



## Software NVR

### ⚙️ NVR 레코더



- ❖ 다양한 저장방식 지원(움직임감지, 연속저장, 센서저장, 오디오저장)
- ❖ 멀티 압축 코덱 사용(MPEG4, M-JPEG)
- ❖ 각 채널 별로 녹화 화질, 프레임 수 조정 기능
- ❖ Watermark 적용
- ❖ Client와 음성 채팅기능 지원
- ❖ 최대 32채널 Digital Input, 16채널 Digital Output 지원
- ❖ PAN, TILT, ZOOM 카메라 컨트롤 기능 지원
- ❖ 유동IP 환경에서의 Client 접속 관리(무상 DDNS 서버 운영)
- ❖ Internet Explorer로 접속할 수 있는 Web Cam Server 기능 지원
- ❖ 외부모니터로 스위칭 화면을 보여주는 Video Out Port 지원
- ❖ 상황 발생시 E-Mail 통보 기능
- ❖ Client User 등록, 삭제, 사용 권한을 설정 할 수 있는 관리 기능
- ❖ StandAlone DVR + IP Camera + Network Video Server 동시 연결 가능

### ⚙️ 재생 검색



- ❖ 최대 32채널 화면 분할 기능 지원
- ❖ 움직임 감지 검색
- ❖ 다양한 재생 기능
- ❖ 사용하기 편리한 날짜 시간 선택 기능
- ❖ 밝기와 역광 조절, 디지털 줌 기능
- ❖ JPEG 이미지 파일로 정지영상 저장
- ❖ 프린터로 정지영상 출력
- ❖ AVI & DAT 포맷으로 비디오, 오디오 데이터 동시 백업
- ❖ 백업 받은 데이터를 재생할 수 있는 백업 뷰 기능 제공
- ❖ Thumbnail 검색 기능 - 1분, 10분 단위 이미지 검색

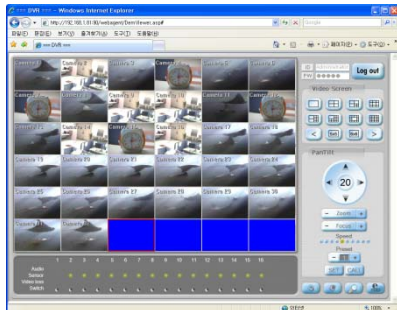
### ⚙️ 클라이언트



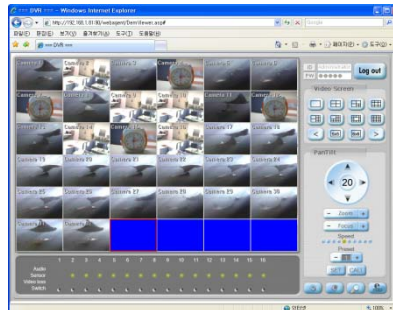
- ❖ TCP/IP 네트워크를 이용한 실시간 비디오, 오디오 전송
- ❖ 사이트 매니저를 이용한 편리한 DVR 주소록 관리
- ❖ 동시에 최대 1024개의 사이트를 접속해서 관리하고, 최대 16,384개의 카메라 영상을 모니터링 할 수 있다.
- ❖ 마우스 원 클릭으로 다른 사이트로 화면 전환
- ❖ DVR에 저장되어 있는 데이터를 원격으로 검색 (비디오, 오디오 데이터 전송)
- ❖ DVR 설정 값을 원격으로 변경
- ❖ 비디오 전송 속도 및 화질 조절
- ❖ Pan, Tilt, Zoom 조정
- ❖ DVR과 양방향 음성 채팅
- ❖ 다양한 화면 분할 (최대 64개의 채널을 동시에 디스플레이)
- ❖ PC DVR + StandAlone DVR + IP Camera + Network Video Server 동시 연결 가능

### ⚙️ 인터넷 익스플로러

#### - 실시간 영상 수신



#### - 재생 검색 수신



### ⚙️ Support PDA & Smart Phone



- ❖ Microsoft Pocket PC 2003 OS가 내장된 PDA와 스마트 폰 연결지원
- ❖ CDMA 데이터 통신 기능을 이용한 접속
- ❖ IEEE 802.11b and 802.11g Wireless 기능이 내장된 허브와
- ❖ 무선 네트워크 기능 지원
- ❖ DVR에 저장되어 있는 데이터 검색
- ❖ JPEG 이미지 파일로 정지영상 저장

