

# iPOLiS



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M.E-1003

# iPOLiS



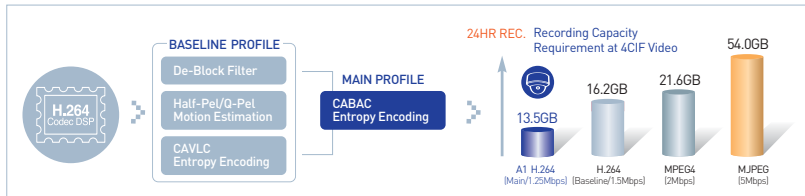
## H.264 A1 Network Camera

- SNB-2000
- SNB-3000
- SNB-3080(F)
- SNV-3080



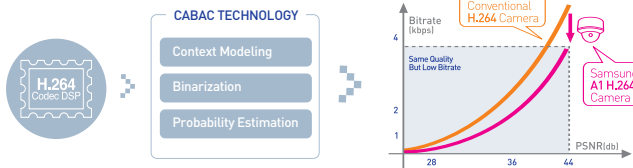
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# High Performance H.264 Compression



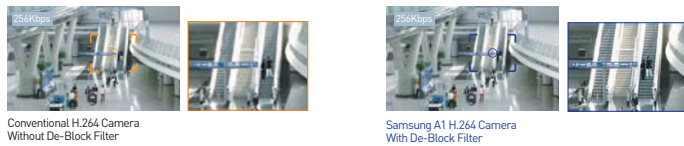
## CABAC Entropy coding Technology

Samsung A1 Network Camera has adopted the H.264 CABAC Entropy Coding Technology, so the H.264 performance is more enhanced than normal H.264 compression methods. With CABAC technology, Samsung network camera will provide a significant benefit to network transmitting with far less bandwidth usage.



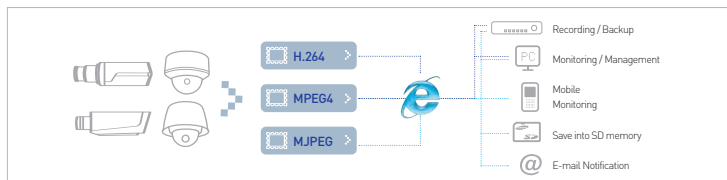
## De-block Filter

The De-Block Filter technology allows Samsung A1 Network Cameras to guarantee perfect image quality when transmitting low bit rate video through a narrow bandwidth network, by minimizing the block noise that occurs when highly compressed video is sent over a low speed bandwidth network.



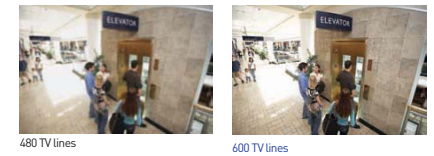
## Multi-Codect & Multi-Usage

The Multi Streaming feature means that H.264 or MPEG4 and MJPEG can be transmitted simultaneously, enabling real-time monitoring, high-quality or high efficiency recording, mobile monitoring, E-mail notification and saving to SD memory.



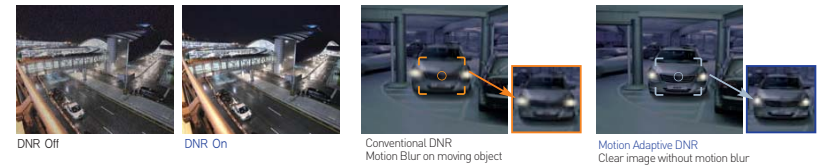
## Super High-Resolution-600TVL

Samsung A1 network cameras offer the best quality digital image by using Samsung Techwin's industry leading video/image processing technology.



## Motion Adaptive Digital Noise Reduction

A1 DNR technology utilizes Motion Adaptive DNR, this combines an adaptive 2D filter to reduce noise in the brightness of the image and an adaptive 3D filter that reduces the noise caused by movement greatly reducing motion blur.



## eXtended Dynamic Range (XDR)

Samsung A1 Network Camera provides XDR [eXtended Dynamic Range] technology to increase the level of visible detail in the dark areas, while maintaining image clarity and detail in the brighter portions of the image.



## Progressive Scan Network Camera

Samsung A1 Network Camera's progressive scan technology allows for the capture of noiseless, high-quality video of moving subjects.



