

AS3200V2

Hardware Manual



Manual History

Date	Revision
December 3, 2003	First Edition
April 2, 2004	H/W Ver.2.00 Revision

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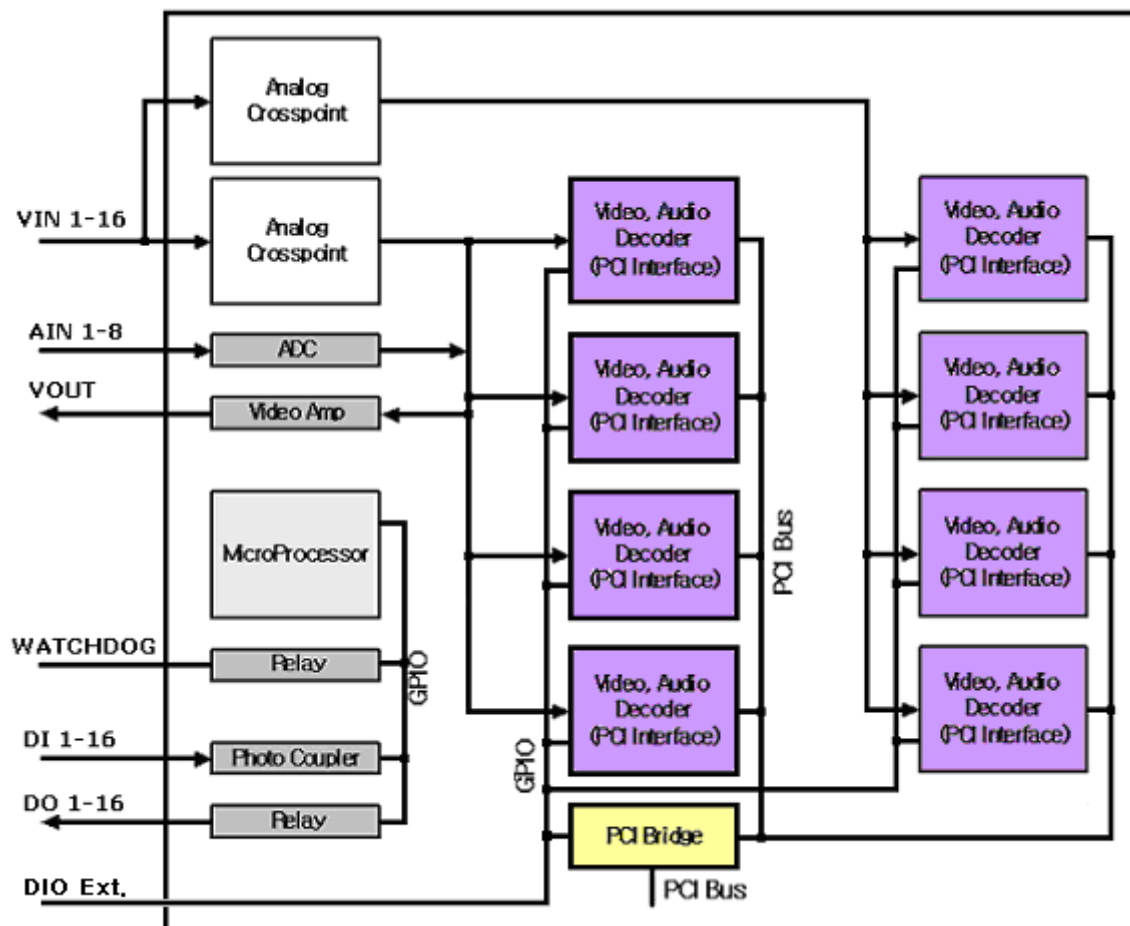
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1. Product Overview

1.1 Overview

AS3200V2 is a video capture card for PC based DVR and supports audio capture, digital input, digital output, and watchdog function as well as video capture. Video/audio data which is input through AS3200V2 is uncompressed raw data of which compression and recording should be done by software on PC.