## PC based DVR Card

### Features

- ❖ Image Resolution(NTSC/PAL): Max. 720 X 480 / 720 X 576
- ❖ Emergency Restore: Watch-dog function
- ❖ Support External Monitor
  - > ES Series: Switching > ESCR/MP/HP Series: Multi-view
- ❖ PTZ Control: Support with Extension Card (RS-485, RS-422)
- ❖ DI / DO: Support with Extension Card (Max. 16/16)
- ❖ Camera Input Port: BNC (8CH Multi Cable with 16CH DVR Card)
- ❖ Network: 10/100 Fast Ethernet, PSTN
- ❖ Network Connection: Client Program, Internet Explorer, Pocket PC 2003 Install PDA and iphone support web browser
- ❖ Supported O.S: Microsoft Windows 2000/XP/Vista

### Software MPEG4 Compression Cards

	ES0403 ES0403LP	ES0412	ES1606 ES1606LP	ES1612/ES1612L P	ES1624	ES3224	ES3296
Picture							
Input Camera	4CH		16CH			32CH	
Recording(NTSC/PAL)	30/25 fps@CIF	120/100 fps@CIF	60/50 fps@CIF	120/100 fps@CIF	240/200 fps@CIF	240/200 fps@CIF	960/800fps@CIF
Audio Input(RCA)	1CH	4CH	2CH	4CH	8H	16CH	16CH
Multi Card	4EA	2EA	4EA	2EA	-	Not available	2EA
Compression Codec	M-JPEG & MPEG4 (Selectable)						

### Software MPEG4 Compression Card & Real-Time Display Cards

	ESCR12-4	ESCR12	ESCR24	ESCR48
Picture				
Input Camera	4CH	16CH		
Display(NTSC/PAL)	120/100 fps	480/400 fps		
Recording(NTSC/PAL)	120/100 fps@CIF	120/100 fps@CIF	240/200 fps@CIF	480/400 fps@CIF
Audio Input(RCA)	4CH	4CH	16CH	16CH
Compression Codec	M-JPEG & MPEG4 (Selectable)			

### Hardware MPEG4 Compression Cards



	HP4000EX	MP3000	MP3000EX	HP3000
Picture				
Input Camera	16CH	8CH		8CH
Recording(NTSC/PAL)	480/400 fps@D1	240/200 fps@D1		240/200 fps@D1
Audio Input(RCA)	16CH	8CH		8CH
Multi Card	2CH	8CH		8CH
Compression Codec	H.264	MPEG4 ASP @ Level 5		H.264



## Network Video Encoder -1 channel D1 Network Video Encoder (H.264)

### Features

- ❖ 1 channel H.264 D1 Network Video Encoder
- ❖ Built-in Video Content Analysis
- ❖ 1 channel Audio Input, 1 channel Audio Output
- ❖ H.264 25/30 FPS@D1
- ❖ Video Compression: H.264, MPEG-4, MJPEG (Dual Stream)
- ❖ Deinterlacing on DSP
- ❖ Audio Compression: G.711
- ❖ RS-232C, RS-485 Support
- ❖ Burnt-in Text, Video Motion Detection Support
- ❖ USB 2.0 Support (External storage, Wireless LAN)
- ❖ Providing only SDK, not Complete Application Software

		NVC100	NVC1000
Picture			
Video	Input	1CH	
	Output	1 Loop Out	
	Compression	H.264, MPEG4, M-JPEG (Selectable)	
	Number of Streams	Dual Stream, Configurable	
	Resolution(NTSC/PAL)	D1(720x480), 2CIF(704x240), CIF(352x240), QCIF(176x120)	
	Compression FPS	30/25 fps@D1	
Audio	Input	Not Available	1CH
	Output	Not Available	1CH
	Compression	Not Available	G.711
Digital Input / Output		Not Available	1 / 1 CH
PTZ Port		Not Available	RS-485, RS-232
Protocol		TCP/IP, UDP/IP, HTTP, RTSP, RTCP, RTP/UDP, RTP/TCP, SNTP, mDNS, UPnP, SMTP, SOCK, IGMP, DHCP, FTP, DDNS, PPPoE, SSL v2/v3, IEEE 802.1X, SNMP, SSH, and IPv6	
USB 2.0		Not Available	Support
SD Memory		Not Available	Support
Power Consumption(12V)		DC12V 220mA	DC12V 240mA
Power over Ethernet		Support (IEEE 802.3af)	
Temperature		0°C ~ 60°C (32°F ~ 140°F)	
Humidity		Up to 85% RH	
Dimension		95(W) x 26(H) x 107(D) mm	103(W) x 38(H) x 141(D) mm
Weight		155 g	385 g
Video Content Analysis (Standard)	High Performance	Advanced Tracking Algorithm, Low False Alarm Rate	
	Easy to Use	Intuitive Web Browser Interface	
	Detection Zones	Multi-segment Polygons and Lines	
	On-screen Display	Real-time Display of Tracking Data and Events	
Video Content Analysis (option)	Detection Behavior	Direction, Stopping, Loitering, Entering, Exiting, Appear, and Disappear Filters	
	3D Behavior	Perspective Corrected Size and Speed Filters	
	Statistics	Counting Functions and Other Statistics	
	Meta Data	Binary XML Format	
Image Stabilization (Option)	Electronic Stabilization	Removes Camera Sway	



