

PC BASE DVR

Installation Manual

VER: 1.1

DIGITAL VIDEO RECORDER

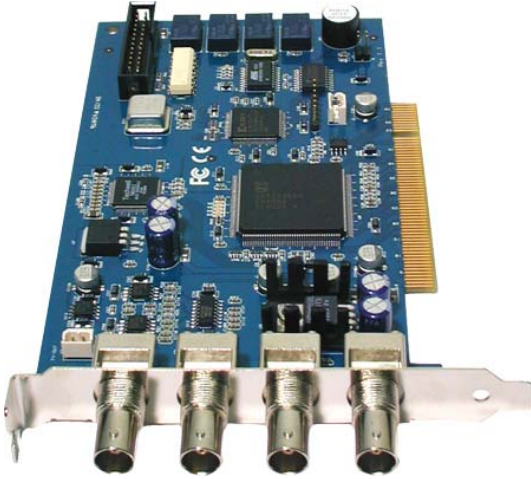
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1. DVR Main Boards

1-1. 4CH Capture Boards

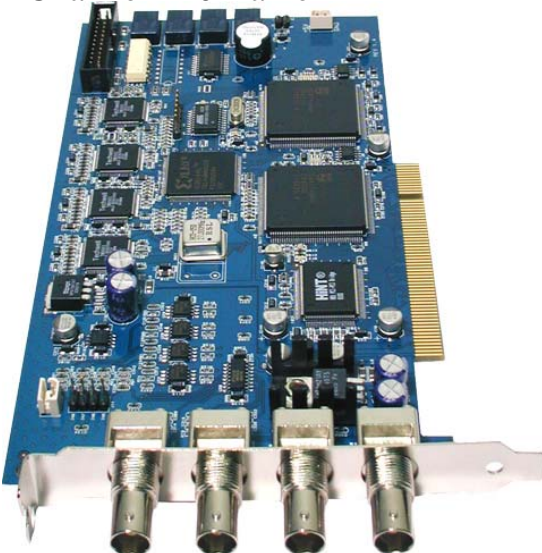
4 Channel 30 frame



4 Channel 60 frame

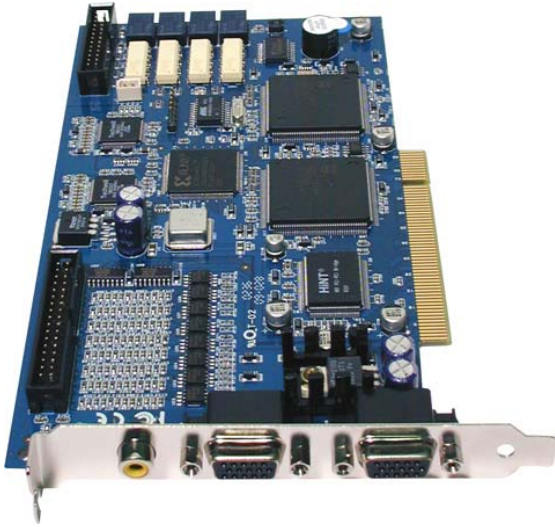


4 Channel 120 frame

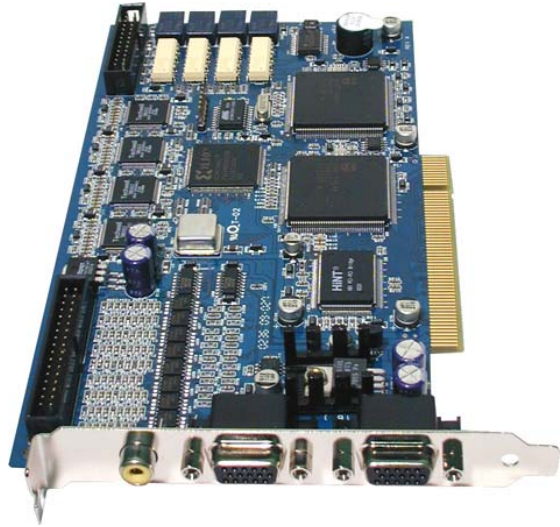


1-2. 8,16,32CH Capture Boards

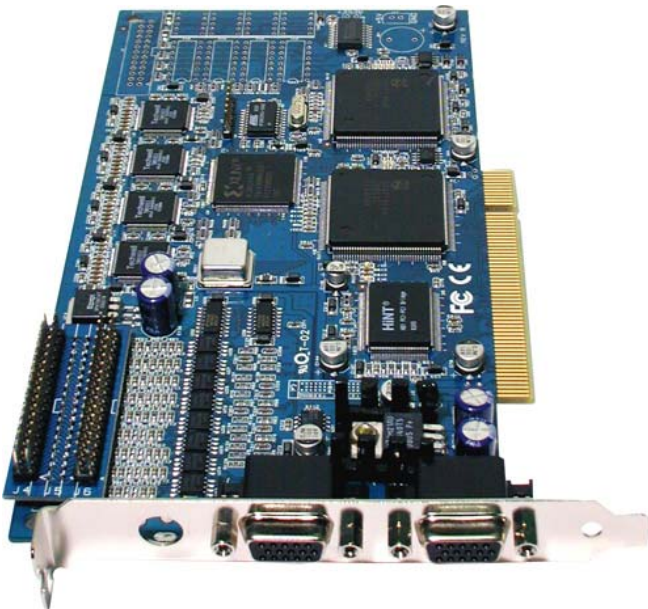
8,16 Channel 60 frame



8,16,32 Channel 120 frame



8,16 Channel 240 frame Salve

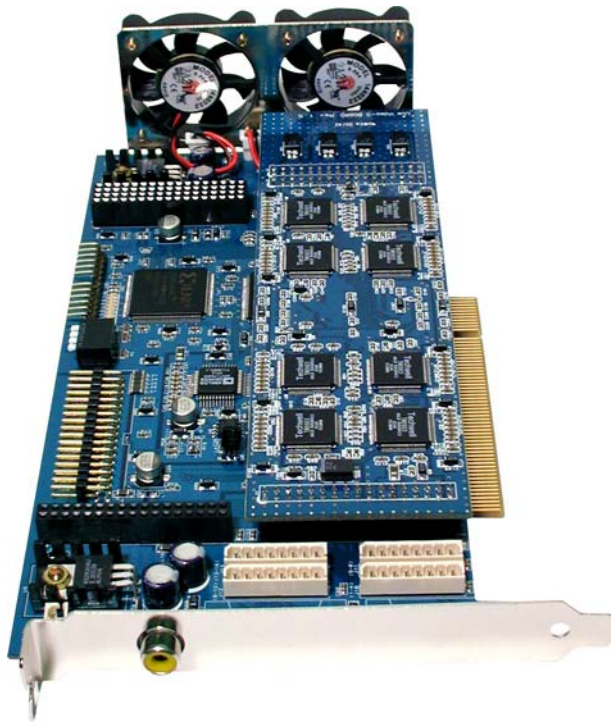


32 Channel 240 frame Salve