1.2 Block Diagram



2. Functional Description

2.1 Video

- Video Input

- Number of Channel: 16
Input : Color Camera (NTSC, PAL), Black and White Camera
- Connections : 15pin DSUB Cable 2EA, 40pin connector(used to connect to real-time display card)
- Recommended Signal Range: 0.5V ~ 2V (p-p)

- Video Capture

Classification	NTSC	PAL
Capture Resolution	640*480, 640*240, 320*240, 240*160, 160*120	768*576, 768*288, 720*576, 720*288, 640*480, 640*240, 384*288, 360*288, 320*240
Capture Rate	Max 240 FPS	Max 200 FPS
Capture Rate per Channel	15 FPS ~ 30 FPS	12.5 FPS ~ 25 FPS

- Video Output

- Number of channel : 1(channel selection possible, controlled by software)
- Connection : RCA Jack or Molex 2Pin Connector

2.2 Audio

- Audio Input, Capture

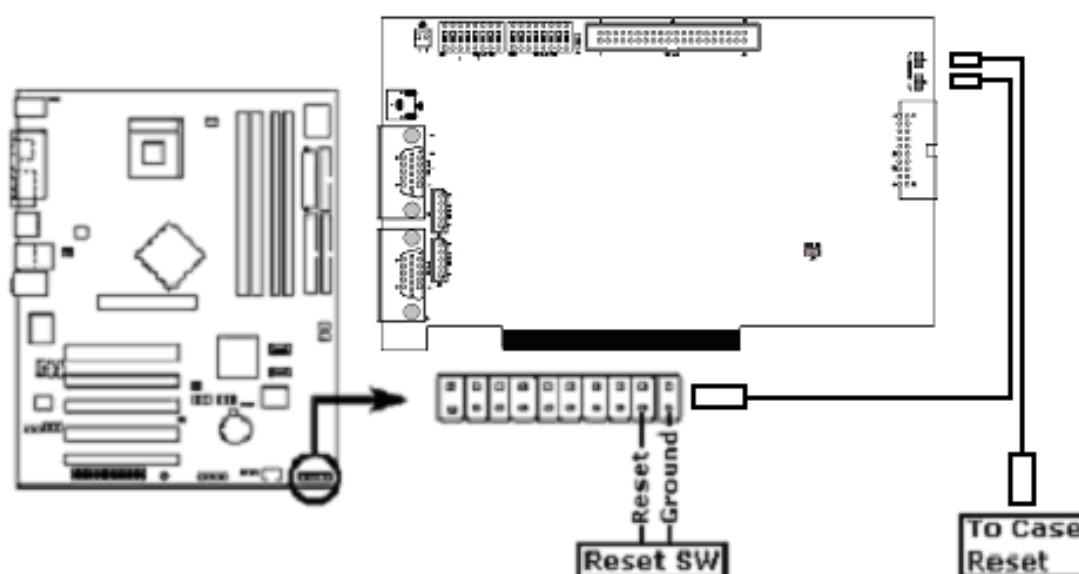
- Number of Channel : 8
- Input Type : Microphone, Line(mono)
- Recommended Signal Range : 1V(p-p)
- Sampling Quality
 - ▶ 8, 16bit/sample (A/D Convert Sampling)
 - ▶ 4, 8, 16, 32 kHz Sampling

2.3 Watchdog

Watchdog works by relay switch and two connectors (J1, J2) are respectively a 2pin pinheader. J1 and J2 physically do the same operation; one is connected to reset connector of mother board and the other to reset connector of the case. Or the vice versa.

The interval of watchdog operation is set by software.