# SNB-2000

1/3" H.264 Network Camera



- Real-time 30(25)fps at High Resolution(4CIF)
- H.264, MPEG-4 & MJPEG Multiple Encoding
- Progressive Scan
- XDR (eXtended Dynamic Range)
- Motion Adaptive DNR (Dynamic Noise Reduction)
- Privacy Mask (12ea)
- DIS (Digital Image Stabilizer)
- DDNS support, HTTPS security support
- IPv4/IPv6 support
- Standard RTP/RTSP support
- PoE (Power over Ethernet)

# SNB-3000

1/3" H.264 WDR Network Camera



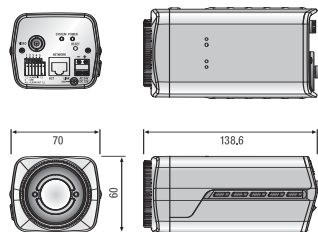
- Real-time 30(25)fps at High Resolution(4CIF)
- H.264, MPEG-4 & MJPEG Multiple Encoding
- Progressive Scan
- Day & Night Function(IR Cut Filter)
- WDR (Wide Dynamic Range)
- Bi-directional Audio Support
- SD Memory Slot for Internal Recording
- Intelligent Video Analytics
- XDR (eXtended Dynamic Range)
- Motion Adaptive DNR (Dynamic Noise Reduction)
- Privacy Mask (12ea)
- DIS (Digital Image Stabilizer)
- PoE (Power over Ethernet)

## Technical Specifications

Camera	SNB-2000	
Camera Type	Color / B/W	Color
Device	Super HAD PS CCD	Super HAD PS CCD
Size	1/3"	1/3"
Image	Scan	Progressive Scan
	Effective	NTSC: 811 x 508 / PAL: 795 x 596
Scanning	Horizontal	NTSC: 15.734Hz
	Vertical	PAL: 15.625Hz
Min. Scene Illumination	Color	0.12Lux (15 IRE) / 0.2Lux (30 IRE) / 0.4Lux (60 IRE)
	B/W	0.00023Lux (15 IRE) / 0.0005Lux (30 IRE) / 0.0008Lux (50 IRE)
Functions	Electronic Shutter Speed	1x ~ 1/6 (0.1x step)
	Backlight Compensation	On / Off (Area setting)
Resolution	Horizontal / Vertical	600TV lines / 350TV lines
	S/N Ratio	52dB
Environmental Conditions	Operating Temperature	-10°C ~ +50°C (+14°F ~ +122°F)
	Operating Humidity	0% ~ 90% RH
Power	Power Requirement	Dual (12V DC / 24V AC), PoE
	Power Consumption	Max. 7W
Physical Specification	Dimensions (WxHxD)	72 x 60 x 138.6mm (2.83" x 2.36" x 5.46")
	Weight	300g (0.66 lb)
	Color / Case	Silver / Metal

Network	SNB-2000	
OS	Flash memory	Embedded Linux
	RAM	256M byte
Network Board	Ethernet	RJ-45 (10/100 Base-T)
	Video Out	VBS 1.0Vp-p
Alarm	Input / Output	2ea / 2ea
	Compression	H.264 / MPEG-4 / MJPEG Multiple code; (H.264 / MPEG-4 selectable) simultaneous dual streaming
Video	Resolution	VGA 640 x 480
	Max. Frame Rate	NTSC: 352 x 240 / PAL: 352 x 288
Audio	Compression	N/A
	Bi-Directional Communication	Yes
Intelligent Video Analytics	IP	IPv4 / IPv6
	Protocol	TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP
Connection	User Access Level	Administrator
	Event Management	Alarm Input, Motion Detection, Schedule
Web Browser	Supported OS	Windows XP, VISTA, 7
	Supported Browser	Internet Explorer 6.0 or higher
Video Player	Video Management Software	Samsung CMS S/W, 3rd party S/W application
	Application	IP Installation
SDK	HTTP API	CGI Command
	RTSP/RTSP API	ActiveX SDK