1-3. Live video boards

8 Channel Live video board

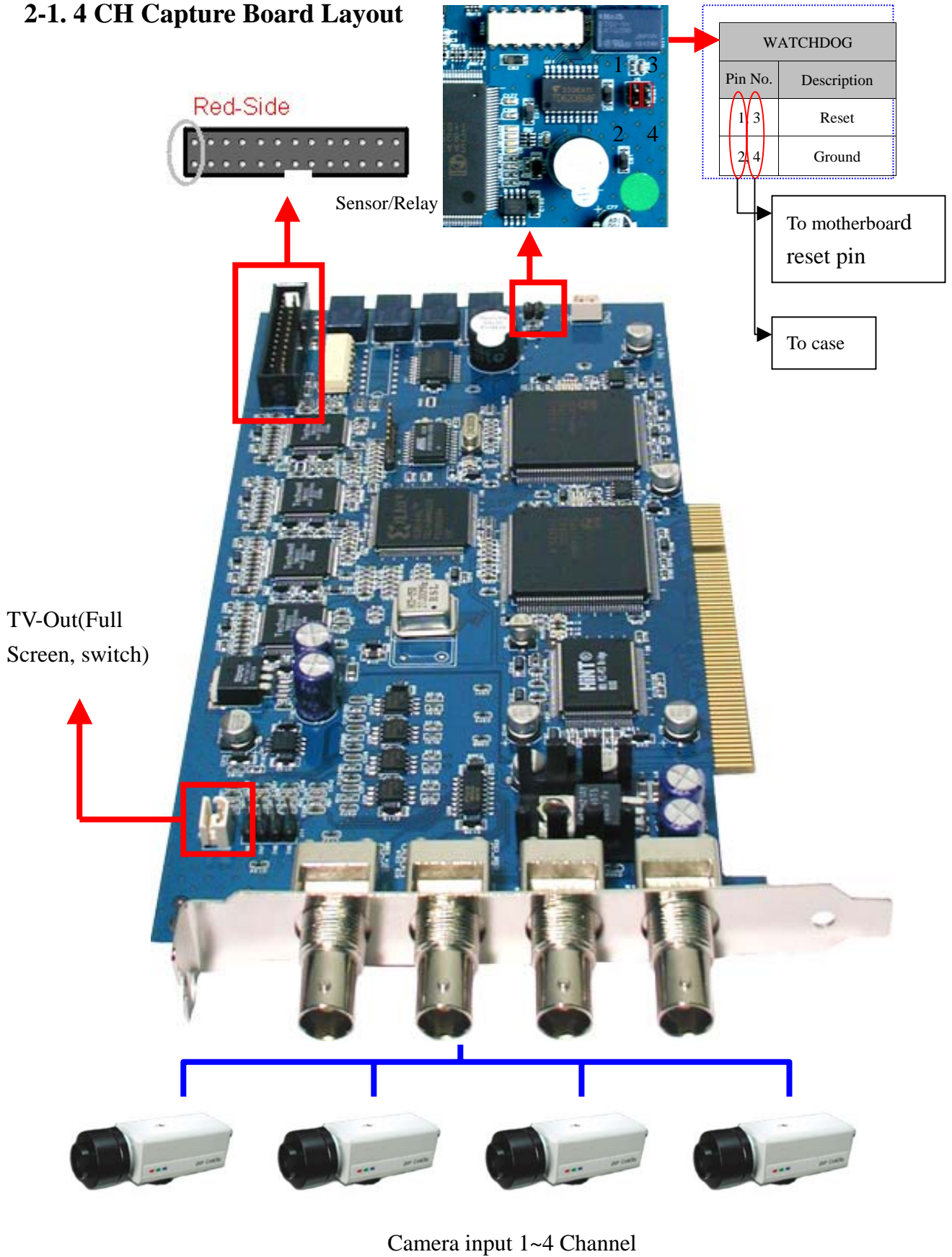


16 Channel Live video board

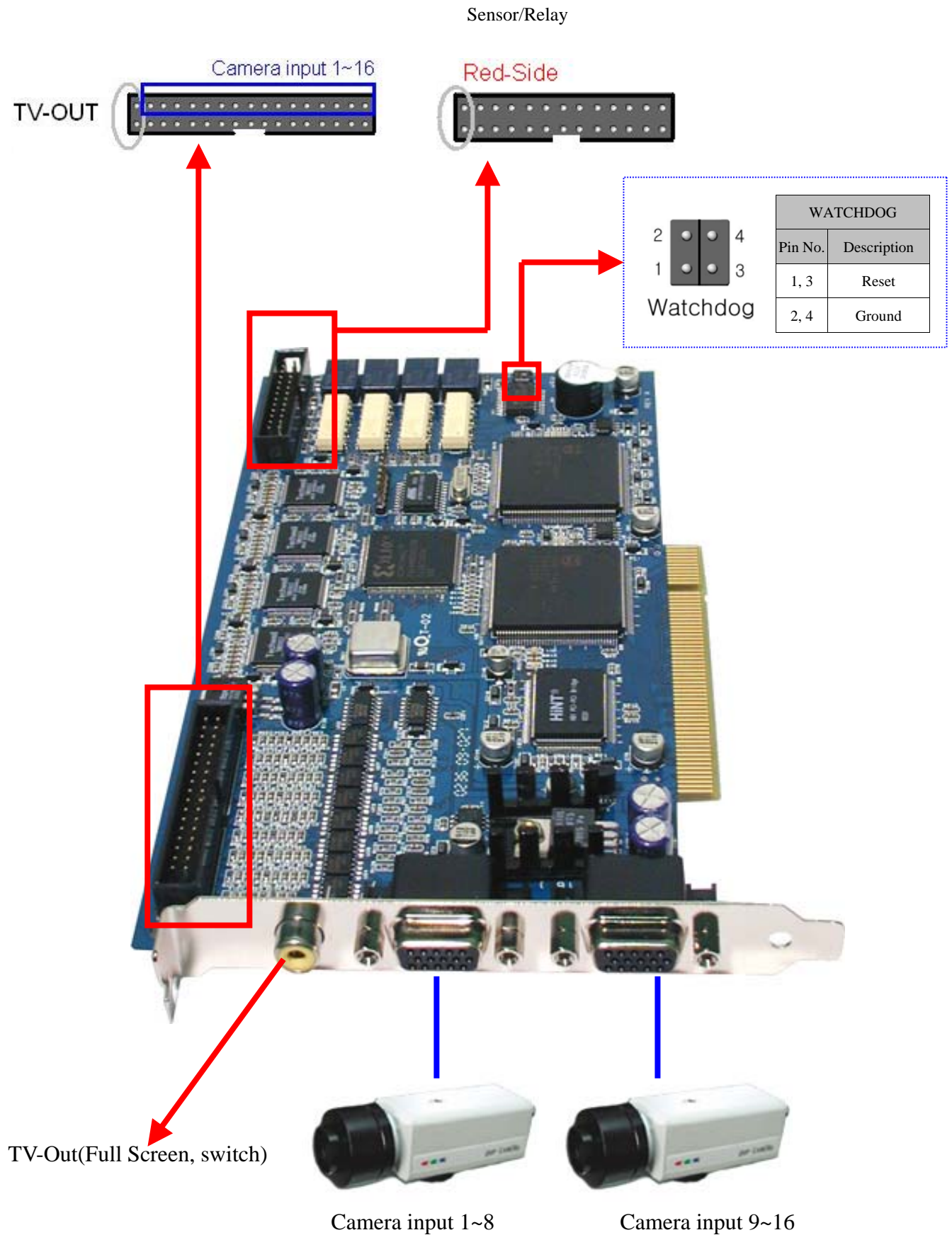


2. Board Layout

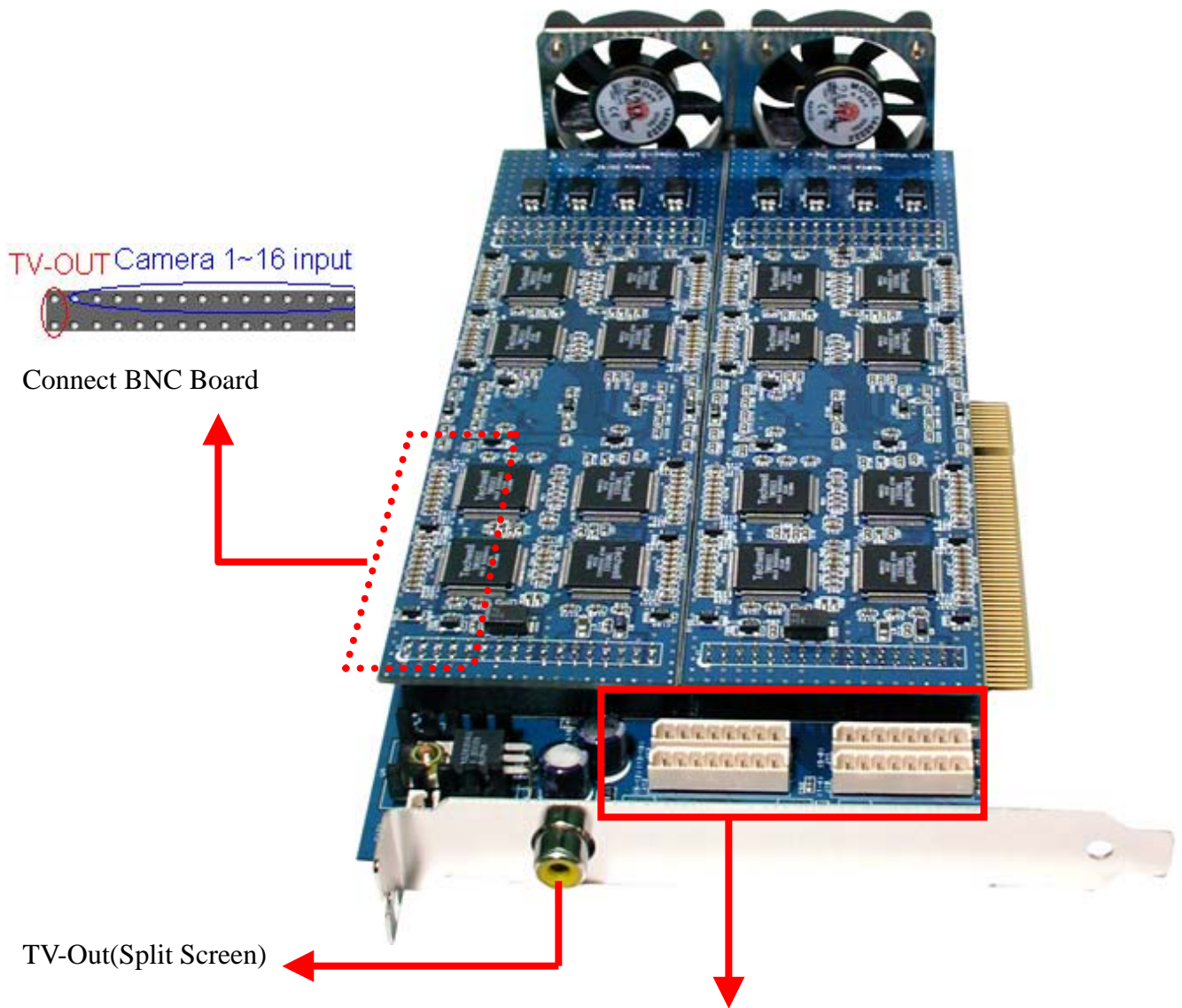
2-1. 4 CH Capture Board Layout



2-2. 16 CH Capture Board Layout



2-3. 16 Live Video Board Layout



TV-OUT Camera 1~16 input



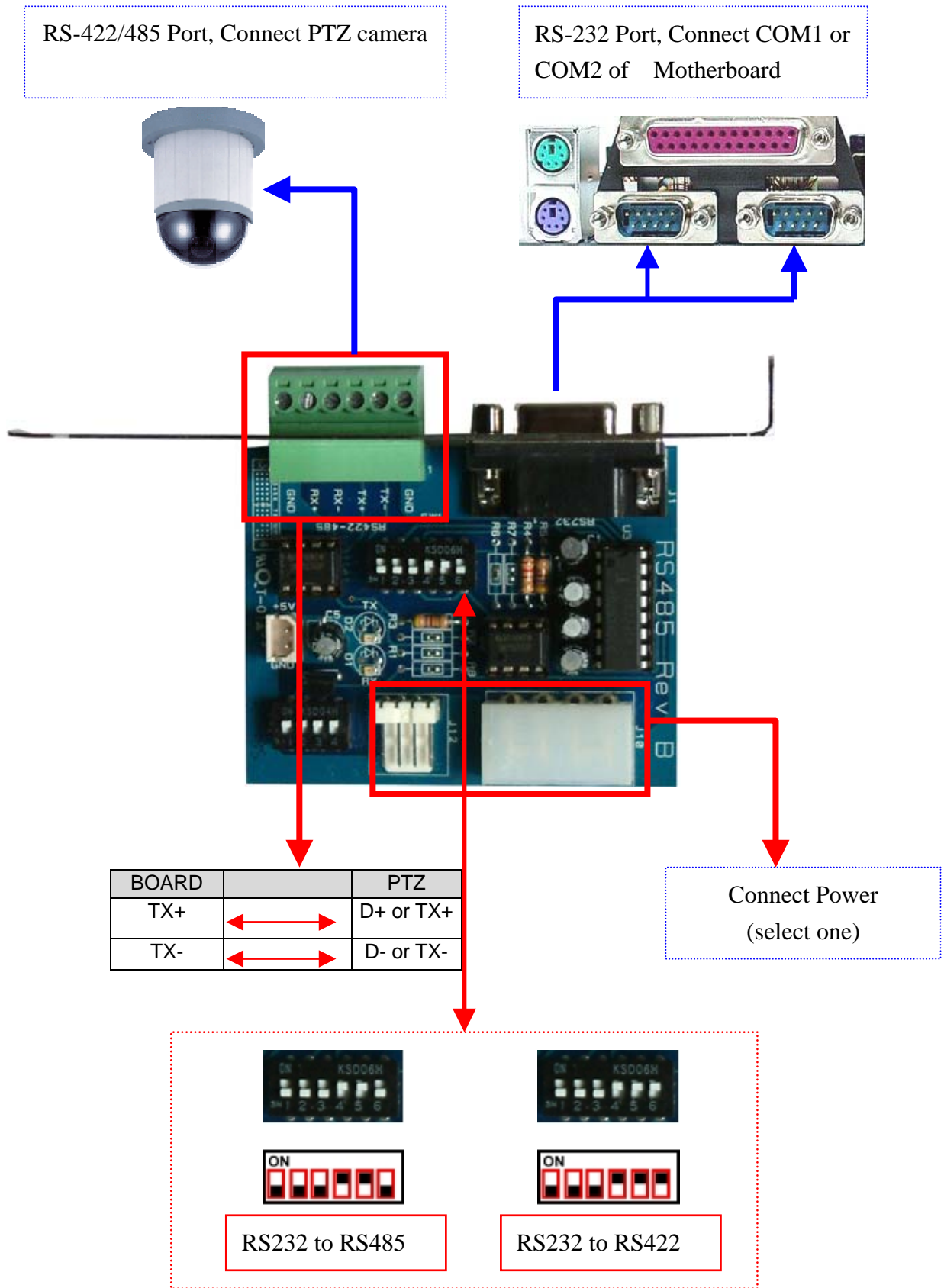
Connect BNC Board

TV-Out(Split Screen)

Camera Connector (To Capture Board)	
Cable	Camera number
1	Camera 1~4
2	Camera 5~8
3	Camera 9~12
4	Camera 13~16

Notice: Connection with 240 frame boards, cable 2,3 need to swap.

