PCI express video/ audio capture card with four/ eight video input channels
Total 120/ 240fps @ 720x480 (NTSC)

IVCE-C604/IVCE-C608/IVCME-C604 Quick Installation Guide

Version 1.01

5 March, 2012

1. Package List

IVCME-C604 & IVCE-C604/ C608 package includes the following items:

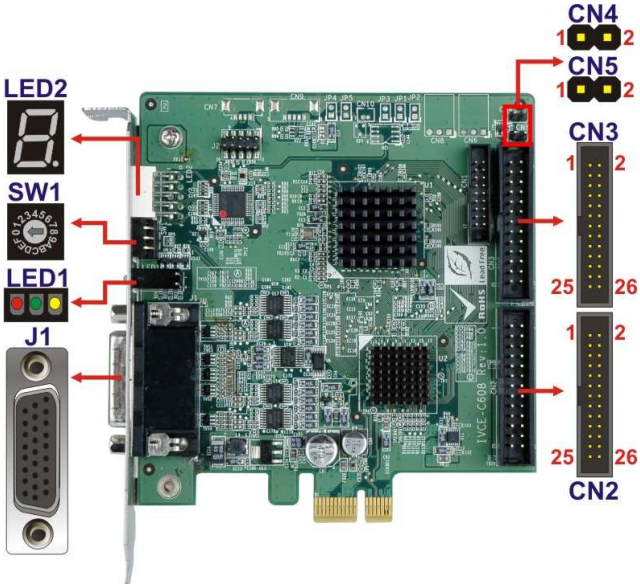
- 1 x video capture card
- 1 x video and audio input cable
- 2 x reset cable (IVCE-C604/ C608 only)
- 1 x Utility CD (within manual)
- 1 x QIG (Quick Installation Guide)

2. Specifications

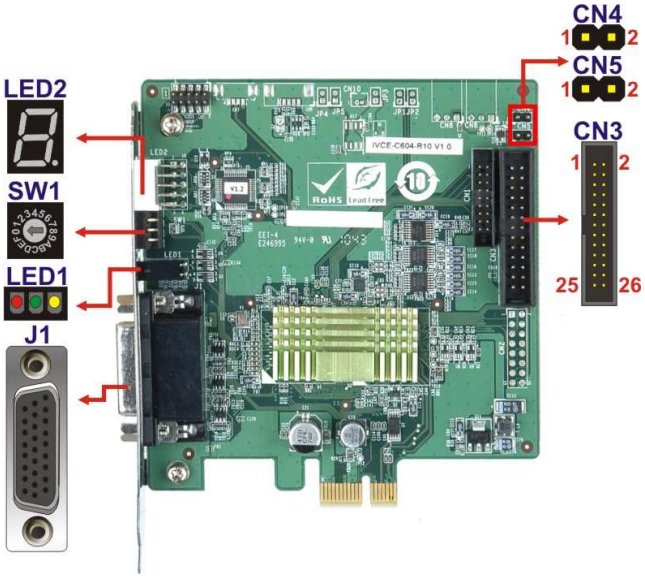
		IVCE-C608	IVCE-C604	IVCME-C604
Video Input Channels		eight	four	four
Video Input Format		NTSC/ PAL	NTSC/ PAL	NTSC/ PAL
Video Input Type		BNC	BNC	BNC
Audio Input Channels		eight	four	four
Audio Input Connector		RCA	RCA	RCA
Video Output Channel		two	two	N/A
Interface		PCIe	PCIe	PCIe Mini
VIDEO PROCESSING				
Video Compression		Software compression		
Resolution	NTSC	720x480 / 720x240 / 640x480 / 640x240 352x240 / 320x240 / 160x120		
	PAL	720x576 / 720x288 / 352x288		
AUDIO PROCESSING				
Audio Compression		Software compression		
Sampling rates		32KHz/ 44.1KHz/ 48KHz/ 96KHz		8KHz/16KHz 32KHz/44.1KHz48KHz
Quantization		24-bit	24-bit	16-bit
SYSTEM REQUIREMENTS				
System		X86 compatible computer		
PCIe		PCIe x1 lane Compatible with PCIe x1, x4, x8 and x16 slots		PCIe Mini
Minimum Memory		512MB	512MB	512MB
Graphics		DirectX compatible VGA card with YUV overlay mode support		

