

AS100V2

Hardware Manual



Manual History

Date	Revision
December 3, 2003	First edition
April 6, 2004	H/W Ver.2.00 Revision

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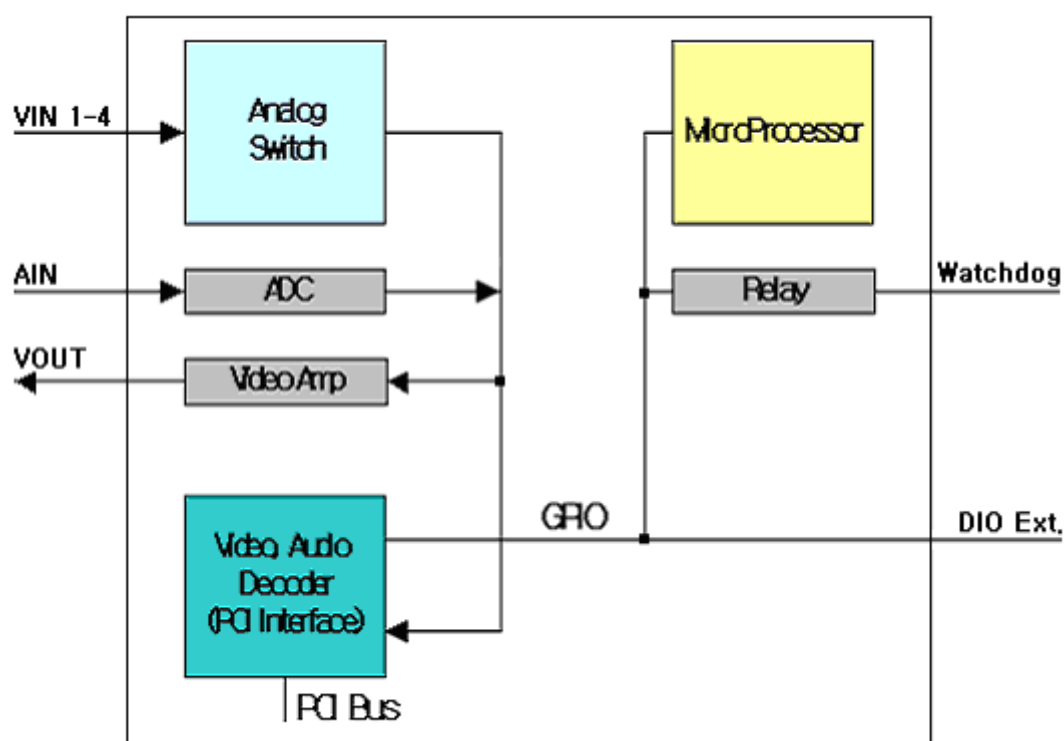
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1. Product Overview

1.1 Overview

AS100V2(BNC) 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 AS100V2(BNC) 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: 4
Input : color camera (PAL, NTSC), black and white camera
- Connections : video signal RCA jack 4
- Recommended signal range : 0.5V ~ 2V (p-p)

- Video Capture

Classification	NTSC	PAL
Capture Resolution	640*480, 640*240, 320*240	768*576, 768*288, 720*576, 720*288, 640*480, 640*240, 384*288, 360*288, 320*240
Capture Rate	Max 30FPS	Max 25 FPS
Capture Rate per Channel	7.5 FPS ~ 30 FPS	6.25 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