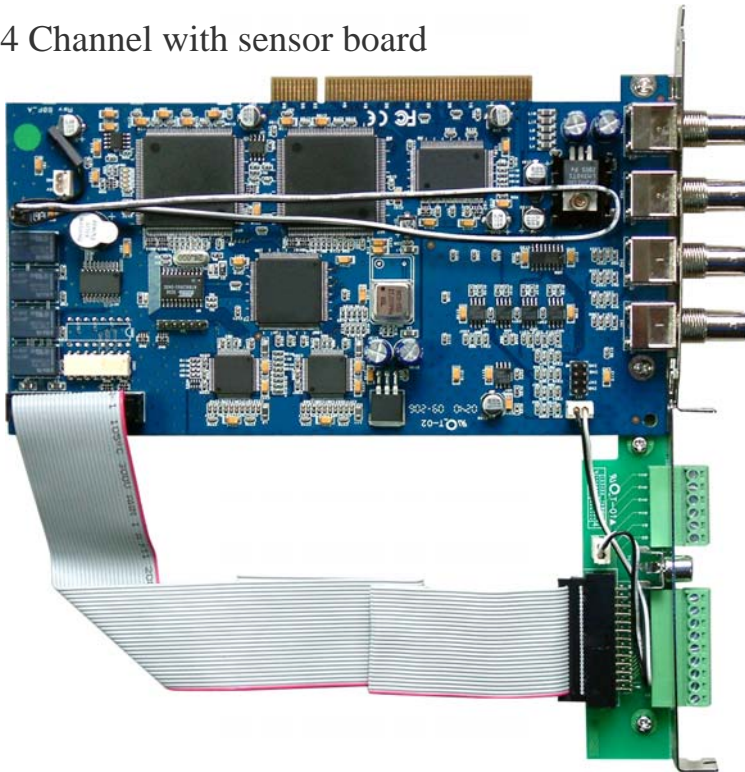
2-4. RS232 TO RS485 Board (Optional) for PTZ camera



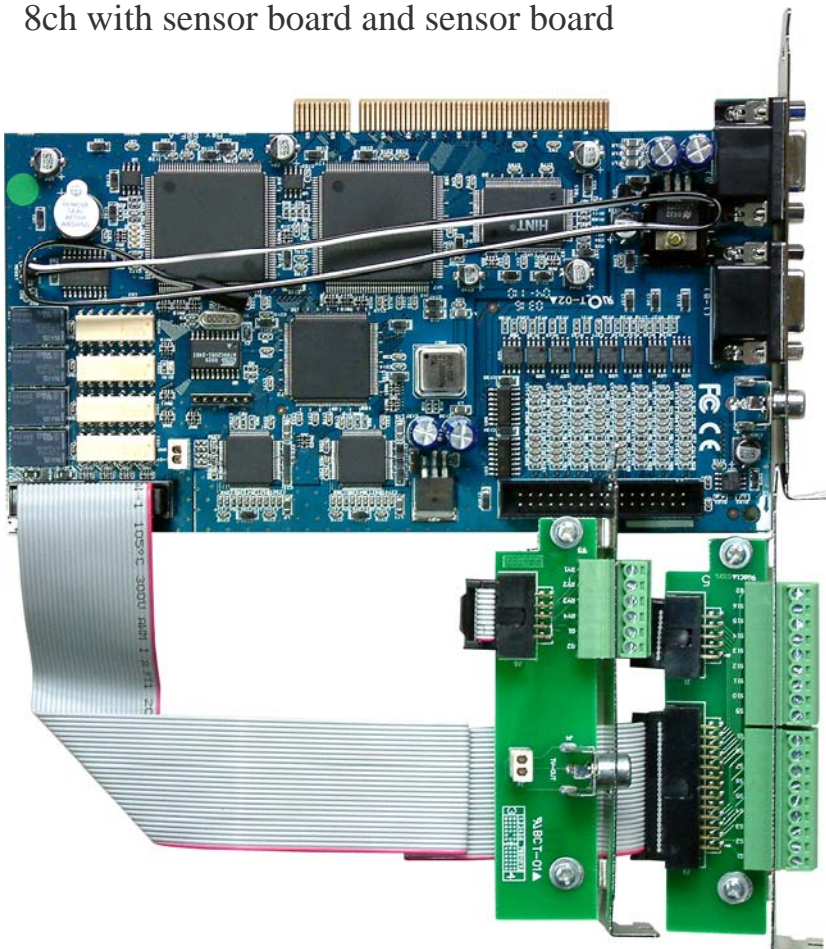
3. Connection

Please refer to the CD for instruction of the connection(Run **Board connection.exe**)

