DS-4304HDI-E
Audio/Video Decoding Card
User Manual

Version 6.3
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Model

DS-4304HDI-E

Notices

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Chapter 1 Product Description

1.1. Product Description

HIKVISION DS-4304HDI-E decoding card supports up to 5.0 Megapixel video decoding under various stream packet formats and encoding standards, and outputs decoded video/audio data through universal HDMI interfaces, while separate BNC audio output interfaces are provided at the same time. The card can be plugged onto a PC motherboard and construct a PC-based decoding system together with management software, and meets different requirements of surveillance applications consequently.

Order Model
DS-4304HDI-E

Product Snapshot
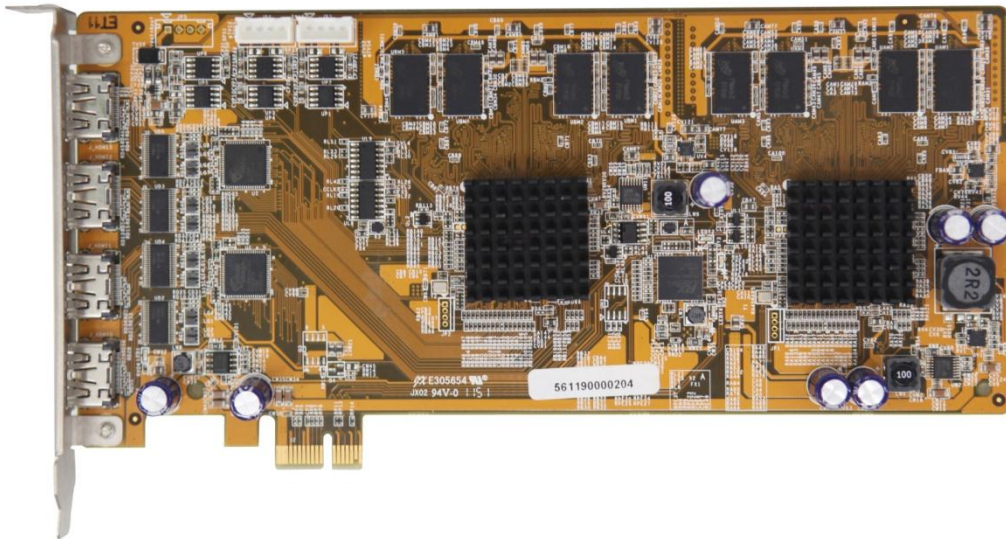
1.2. Technical Specification

Model	DS-4304HDI-E
Supported Video Encoding	MPEG-4, H.264
Video Decoding Resolution	2-ch 5.0 Megapixel (2560 x 1920) 4-ch 1080P 8-ch 720P 16-ch 4CIF
Video Output Interface	4 HDMI video & audio composite output
Video Output Resolution	1920 × 1080 / 60Hz (1080P @ 60) 1920 × 1080 / 50Hz (1080P @ 50） 1280 × 720 / 50Hz (720P @ 50) 1280 × 720 / 60Hz (720P @ 60) 1280 × 960 / 60Hz 1024 × 768 / 60Hz
Supported Audio Encoding Standard	OggVorbis, G-711, MPEG1 Layer 2
Audio Output	4 BNC (2.0 Vp-p, 1kΩ, volume adjusting range: 83dB), mono (or output via HDMI composite outputs)
PCI Standard	PCI-E x 1 2.0
Dimensions (mm)	213 × 93
Power Consumption	< 13.5 w

1.3. Product Features

- PCI Express interface
- Up to 4 DS-4304HDI-E card per PC
- Up to 5.0 Megapixel decoding
- Multiple input stream packet format
- Multiple input video standards
- Multiple input audio standards
- Various output resolution
- Up to 16 screen-split display for each HDMI output
- Query of supported resolution via SDK API
- Low power consumption and high stability

Chapter 2 Product Performance

- **DS-4304HDI-E**
  2-ch 5.0 Megapixel (2560 x 1920) decoding, or
  4-ch 1080P decoding, or
  8-ch 720P decoding, or
  16-ch 4CIF decoding

  HDMI output, up to 4 x 4 screen-split with configurable output resolution of:
  1920 × 1080 / 60Hz (1080P @ 60)
  1920 × 1080 / 50Hz (1080P @ 50）
  1280 × 720 / 50Hz (720P @ 50)
  1280 × 720 / 60Hz (720P @ 60)
  1280 × 960 / 60Hz
  1024 × 768 / 60Hz

Notice
1. All the performance testing is done under normal office scene with color camera input, and the recording performance may differ according to the surveillance scene.