3. Hardware Installation
3.1 Hardware Overview

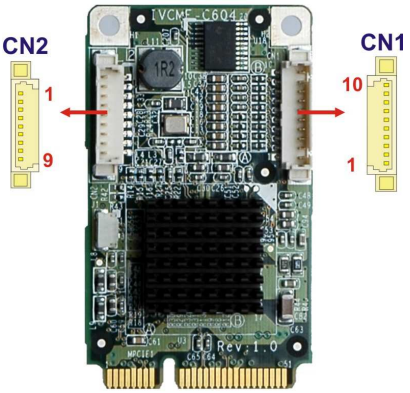
IVCE-C608



IVCE-C604



IVCME-C604



3.2 IVCE-C608/ C604 Hardware Installation

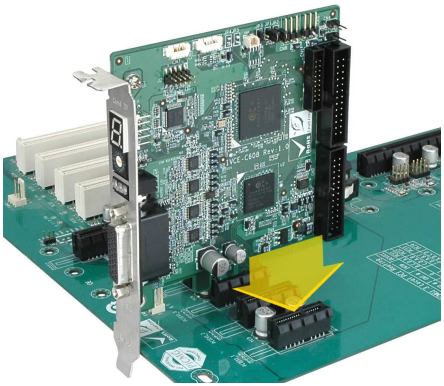
3.2.1 Video Capture Card Installation

The IVCE-C608 and IVCE-C604 have a PCIe x1 interface. To install the IVCE-C608/ C604, please follow the steps below:

Step1. Align the PCIe edge connector on the bottom of the video capture card with the PCIe slot on the system motherboard.

Step2. Gently insert the video capture card into the PCIe slot.

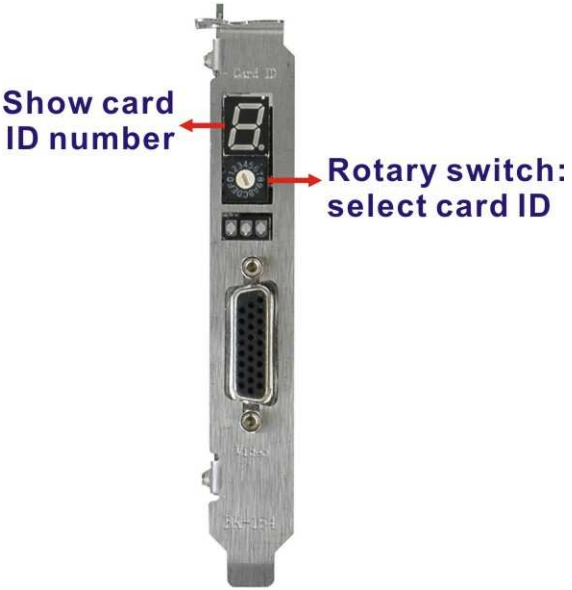
Step3. Push down gently on the video card to make sure it is firmly inserted into the PCIe slot.



Step4. Insert a retention screw through the top of the video capture card external bracket into the chassis to secure the card to the chassis.

3.2.2 Set the Rotary Switch ID Settings

Up to 16 IVC video cards can be installed simultaneously on a single system. However, to ensure the system is able to detect the different cards, each card must be assigned a unique ID. The unique ID is assigned using the 16-position rotary switch (0~F) on each IVC video card. The ID number of the video card will show on the LED screen.