2.3.1 Watchdog Connector Connection Diagram

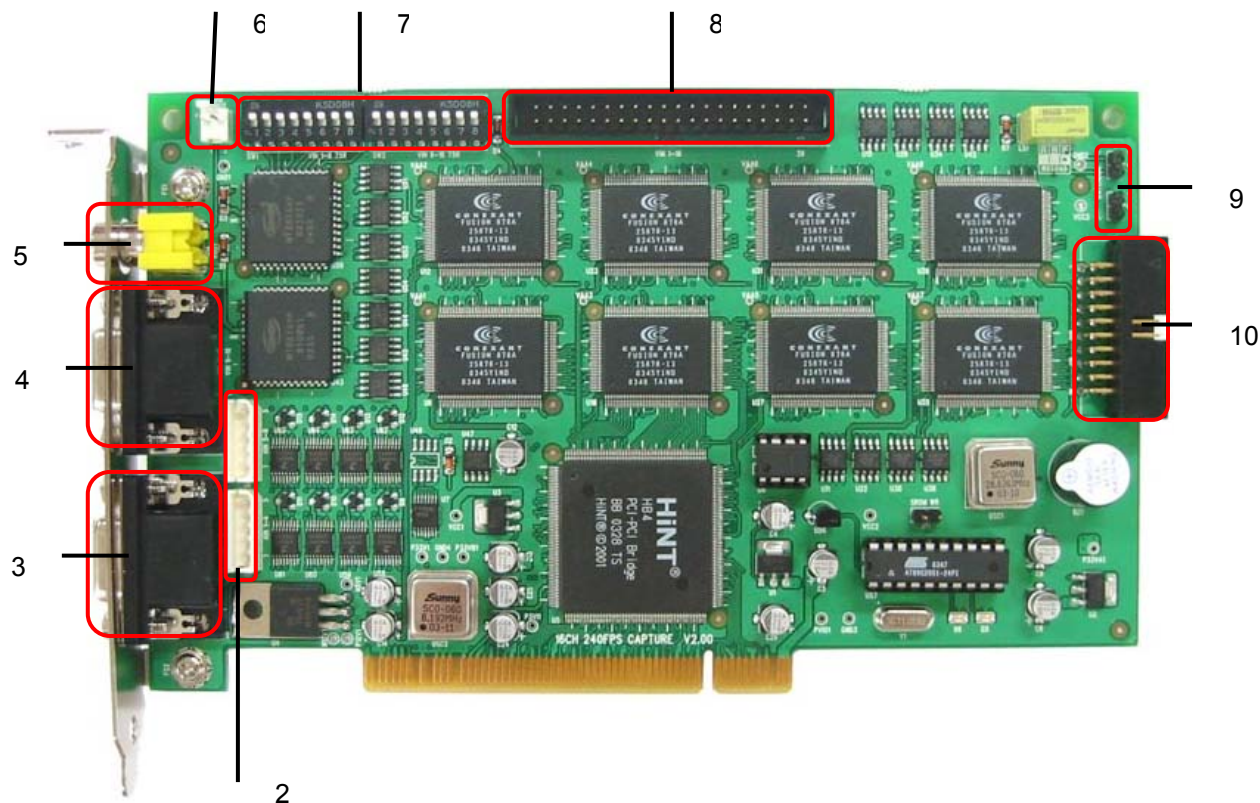


2.4 Etc.

- PCB : 4-Layer, PCI

3. Hardware Installation

3.1 AS3200V2 Components

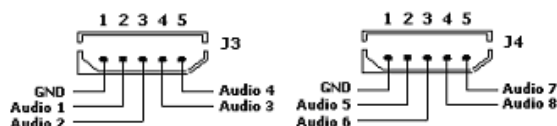


- 2. AIN 1-8(J3, J4) : 5Pin Molex Box Connector x 2 for Audio Signal
- 3. VIN 1-8(J6) : DSUB-15 Female Connector
- 4. VIN 9-16(J8) : DSUB-15 Female Connector
- 5. VOUT(J14) : External Video Out RCA Jack
- 6. VOUT(J12) : External Video Out Molex 2Pin Connector
- 7. SW1, SW2 : 16Pin DIP Switch x 2
- 8. VIN 1-16(J5) : 40Pin Box Connector for Video Signal
- 9. WATCHDOG(J1, J2) : 2Pin Pinheader x 2
- 10. DIO (J15) : 20Pin Box Connector

3.2 Capture Card Component Description

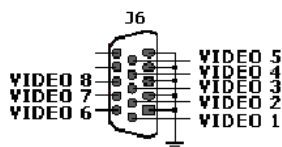
2 AIN 1-8 5Pin Molex Box Connector(J3, J4)

This is a connector for Audio Input 1-8 and connected to J2 and J3 of **AudExt3 Card. (AudExt3 Card is option.)**



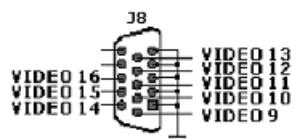
3 VIN 1-8 DSUB-15 Female Connector(J6)

This is a video input connector. Connect this to camera output port with the provided DSUB cable.



