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:

<table>
<thead>
<tr>
<th>Model</th>
<th>Codec</th>
<th>Video / Audio Capture</th>
<th>Video Capture</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVC-168G / IVC-268G / IVC-268G / PM-684 / PM-684</td>
<td>N/A</td>
<td>Yes</td>
<td>-</td>
</tr>
<tr>
<td>IVC-106 / IVC-200 / IVC-876 / PM-1056</td>
<td>N/A</td>
<td>-</td>
<td>Yes</td>
</tr>
<tr>
<td>IVC-33T / PM-1059</td>
<td>Encoder</td>
<td>Decoder</td>
<td>Yes</td>
</tr>
<tr>
<td>IVC-4300 / PM-1058</td>
<td>Encoder</td>
<td>Yes</td>
<td>-</td>
</tr>
</tbody>
</table>

Powerful Functions

- 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.
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

<table>
<thead>
<tr>
<th>Conexant v.s. Techwell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conexant BT878</td>
</tr>
<tr>
<td>PCI 2.2-3.0</td>
</tr>
<tr>
<td>Video ADC</td>
</tr>
<tr>
<td>Comb Filter NTSC/PAL</td>
</tr>
<tr>
<td>Remote Control Receiver</td>
</tr>
<tr>
<td>Digital ITU-R 656 Output</td>
</tr>
<tr>
<td>4 CH Mono Audio Support</td>
</tr>
<tr>
<td>DVR Non-real time Switching Speed Per channel</td>
</tr>
<tr>
<td>Audio Capture</td>
</tr>
<tr>
<td>Power Supply Analog/Digital</td>
</tr>
<tr>
<td>Application Software</td>
</tr>
<tr>
<td>Driver Software</td>
</tr>
<tr>
<td>Availability</td>
</tr>
</tbody>
</table>

**Better Performance**
- Current model
  - Model: IVC-100G/200G/8784 PM-1056
  - Chipset: Conexant BT878A
  - Power Consumption: 10.7W~15W
  - Heat sink: Yes
  - Capture Speed: 3 fps
  - Interface: PCI/PCI-104
  - DVR Switching Speed: 3 fps
- Newer model
  - Model: IVC-168G/268G PM-68146844
  - Chipset: Techwell TW6802/TW6805
  - Power Consumption: 10W~12W
  - Heat sink: No
  - Capture Speed: 7 fps
  - Interface: PCI/PCI-104
  - DVR Switching Speed: 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/XPIXP
  - TWtee, 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

## Model Name
- IVC-168G
- IVC-268G
- IVCE-268G
- PM-6814
- PM-6844

## Form factor
- PCI
- PCI
- PCIe
- PCI-194
- PCI-104

### Interface

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Video input</th>
<th>Video input type</th>
<th>Audio input</th>
<th>Audio input type</th>
<th>Alarm I/O</th>
<th>Card ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVC-168G</td>
<td>4 channels composite video</td>
<td>BNC</td>
<td>1 channel analog audio</td>
<td>Audio kit with 3.5 mm audio jack connector</td>
<td>Yes</td>
<td>DIP switch selectable with LED for ID indication</td>
</tr>
<tr>
<td>IVC-268G</td>
<td>4 channels composite video</td>
<td>BNC</td>
<td>4 channel analog audio</td>
<td>Audio kit with 3.5 mm audio jack connector</td>
<td>Yes</td>
<td>DIP switch selectable with LED for ID indication</td>
</tr>
<tr>
<td>IVCE-268G</td>
<td>4 channels composite video</td>
<td>BNC</td>
<td>1 channel analog audio</td>
<td>Audio kit with 3.5 mm audio jack connector</td>
<td>Yes</td>
<td>DIP switch selectable with LED for ID indication</td>
</tr>
<tr>
<td>PM-6814</td>
<td>4 channels composite video</td>
<td>BNC</td>
<td>4 channel analog audio</td>
<td>Audio kit with 3.5 mm audio jack connector</td>
<td>Yes</td>
<td>DIP switch selectable with LED for ID indication</td>
</tr>
<tr>
<td>PM-6844</td>
<td>4 channels composite video</td>
<td>BNC</td>
<td>4 channel analog audio</td>
<td>Audio kit with 3.5 mm audio jack connector</td>
<td>Yes</td>
<td>DIP switch selectable with LED for ID indication</td>
</tr>
</tbody>
</table>