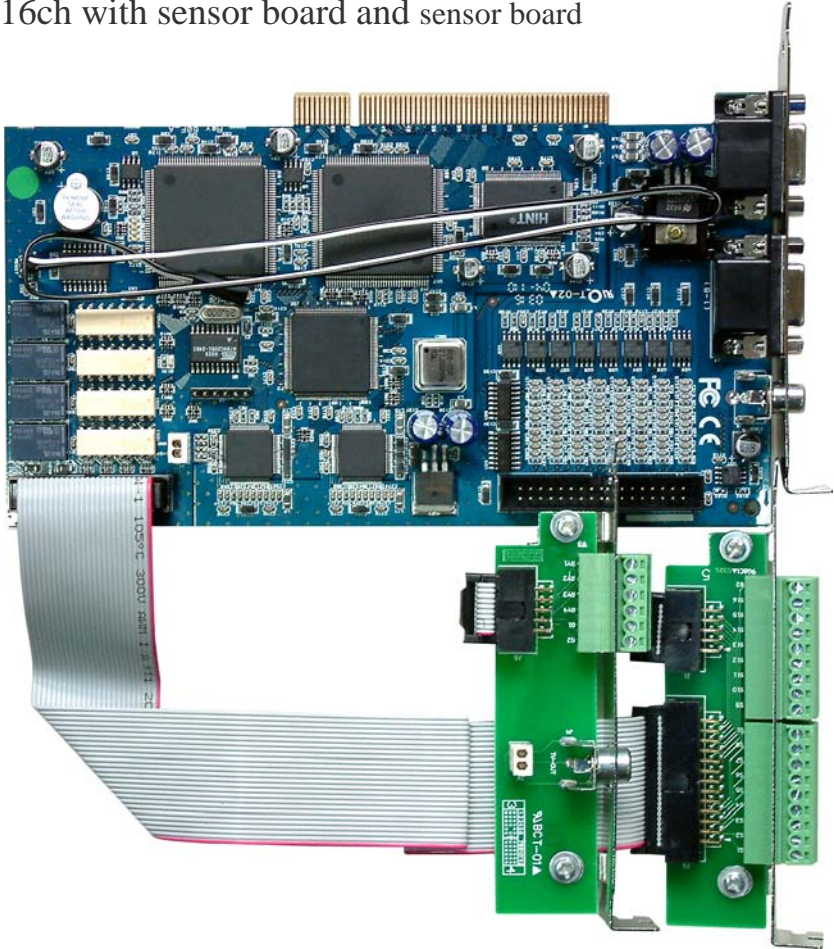
4 Channel with sensor board



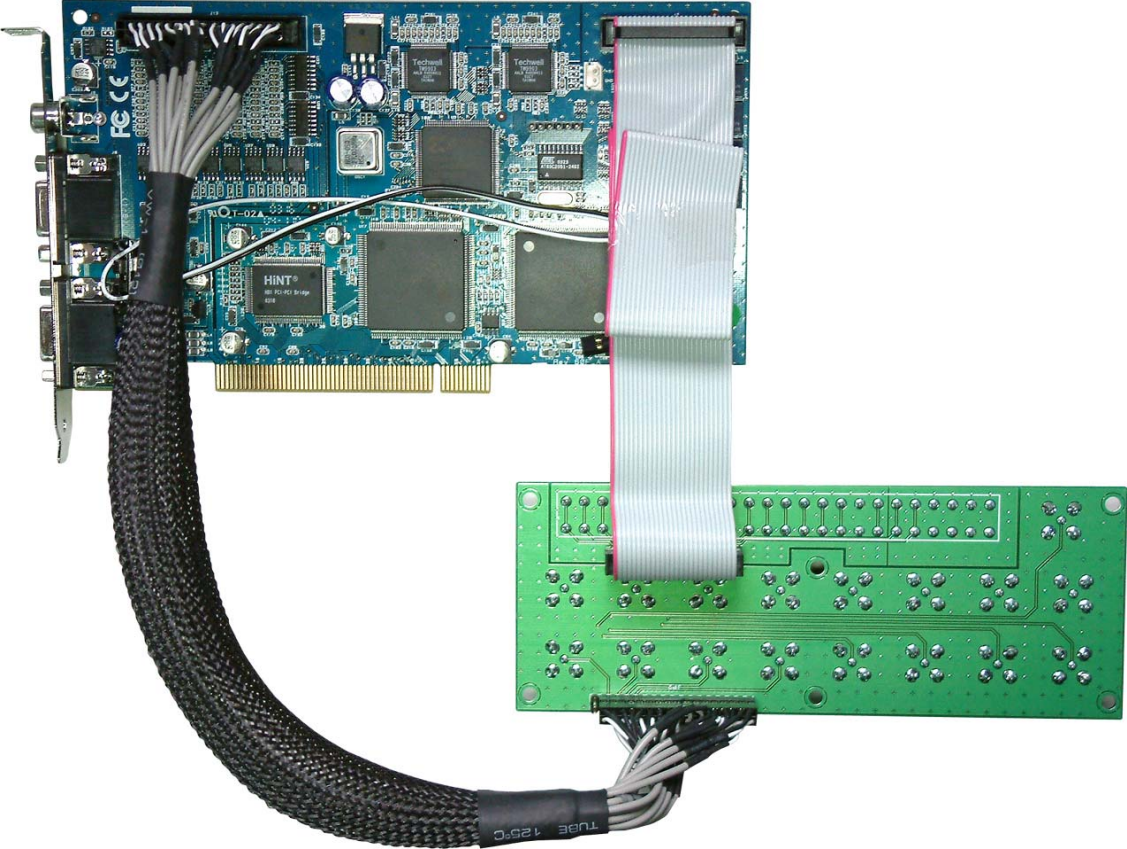
8ch with sensor board and sensor board



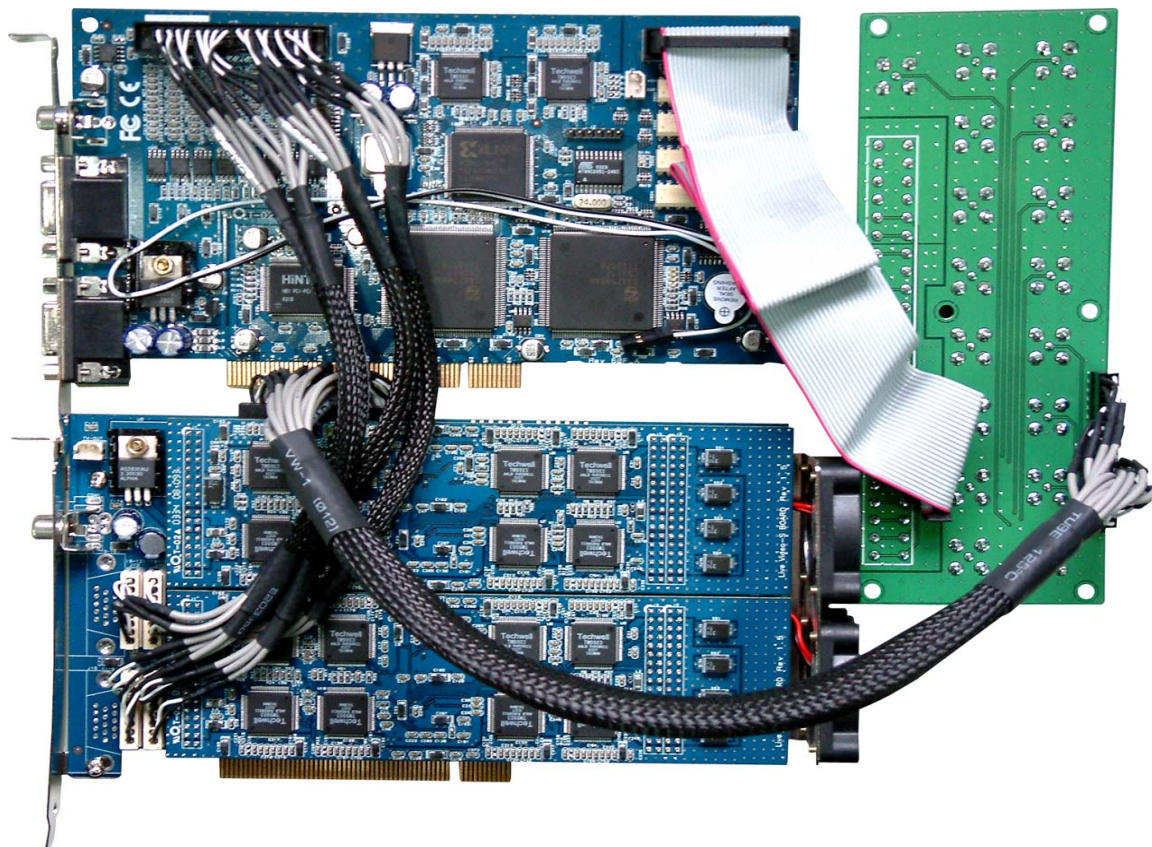
16ch with sensor board and sensor board



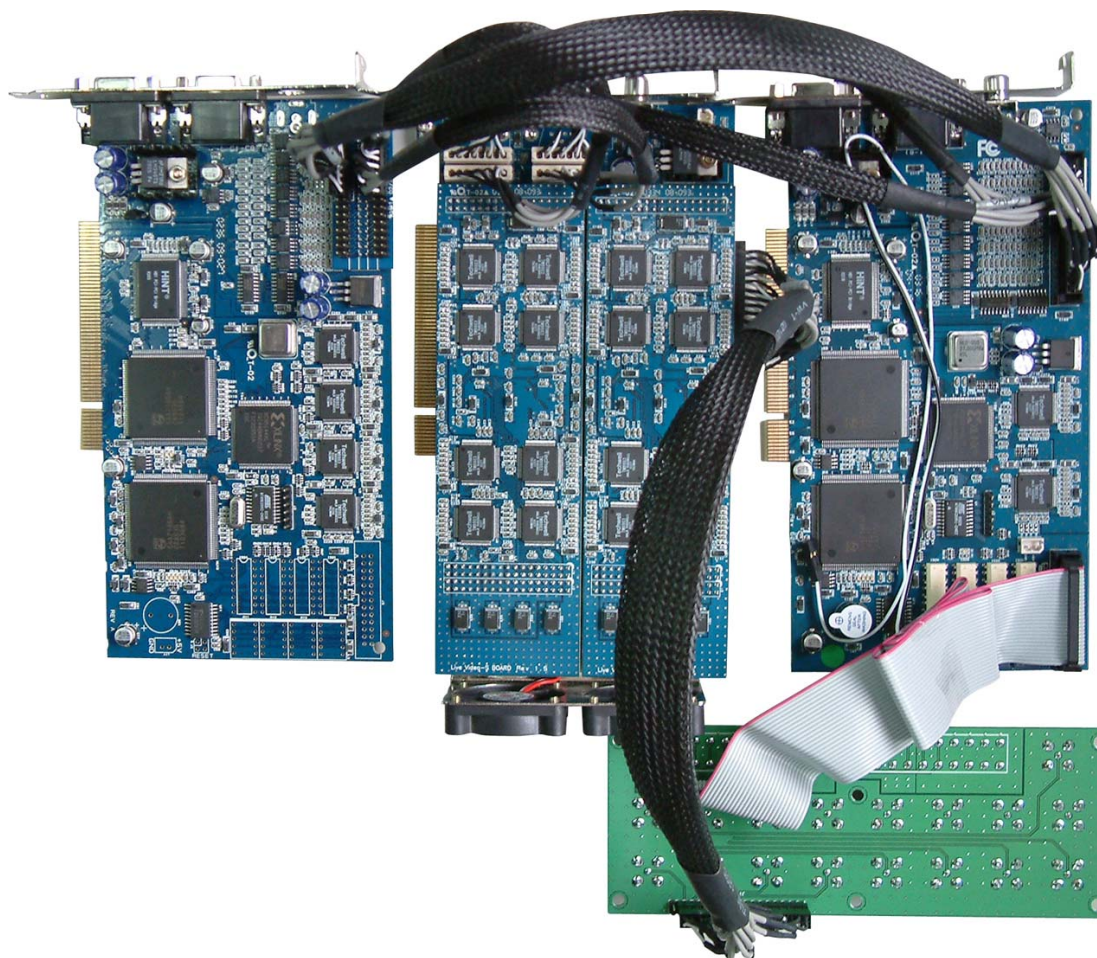
16ch(8ch) with Back-Panel connection



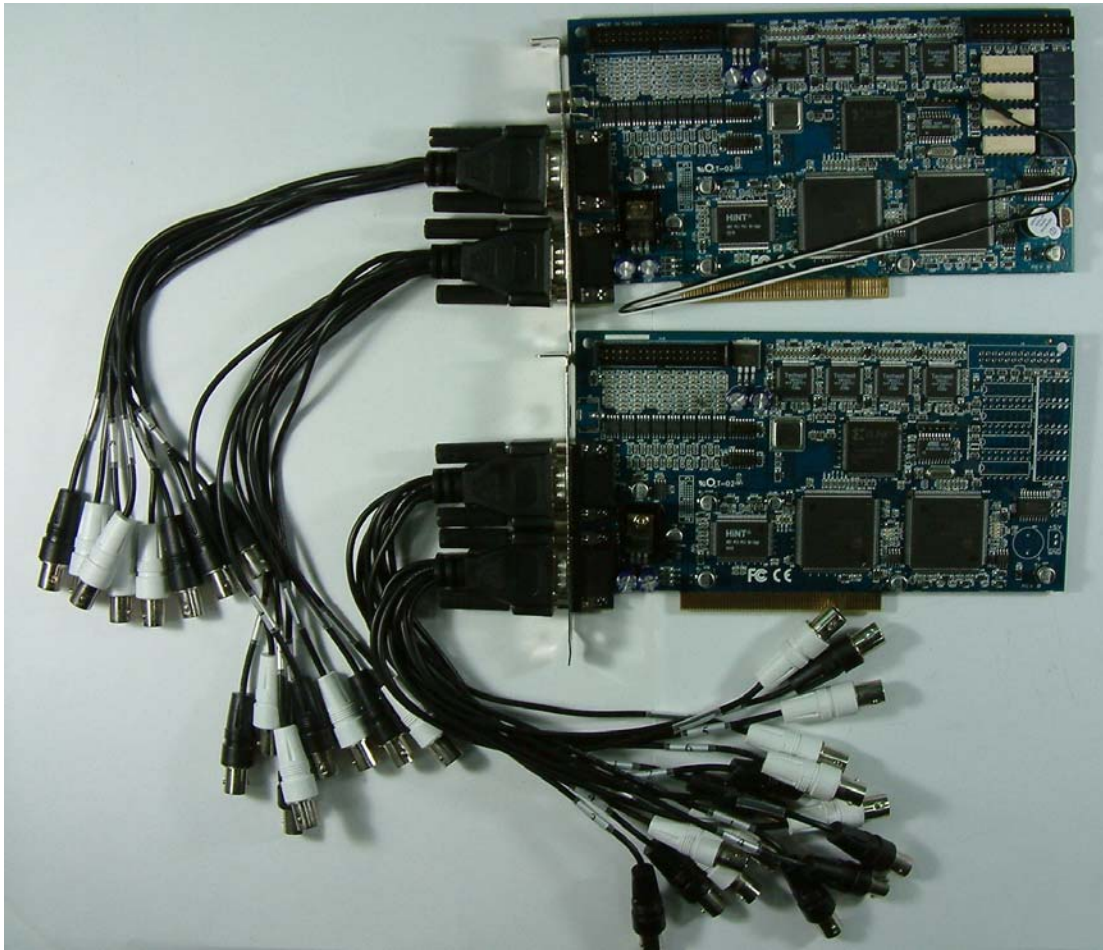
16ch(8ch) and Live video board with Back-Panel connection