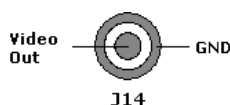
4 VIN 9-16 DSUB-15 Female Connector(J8)

This is a video input connector. Connect this to camera output port with the provided DSUB cable.



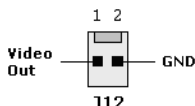
5 VOUT RCA Jack(J14)

This is a RCA jack for external video out. This is connected to Video In of TV monitor.



6 VOUT Molex 2Pin Connector(J12)

This is a video out Molex 2Pin connector.



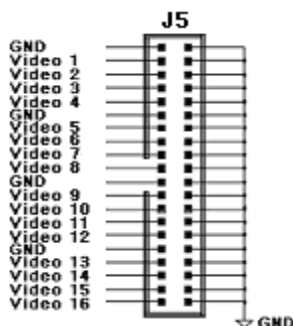
7 Terminal Register 16Pin DIP Switch(SW1, SW2)

This switch is used to choose termination resistor (75Ω) in VIN1-8(SW1) and VIN9-16(SW2). Please set the switch 'ON' to set to the termination resistor.



8 VIN 1-16 40Pin Box Connector(J5)

This is a video signal input connector. It is connected to the VIN1-16 connector of real-time display card when user uses the real-time display card with AS3200V2. To prevent misconnection, the connector was grooved.



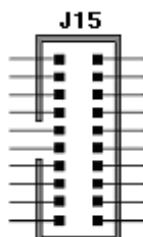
9 WATCHDOG 2Pin Pinheader * 2(J1, J2)

Two watchdog 2pin pinheaders are respectively connected to reset connector of mother board and reset connector of system case. The pin has no polarity.