### Video processing

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Video compression</th>
<th>Video engine</th>
<th>Resolution &amp; frame rate</th>
<th>Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVC-168G</td>
<td>Software compression</td>
<td>1 x Techwell 6802/6805</td>
<td>PAL/SECAM: 25fps@D for 4 channels</td>
<td>PAL/SECAM: 00fps@D for 4 channels</td>
</tr>
<tr>
<td>IVC-268G</td>
<td>Software compression</td>
<td>4 x Techwell 6802/6805</td>
<td>PAL/SECAM: 25fps@D for 4 channels</td>
<td>PAL/SECAM: 00fps@D for 4 channels</td>
</tr>
<tr>
<td>IVCE-268G</td>
<td>Software compression</td>
<td>4 x Techwell 6802/6805</td>
<td>PAL/SECAM: 25fps@D for 4 channels</td>
<td>PAL/SECAM: 00fps@D for 4 channels</td>
</tr>
<tr>
<td>PM-6814</td>
<td>Software compression</td>
<td>1 x Techwell 6802/6805</td>
<td>PAL/SECAM: 25fps@D for 4 channels</td>
<td>PAL/SECAM: 00fps@D for 4 channels</td>
</tr>
<tr>
<td>PM-6844</td>
<td>Software compression</td>
<td>4 x Techwell 6802/6805</td>
<td>PAL/SECAM: 25fps@D for 4 channels</td>
<td>PAL/SECAM: 00fps@D for 4 channels</td>
</tr>
</tbody>
</table>

### Audio processing

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Audio compression</th>
<th>Sampling rate</th>
<th>Quantization</th>
<th>Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVC-168G</td>
<td>Software compression</td>
<td>8 kHz, 32 kHz, 44.1 kHz and 48 kHz (hardware spec.)</td>
<td>8-bit, 16-bit and 24-bit (hardware spec.)</td>
<td>Yes</td>
</tr>
<tr>
<td>IVC-268G</td>
<td>Software compression</td>
<td>8 kHz, 32 kHz, 44.1 kHz and 48 kHz (hardware spec.)</td>
<td>8-bit, 16-bit and 24-bit (hardware spec.)</td>
<td>Yes</td>
</tr>
<tr>
<td>IVCE-268G</td>
<td>Software compression</td>
<td>8 kHz, 32 kHz, 44.1 kHz and 48 kHz (hardware spec.)</td>
<td>8-bit, 16-bit and 24-bit (hardware spec.)</td>
<td>Yes</td>
</tr>
<tr>
<td>PM-6814</td>
<td>Software compression</td>
<td>8 kHz, 32 kHz, 44.1 kHz and 48 kHz (hardware spec.)</td>
<td>8-bit, 16-bit and 24-bit (hardware spec.)</td>
<td>Yes</td>
</tr>
<tr>
<td>PM-6844</td>
<td>Software compression</td>
<td>8 kHz, 32 kHz, 44.1 kHz and 48 kHz (hardware spec.)</td>
<td>8-bit, 16-bit and 24-bit (hardware spec.)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### System requirement

<table>
<thead>
<tr>
<th>Model Name</th>
<th>System</th>
<th>Memory</th>
<th>Graphic</th>
<th>Software support</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVC-168G</td>
<td>x86 compatible computer</td>
<td>256 MB or above</td>
<td>DirectX compatible VGA card supporting YUV overlay mode</td>
<td>Device driver: Windows® 2000, XP Linux kernel 2.6</td>
</tr>
<tr>
<td>IVC-268G</td>
<td>x86 compatible computer</td>
<td>256 MB or above</td>
<td>DirectX compatible VGA card supporting YUV overlay mode</td>
<td>Device driver: Windows® 2000, XP Linux kernel 2.6</td>
</tr>
<tr>
<td>IVCE-268G</td>
<td>x86 compatible computer</td>
<td>256 MB or above</td>
<td>DirectX compatible VGA card supporting YUV overlay mode</td>
<td>Device driver: Windows® 2000, XP Linux kernel 2.6</td>
</tr>
<tr>
<td>PM-6814</td>
<td>x86 compatible computer</td>
<td>256 MB or above</td>
<td>DirectX compatible VGA card supporting YUV overlay mode</td>
<td>Device driver: Windows® 2000, XP Linux kernel 2.6</td>
</tr>
<tr>
<td>PM-6844</td>
<td>x86 compatible computer</td>
<td>256 MB or above</td>
<td>DirectX compatible VGA card supporting YUV overlay mode</td>
<td>Device driver: Windows® 2000, XP Linux kernel 2.6</td>
</tr>
</tbody>
</table>

