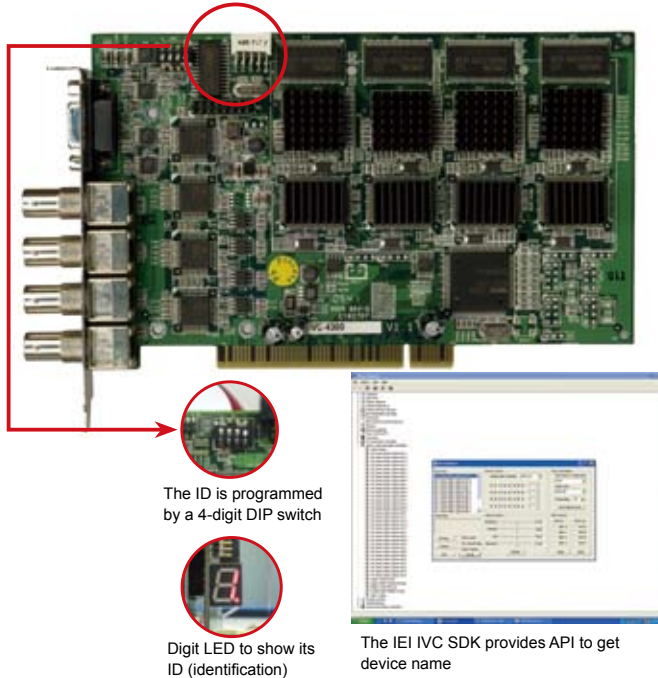
Part No.	Description
IVC-8371P-R10	PCI video/audio capture card with four video input channels, total 30 fps@720x480(NTSC), four audio input channels, and hardware MPEG 4 Codec
VIOCARD-GPIO-RS-R10	8 GPIO channels (4 digital inputs and 4 relay outputs)

- 1 Application Server Platform
- 2 Single Board Computer
- 3 IBX Series POS PC
- 4 AFOLLUX POS Panel PC
- 5 Video Capture Card
- 6 KAMIO RISC
- 7 IOVU Open HMI
- 8 VITO Universal Controller
- 9 DINO BLADE
- 10 LCD Product Series
- 11 Embedded System
- 12 Industrial Computer Chassis
- 13 Power Supply
- 14 Peripherals

IVC-4300-RS

PCI Video/Audio Capture Card with Four Video Input Channels, Total 120 fps@720x480(NTSC), Four Audio Input Channels, and Hardware MPEG 4 Encoder

MPEG 4 Hardware Encoder



The ID is programmed by a 4-digit DIP switch

Digit LED to show its ID (identification)

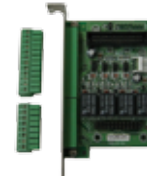
The IEI IVC SDK provides API to get device name

Features

- External GPIO relay board with eight channels (4 in / 4 out), included I/O kit & cable
- MPEG 4/MPEG-2/MPEG-1 video encoding
- Four video channels with 120 fps @ 720 x 480 (NTSC) per channel
- 4-channel stereo audio input
- Supports on-screen-display (OSD)
- Programmable GOP
- Applications: Video conference, DVB-H/T, VOD



Audio Cable



VIOCARD-GPIO (optional)

Specifications

◆ Interface

Video input	4 channels composite video NTSC, PAL and SECAM auto sensing
Video input type	BNC
Audio input	4 channels
Audio input type	DB9 to 3.5 mm phone jack audio cable
PCI interface	PCI Rev 2.1 compliance
Card ID	Dip-switch selectable

◆ Software support

Device Driver	Windows® 2000/ XP
SDK	Provide SDK and demo program Complete source code of demo program in C++

◆ Video Processing

Video engine	MPEG 4 advanced simple profile @ level 3 (ISO/IEC 14496-2)	
	MPEG 2 main profile @ main level (ISO/IEC 13818-2)	
	MPEG 1 (ISO/IEC 11172-2)	
Resolution	NTSC: 720 x 480 720 x 240 640 x 480 320 x 240 176 x 144	PAL / SECAM: 720 x 576 720 x 288 352 x 288 488 x 586

◆ Audio Processing

Audio compression	ADPCM / PCM
Sampling rate	44.1 KHz and 48 KHz
Quantization	16-bit

◆ System Requirement

System	Intel® Pentium® 4 2.0 GHz or above
Memory	256 MB or above
Graphic	DirectX compatible VGA card supporting YUV overlay mode

◆ Functionality

Video /audio synchronization	Yes
On-screen display	Yes
GOP	Programmable I, B, P frame
Encoding bitrate control	CBR