2. Please kindly refer to http://www.hikvision.com or contact HIKVISION technical support for the latest updates of card performance.

3. Performance may be slightly different according to the card number and PC HD read/write efficiency.

# Chapter 3 Compatible Software/ Hardware Configuration

3.1. Operating System

It is suggested to use Windows 2000 Pro + SP4, Windows XP + SP2, Widows Vista, Windows 7 or Windows Server 2008 Operating System installed with DirectX version 8.1 or higher version. Card driver and SDK compatible with Linux OS will be released very soon.

For Windows 2003 OS, please kindly follow the operation steps below.

1. Right click on Windows Desktop-> Select "Properties" ->Settings-> Advanced->Troubleshoot->and drag "Hardware Acceleration" to "Full".
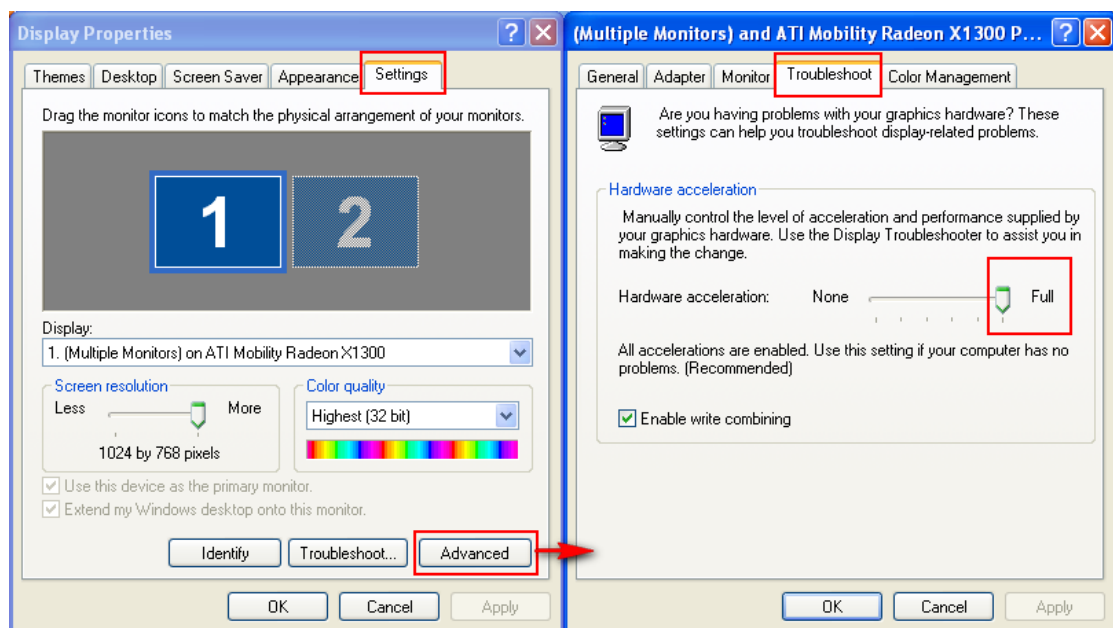
2. Click "Start"-> "Run" of Windows task bar, input "dxdiag" and enter DirectX diagnosing program. Please check if DirectX version is above 8.1. If yes, please kindly refer to step 3; if not, please upgrade it to version higher than 8.1 first.
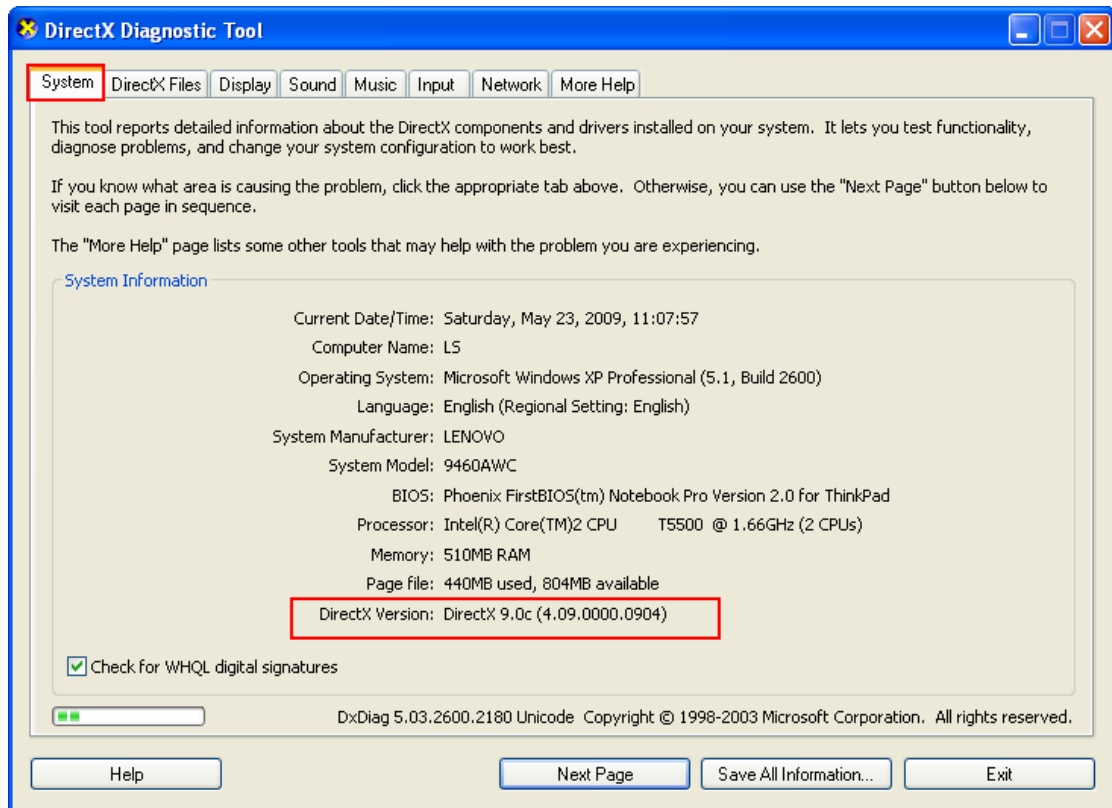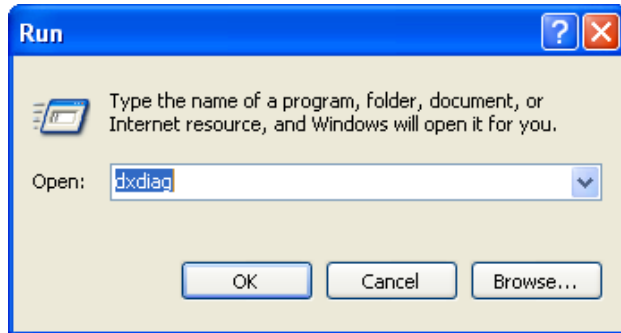
3.   Enable "DirectDraw" and "Direct3D" options in the "Display" column.
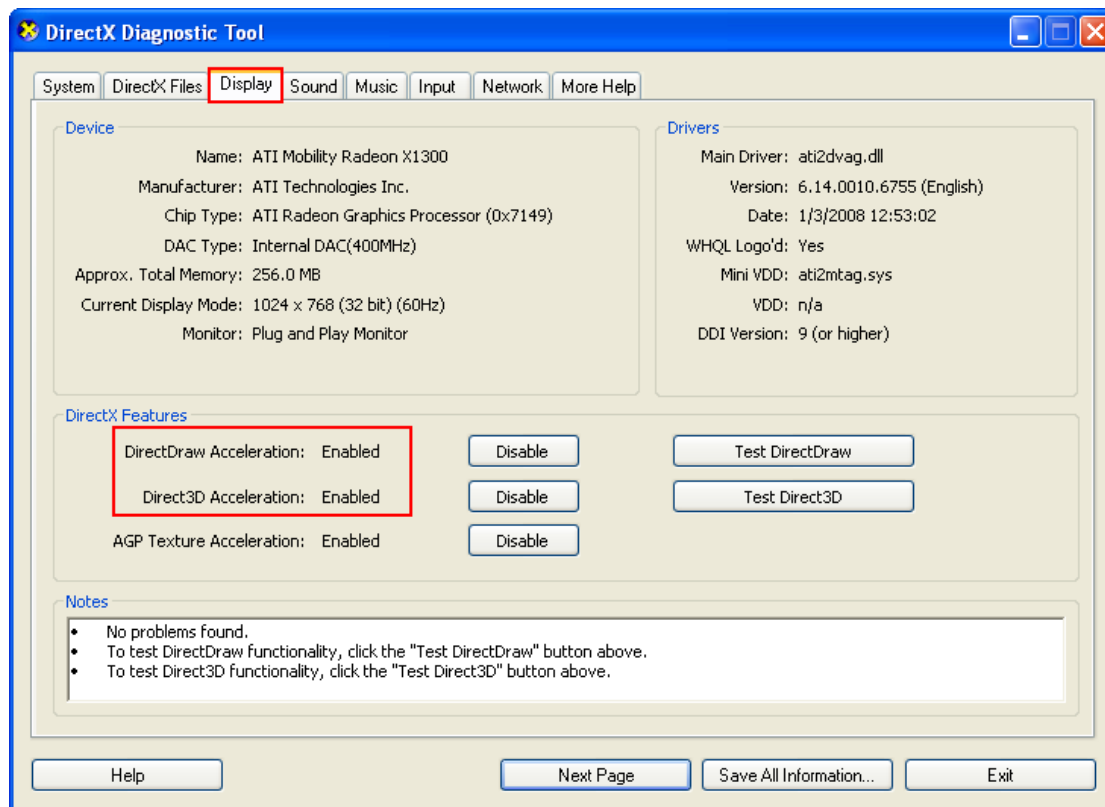
3.2. CPU and Motherboard