## Network Video Encoder

### Features

- ❖ MPEG4 D1 Full Frame Network Video Encoder
- ❖ Multi Codec Support: M-JPEG, MPEG4 and H.264
- ❖ Dual Stream Support
- ❖ RTSP/RTP – based Interface
- ❖ De-interlacing in Hardware Encoding Engine
- ❖ Video Stream Encryption
- ❖ Text OSD Support (Inserted before Compression)
- ❖ PoE (Power over Ethernet): Support (Option)
- ❖ Network: 10/100 Fast Ethernet
- ❖ DDNS(Dynamic Domain Name Service) Server Support
- ❖ Network Connection: Client Program, Recorder Program, Internet Explorer





		NVE1000	NVE2000		NVE4000	
Picture						
Video	Input	1CH	Single Stream	Dual Stream	Single Stream	Dual Stream
	Output	1 Loop Out	2CH	1CH	4CH	2CH
	Compression	M-JPEG & MPEG4 (Selectable per Channel)				
	Resolution(NTSC/PAL)	720 X 480, 704 X 480, 352 X 240 / 720X576, 704 X 576, 352 X 288				
	Compression FPS	30/25 fps@D1	60/50 fps@D1		120/100 fps@D1	
Audio	Input	1CH	2CH		4CH	
	Output	1EA				
	Compression	G.711				
Digital Input / Output		1 / 1 CH	2 / 2 CH		4 / 4 CH	
PTZ Port		RS-485, RS-232				
Protocol		SNTP, DHCP, UDP, TCP, RTP, RTSP (Multicast)				
Power Consumption(12V)		413mA	547mA		848mA	
Temperature		0°C ~ 60°C (32°F ~ 140°F)				
Humidity		Up to 85% RH				
Dimension		103(W) x 38(H) x 142(D) mm	103(W) x 38(H) x 142(D) mm		138(W) x 38(H) x 184(D) mm	
Weight		382 g	384 g		636 g	



## IP Camera - H.264 D1 IP Camera

### Features

- ❖ Indoor Mini Dome IP Camera (87.5(D) x 66.0(H) mm)
- ❖ Built-in Video Content Analysis
- ❖ H.264 25/30 FPS@D1, 2-way Audio
- ❖ Video Compression: H.264, MPEG-4, MJPEG (Dual Stream)
- ❖ Deinterlacing on DSP
- ❖ Burnt-in Text, Video Motion Detection Support
- ❖ Based on UDP's IPE042M Encoder Module
- ❖ Providing only SDK, not Complete Application Software