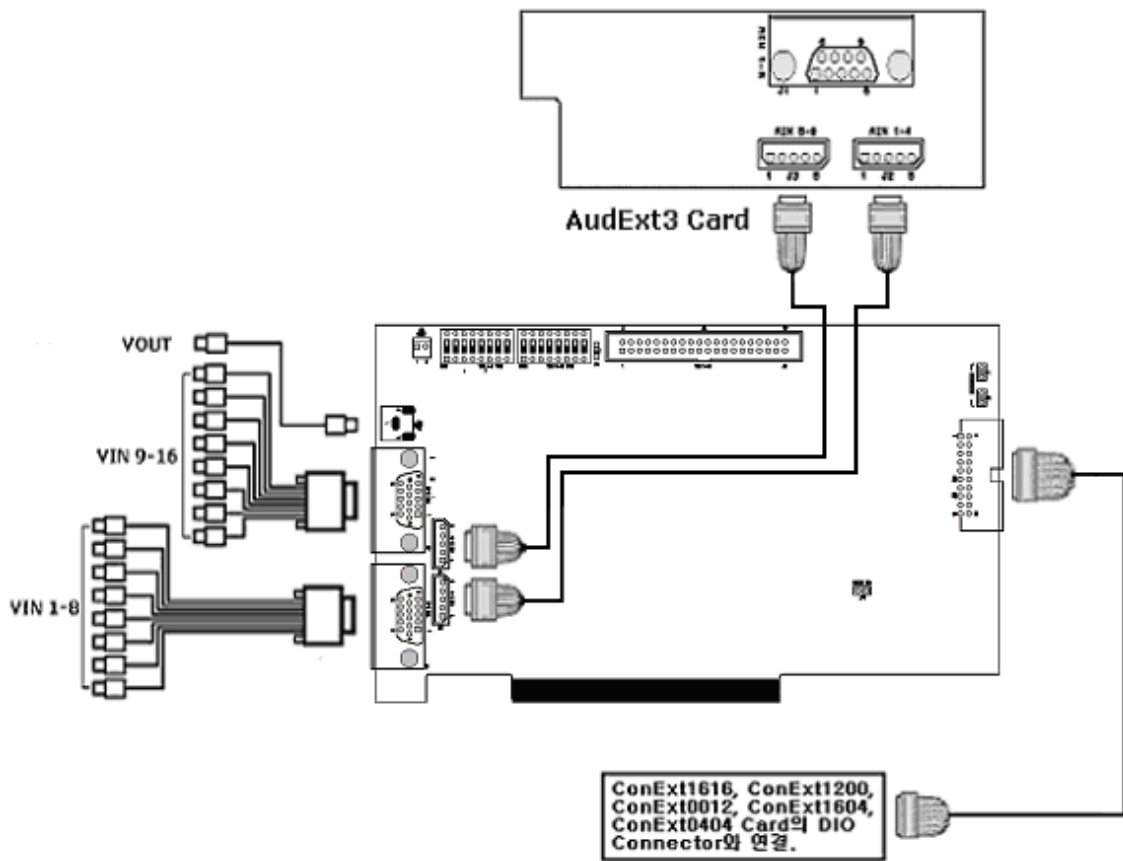


10 DIO 20Pin Box Connector(J15)

This connector is used to test DI/DO and connected to extension card. (Please refer to Extension Card Manual for more details.)



3.3 Connection with Peripheral



4. Electrical Specifications

4.1 Recommended Operating Conditions

Parameter		Min	Typ		
Power supply +5V		4.75	5	5.25	V
Power supply +12V		11	12	13	V
Power supply -12V		-11	-12	-13	V
Video Input Range	Peak to Peak Amplitude	0.5	1	2	V
	Sync Amplitude	143	286	572	mV
	Horizontal Lock Range	-	-	±7	% of Line Length
	Color Sub-carrier Lock-in Range	-	-	±800	Hz
Audio Input Range		0.01	2.593	3.3	V _{P-P}
Ambient Operating Temperature		0		65	°C
Ambient Operating Humidity		0		90	%

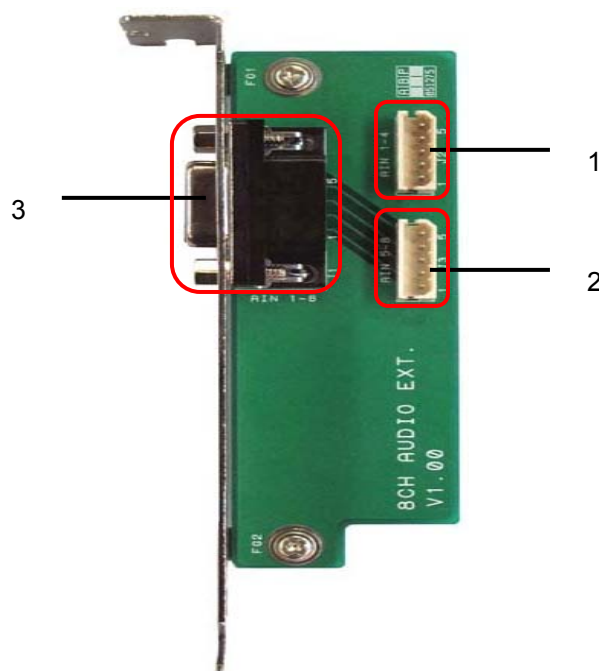
4.2 Power Supply Current Requirements

Parameter	Max	Units
Power supply +5V	2047	mA
Power supply -12V	52	mA

5. Option Card

5.1 AudExt3 Card

5.1.1 AudExt3 Card Picture



5.1.2 AudExt3 Card Components

1 AIN 1-4 5Pin Molex Box Connector(J2)

This is used to transfer the input CH. 1 to 4 audio signals to AS3200V2.

2 AIN 5-8 5Pin Molex Box Connector(J3)

This is used to transfer the input CH. 5 to 8 audio signals to AS3200V2.

3 AIN 1-8

This is used to input audio signals from external. Connect it with 9pin DSUB to 8RCA cable.