◆ Others

Dimensions	180.73 mm x 113 mm
Operation temperature	0°C~60°C (32°F~140°F), non-condensing
Power consumption	7.5W, 1.5A@5V (without relay)

Packing List

1 x IVC-4300-RS-R20 video capture card
1 x DB-9 to 3.5 mm phone jet 4 channel audio cable
1 x utility CD
1 x QIG (quick installation guide)

Ordering Information

Part No.	Description
IVC-4300-RS-R20	PCI video/audio capture card with four video input channels, total 120 fps@720x480(NTSC), four audio input channels, and hardware MPEG 4 encoder
VIOCARD-GPIO-RS-R10	8 GPIO channels (4 digital inputs and 4 relay outputs)

1
Application
Server
Platform

2
Single
Board
Computer

3
IBX Series
POS PC

4
AFOLUX
POS
Panel PC

5
Video
Capture
Card

6
KAMIO
RISC

7
IOVU
Open HMI

8
VITO
Universal
Controller

9
DINO
BLADE

10
LCD
Product
Series

11
Embedded
System

12
Industrial
Computer
Chassis

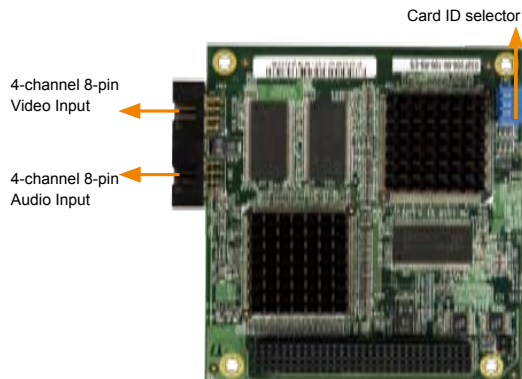
13
Power
Supply

14
Peripherals

PM-1059

PCI-104 Video/Audio Capture Card with Four Video Input Channels, Total 30 fps@720x480(NTSC), Four Audio Input Channels, and Hardware MPEG 4 Codec

MPEG 4 Hardware Encoder/Decoder



Video input daughter board With 4 x BNC connectors



2x4p 2.54 mm cable



2x4p 2.54 mm to DB9 cable



DB9 to RCA jack audio cable

Features

- 30 fps @ 720 x 480 for 4 channels
- Multi-channel real time encoding/decoding
- Video and audio synchronizing
- Supports on-screen-display(OSD)
- Built-in camera lost detection
- Hardware motion detection
- Digital watermarking
- Applications: Video conference, DVB-H/T, VOD

Specifications

◆ Interface

Video input	4 channels composite video
Video input interface	8-pin 2.54 mm connector onboard
Audio input	4 channels
Audio input interface	8-pin 2.54 mm connector onboard
PCI-104 interface	PCI Rev. 2.1 compliant
Card ID	DIP-switch selectable

◆ Software support

Device Driver	Driver for Windows® 2000 or XP
SDK	Provide SDK and demo program with source code in C++

◆ Video Processing

Video engine	MPEG 4 advanced simple profile@level 5 (ISO/IEC 14496-2) MPEG 2 main profile@main level (ISO/IEC 13818-2) MPEG 1 (ISO/IEC 11172-2) H.263 (ITU-T recommendation H.263)	
Resolution	NTSC: 720 x 480 @ 1~30fps 720 x 240 @ 1~60fps 360 x 240 @ 1~120fps	PAL / SECAM: 720 x 576@1~25fps 720 x 288 @1~50fps 360 x 288@1~100fps

◆ Audio Processing

Audio compression	G.726 (ADPCM/PCM)
Sampling rate	8 K, 44.1 KHz and 48 KHz
Quantization	8-bit data depth

◆ System Requirement

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

◆ Functionality

Video /audio synchronization	Yes
On-screen display	Yes
Camera loss detection	Yes
Motion detection	Hardware built-in
Watermarking	128-bit secret key, adjustable length
Encoding bitrate control	VBR, CBR for each channel

◆ Others

Dimensions	96 mm x 91 mm
Operation temperature	0~60oC(32~140oF), non-condensing
Power consumption	7.5W, 1.5A@5V (without relay)

Packing List

1 x PM-1059 video capture module
1 x QIG
1 x utility CD
1 x DB-9 to RCA jack audio cable
1 x 2x4p 2.54 mm cable
1 x video input daughter board
1 x 2x4p 2.54 mm to DB-9 cable