### Others

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Dimensions</th>
<th>Operation temperature</th>
<th>Power consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVC-168G</td>
<td>119.91 mm x 106.68 mm</td>
<td>0°C<del>60°C (32°F</del>140°F), non-condensing</td>
<td>10W, 2A@5V (with relay)</td>
</tr>
<tr>
<td>IVC-268G</td>
<td>119.91 mm x 106.68 mm</td>
<td>0°C<del>60°C (32°F</del>140°F), non-condensing</td>
<td>12W, 2.4A@5V (with relay)</td>
</tr>
<tr>
<td>IVCE-268G</td>
<td>119.91 mm x 106.68 mm</td>
<td>0°C<del>60°C (32°F</del>140°F), non-condensing</td>
<td>12W, 1A@12V (with relay)</td>
</tr>
<tr>
<td>PM-6814</td>
<td>95.89 mm x 90.17 mm</td>
<td>0°C<del>60°C (32°F</del>140°F), non-condensing</td>
<td>10W, 3A@5V (with relay)</td>
</tr>
<tr>
<td>PM-6844</td>
<td>95.89 mm x 90.17 mm</td>
<td>0°C<del>60°C (32°F</del>140°F), non-condensing</td>
<td>4.5W, 0.9A@6V (without relay)</td>
</tr>
</tbody>
</table>
# Video Capture Card Selection Guide

## Application Server Platform

<table>
<thead>
<tr>
<th>Model name</th>
<th>IVC-100G-RS</th>
<th>IVC-200G-RS</th>
<th>IVCE-8784</th>
<th>PM-1056</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formfactor</td>
<td>PCI</td>
<td>PCI</td>
<td>PCIe</td>
<td>PCI-104</td>
</tr>
</tbody>
</table>