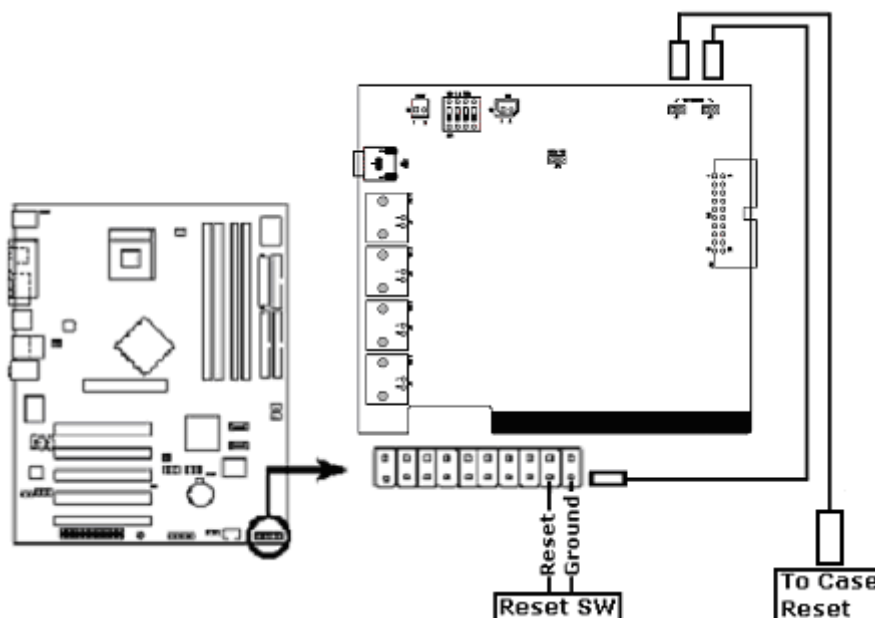
- Number of channel : 1
- Input type : microphone, line(mono)
- Recommended signal range : 1V (p-p)
- Sampling Quality
 - ▶ 8, 16bit/sample (A/D Convert Sampling)
 - ▶ 4, 8, 16, 32 kHz Sampling

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 the 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