Ordering Information

Part No.	Description
PM-1059-R10	PCI-104 video/audio capture card with four video input channels, total 30 fps@720x480(NTSC), four audio input channels, and hardware MPEG 4 codec

PM-1058-RS

MPEG 4 Hardware Encoder

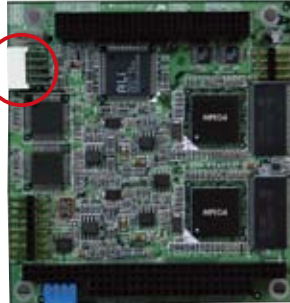
PCI-104 Video/Audio Capture Card with Two Video Input Channels, Total 30 fps@720x480(NTSC), Two Audio Input Channels, and Hardware MPEG 4 Encoder



The ID is programmed by a 4-digit DIP switch



Digit LED to show its ID (identification)



The IEI IVC SDK provides API to get device name



VIN-KIT-03

- ◆ Applications: Video conference, DVB-H/T, VOD

Specifications

- ◆ Interface: video input: 2 Ch. BNC or composite video, with Video, NTSC/PAL auto sensing
audio input: 2 Ch. stereo audio
- ◆ Audio processing: Sampling rate: 44.1 KHz and 48 KHz
Quantization: 8-bit data depth
Data format: PCM, ADPCM
- ◆ Video processing:
 - Video compression: MPEG 4 advanced simple profile @L3
MPEG-2 MP@ML, MPEG-1
 - Video resolution: 720 x 480, 352 x 240 (NTSC) 720 x 576, 352 x 288 (PAL)
 - Frame rate: Up to 30(NTSC), 25(PAL) FPS for each channel
 - Image processing: Hardware control of brightness, contrast and saturation.
 - Video quality: DVD quality full D1 video at 3 Mbps, high quality D1 video at 1 Mbps high quality CIF video at 384Kbps
- ◆ Software support:
 - Device driver : Provide driver for Window® 2000 and Windows® XP systems
 - SDK: Provide SDK and demo program for software application development.

Packing List

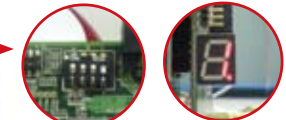
- 1 x PM-1058 video capture module
- 1 x QIG
- 1 x utility CD

Ordering Information

Part No.	Description
PM-1058-RS-R20	PCI-104 video/audio capture card with two video input channels, total 30 fps@720x480(NTSC), two audio input channels, and hardware MPEG 4 encoder

PM-1056-RS

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)



The IEI IVC SDK provides API to get device name



VIN-KIT-01
4xBNC Connector Board



4xRCA Connector Cable kit

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

Specifications

- ◆ Analog video capture engine:
 - Conexant fusion BT878A capture engine
 - NTSC/PAL/SECAM PCI video decoding
 - Flexible 24-bit wide GPIO (PM-1056-4PG/16PG)
- ◆ Functionality support
 - NTSC: 720x480, 704x480, 640x480, 352x240, 320x240, 176x112
 - PAL: 720x576, 704x576, 640x576, 352x288, 320x288, 176x144
 - Video loss detection
- ◆ Support multiple card (maximum 16 ports video input)
- ◆ Multi-screen, image brightness and resolution adjustment
- ◆ Frame rate: 30 fps per channel
- ◆ WDM driver and SDK software development kits provided
- ◆ Window® 98, SE, ME, 2000, NT, XP and Linux support
- ◆ Power consumption: 3.5 W@5 V (with relay)
- ◆ Operating temperature: 0~50°C
- ◆ Multiple Card Support

Card	Video Port	Audio Port	Support max. Channel / Resolution	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

Packing List

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

Ordering Information

Part No.	Description
PM-1056-4P-RS-R20	PCI-104 video capture card with four video input channels, total 30 fps@720x480(NTSC)
PM-1056-4PB-RS-R20	PCI-104 video capture card with four video input channels, total 30 fps@720x480(NTSC), and VIN-Kit-01
PM-1056-4PG-RS-R20	PCI-104 video capture card with four video input channels, total 30 fps@720x480(NTSC), and GPIO function
PM-1056-4PGB-RS-R20	PCI-104 Video capture card with four video input channels, total 30 fps@720x480(NTSC), GPIO function, and VIN-Kit-01

- Application Server Platform
- Single Board Computer
- IBX Series POS PC
- AFOLUX POS Panel PC
- Video Capture Card
- KAMIO RISC
- IOVU Open HMI
- VITO Universal Controller
- DINO BLADE
- LCD Product Series
- Embedded System
- Industrial Computer Chassis
- Power Supply
- Peripherals