16ch 240fps and Live video board with Back-Panel connection



32ch 240fps capture card with pig-tail connection



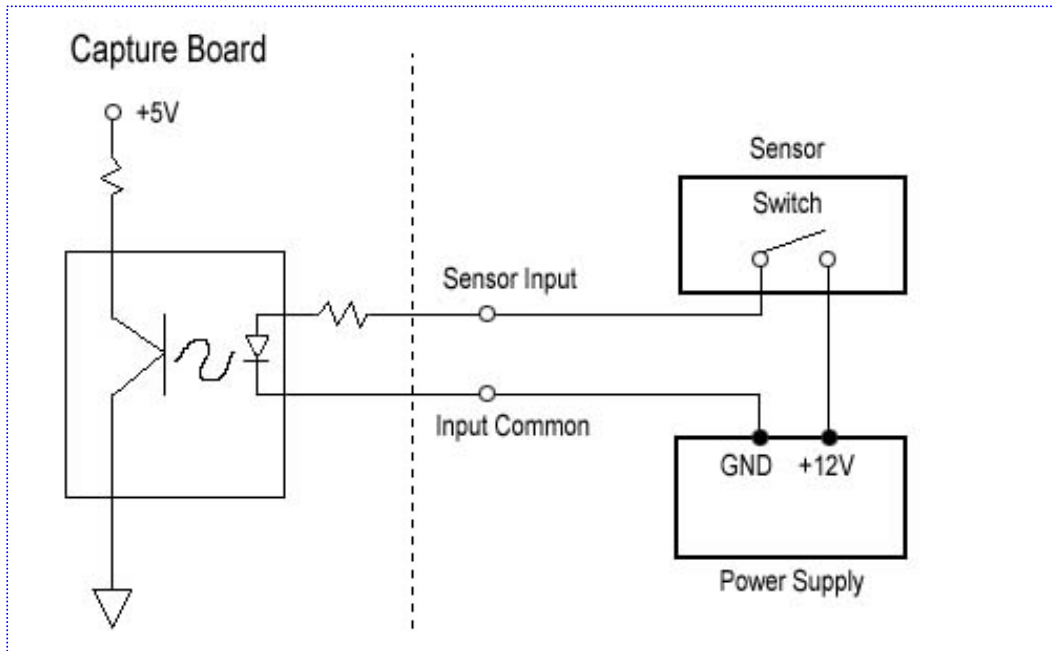
Note

32ch only can use pig-tail

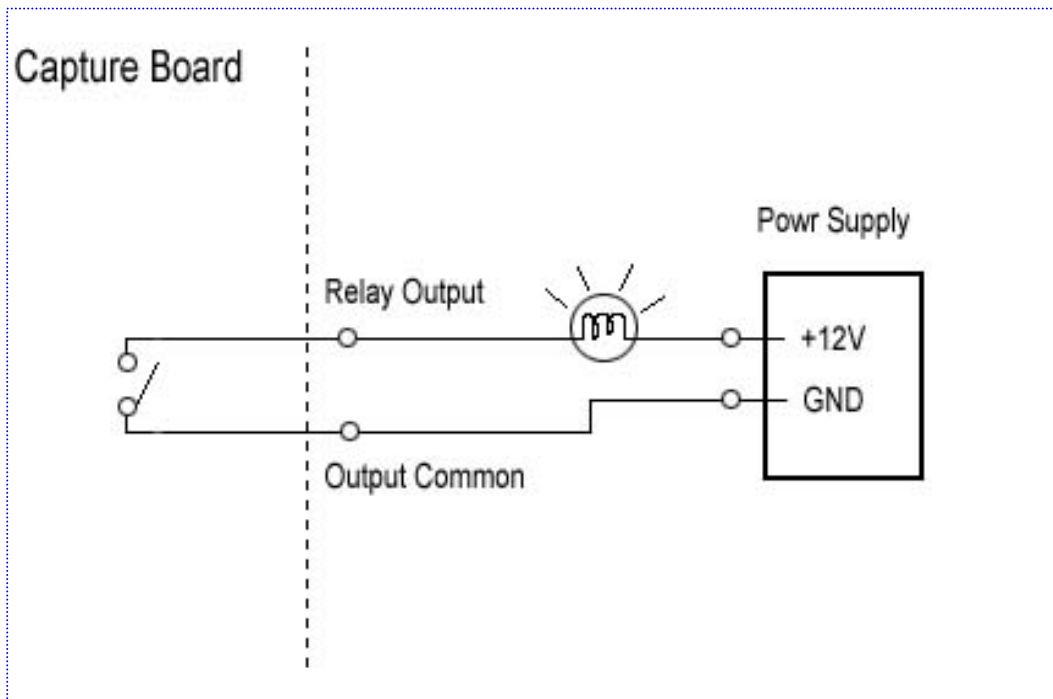
4. Sensor Input and Sensor Output

4-1. Connect Sensor and Relay

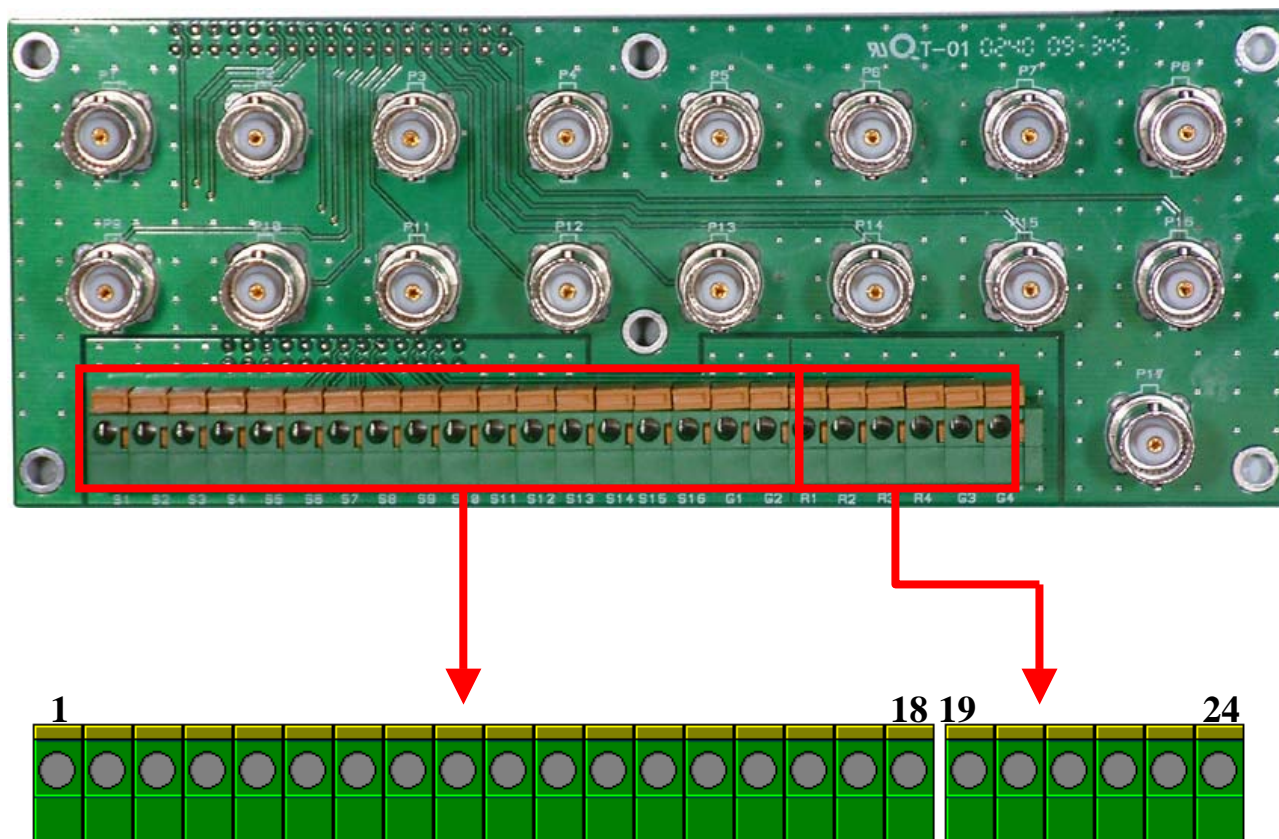
Sensor input



Relay Output

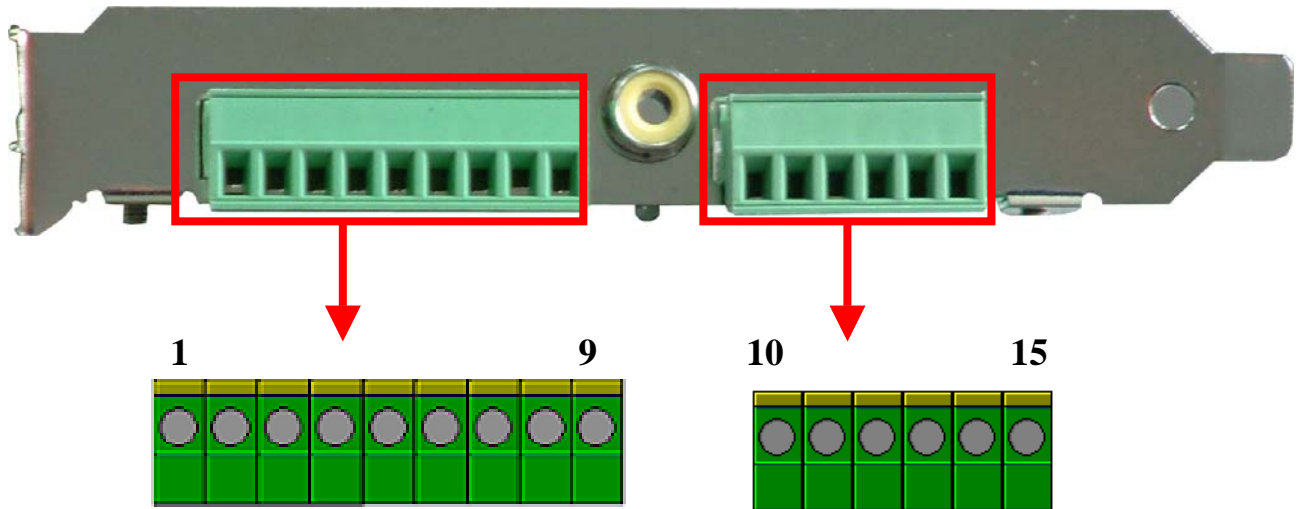


4-2. Back panel Type



PIN NO.	Description
1~16	Sensor input 1 ~ 16
17,18	Input Ground
19~22	Relay output 1~4
23,24	Output Ground

4-4. 4Channel Sensor I/O board

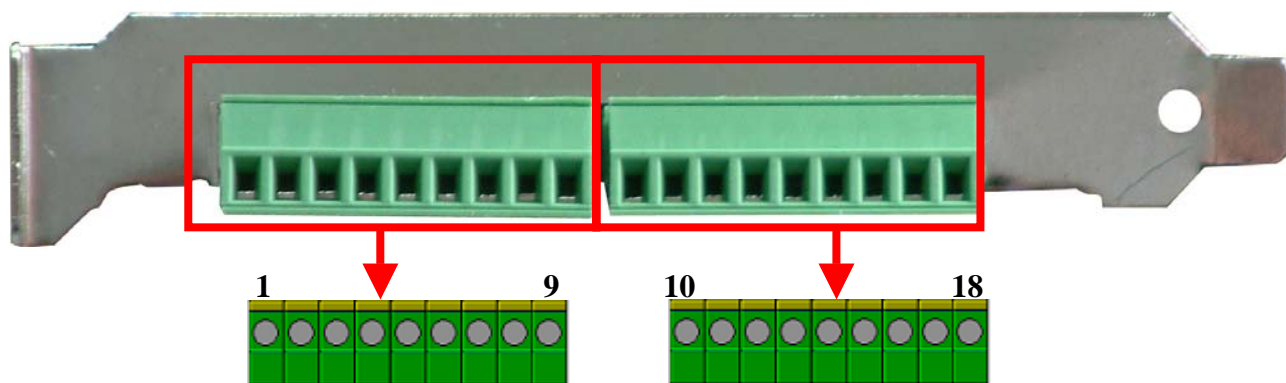


PIN NO.	Description
1~4	Sensor input 1 ~ 4
5~8	NC
9	Input Ground
10,11	Output Ground
12	Relay output 4
13	Relay output 3
14	Relay output 2
15	Relay output 1

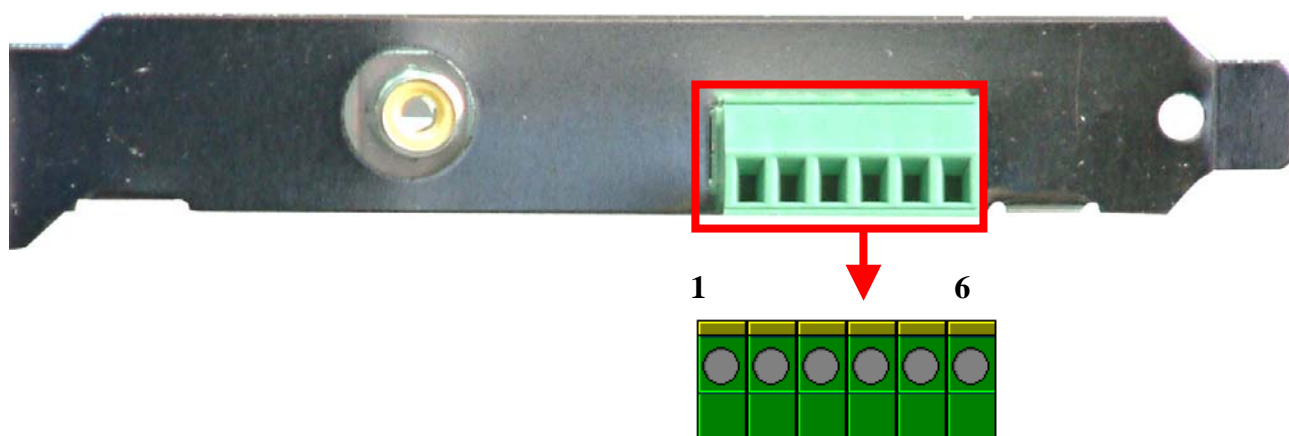
Relay connection note

Turn on the "Relay Output"(Pin19~22) will short with "Output Common"(Pin 23,24).
 Contact Ratings: 30VDC 1A, 125VAC 1A

4-4. 8,16 Channel Sensor I/O board



PIN NO.	Description
1~9	Sensor input 1 ~ 8
9	Input Ground
10~17	Sensor input 9~16
18	Input Ground