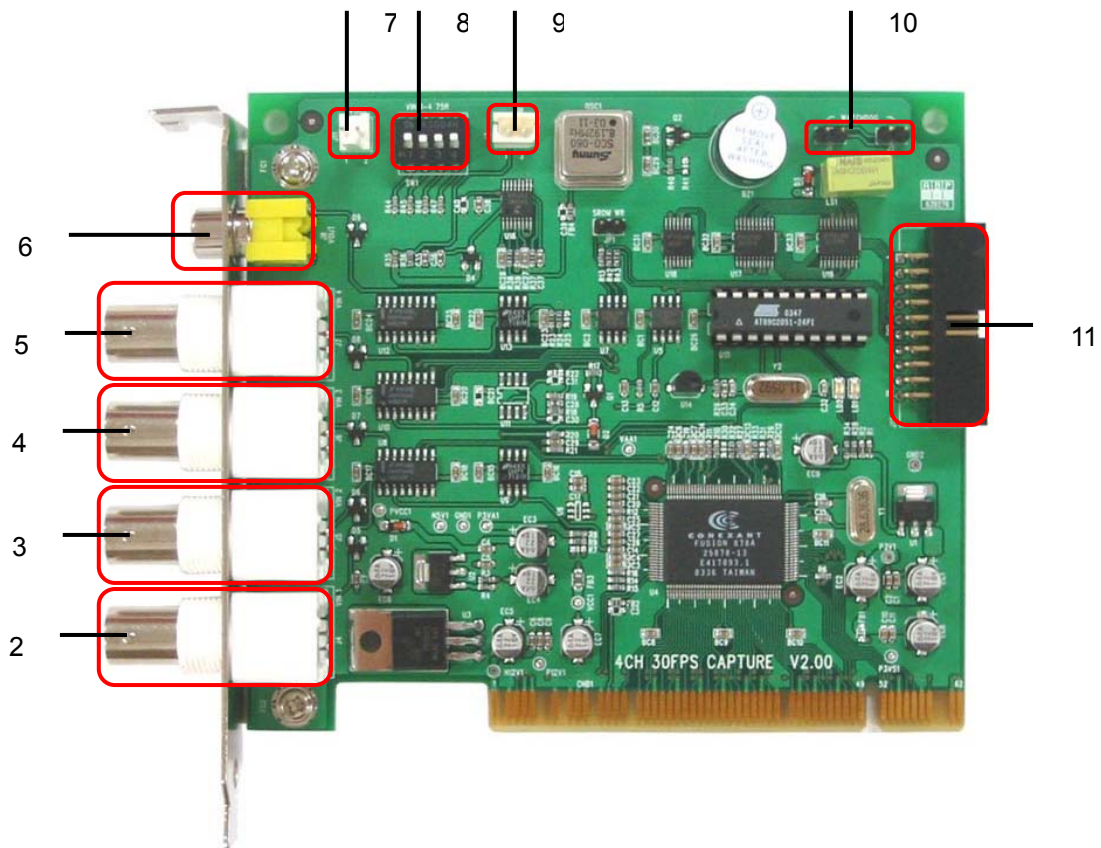


2.4 ETC.

- PCB : 4-Layer, PCI

3. Hardware Installation

3.1 AS100V2(BNC) Components

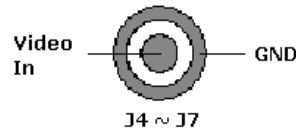


- 2. VIN 1 (J4) : External Video In BNC Jack
- 3. VIN 2 (J5) : External Video In BNC Jack
- 4. VIN 3 (J6) : External Video In BNC Jack
- 5. VIN 4 (J7) : External Video In BNC Jack
- 6. VOUT(J8) : External Video Out RCA Jack
- 7. VOUT(J11) : External Video Out Molex 2Pin Connector
- 8. SW1 : 8Pin DIP Switch
- 9. AIN(J3) : 2Pin Molex Box Connector for Audio Signal
- 10. WATCHDOG(J1, J2) : 2Pin Pinheader x 2
- 11. DIO(J12) : 20Pin Box Connector

3.2 Capture Card Component Description

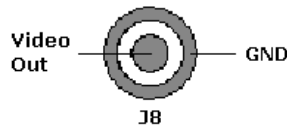
2 - 5 VIN 1-4 BNC Jack (J4) ~ (J7)

This is a BNC Jack for Video Input and connected to camera output terminal.



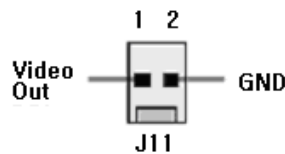
6 VOUT RCA Jack(J8)

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



7 VOUT Molex 2Pin Connector(J11)

This is a Video Out Molex 2Pin Connector.



8 Termination Register(75Ω) 8Pin DIP Switch(SW1)

This switch is used to choose termination resistor (75Ω) in VIN1-4(SW1).

Please set the switch 'ON' to choose the termination resistor.



9 AIN 2Pin Molex Box Connector(J3)

This is a connector for audio input.



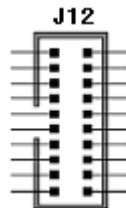
10 WATCHDOG 2Pin Pinheader x 2(J1, J2)

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

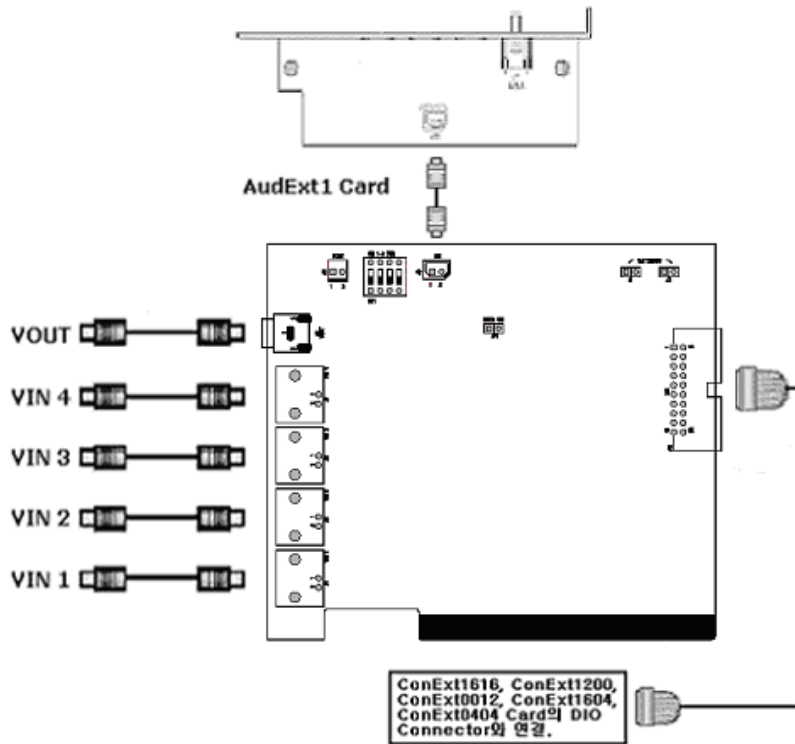


11 DIO 20Pin Box Connector(J12)

This connector is used to test DI/DO, which is connected to extension cards. (Please refer to 'Extension Card Manual.')