		IPE100	IPE1100	IPE3500	IPE5500
Picture					
Description		Indoor Fixed Mini Dome	Standard Box	Indoor/Outdoor Fixed Dome	Indoor/Outdoor PTZ Dome
CCD		Sony 1/3" Super HAD CCD	Sony 1/3" Super HAD CCD		Sony 1/4" Super HAD CCD
CMOS		1/3" VGA CMOS (640x480)	N / A		
Lens		3.7, 4.3 mm Cone Pinhole	3~8 mm (Optional)	F1.8	3.8 ~ 38.0 mm
Minimum Illumination		1.0 Lux	0.3 Lux (50 IRE): Day & Night Off (Color) 0.002 Lux (50 IRE): Day & Night Off (B/W), DSS x128 ON		0.7 Lux (50 IRE): Color 0.02 Lux (50 IRE): B&W
Day & Night		N / A	IR Cut Filter (Optional)	IR Cut Filter (Optional)	IR Cut Filter, DSS
PTZ		N / A			Support
Video Compression		H.264, MPEG4, M-JPEG			
Resolution(NTSC/PAL)		D1(720x480), 2CIF(704x240), CIF(352x240), QCIF(176x120)			
Compression FPS		30/25 fps@D1 (Dual Stream, Configurable)			
Audio Input / Output		1 / 1 CH			
Audio Compression		G.711			
Digital Input / Output		1 / 1 CH			
PTZ Port		N / A	N / A	N / A	Support
Protocol		TCP/IP, UDP/IP, HTTP, RTSP, RTCP, RTP/UDP, RTP/TCP, SNTP, mDNS, UPnP, SMTP, SOCK, IGMP, DHCP, FTP, DDNS, PPPoE, SSL v2/v3, IEEE 802.1X, SNMP, SSH, and IPv6			
USB 2.0		N / A	Support	N / A	
SD Memory		N / A	Support (microSD, Optional)	Support (Optional)	Support
Power Source		DC12V 290mA	12VDC 700mA	DC12V 850mA	
Power over Ethernet		N / A	Support (IEEE 802.3af, Optional)		
Dimension	Housing	87.5(Φ) x 66.0(H) mm	55(W)x55(H)x94.2(D) mm	150(Φ) x 113(H) mm	165(Φ) x 163.5(H) mm
	Dome	100(Φ) mm		100(Φ) mm	115(Φ) mm
Weight		120 g	868 g	1080 g	
Video Content Analysis(Standard)					
High Performance		Advanced Tracking Algorithm, Low False Alarm Rate			
Easy to Use		Intuitive Web Browser Interface			
Detection Zones		Multi-segment Polygons and Lines			
On-screen Display		Real-time Display of Tracking Data and Events			
Video Content Analysis (option)					
Detection Behavior		Direction, Stopping, Loitering, Entering, Exiting, Appear, and Disappear Filters			
3D Behavior		Perspective Corrected Size and Speed Filters			
Statistics		Counting Functions and Other Statistics			
Meta Data		Binary XML Format			
Image Stabilization (Option)					
Electronic Stabilization		Removes Camera Sway			

## IP Camera

### Features

- ❖ MPEG4 D1 Full Frame Network Video Encoder
- ❖ Multi Codec Support: H.264, M-JPEG, MPEG4
- ❖ RTSP/RTP – based Interface
- ❖ De-interlacing in Hardware Encoding Engine
- ❖ Video Stream Encryption
- ❖ Text OSD Support (Inserted before Compression)
- ❖ PoE (Power over Ethernet): Support (Option)
- ❖ Network: 10/100 Fast Ethernet
- ❖ DDNS(Dynamic Domain Name Service) Server Support
- ❖ Network Connection: Client Program, Recorder Program, Internet Explorer

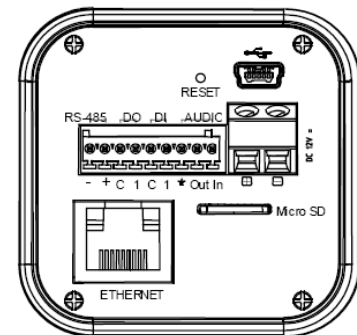
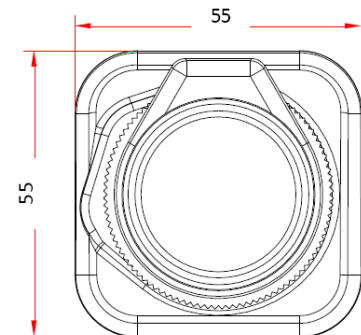
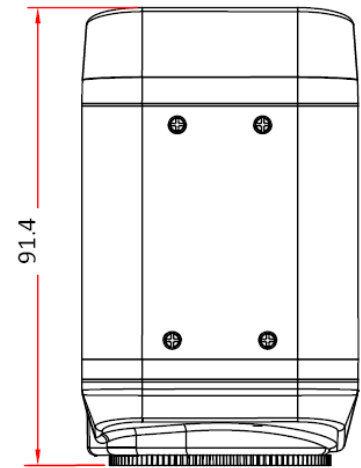
	ESIPC1100	ESIPC3100	ESIPC3500	ESIPC4100(Indoor)	ESIPC4100(Outdoor)
Picture					
Description	Standard Box	Indoor Dome	Vandal Proof	Indoor PTZ	Vandal Proof Outdoor PTZ
CCD Type / Size	Sony 1/3" Super HAD CCD			Sony 1/4" Super HAD CCD	
Lens	Not Supplied	4~9mm Vari-focal Auto IRIS		36X Optical(3.8~95mm),	
Digital Zoom	N / A			10X	
PTZ	N / A			0° ~ 360°	
Video Compression	M-JPEG & MPEG4 (Selectable per Channel)			H.264, M-JPEG & MPEG4 (Selectable per Channel)	
Resolution(NTSC/PAL)	720 X 480, 704 X 480, 352 X 240 / 720X576, 704 X 576, 352 X 288				
Compression FPS	30/25 fps@D1				
Audio Input / Output	1 / 1 CH				
Audio Compression	G.711				
PoE	Support(Optional)			N / A	
Digital Input / Output	1 / 1 CH			2 / 1 CH	
PTZ Port	RS-485, RS-232				
Protocol	SNTP, DHCP, UDP, TCP, RTP, RTSP (Multicast)				
Power Source	12VDC 1A	12VDC 700mA		24VAC 1A	24VAC 2
Operating Temperature	0°C ~ 60°C (32°F ~ 140°F)				
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)				
Humidity	Up to 85% RH				
Dimension	68(W)x74(H)x133(D)mm	135(W)x115(H)mm	140(W)x112(H)mm	Φ137.3 x 206(D) mm	Φ273.8x296.5(D)m
Weight	343 g	868 g	1268 g	1780 g	4580 g