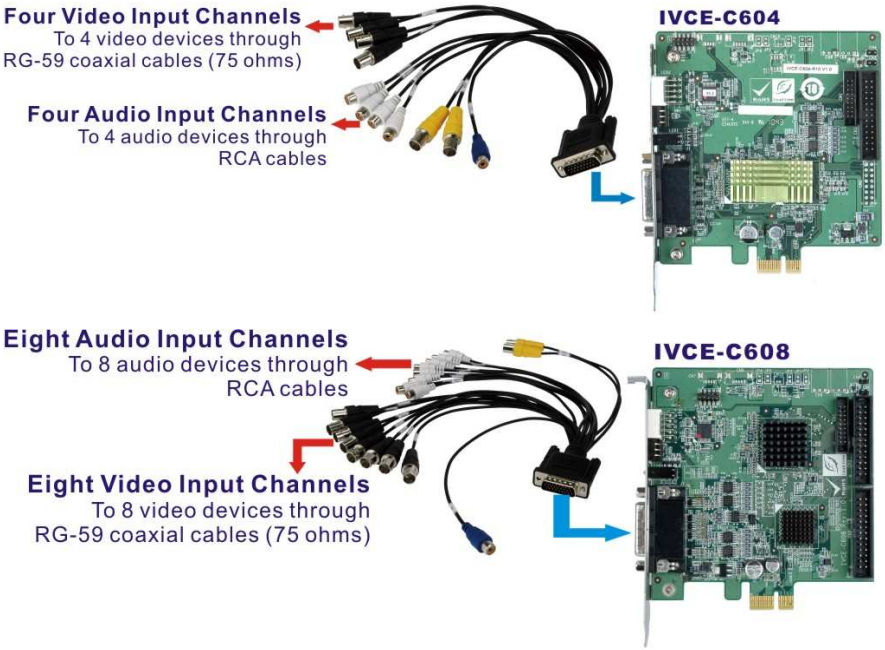


NOTE:

1. If the card ID shown on the application is different from the number shown on the LED screen, please restart the system.
2. Do not change the card ID during operation.

3.2.3 Video and Audio Input Connection

Both IVCE-C608 and IVCE-C604 are shipped with a video and audio input cable. To install the video and audio input cable, please follow the instructions below.



Step1. Align and insert the DB-26 male connector from the cable to the DB-26 female connector on the board.

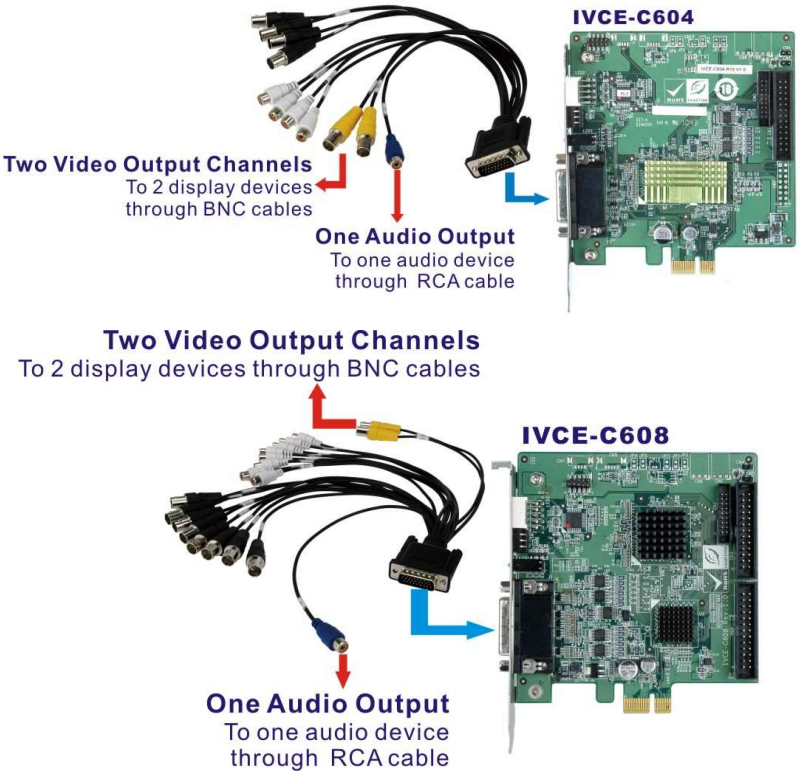
Step2. Make sure the connection is secure.

Step3. Connect the video input BNC connector (black) from the cable to a video device with the RG-59 coaxial cable (75 ohms).

Step4. Connect the audio input RCA connector (white) from the cable to an audio device.

3.2.4 Video and Audio Output Connection

The IVCE-C608 and IVCE-C604 are shipped with a video and audio cable that provides 2-channel video out and 1-channel audio output. To install the video and audio cable, please follow the instructions below.



Step1. Align and insert the DB-26 male connector from the cable to the DB-26 female connector on the board.

Step2. Make sure the connection is secure..

Step3. Connect the video output BNC connector (yellow) from the cable to a video device with the BNC cable.