### Video input
- 4 channels composite video
- NTSC / PAL / SECAM auto sensing

### Video input type
- BNC

### Audio Input
- N/A

### Audio input type
- N/A

### PCI / PCI-104 interface
- PCI rev 2.1 compliance

### Alarm I/O
- Yes

### Card ID
- DIP switch selectable with LED for ID indication

### Video processing

#### Video compression
- Software compression

#### Video engine
- 1 x Conexant Fusion BT878A

#### Resolution & frame rate
- NTSC: up to 30fps at all resolutions
- PAL/SECAM: up to 25fps at all resolutions

### Audio processing

#### Audio compression
- N/A

#### Sampling rate
- N/A

#### Quantization
- N/A

### Functionality

#### Video & audio synchronization
- N/A

#### Video loss detection
- Yes

#### On-screen display
- Yes

#### Motion detection
- N/A

#### Watermarking
- N/A

### System requirement

#### System
- x86 compatible computer
- x86PC compatible computer

#### Memory
- 256 MB or above
- 256 MB or above

#### Graphic
- DirectX compatible VGA card

### Software support

#### Device driver
- Windows® 98 SE, ME, 2000, XP

#### SDK
- Provide SDK and demo program with sample source code in C++

### 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)

---

**Video Capture Card**

**Real Time Video Capture**

**Video Capture Card**

**Model name**

- IVC-100G-RS
- IVC-200G-RS
- IVCE-8784
- PM-1056

**Formfactor**

- PCI
- PCI
- PCIe
- PCI-104

**Video input**

- 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

#### Video engine
- 1 x Conexant Fusion BT878A

#### Resolution & frame rate
- NTSC: up to 30fps at all resolutions
- PAL/SECAM: up to 25fps at all resolutions

**Audio processing**

#### Audio compression
- N/A

#### Sampling rate
- N/A

#### Quantization
- N/A

**Functionality**

#### Video & audio synchronization
- N/A

#### Video loss detection
- Yes
- Yes
- Yes
- Yes

#### On-screen display
- Yes
- Yes
- Yes
- Yes

#### Motion detection
- N/A
- N/A
- Hardware Build-in

#### Watermarking
- N/A
- N/A
- 128-bit secret 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

**Software support**

#### Device driver
- Windows® 98 SE, ME, 2000, XP
- Windows® 98 SE, ME, 2000, XP
- Windows® 98, SE, ME, 2000, XP
- Windows® 98 SE, ME, 2000, XP

#### 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

#### Operation temperature
- 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

<table>
<thead>
<tr>
<th>Model name</th>
<th>IVC-8371P</th>
<th>IVC-4300-RS</th>
<th>PM-1058</th>
<th>PM-1059</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formfactor</td>
<td>PCI</td>
<td>PCI</td>
<td>PCI-104</td>
<td>PCI-104</td>
</tr>
</tbody>
</table>

### Interface

- **Video input**: 4 channels Composite video (NTSC/PAL/SECAM)
- **Audio input**: 4 channels
- **Audio input type**: DB9 to 3.5 mm phone jack audio cable
- **Pci / PCI-104 interface**: PCI Rev 2.0 compliance
- **Card ID**: DIP switch selectable

### Video processing

- **Video compression**: MPEG-4 Advanced Simple Profile @ Level 5 (ISO/IEC 14496-2)
- **Video engine**: MPEG-4 Hardware Encode / Decode
- **Resolution & frame rate**: NTSC: 720x480 @ ~30fps

### Audio processing

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

### Functionality

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

### System requirement

- **System**: x86 PC compatible
- **Memory**: 256 MB or above
- **Graphic**: DirectX compatible VGA card

### Software support

- **Device driver**: Windows 2000 / XP
- **SDK**: Provide SDK and demo program

### Others

- **Dimensions**: 119.91 mm x 106.68 mm
- **Operation temperature**: 0°C~60°C (DIN 4100-140°F), non-condensing
- **Power consumption**: 7.5W, 1.5A@6V (without relay)
**Video Capture Card**

**IVC-168G**

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

**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**

- 2x5-pin 2.54 pitch connector
- GPIO Kit & cable

**Four 3.5 mm audio jacks**

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

**Multiple Card Support**

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

**System Requirement**

- x86 compatible computer
- 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 W, 2A@5V (with relay)

**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

**Ordering Information**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVC-168G-R10</td>
<td>PCI video/audio capture card with four video input channels, total 30 fps@720x480 (NTSC), and one audio input channel</td>
</tr>
</tbody>
</table>
**Video Capture Card**

**IVC-268G**  
PCI Video/Audio Capture Card with Four Video Input Channels, Total 120 fps@720x480(NTSC), and One Audio Input Channel

---

**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**

- 2x5-pin 2.54 pitch connector
- GPIO Kit & cable
- Four 3.5 mm audio jacks

---

**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
      - 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

- **Multiple Card Support**

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

- **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)

---

**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

**Ordering Information**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVC-268G-R10</td>
<td>PCI video/audio capture card with four video input channels, total 120 fps@720x480(NTSC), and one audio input channel</td>
</tr>
</tbody>
</table>
IVCE-268G  PCI Express Video/Audio Capture Card with Four Video Input Channels, Total 120 fps@720x480(NTSC), and One Audio Input Channel

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 | 576 x 256 |
    | 320 x 240 | 352 x 288 |
  - 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

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVCE-268G-R10</td>
<td>PCI Express video/audio capture card with four video input channels, total 120 fps@720x480(NTSC), and one audio input channel</td>
</tr>
</tbody>
</table>
### 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
- 2x5-pin 2.54 pitch connector
- GPIO Kit & cable
- Four 3.5 mm audio jacks