It is suggested to use motherboard with Intel Core2, Core4, i3, i5 or i7 CPU.

And it is suggested to use motherboard from reliable manufactures such as Intel, Asus, Gigabyte, Microstar, etc.

Tested motherboard models compatible with DS-43xx series card are listed as following.

ASUS P8H61

ASUS P8P67 LE

ECS H67H2-M

ASUS P8H61 PLUS

Etc.

Note:

Please refer to HIKVISION website (http://www.hikvision.com) for up-to-date hardware compatibility information under 'Support > FAQ'

3.3. System Memory

≥1G

Note:

Larger memory size is required when the card number installed in the PC increases.

3.4. Display Adapter

To support high resolution live view/ record function of the card, it is suggested to use a high performance display adapter. Please kindly refer to the list below for tested models of compatible display adapters. Please notice that the driver of these display adapters must support BLT function.

Nvidia GeForce GTX 560
AMD Radeon HD 6700 / Radon HD 6900
ATI Radeon HD 4800 / Radeon X1600 Pro / Radeon HD3450
Nvidia GeForce GTS 250 / GeForce GTS 450
GeForce 8600GT
Sapphire HD6950
Yeston R2400PRO-HM256GD3

3.5. Power Supply

≥400W

Chapter 4 Driver Installation

To install the card to your PC, please kindly follow these steps below:

1. Insert the card into an empty PCI-E slot.
2. Turn on the PC and start Windows.
3. Windows Hardware Wizard detects the card and is populated automatically. Please ignore the wizard window.
4. Locate to the folder of DS-43xx Driver, and run "Driver Install.exe". The Driver Install dialog box will be displayed on screen.

5. Click "Install or Update Driver" to install/update the driver, and a Windows dialog box will be displayed on screen.
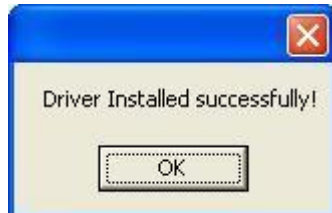

6. Click "Continue Anyway" to continue the hardware installation.

Note:

If there is more than 1 card installed in the PC or more than 1 DSP in one card, users may need to repeat step 5 & Step 6.