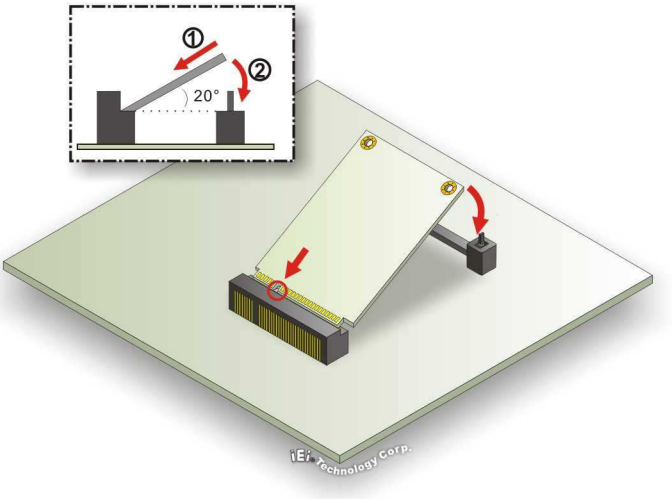
Step4. Repeat step 3 to connect the second video output device.

Step5. Connect the audio output RCA connector (blue) from the cable to an audio device.

3.3 IVCME-C604 Hardware Installation

3.3.1 Video Capture Card Installation

To install the IVCME-C604, please refer to the diagram and instructions below:

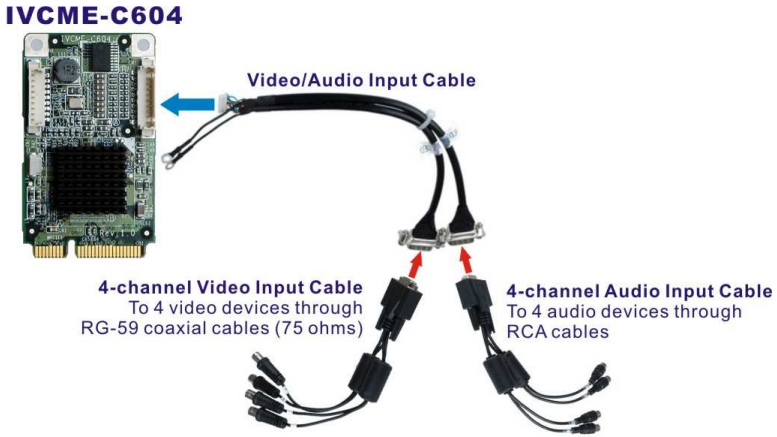


Step1. Insert into the socket at an angle. Line up the notch on the card with the notch on the connector. Slide the IVCME-C604 into the socket at an angle of about 20º.

Step2. Push down until the card clips into place. Push the other end of the card down until it clips into place on the plastic connector.

3.3.2 Video and Audio Input Connection

The IVCME-C604 is shipped with a video/audio input cable, a 4-channel video input cable and a 4-channel audio input cable. To install the video and audio input cable, please follow the instructions below.



Step1. Align and insert the wafer connector from the video/audio input cable to the 10-pin wafer connector (CN1) on the board.

Step2. Make sure the connection is secure.

Step3. Connect the 4-channel video input cable to the video connector of the video/audio input cable.

Step4. Connect the 4-channel audio input cable to the audio connector of the video/audio input cable.

Step5. Connect the video input BNC connector (black) from the cable to a video device with the **RG-59 coaxial cable (75 ohms)**.

Step6. Connect the audio input RCA connector (white) from the cable to an audio device.

Step7. Repeat **Step 5** and **Step 6** until all video and audio devices are connected.

4. Driver and Application Installation

4.1 Driver Installation

To install the driver and the IEI video capture test suite, please follow the steps below:

Step1. Insert the disk into a CD disk drive connected to the system. An autorun file starts.

Step2. Select the model installed on the system from the menu.

Step3. Double click the **Driver Demo Application** directory icon

Step4. The driver folder appears. Choose a driver installation file (.exe) that matches the capture card model and the system OS. Double click the file to start the driver installation.