- Megapixel codec: H.264, MJPEG, Up to 1600 x 1200
- Video codec: H.264, MPEG-4, MJPEG (Dual Stream@D1)
- Two way Audio
- OSD Output
- Support USB 2.0 (USB Memory stick ,wireless Lan)
- Support Micro SD Memory Slot

Camera Module		
Image Sensor	Aptina (Micron) 1/3.2" (4:3) CMOS 2M	
Effective Pixel	1600 x 1200 (UXGA, 2M)	
Scanning System	Progressive Scan	
Minimum Illumination	0.5 Lux(50IRE), 0.1 Lux(DSS x5 ON)	
Day&Night	S/W	
Video		
Megapixel Codec	H.264, MJPEG	
Codec	H.264, MPEG4, MJPEG	
Dual Stream	Support	
Frame	H.264	5fps@UXGA(1600x1200), 8fps@SXGA(1280x1024), 2fps@HD720(1280x720), 15fps@XGA(1024x768), 15fps@D1(720x480)
	MJPEG	15fps@UXGA(1600x1200)
	MPEG 4	15fps@D1(720x480)
OSD Output	Support(0 Name, Time)	
Audio		
In/Out	1/1 Channel	
Codec	G.711	
Function		
Sensor	1 Ch(Point /Power setup)	
Alarm	1 Ch(Point - Max 500mA@24VAC or 1A@12VDC)	
PTZ Control	RS-485	
Network	10/100 Base-T	
Protocol	TCP/IP, UDP/IP, HTTP, RTSP, RTCP, RTP/UDP, RTP/TCP, SNTP, mDNS, UPnP, SMTP, SOCK, IGMP, DHCP, FTP, DDNS, SSL v2/v3, IEEE 802.1X, SSH	
USB 2.0	Support (Mini-B plug)	
SD Memory	Support (Micro SD )	
PoE	Support (IEEE802.3af)	
En/Mechanical		
Power	DC12V 300mA	
Temperature/	0°C~50°C(32°F~122°F) / Up to 85% RH (Non-condensing)	
Demetion/Weight	55(W) x 55(H) x 91.4(D) mm / 260 g	

## Out Dimention



# STBA100 Video Stabilizer (Sand-alone)



- ✦ Video stabilizer for eliminating camera sway and other unwanted camera movement
- ✦ Suited to high-zoom cameras where small camera movements result in large image movements
- ✦ Compatible with fixed and PTZ cameras
- ✦ Simple to install, in-line with the video (plug and play) Analogue video in to Analogue video out
- ✦ Advanced automatic algorithm, ignores burnt-in text and moving objects automatically