### 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**
<table>
<thead>
<tr>
<th>Card</th>
<th>Video Port</th>
<th>Audio Port</th>
<th>Support max. Channel / Resolution</th>
<th>Total Frame (NTSC/PAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>1</td>
<td>4 channels, D1(720 x 480)</td>
<td>30/25 fps</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>4</td>
<td>16 channels, D1(720 x 480)</td>
<td>120/100 fps</td>
</tr>
</tbody>
</table>

- **Video Processing**
  - Video engine: 1 x Techwell 6802/6805
  - Resolution:
    - NTSC: 720 x 480, 704 x 480, 640 x 480, 320 x 240
    - PAL / SECAM: 720 x 576, 704 x 576, 640 x 576, 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)

### 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 video input daughter board with cable

### Ordering Information
- **Part No.**
  - PM-6814
  - PM-6814-R10
  - PCI-104 video/audio capture card with four video input channels, total 30 fps@720x480(NTSC), and one audio input channel
PM-6844 PCI-104 Video/Audio Capture Card with Four Video Input Channels, Total 120 fps@720x480 (NTSC), and One Audio Input Channel

**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

**Software support**

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

**Multi-Card Support**

- Card: 1 x PM-6844  1 x GPIO kit
- Video Port: 1 x GPIO cable  1 x audio input kit
- Audio Port: 1 x utility CD  1 x Gig
- Support max. Channel / Resolution: 4 channels, D1 (720 x 480)
- Total Frame (NTSC/PAL): 120/100 fps
- Support max. Channel: 16 channels, QVGA (320 x 240)
- Resolution: 480/400 fps

**Packing List**

- PM-6844
- PM-6844-R10 PCI-104 Video/Audio Capture Card with Four Video input channels, total 120 fps@720x480(NTSC), and one audio input channel

**System Requirement**

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

**Ordering Information**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM-6844-R10</td>
<td>PCI-104 Video/Audio capture card with four video input channels, total 120 fps@720x480(NTSC), and one audio input channel</td>
</tr>
</tbody>
</table>
IVC-100G-RS

PCI Video Capture Card with Four Video Input Channels, Total 30 fps@720x480(NTSC)

Notice: IVC-100G-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

Multiple Card Support

<table>
<thead>
<tr>
<th>Card</th>
<th>Video Port</th>
<th>Audio Port</th>
<th>Support max. Channel / Resolution</th>
<th>Total Frame (NTSC/PAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>N/A</td>
<td>4 channels, D1(720 x 480)</td>
<td>30/25 fps</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>N/A</td>
<td>16 channels, D1(720 x 480)</td>
<td>120/100 fps</td>
</tr>
<tr>
<td>8</td>
<td>32</td>
<td>N/A</td>
<td>32 channels, QVGA(320 x 240)</td>
<td>240/200 fps</td>
</tr>
<tr>
<td>16</td>
<td>64</td>
<td>N/A</td>
<td>64 channels, QVGA(320 x 240)</td>
<td>480/400 fps</td>
</tr>
</tbody>
</table>

Software support

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

Video Processing

- Video engine: 1 x Conexant Fusion BT878A
- Resolution: NTSC: 720 x 480, 704 x 480, 640 x 480, 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
- Frame rate: NTSC: up to 30 fps per channel, PAL / SECAM: up to 25 fps at all resolutions

Packaging 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
- IVC-100-RS-R20: 1 x IVC-100-RS-R20 video capture card, 1 x utility CD, 1 x QIG

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)
**IVC-200G-RS**

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

Notice: IVC-200G-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

**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: 720 x 480, 704 x 480, 640 x 480, 320 x 240, 176 x 112
- PAL / SECAM: 720 x 576, 704 x 576, 640 x 576, 352 x 288, 176 x 144
- Frame rate: NTSC: up to 120 fps per channel, PAL / SECAM: up to 100 fps per channel