7. When the installation is done, this message will appear: Driver Installed Successfully!

8. After "Driver install success" message popup during driver installation, there will be "Hikvision DS43xx Series" displayed in the list "Sound, Video and Game Controller" of Windows Device Manager as below. The total number of this item is equal to the total DSP number on the cards installed inside the PC.
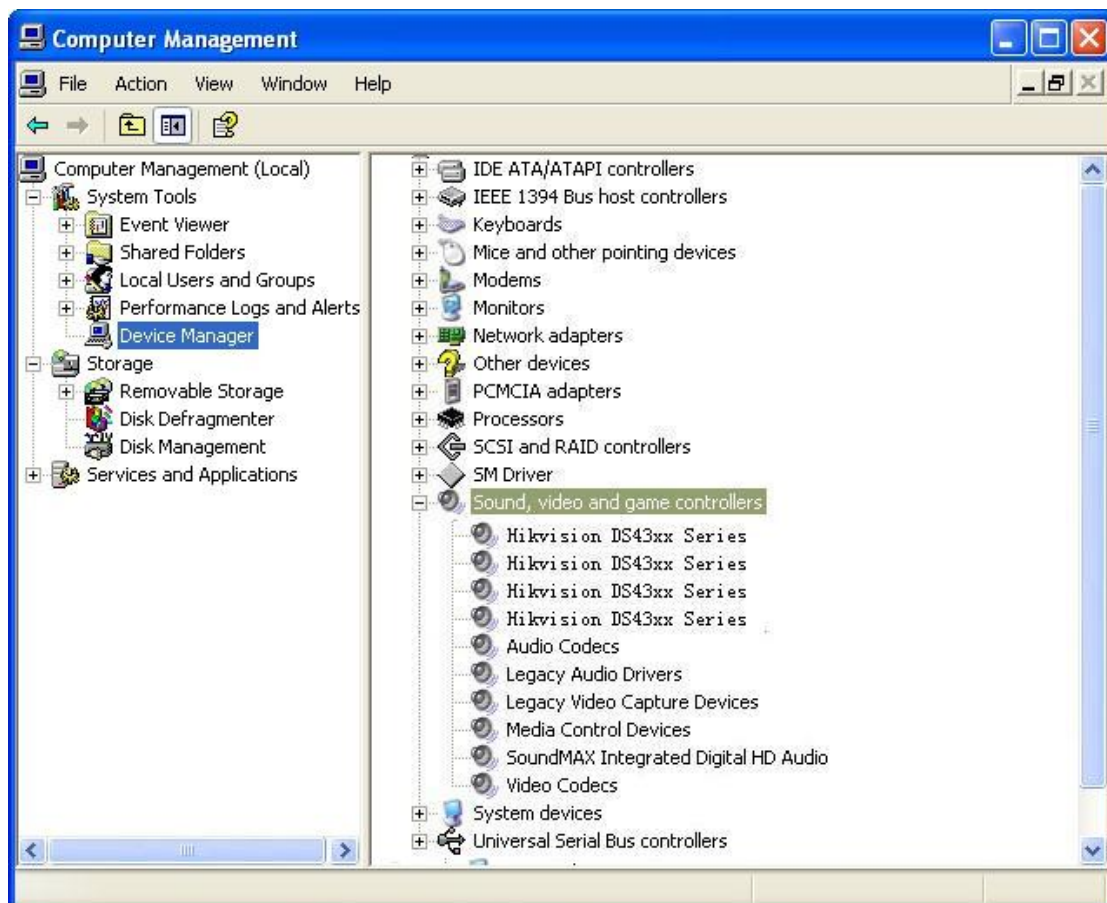
Chapter 5 Cable Connection & Pin Definition

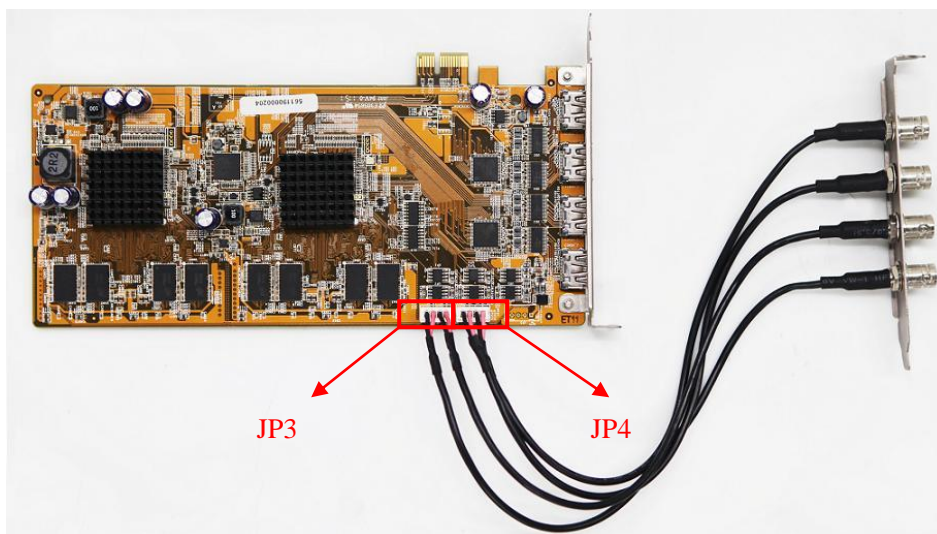## 5.1. DS-4304HDI-E Accessories and Connection

Each DS-4304HDI-E card is with 4 HDMI video& audio composite output and 4 additional BNC audio output that can be separately connected from the JP3 & JP4 on-board connector via an adaptor cable.

HDMI 4   HDMI 3   HDMI 2   HDMI 1

HDMI Output Interfaces

Adapter for Audio Input

JP3   JP4

Connection of Audio Adaptor