3.3 How to Connect to Peripherals



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	%

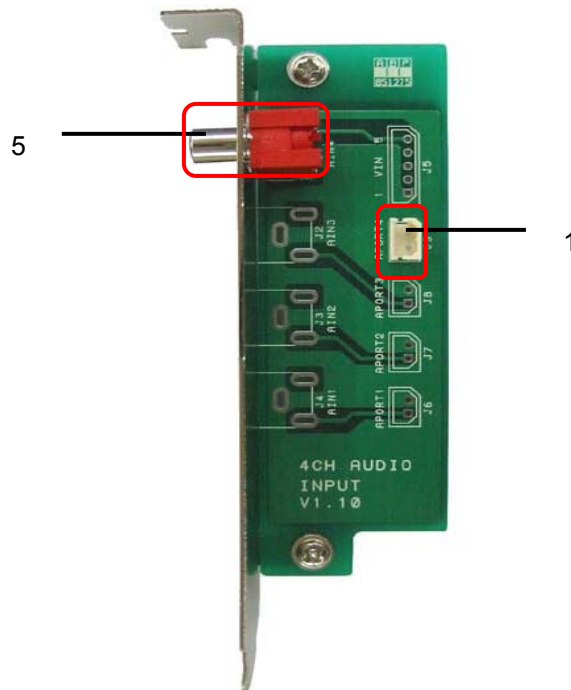
4.2 Power Supply Current Requirements

Parameter	Max	Units
Power supply +5V	229	mA
Power supply -12V	16	mA

5. Option Card

5.1 AudExt1 Card

5.1.1 AudExt1 Card Picture



5.1.2 AudExt1 Card Component

1 AIN 2Pin Molex Box Connector(J9)

This connector is used to transfer the input CH1 audio signals to capture card.

2 AIN RCA Jack(J1)

This connector is used to input audio signals from external and connected by RCA Jack.

6. AS100V2(BNC) Installation Guide

Components

- AS100V2(BNC) Capture Card
- 2PIN Cable (For Watchdog)

Option Components

- AudExt1 Card
- ConExt1616 Card
- ConExt1200 Card
- ConExt0012 Card
- ConExt1604 Card
- ConExt0404 Card
- PTZExt2 Card

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

Hardware Installation

- (1) As the below, connect AS100V2(BNC) Card to AudExt1 and ConExt1616.



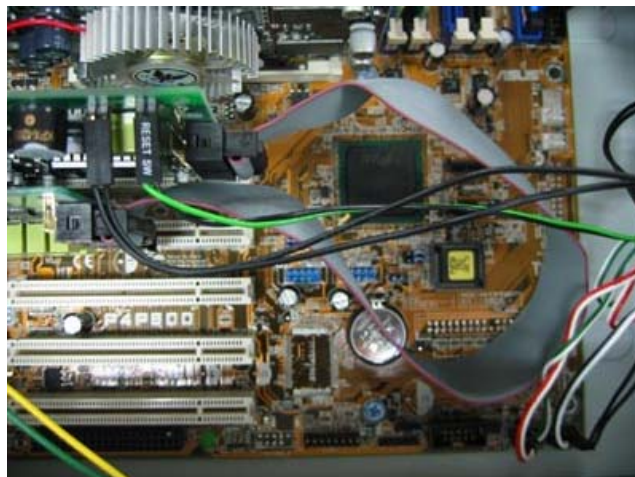
<AudExt1 and ConExt1616 connected to AS100V2(BNC)>

- (2) Insert the AS100V2(BNC) vertically into PCI slot from one side to the other and then insert AudExt1 and ConExt1616 in the same way. Check if the cards were well inserted into PCI slot.



<AS100V2(BNC), AudExt1 and ConExt1616 Inserted into PCI Slot>

- (3) Connect a pin of watchdog 2pin connector of AS100V2(BNC) 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 Mother Board Reset Pin>

IV. Cable Connection

(1) External Monitor Output Terminal (J8)

External monitor output terminal (RCA Jack) is connected to external monitor.