6. AS3200V2 Installation Guide

Components

- AS3200V2 Capture Card
- 2PIN Cable (For Watchdog)

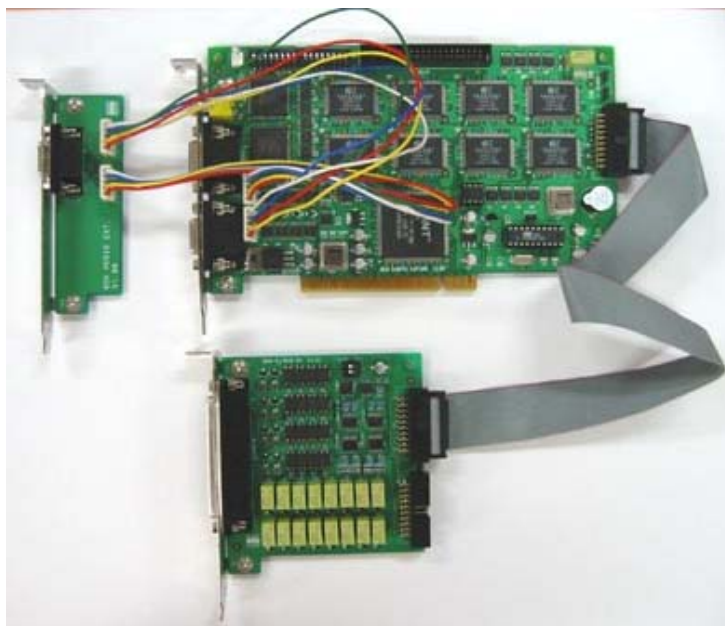
Option Components

- AudExt3 Card
- ConExt1616 Card
- ConExt1200 Card
- ConExt0012 Card
- ConExt1604 Card
- ConExt0404 Card
- PTZExt2 Card

Option Components are optional. User can select DI/DO extension cards among the above. Cables are provided with the selected DI/DO ext cards.

Hardware Installation

(1) As the below, connect AS3200V2 Capture Card to AudExt3 and ConExt1616.



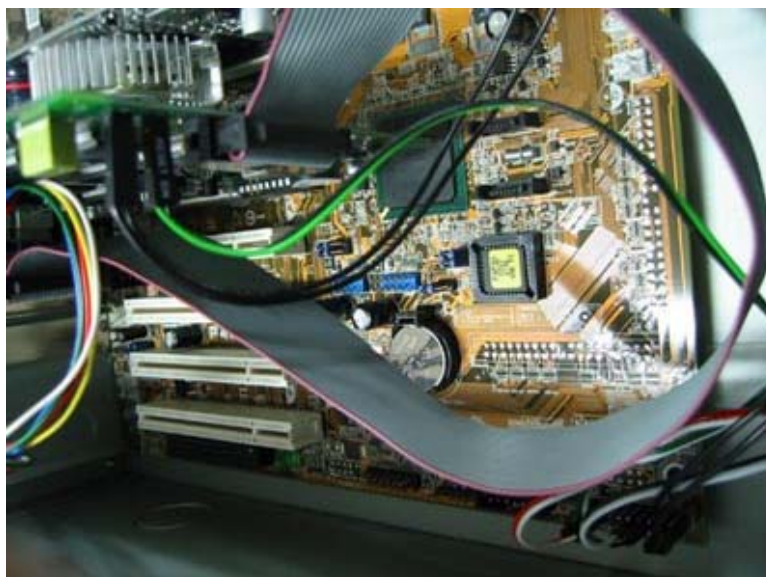
<AudExt3 and ConExt1616 Connected to AS3200V2>

- (2) Insert AS3200V2 vertically into PCI slot from one side to the other and then insert AudExt3 and ConExt1616 in the same way. Check if the cards were well inserted into PCI slot.



<AS3200V2, AudExt3 and ConExt1616 Inserted into PCI Slot>

- (3) Connect a pin of watchdog 2pin connector of AS3200V2 to the reset switch of mother board by 2pin cable. And then connect the other pin of watchdog 2pin connector to the reset cable of PC case. Hardware installation of capture card finished.



<Watchdog Pin Connected to Reset Pin of Mother Board>

III. Cable Connection

(1) DSUB 15PIN Cable

DSUB 15PIN cable is used for video input (J6, J8) of AS3200V2 capture card.
Connect it as the below picture.

VIN1~VIN8 Terminal(J6)

-Video In 1~8 Channel

VIN9~VIN16 Terminal(J8)

-Video In 9~16 Channel

(2) External Monitor Output Terminal (J14)

External monitor output port (RCA jack) is connected to external monitor.

Note

The video input port of DSUB 15pin is BNC type. To use RCA type, use a BNC to RCA Converter.