PCI express video/audio capture card with four HDMI input channels,1920x1080@60p,and Hardware H.264 codec

HDC-304E Quick Installation Guide Version 1.0

Jan. 10, 2011

Package List

HDC-304E package includes the following items:

- 1 x HDC-304E video capture card
- 1 x HDMI output kit
- 1 x Utility CD (within manual)
- 1 x QIG (Quick Installation Guide)



Specifications

INTERFACE						
Video /Audio Input Channels	Four					
Video /Audio Input Type	HDMI					
Interface	PCI Express x1					
VIDEO PROCESS	SING					
Video Engine	H.264/AVC High Profile Level 4.2					
Resolution	1920 x 1080 60p/59.94p/50p 1920 x 1080 60i/59.94i/50i 1280 x 720 60p/59.94p/50p 720 x 576 50i 720 x 480 60i/59.94i					
SYSTEM REQUIF	REMENTS					
System	Windows: Microsoft Windows XP Service Pack2 (SP2) (32-bit version) Microsoft Windows 7 (32-bit) Microsoft DirectX 9.0c (32bit) Microsoft .NET Framework 2.0/3.0/3.5 (32-bit version) H.264 Codec (for example: ffdshow) Linux: Fedora 10 (Kernel 2.6.27)					
SOFTWARE SUP	SOFTWARE SUPPORT					
Device Driver Driver for Windows XP, Windows 7 (32-bit Linux Fedora 10						
SDK	SDK provided with demo program and sample source code Windows:Provide SDK and demo program with sample source code in C# Linux:Provide SDK and driver/demo program with sample source code in C					

Ordering Information

• <u>HDC-304E-R10</u> : PCI express video/audio capture card with four HDMI input channels,1920x1080@60p,and Hardware H.264 codec Hardware Connections & Illustration for Video Capture Card



Connections to the Video Source

HDMI Input Device Connect to the Video Capture Card.



Installing HDMI Output Kit

The HDC-304E contains a HDMI output kit. The HDMI output kit allows users to connect display.

1. Connect the HDMI output kit to HDC-304E board



2. Connect the HDMI cable (not included) from the HDMI output kit to the HDMI display.



Installation Procedures-Driver Installation

To install the HDC-304E driver, please follow the steps below: If the HDC-304E driver is already installed, please uninstall the driver first.

Step 1: Make sure to log in the system as the administrator.

- Step 2: Insert the driver CD.
- Step 3: Locate the "Driverinstaller.bat" file in the driver CD. Double click it.

The console window appears and start to install all drivers.

Step 4: If the following window appears, click Continue Anyway.



Step 5: The Device Driver Installation Wizard appears. Click Next to start.



Step 6: The driver starts to install.

Device Driver Installation Wizard
The drivers are now installing
Please wait while the drivers install. This may take some time to complete.
< Back Next > Cancel

Step 7: When the driver installation is complete.Click the "Finish" button to finish.



Step 8: Check the device manager in the Windows control panel to ensure the driver (MB86H55-REB PCI, HDC controller and WinDriver) has been properly installed.

🖳 Device Manager	
Eile Action View Help	
🖻 😁 IDE ATA/ATAPI controllers	
⊡… 興 Jungo	
WinDriver	
🕀 🦢 Keyboards	
⊕ · ```) Mice and other pointing devices	
🗄 🖳 😼 Monitors	
🔃 🕮 Network adapters	
🕀 👾 Rrocessors	
E- Sound, video and game controllers	
Legacy Audio Drivers	
MB86H55-REB PCI	
MB86H55-REB PCI	
SigmaTel High Definition Audio CODEC	
Wideo Codecs	
🕀 😼 System devices	-1
🔲 🕀 🖙 Universal Serial Bus controllers	

Uninstall Driver

To uninstall the driver, please follow the steps below.

Step 1: Make sure to log in the system as the administrator.

Step 2: Locate the "Driveruninstaller.bat" file in the driver CD. Double click it to uninstall the driver.

Step 3: The console window pop-up and all drivers will be uninstalled.



Installation of HDCapture Demo Program

To install the HDCapture demo program, please follow the steps below.

Step 1: Insert the driver CD.

Step 2: Locate the HDCapture_x86_Vxxxx.msi file in the driver CD. Double click the setup file to start the installation. The user can also download the latest setup file from IEI website.

Step 3: The HDCapture Setup Wizard welcome window appears. Click Next to start.



Step 4: Select a folder for HDCapture installation. Click Next to continue.



Step 5: The following screen appears. Click Next to confirm the installation.