NOTE:

To be able to install the driver and the IEI Video Capture Test Suite in a 64-bit operating system (such as Windows 7), please do the followings:

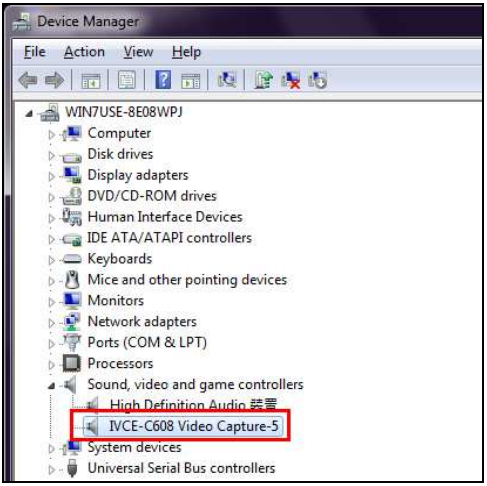
1. Login the system as “administrator” and run “ReallyDisableUAC-Win7.reg” from the driver CD. Then, restart the system.
2. When the system is booting, press **F8** to enter the Advanced Boot Options menu. Choose “**Disable Driver Signature Enforcement**” and press **Enter**.
3. Login the system as “administrator” and start to install the driver and application.

Step5. The following screen appears. Select components to install. Click the + button to expand the card ID option list. Select the video capture card ID to install the driver. Click the **INSTALL** button to continue the installation process.

Step6. If the following window appears, click **Continue Anyway** to install.

Step7. When the driver installation is complete, click CLOSE to finish and restart the computer.

Step8. Check the device manager in the Windows control panel to ensure the drivers have been properly installed.

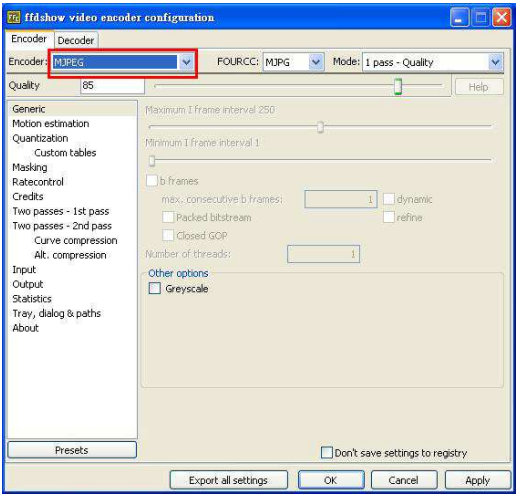


4.2 FFDShow Installation

Step1. Download the FFDShow video encoder from the Internet. Install the FFDShow in the system.

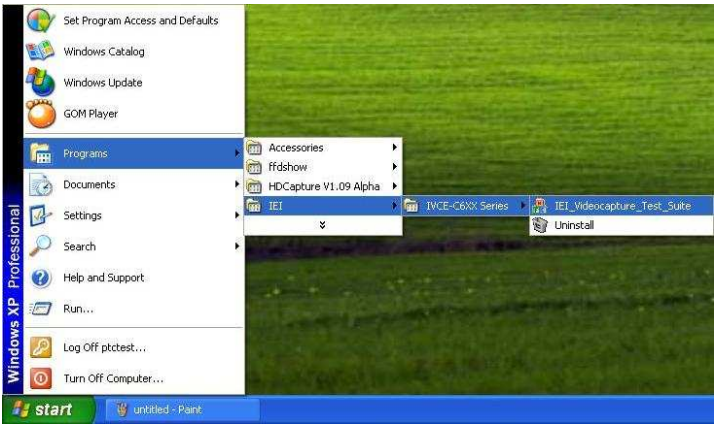
Step2. Launch the “FFDShow video encoder configuration” from the start menu. Start menu → ffdshow → VFW configuration.

Step3. The ffdshow video encoder configuration window appears. Select MJPEG encoder.

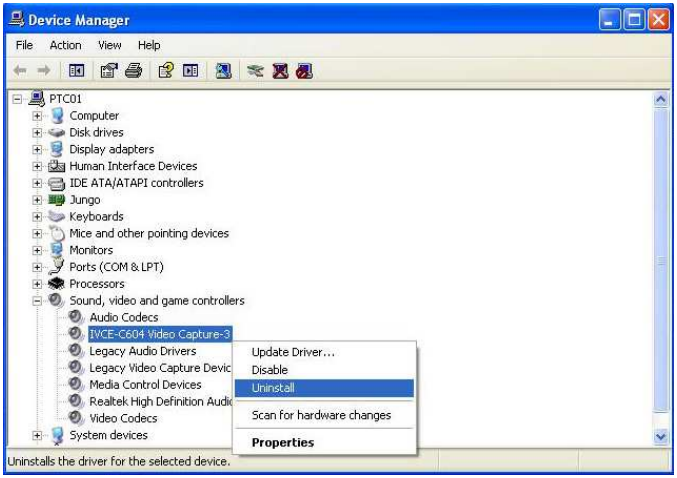


4.3 Uninstall Driver and Application

Step1. To uninstall the test suite, select **Uninstall** in the “IVCE-C6XX Series” folder from the start-up menu.