## Specifications

Stabilization	
Stabilization tracking rate	Approx $\pm 500$ pixels/ sec
Stabilization range	$\pm 64$ pixels
Video Delay	> 80 ms
Stabilization	X-Y movement at sub-pixel accuracy
Automatic algorithm	Locks-on to background features. Ignores moving objects and burnt-in text
Lock-on time	< 80 ms from change of image
Video	
Input Video	Composite, 1V, 75 Ohm, BNC connector
Output Video	Composite, 1V, 75 Ohm, BNC connector
Video Standards	PAL / NTSC selectable
D1 resolution digitization	720 x 576 PAL, 720 x 480 NTSC
General	
Network	10/100 Base-T (set up only)
Simple installation	In-line between camera and monitor
Environmental	0 . 60 Deg C, < 85% RH
Power Adapter included	Universal 12V plug-top adapter 100-240V. Exchangeable plug type
Power consumption	2.5W (~210mA at 12V DC)
Weight	145g
Size	L = 98mm, W= 99mm, H = 26mm

STBA100 uses the latest TexasInstruments DaVinci processor to reduce camera shake due to wind induced camera movement. The unit gives operators a clear and steady view effectively increasing the useful range of zoom cameras where the slightest angular movement of the camera is magnified by the zoom factor of the lens.

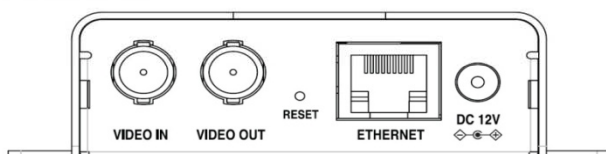


**STABILIZED IMAGE**



**ORIGINAL IMAGE**

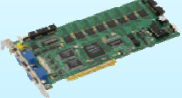
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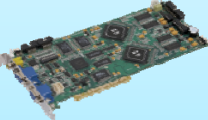





# > PC DVR CARD <

## ◆ Hardware Compression Card


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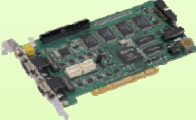
HP3000(240/240fps)  
Video - 8CH  
Audio - 8CH  
Codec - H.264
- 


MP3000(240/240fps)  
Video - 8CH  
Audio - 8CH  
Codec - MPEG4
- 

HP4000EX(480/480fps)  
Video - 16CH  
Audio - 16CH  
Codec - H.264

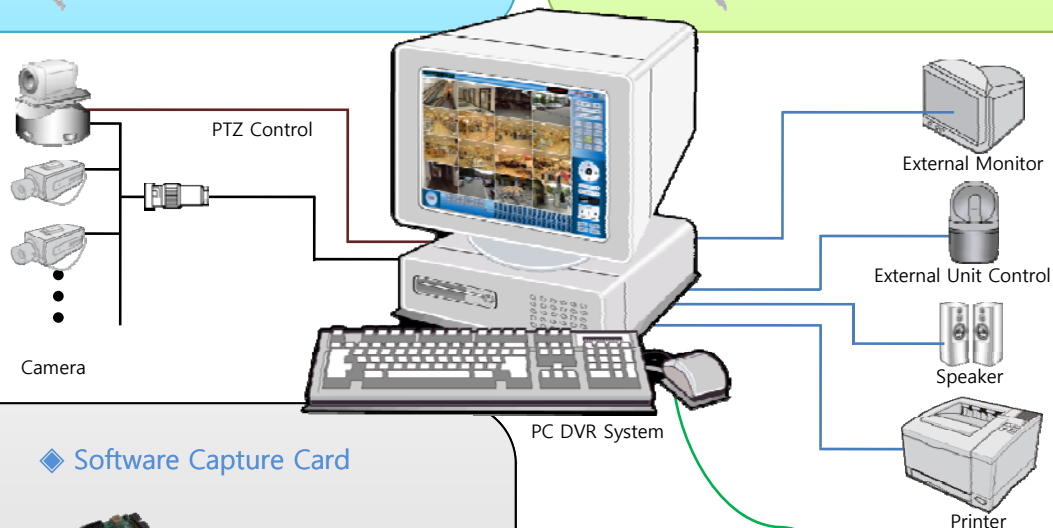
## ◆ Software Capture & Real-Time Display Card

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ESCR12(480/120fps)  
Video - 16CH  
Audio - 4CH
- 