Step 6: The system starts installing the HDCapture.

Step 7: When the HDCapture is successfully installed, the following window appears. Click Close to exit.



HDCapture Demo Program Video Capture

To use the HDCapture to capture video, follow the steps below. If the older version of the HDCapture is already installed, please uninstall it.

Step 1: Launch the HDCapture. The following window appears. The best resolution to view HDCapture is 1280 x 1024 or above.



Step 2: Click the Device # button. The Encoding window appears. Choose the video input format which depends on the video device. The video format selected here must be same with the HDMI input video format.

Step 3: Configure the encoding settings, including encoding file directory (click Ref button to choose the directory), rate control (CBR or VBR) and video encoding bitrate (must be in the range of video format).

Input Video format 1920×1080(53.94i) (6000kbps 24000kbps) 😁	→Video Input Forma
Output Route h064(0) mpg Ref Ref Ref CBR GOUD GOUD GOUD GOUD GOUD GOUD GOUD GOUD	Where to Save the Output File Video Output Bitrate (must be in the range of video input format Rate Control (CBR or VBR)

Step 4: To preview a video, please check the Preview check box of the video

Step 5: Click Start to start capture the video. Click Stop to stop capture.



HDCapture Demo Program Video Decoding

The HDCapture includes decoding function that decodes the video signal for video output to the HDMI-enabled display device. To decode a captured video clip, follow the steps below.

Step 1: Launch the HDCapture.

Step 2: Bring up the Decoding page by clicking one of the Device # buttons. Click the Decoding tab to access the decoding page.

Step 3: Click Ref button to locate a video file in the computer to decode.

Step 4: Select the video format of the selected video clip. The video format selected here must be the same with the video format of the file selected in the previous step.

Encoding Dec	coding			×	
Input Route h264 Video format	(0) mpg [1920x1080(59.94i)		Ref	Lu tc T th fc m w o	ocate a video file o decode he video format of le video. (The video ormat selected herce ust be the same ith the video forma f the selected file)
				tr fc m w o	le video. (The vid ormat selected he just be the same ith the video form f the selected file

Step 5: Close the window to save the settings.

Step 6: Select the transmitter bus from 4 to 7 . For example, when the Device0 button is selected to decode the encoded file, please select 4 from

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the device4 (transmitter bus) drop-down menu to display the video on HDMI display device by output kit. Please refer to the following table:

Device Port	Device 4(Transmitter Bus) setting
Device0	4
Device1	5
Device2	6
Device3	7

Device Setting					
Device Info.	Video Source	Capture Preview	Setting	Operation	
Slot: 2, PCI bus 3, device 0, function 0	0 💌		Device 0	Start St	op Reboot
Slot: 2, PCI bus 3, device 1, function 0	_		Device 1	Start St	op Reboot
Slot: 2, PCI bus 3, device 2, function 0	~		Device 2	Start St	op Reboot
Slot: 2, PCI bus 3, device 3, function 0	_		Device 3	Start St	op Reboot
Slot: 2, PCI bus 3, device 4, function 0	0 0 1 2 3 4 5 6 7				

Step 7: Click Operation Start to start decoding the selected video.

Uninstall the HDCapture demo program

To uninstall the HDCapture, follow the steps below.

Step 1: Select Control Panel \rightarrow Add/Remove Programs.

Step 2: Select HDCapture and click the Remove button to uninstall the HDCapture.

🐞 Add or Rer	nove Programs			_ 🗆 ×
	Currently installed programs:	Show up <u>d</u> ates	Sort by: Name	
Remove Programs	HDCapture V1.01 Click here for support information.		Size Used	4.04MB
Add <u>N</u> ew	To change this program or remove it from your compute	r, click Change or Remove.	Last Used On Change	12/27/2010 Remove
	弱 High Definition Audio Driver Package - KB835221 ■ Intel(R) PRO Network Connections Drivers			
Add/Remove Windows	Net Microsoft .NET Compact Framework 1.0 SP3 Developer		Size	9.87MB
Components	Microsoft .NET Compact Framework 2.0		Size	59.27MB
Cot Decayor	Microsoft .NET Framework 3.0 Service Pack 2		Size	169.00MB
Access and Defaults	🔀 Microsoft .NET Framework 3.5 SP1		Size	28.15MB
	Microsoft Device Emulator version 1.0 - ENU		Size	1.38MB
	调 Microsoft Document Explorer 2005		Size	26.61MB

HDC-304E Hardware Diagrams



(Unit:mm)