**Multiple Card Support**

<table>
<thead>
<tr>
<th>Card</th>
<th>Video Port</th>
<th>Audio Port</th>
<th>Support max. Channel / Resolution</th>
<th>Total Frame (NTSC/PAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>N/A</td>
<td>4 channels, D1(720 x 480)</td>
<td>120/100 fps</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>N/A</td>
<td>16 channels, QVGA(320 x 240)</td>
<td>480/400 fps</td>
</tr>
</tbody>
</table>

**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-200G-RS-R20: 1 x IVC-200G-RS-R20 video capture card, 1 x utility CD, 1 x QIG (quick installation guide)

**Ordering Information**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVC-200G-RS-R20</td>
<td>PCI video capture card with four video input channels, total 120 fps @ 720x480 (NTSC), andGPIO daughter board</td>
</tr>
<tr>
<td>IVC-200G-RS-R20</td>
<td>PCI video capture card with four video input channels, total 120 fps @ 720x480 (NTSC), and GPIO daughter board</td>
</tr>
<tr>
<td>IVC-200G-RS-R20</td>
<td>PCI video capture card with four video input channels, total 120 fps @ 720x480 (NTSC), and GPIO daughter board</td>
</tr>
</tbody>
</table>
**IVCE-8784**

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

### 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 transportsations, police and government

### Advantages of PCIe over PCI

<table>
<thead>
<tr>
<th>Feature</th>
<th>PCIe x1</th>
<th>PCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bandwidth</td>
<td>500 MBps</td>
<td>133 MBps</td>
</tr>
<tr>
<td>Bus characteristics</td>
<td>Point-to-point serial, independent bandwidth for every device</td>
<td>Parallel, share by all PCI devices</td>
</tr>
</tbody>
</table>

### 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: 720 x 480, 704 x 480, 640 x 480, 352 x 240, 320 x 240, 176 x 112
- Frame rate: NTSC: up to 200 fps per channel, PAL/SECAM: up to 100 fps per channel

**Multiple Card Support**
- Card | Video Port | Audio Port |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>N/A</td>
</tr>
<tr>
<td>8</td>
<td>32</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**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)

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

### Ordering Information
- Part No. | Description |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IVCE-8784-R10</td>
<td>PCI Express video capture card with four video input channels, total 120 fps@720x480(NTSC)</td>
</tr>
<tr>
<td>VIOCARD-GPIO-RS-R10</td>
<td>8 GPIO channels (4 digital inputs and 4 relay outputs)</td>
</tr>
</tbody>
</table>
**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

### 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**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video input</td>
<td>4 channels composite video NTSC, PAL and SECAM</td>
</tr>
<tr>
<td>Video input type</td>
<td>BNC</td>
</tr>
<tr>
<td>Audio Input</td>
<td>4 channels</td>
</tr>
<tr>
<td>Audio input type</td>
<td>DB9 to 3.5 mm phone jack audio cable</td>
</tr>
<tr>
<td>PCI interface</td>
<td>PCI Rev 2.1 compliance</td>
</tr>
<tr>
<td>Card ID</td>
<td>Dip-switch selectable</td>
</tr>
</tbody>
</table>

**Software support**

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

**Video Processing**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video engine</td>
<td>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)</td>
</tr>
<tr>
<td>Resolution</td>
<td>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</td>
</tr>
</tbody>
</table>

**System Requirement**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>x86 compatible computer works perfectly with system using 400MHz CPU</td>
</tr>
<tr>
<td>Graphic</td>
<td>DirectX compatible VGA card supporting YUV overlay mode</td>
</tr>
</tbody>
</table>

**Functionality**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video / audio synchronization</td>
<td>Yes</td>
</tr>
<tr>
<td>On-screen display</td>
<td>Yes</td>
</tr>
<tr>
<td>Camera loss detection</td>
<td>Yes</td>
</tr>
<tr>
<td>Motion detection</td>
<td>Hardware built-in</td>
</tr>
<tr>
<td>Watermarking</td>
<td>128-bit secret key, adjustable length</td>
</tr>
<tr>
<td>Encoding bitrate control</td>
<td>VBR, CBR for each channel</td>
</tr>
</tbody>
</table>