ESCR24(480/240fps)  
Video - 16CH  
Audio - 8CH
- 


ESCR48(480/480fps)  
Video - 16CH  
Audio - 16CH





## ◆ Software Capture Card

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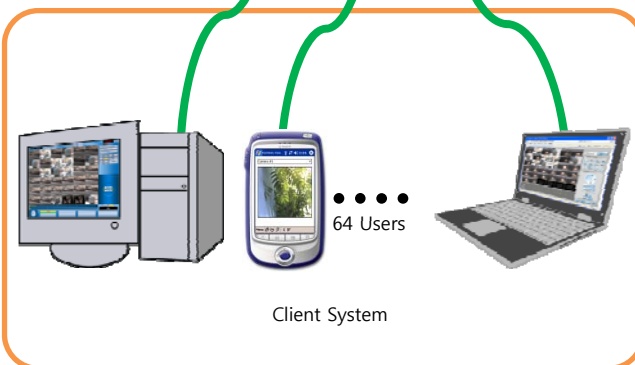
ES3296 960/960fps  
Video - 32CH  
Audio - 16CH
- 

ES1624(240/240fps)  
Video - 16CH  
Audio - 8CH
- 

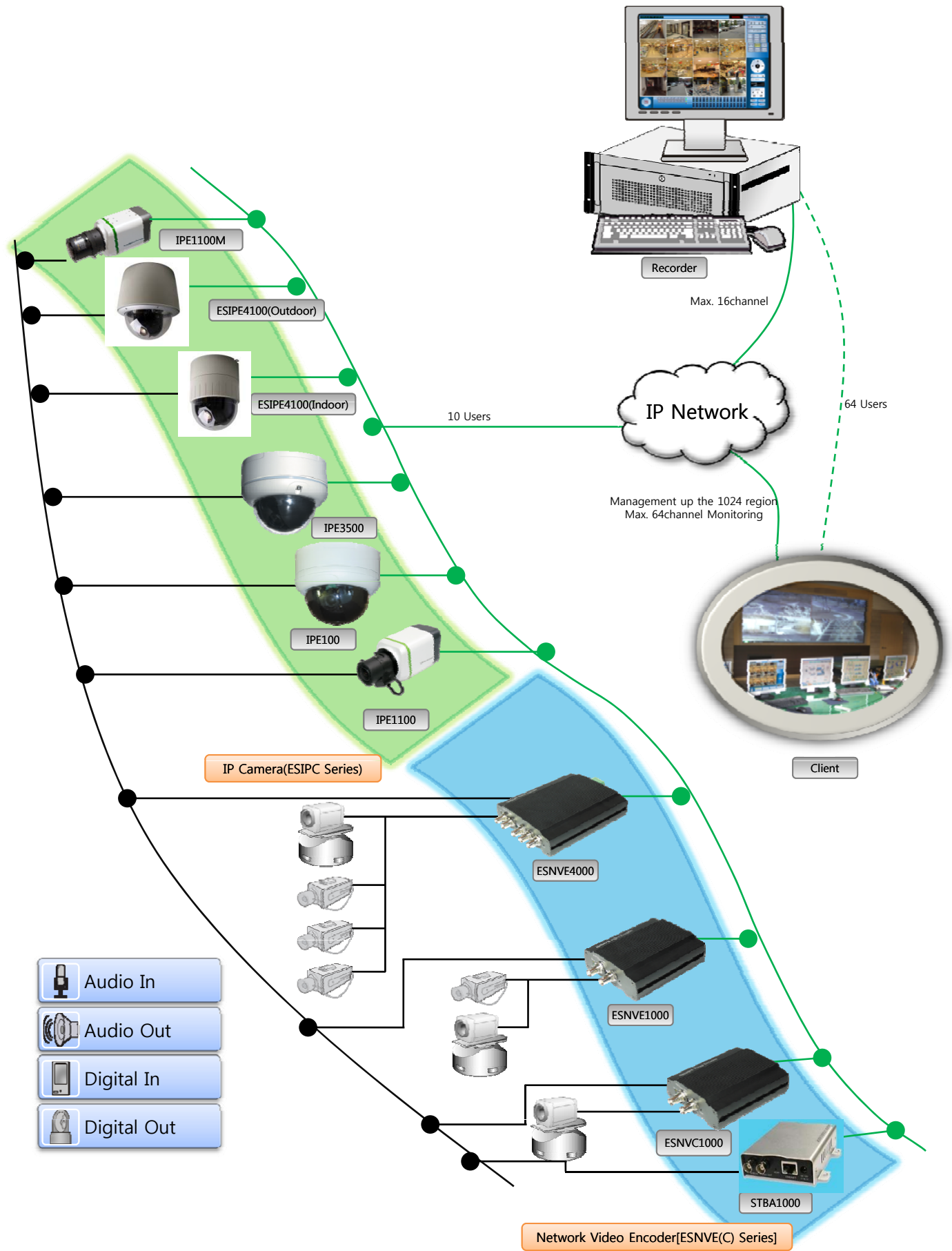
ES1612(120/120fps)  
Video - 16CH  
Audio - 4CH
- 