PIN NO.	Description
1,2	Output Ground
3	Relay output 4
4	Relay output 3
5	Relay output 2
6	Relay output 1

Relay connection note

Turn on the "Relay Output"(Pin19~22) will short with "Output Common"(Pin 23,24).
Contact Ratings: 30VDC 1A, 125VAC 1A

5. Startup

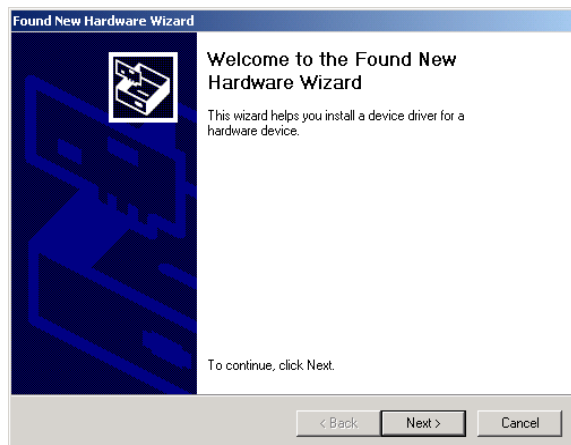
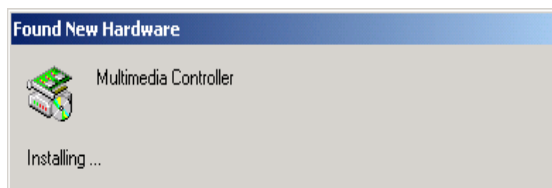
Announcements for installing Mpeg4 capture card

1. Choose the mother board adopts intel chipset, ex: Intel 845PE, Intel 865PE...etc
2. Choose the VGA card adopts ATI chipset, ex: ATI radeon 9200, ATI radeon 9600
3. For sound recording, please connect microphone to amplifier, then connect amplifier to capture card.
4. For PTZ camera connection, please connect PTZ camera to DVR through the converter(RS232-RS485)

5-1. DirectX 8.0 or newer version installed

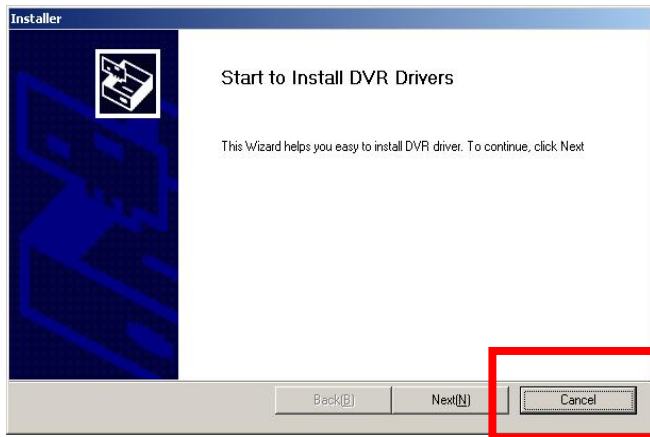
All of our software is required DirectX8.0 software installed in your existed system. If you have the O.S. of Windows 98SE / 2000, then you have to update DirectX version. So, if you are planning to install our software to the OS of Windows 98, 98SE, or ME, check your system if DirectX is already installed? Or just reinstall DirectX Ver. 8.0.

5-2. Driver Installation



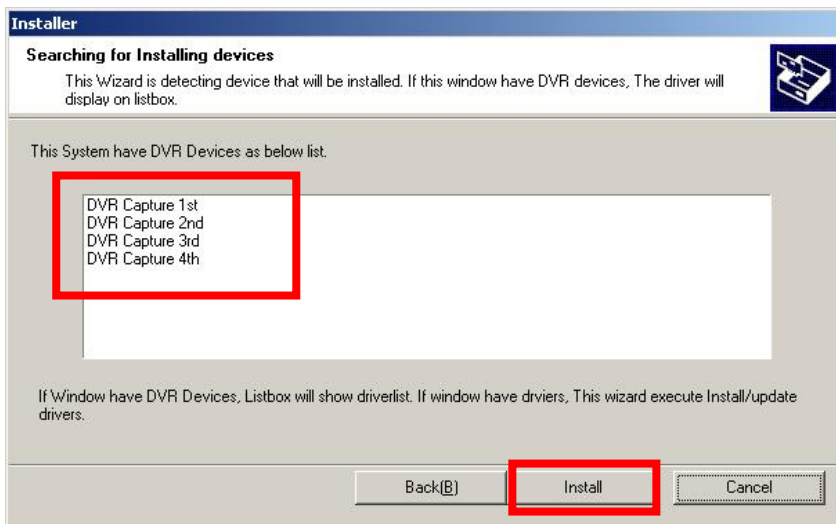
DVR driver support Win2000/WinXP, select correct folder below Driver. This Driver Installation is Windows 2000 English version, but the same with the other operation system. First Win2000 will automatically find Board as a new hardware device. Please all **Cancel** .

Notice: If you have been installed, please **delete** all **DVR drivers** at Device Manager before install.



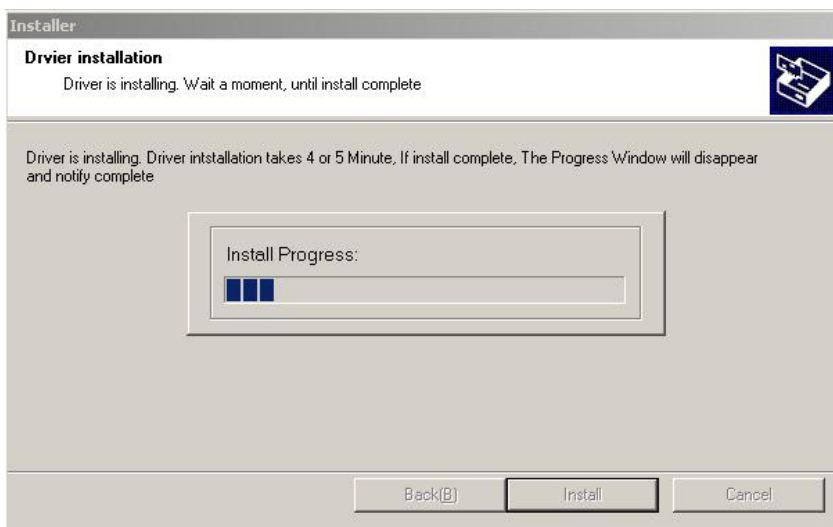
1. Install DVR driver

2. Click Next to install.

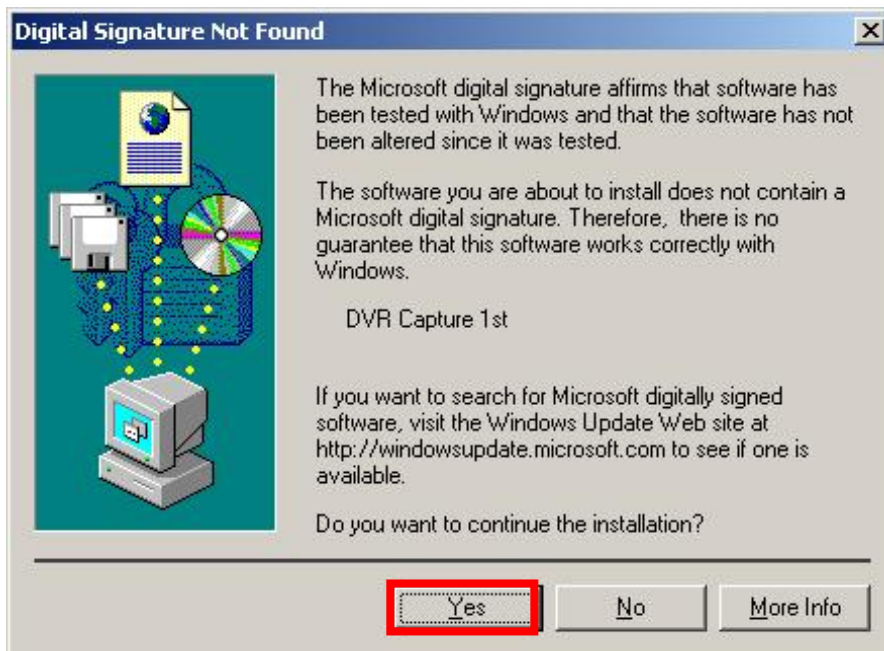


3. Installer will list the device, click 'Install',

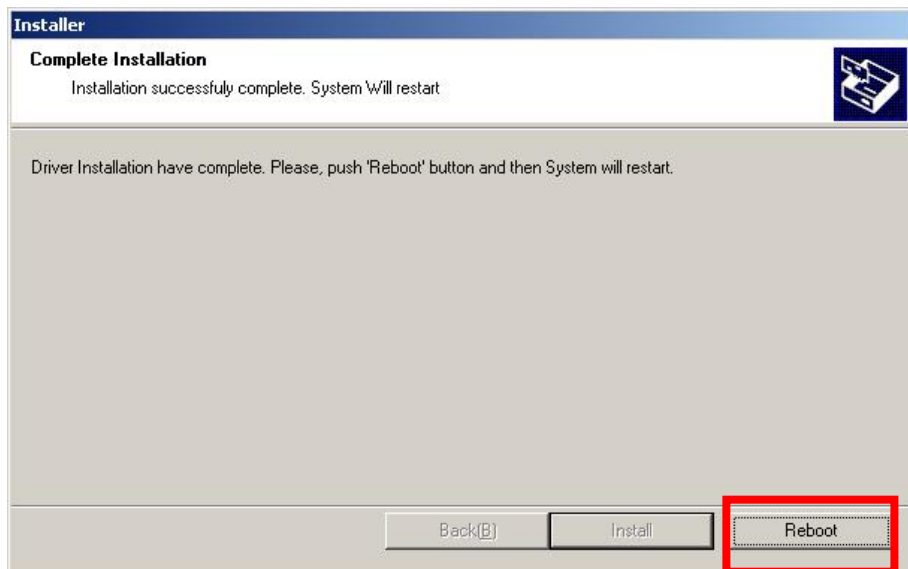
Notice: if the system have been installed the driver, it will without list.



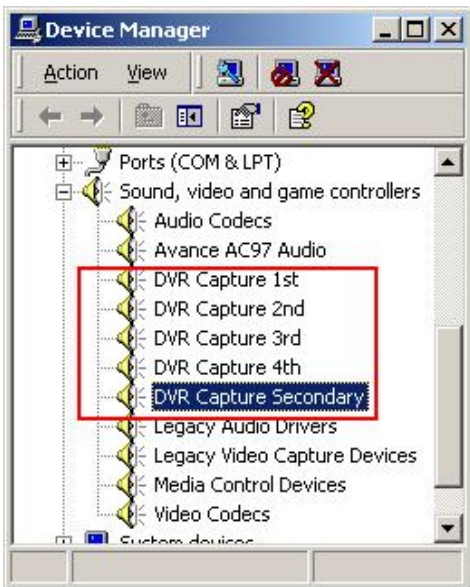
4. Install program will copy Driver to system take some minutes.



5. If the 'Digital Signature' window show up, Please click 'Yes'.



6. Install finished ,Click 'Reboot'



There should be some drivers on the Device Manager of your system per model if you install successfully DVR board. Check it out to make sure.