Step2. To uninstall the driver, right click the video capture card and select **Uninstall** in the Device Manager window as shown below.

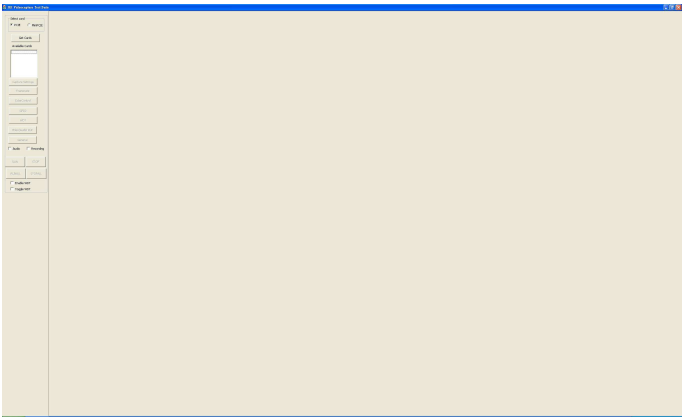


5. Video Capture Test Suit

5.1 Video Capture

To use the IEI Video Capture Test Suit to capture video, follow the steps below.

Step1. Launch the Test Suite by double clicking the desktop icon  . The following window appears. The setting buttons are on the left side panel of the interface.

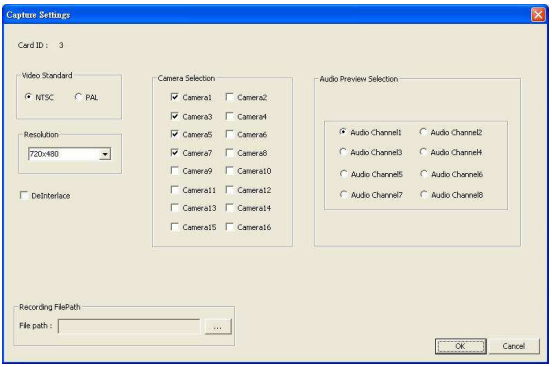


Step2. Select the capture card type: PCIE or MiniPCIE.

Step3. Click the **Get Cards** button. The capture cards connected to the system shows. Select one capture card from the list. The card number is corresponding to the card ID shown on the card, which is selected by the rotary switch.

Step4. Configure the capture settings by clicking the **Capture Settings** button.

Step5. The Capture Settings window appears.



Step6. Select a video standard (NTSC or PAL) and video resolutions.

Step7. Select camera channel(s) to capture the video from.

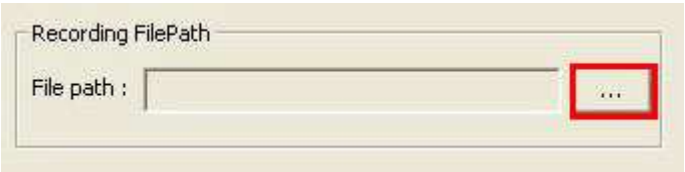
NOTE:

If the IVCE-C608 or IVCE-C604 capture card is used, select camera1, 3, 5, 7, 9, 11, 13 or 15 (as shown below).

If the IVCME-C604 capture card is used, select camera1, 2, 3 or 4 (as shown below).

Step8. Select one audio channel (1~8) for preview, which mean the user can hear the sound from the selected audio channel when capturing video and audio. However, if the user chooses to record the captured video (see Step11, all of the connected audio channels will be captured and saved in separate audio files (e.g., four audio files will be saved if four audio channels are connected).

Step9. To record and save the captured video (AVI format), choose a file path for saving the files in the Capture Settings window.



Step10. Click **OK** to save settings and exit the Capture Settings window.
Step11. In the main interface, check the Audio checkbox to capture audio. Check the Recording checkbox to record the video and save in AVI format.
Step12. Click the **RUN** button to start capturing videos. Click the **STOP** button to stop.
Step13. To capture all channels from multiple capture cards, click the RUNALL button on the test suite interface. Click the STOPALL button to stop capturing all channels.