ES0412(120/120fps)  
Video - 4CH  
Audio - 4CH
- 

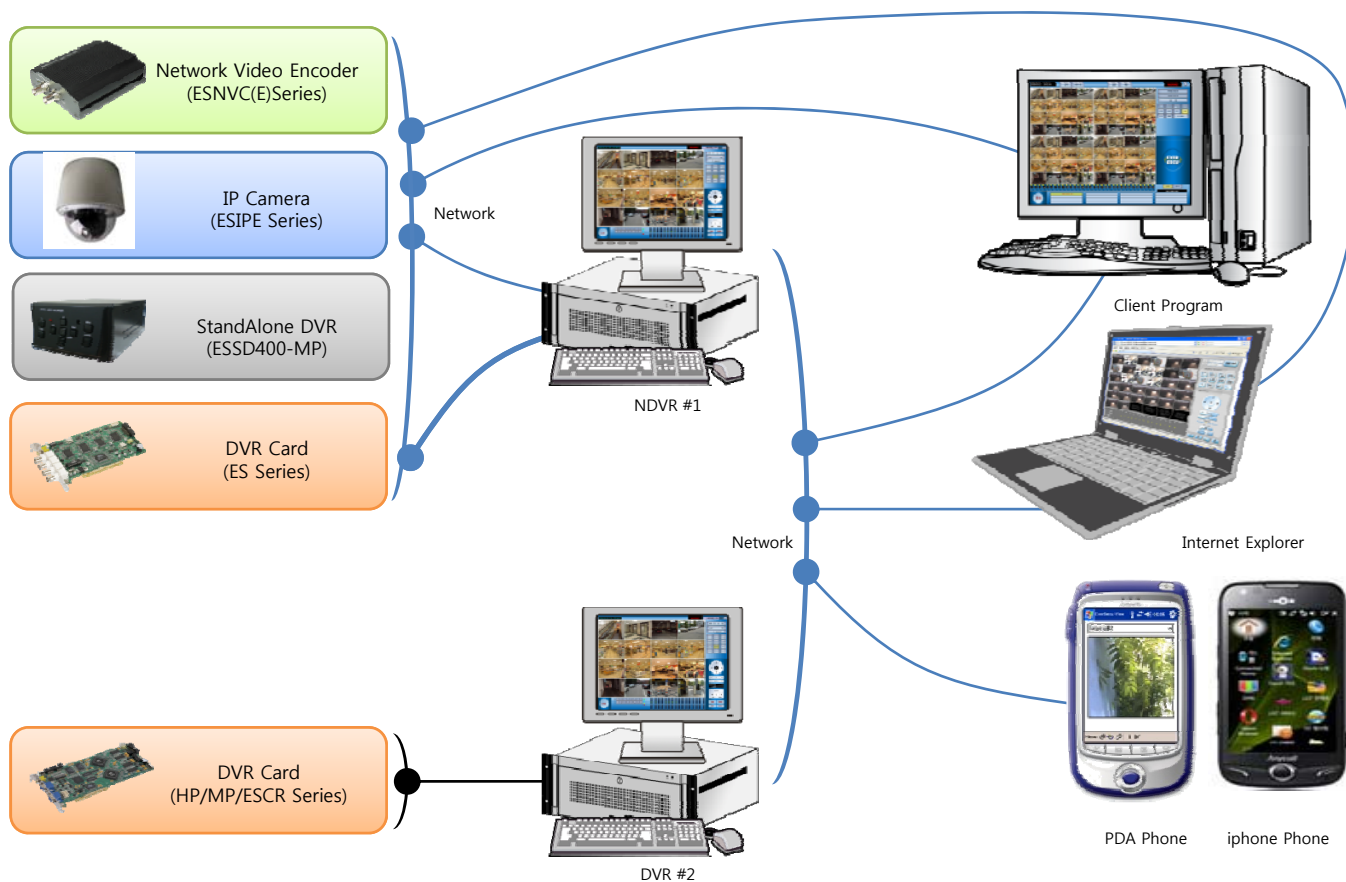
ES0403(30/30fps)  
Video - 4CH  
Audio - 1CH



# > IP Surveillance <



## > System configurations



## > DDNS(Dynamic Domain Name Service)