(1) 30 Frame

DVR Capture 1 st

DVR Capture Secondary

(2) 60 Frame

DVR Capture 1 st

DVR Capture 2 nd

DVR Capture Secondary

(3) 120 Frame

DVR Capture 1 st

DVR Capture 2 nd

DVR Capture 3 rd

DVR Capture 4 th

DVR Capture Secondary

(4) 240 Frame

DVR Capture 1 st

DVR Capture 2 nd

DVR Capture 3 rd

DVR Capture 4 th

DVR Capture 5 th

DVR Capture 6 th

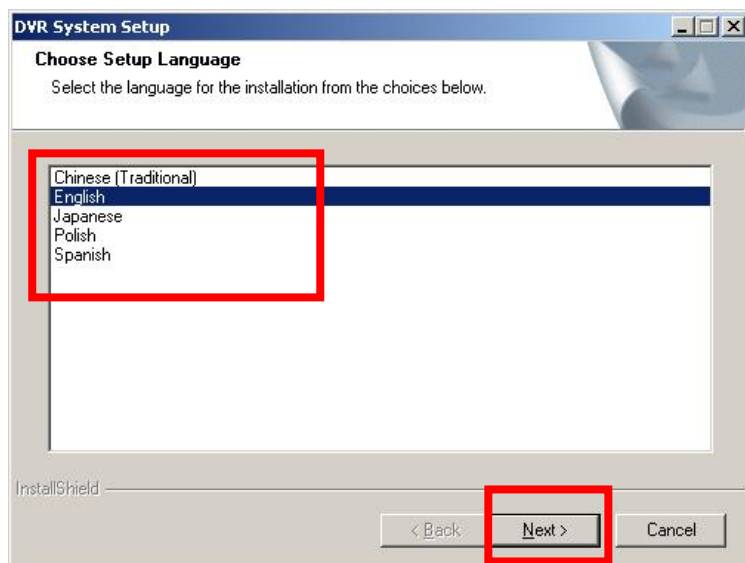
DVR Capture 7 th

DVR Capture 8 th

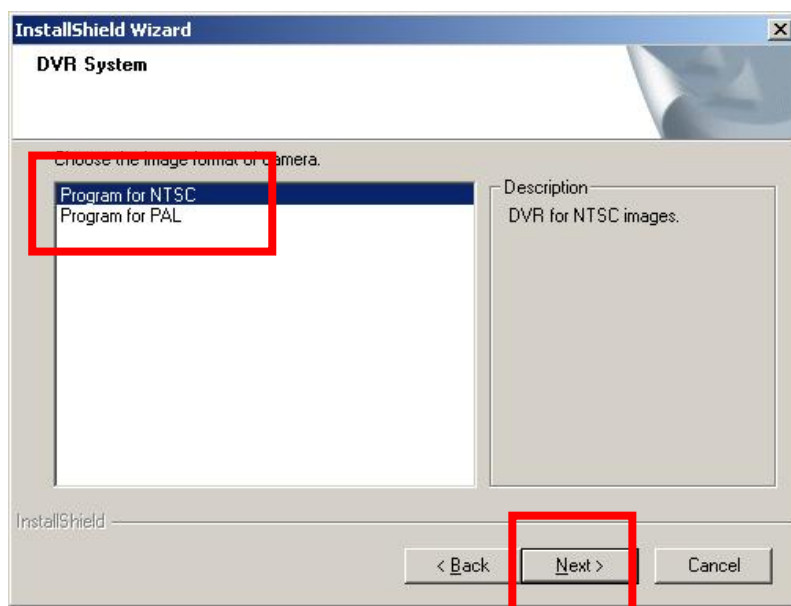
DVR Capture Secondary

5-3. Software Installation

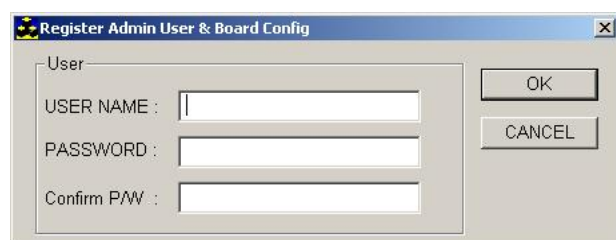
1. Run the **Setup.exe** from CD-ROM



2. Select language then click 'Next'



3. Select NTSC or PAL and 'Next'



4. Input the Admin's user name and password.

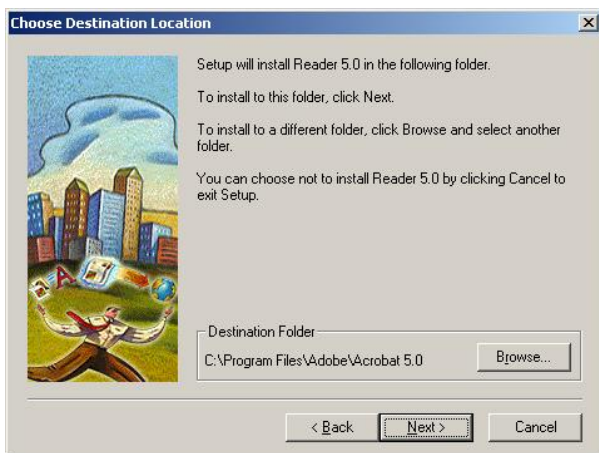


5. Click 'OK'

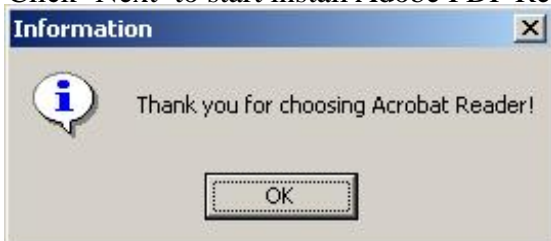
-Install Adobe Reader



1. Click 'Yes' if you don't have been install Adobe PDF Reader.

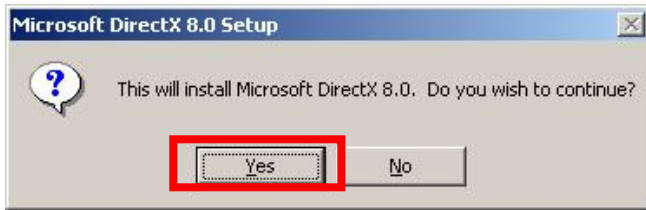


2. Click 'Next' to start install Adobe PDF Reader.

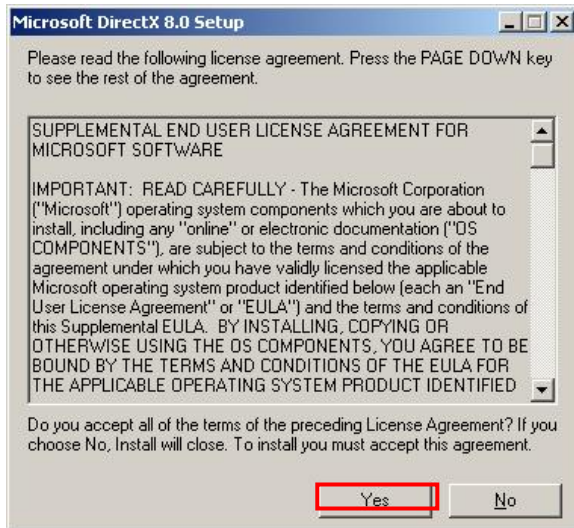


3. Click 'OK'

-Install DirectX8.1



1. Click 'Yes' if system DirectX version is older then 8.0



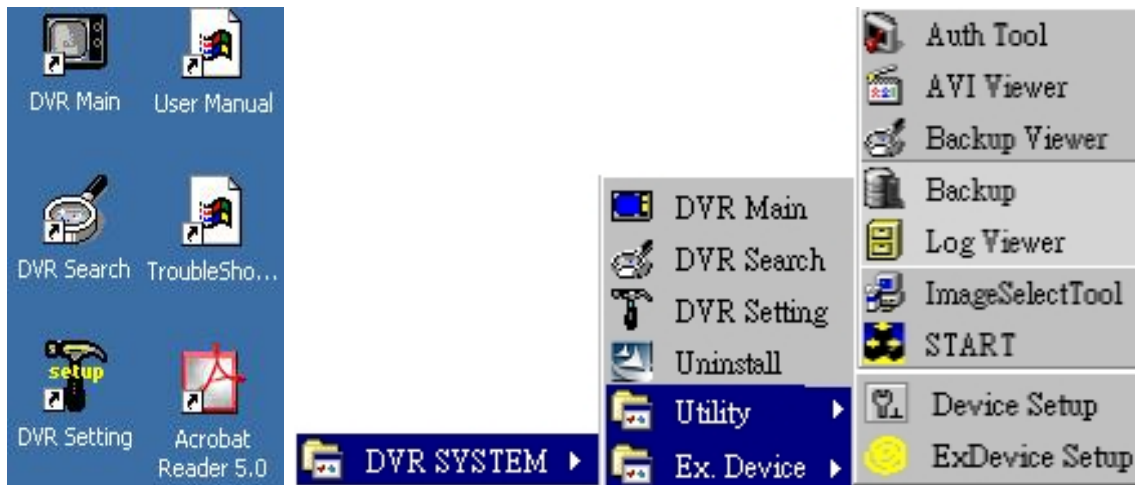
2. Click 'Yes'



3. Click 'OK' completed .



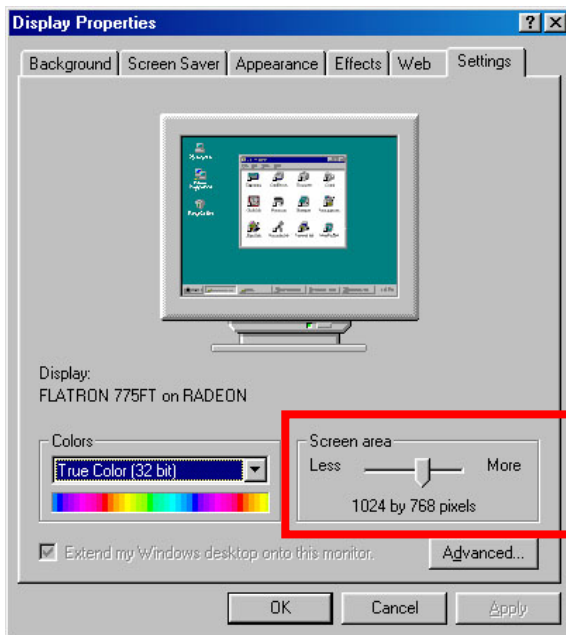
3. Click 'Finish', then it will reboot system.



Then, you can use program from **desktop** or **'Start' - 'DVR System'** menu.