**Others**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>119.91 mm x 106.68 mm</td>
</tr>
<tr>
<td>Operation temperature</td>
<td>0°C<del>60°C (32°F</del>140°F ), non-condensing</td>
</tr>
<tr>
<td>Power consumption</td>
<td>7.5W, 1.5A@5V (without relay)</td>
</tr>
</tbody>
</table>

### 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

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

### 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

### Specifications

<table>
<thead>
<tr>
<th>Interface</th>
<th>Audio Processing</th>
<th>System Requirement</th>
<th>Functionality</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video input 4 channels composite video</td>
<td>Audio compression</td>
<td>ADPCM / PCM</td>
<td>Video / audio synchronization</td>
<td>Yes</td>
</tr>
<tr>
<td>Video input type BNC</td>
<td>Sampling rate</td>
<td>44.1 KHz and 48 KHz</td>
<td>On-screen display</td>
<td>Yes</td>
</tr>
<tr>
<td>Audio input type 4 channels</td>
<td>Quantization</td>
<td>16-bit</td>
<td>GOP</td>
<td>Programmable I, B, P frame</td>
</tr>
<tr>
<td>Audio input type DB9 to 3.5 mm phone jack audio cable</td>
<td>Video engine</td>
<td>MPEG 4 advanced simple profile @ level 3 (ISO/IEC 14496-2)</td>
<td>Encoding bitrate control</td>
<td>CBR</td>
</tr>
<tr>
<td>Card ID Dip-switch selectable</td>
<td>Resolution</td>
<td>PAL / SECAM: 720 x 576</td>
<td>Dimensions</td>
<td>180.73 mm x 113 mm</td>
</tr>
<tr>
<td>Resolution 720 x 480</td>
<td></td>
<td>720 x 288</td>
<td>Operation temperature</td>
<td>0°C<del>60°C (32°F</del>140°F), non-condensing</td>
</tr>
<tr>
<td>640 x 480</td>
<td>352 x 288</td>
<td>Power consumption</td>
<td>7.5W, 1.5A@5V (without relay)</td>
<td></td>
</tr>
<tr>
<td>320 x 240</td>
<td>488 x 568</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>176 x 144</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 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

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

**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)

- **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: 0~60°C(32~40°F), non-condensing
  - Power consumption: 7.5W, 0.5A@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**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM-1059-R10</td>
<td>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</td>
</tr>
</tbody>
</table>
**PM-1058-RS**

**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**

- **Specifications**
  - Applications: Video conference, DVB-H/T, VOD
  - 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 D video at 3 Mbps, high quality D 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**
<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM-1058-RS-R20</td>
<td>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</td>
</tr>
</tbody>
</table>

---

**PM-1056-RS**

**PCI-104 Video Capture Card with Four Video Input Channels, Total 30 fps@720x480(NTSC)**

- **Specifications**
  - Applications: Video surveillance, security, public transportations, police and government
  - 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, 76x2
    - PAL: 720x576, 704x576, 640x576, 352x288, 320x288, 76x44
    - Video loss detection
  - Support multiple card (maximum 6 ports video input)
  - Multi-screen, image brightness and resolution adjustment
  - Frame rate: 30 fps per channel
  - WDM driver and SDK software development kits provided
  - Windows® 98, SE, ME, 2000, NT, XP and Linux support
  - Power consumption: 3.5 W@5 V (with relay)
  - Operating temperature: 0~50ºC
  - Multi-Card Support

- **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**
<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM-1056-4P-RS-R20</td>
<td>PCI-104 video capture card with four video input channels, total 30 fps@720x480(NTSC), and VIN-KIT-01</td>
</tr>
<tr>
<td>PM-1056-4PB-RS-R20</td>
<td>PCI-104 video capture card with four video input channels, total 30 fps@720x480(NTSC)</td>
</tr>
<tr>
<td>PM-1056-4PG-RS-R20</td>
<td>PCI-104 video capture card with four video input channels, total 30 fps@720x480(NTSC), and GPIO function</td>
</tr>
<tr>
<td>PM-1056-4PGB-RS-R20</td>
<td>PCI-104 Video Capture Card with four video input channels, total 30 fps@720x480(NTSC), GPIO function, and VIN-KIT-01</td>
</tr>
</tbody>
</table>