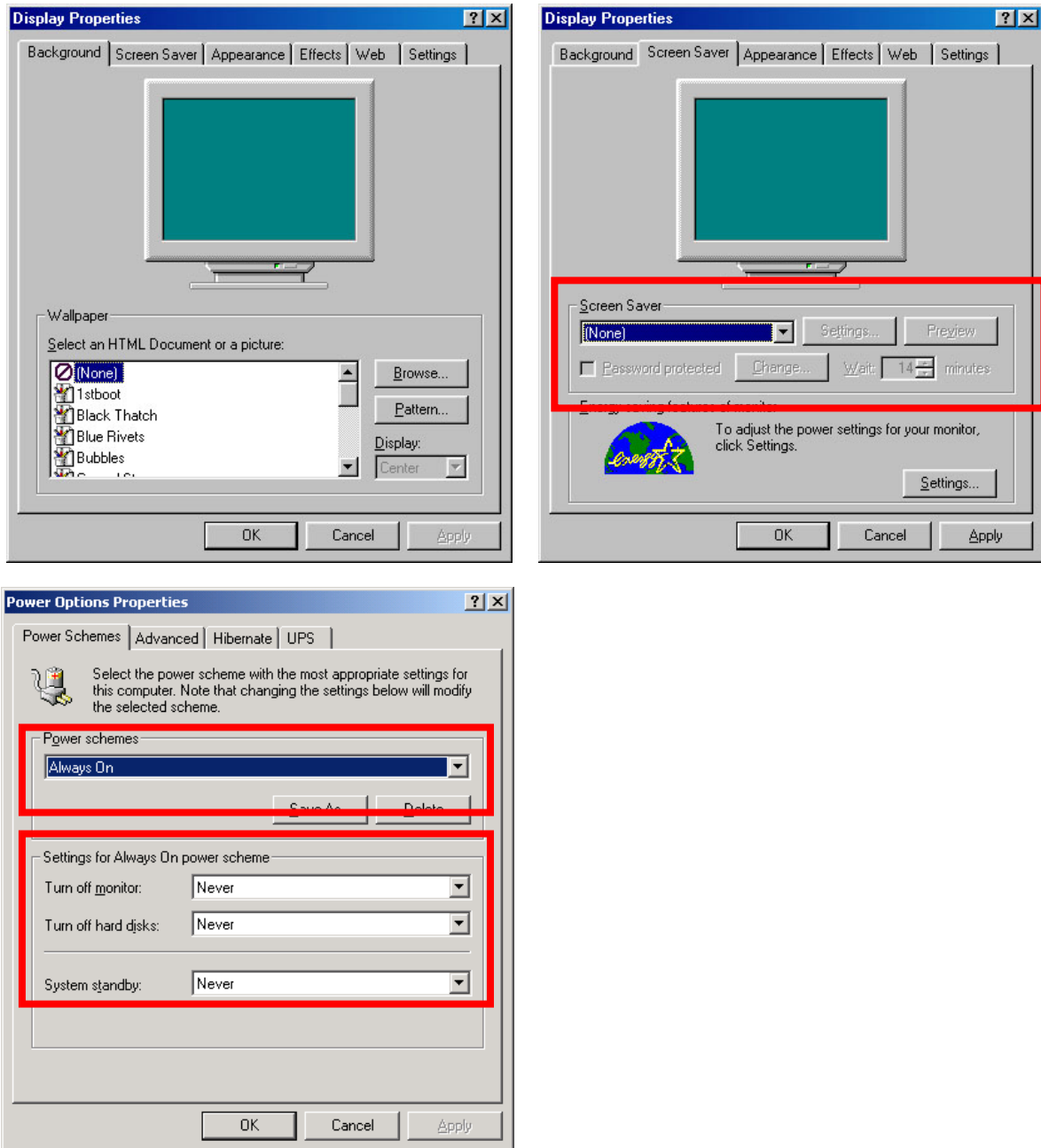
Notice: Before record image, please go into **DVR Setup-Image Tool**, make file system.

5-4. Monitor Resolution



All of our software is designed on Monitor Resolution at **1024 by 768** pixels. If your monitor does not support this resolution or is not set as it requires, our program will not work properly on your system. Set your monitor as follows.

5-5. Power Management & Display properties



If you select any of such the options above, the application program will conflict against the selected options. So, check out your system to see if there is any selected options' confliction.

6. Specification

6-1. Hardwave

Model Name	30 frame	60 frame	120 frame	240 frame
Camera Inputs	4	4,8,16		8,16,32
Supported Resolution	704*576(PAL), 640*480(NTSC), (*1) 352*288(PAL), 320*240(NTSC)			
Total Recording frame max.	25(PAL) 30(NTSC)	50(PAL) 60(NTSC)	100(PAL) 120(NTSC)	200(PAL) 240(NTSC)
Connector Type	Pigtail cable / Back panel selectable			
Sensor Input / Relay Output	4/ 4	16 / 4		
TV Out Function (*2)	1(Capture Card only), 2(with Live Video Card)			
Watch-Dog Function	Yes			
Video Compression	MJPEG / MPEG			

(*1):32 Channel resolution only 352*288(PAL), 320*240(NTSC)

(*2): Full screen and auto sequential switch from capture card, with Live video board connection will get split screen.

6-2. Required PC Specification

Record frame	30 frame	60 frame	120 fame	240 frame
CPU	Intel Pentium III 866MHz		Intel Pentium IV 1.6GHz	
Mother Board	Intel 815PE Chipset		Intel 845 Chipset	
VGA Card	AGP type support 1024x768 True-color(ATI Chipset)			
RAM	128MB		256MB	
HDD	5400RPM		7200RPM	
O/S	Win9x/ Windows2000 SP4 /Windows XP SP1			

Recommend PC

Record frame	30 frame	60 frame	120 frame	240 frame
CPU	Pentium IV	Pentium IV 1.6GHz		Pentium IV 2.4GHz
Mother Board	Intel 845 Chipset			Intel 865PE Chipset
VGA Card	nVidia GeForce2 MX 32MB RAM ATI Radeon			ATI Radeon 9200
HDD	80GB 7200RPM			160GB 7200RPM

6-3. Recording Time Table

Frame Size table

Compress. mode	Resolution	Compress rate (%)	Frame Size (KB)	SAVE AS JPEG(KB)
JPEG	640X480	90	52	50
		00	9.6	25
	320X240	90	11.3	23
		00	3.5	8
MPEG	640X480	90	22	50
		00	8.3	44
	320X240	90	8	19
		00	3	15

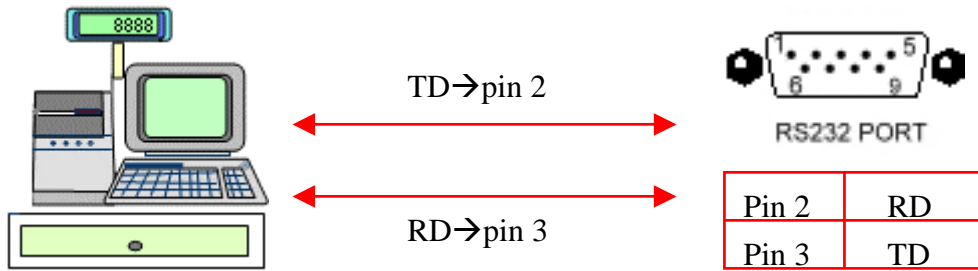
Recording times and HDD space request,

Recording Speed	30 fps	60 fps	120 fps	240 fps
1 Min	16.5MB	33MB	66MB	133MB
1 Hour	843MB	1687MB	3375MB	6750MB
1 Day	19.8GB	39.5GB	79GB	158GB
1 Week	138.6GB	277GB	554GB	1108GB
2 Weeks	277GB	554.5GB	1108GB	2217GB
1 Month	594GB	1188GB	2376GB	4752GB

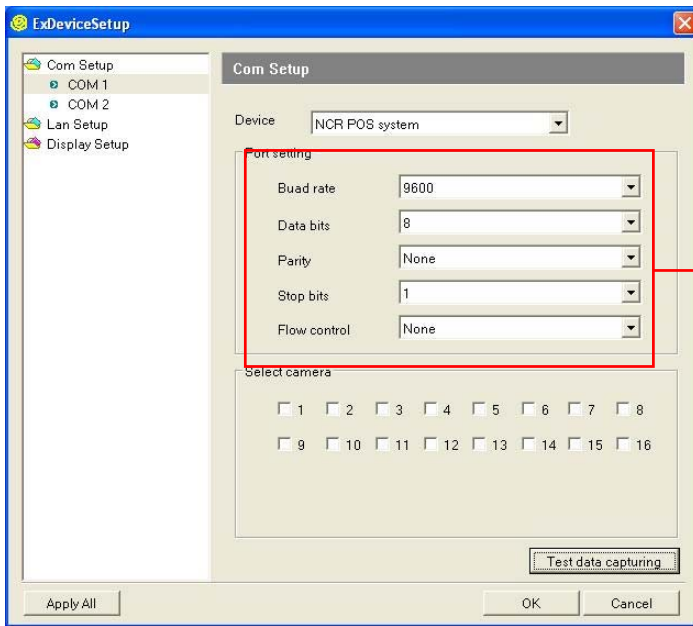
- Full record speed continuously (No Motion Detection)
- Compress Mode at MPEG.
- Resolution using 320x240.
- Video Quality ratio at 90%.
- The above data is just estimated and not exact values. It differs from the setting of the Video Compression ratio, the Camera Video quality (less noise), moving objects ratio,...etc.

7 POS connection

7-1 COM PORT

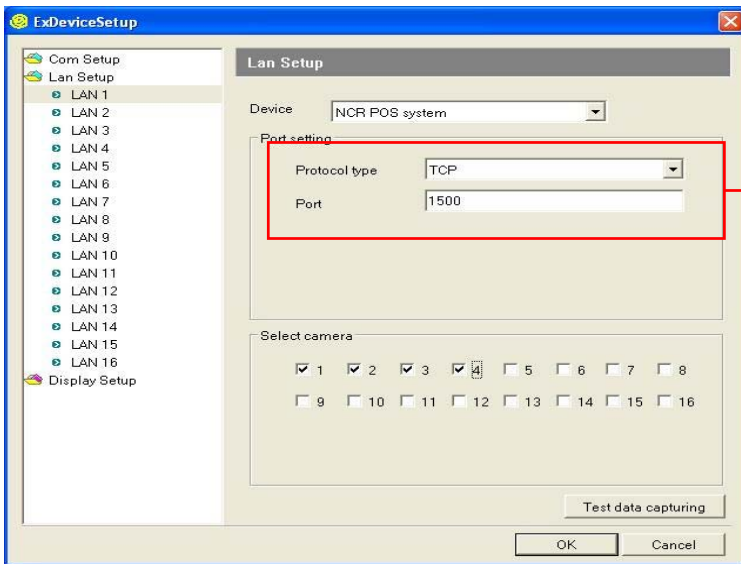
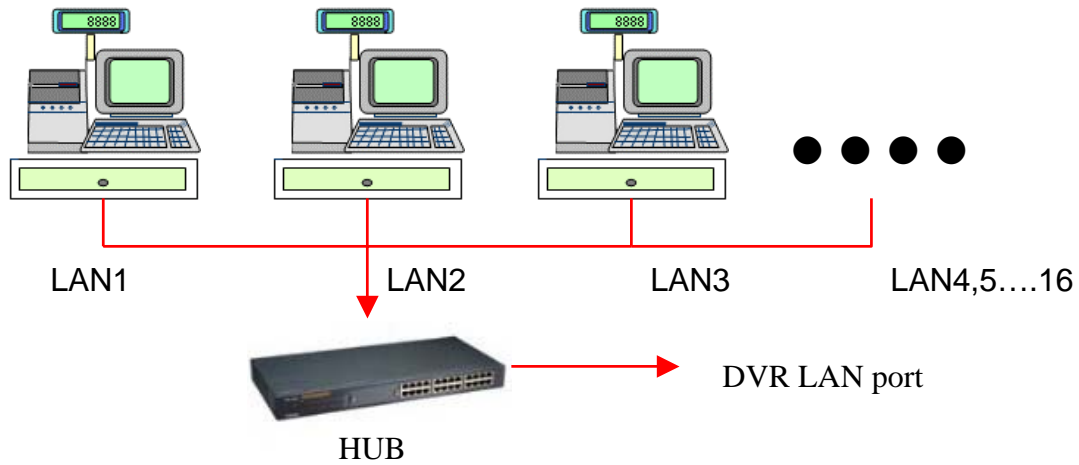


Connect to DVR COM1 or COM2



Change the port setting to match up POS external device.

7-2 LAN



Change port setting to match up the device.(support TCP or UDP)