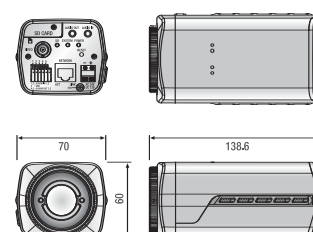
## Dimensions



## Technical Specifications

Camera	SNB-3000	
Camera Type	Color / B/W	Color
Device	Super HAD PS CCD	Super HAD PS CCD
Size	1/3"	1/3"
Image	Scan	Progressive Scan (When WDR on, Interlaced scan)
	Effective	NTSC: 811 x 508 / PAL: 795 x 596
Scanning	Horizontal	NTSC: 15.734Hz
	Vertical	PAL: 15.625Hz
Min. Scene Illumination	Color	0.12Lux (15 IRE) / 0.2Lux (30 IRE) / 0.4Lux (60 IRE)
	B/W	0.00023Lux (15 IRE) / 0.0005Lux (30 IRE) / 0.0008Lux (50 IRE)
Functions	Electronic Shutter Speed	1x ~ 1/6 (0.1x step)
	Backlight Compensation	On / Off (Area setting)
Resolution	Horizontal / Vertical	600TV lines / 350TV lines
	S/N Ratio	52dB
Environmental Conditions	Operating Temperature	-10°C ~ +50°C (+14°F ~ +122°F)
	Operating Humidity	0% ~ 90% RH
Power	Power Requirement	Dual (12V DC / 24V AC), PoE
	Power Consumption	Max. 8W
Physical Specification	Dimensions (WxHxD)	72 x 60 x 138.6mm (2.83" x 2.36" x 5.46")
	Weight	300g (0.66 lb)
	Color / Case	Silver / Metal

## Dimensions



Network	SNB-3000	
OS	Flash memory	Embedded Linux
	RAM	256M byte
Network Board	Ethernet	RJ-45 (10/100 Base-T)
	Video Out	VBS 1.0Vp-p
Alarm	Input / Output	2ea / 2ea
	Compression	H.264 / MPEG-4 / MJPEG Multiple code; (H.264 / MPEG-4 selectable) simultaneous dual stream
Video	Resolution	VGA 640 x 480
	Max. Frame Rate	NTSC: 352 x 240 / PAL: 352 x 288
Audio	Compression	N/A
	Bi-Directional Communication	Yes
Intelligent Video Analytics	IP	IPv4 / IPv6
	Protocol	TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP
Connection	User Access Level	Administrator
	Event Management	Alarm Input, Motion Detection, Schedule
Web Browser	Supported OS	Windows XP, VISTA, 7
	Supported Browser	Internet Explorer 6.0 or higher
Video Player	Video Management Software	Samsung CMS S/W, 3rd party S/W application
	Application	IP Installation
SDK	HTTP API	CGI Command
	RTSP/RTSP API	ActiveX SDK

# SND-3080(F)

H.264 WDR Network Dome Camera



- 2.8-11mm Vari-Focal Lens
- Real-time 30(25)fps at High Resolution(4CIF)
- H.264, MPEG-4 & MJPEG Multiple Encoding
- Progressive Scan
- WDR (Wide Dynamic Range)
- SD Memory Slot for Internal Recording
- XDR (eXtended Dynamic Range)
- Motion Adaptive DNR (Dynamic Noise Reduction)
- Privacy Mask (12ea)
- DIS (Digital Image Stabilizer)
- PoE (Power over Ethernet)

# SNV-3080

H.264 Anti-Vandal WDR Network Dome Camera

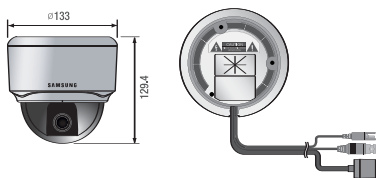


- 2.8-11mm Vari-Focal Lens
- Fan/Heater built-in for Outdoor Installation
- Real-time 30(25)fps at High Resolution(4CIF)
- H.264, MPEG-4 & MJPEG Multiple Encoding
- Progressive Scan
- WDR (Wide Dynamic Range)
- Day & Night Function (IR Cut Filter)
- Bi-directional Audio Support
- SD Memory Slot for Internal Recording
- Intelligent Video Analytics
- XDR (eXtended Dynamic Range)
- Motion Adaptive DNR (Dynamic Noise Reduction)
- Privacy Mask (12ea)
- DIS (Digital Image Stabilizer)
- PoE (Power over Ethernet)
- IP66

## Technical Specifications

Camera	SND-3080/3080F	
<b>Camera Type</b>	Color / B/W	Color
<b>Image</b>	Device	Super HAD PS CCD
	Size	1/3"
	Scan	Progressive Scan
	Pixels	NTSC : 811 x 508 / PAL : 795 x 596
	Effective	NTSC : 768 x 494 / PAL : 752 x 582
<b>Scanning</b>	Horizontal Frequency	NTSC : 15.734Hz
	Internal Mode	PAL : 15.625Hz
	Vertical Frequency	NTSC : 59.94Hz
	Internal Mode	PAL : 50Hz
<b>Min. Scene Illumination</b>	Color	0.12Lux (15 IRE) / 0.2Lux (30 IRE) / 0.4Lux (50 IRE)
	Sens-up 512x	0.00023Lux (15 IRE) / 0.0005Lux (30 IRE) / 0.0008Lux (50 IRE)
	Sens-off	0.00023Lux (15 IRE) / 0.0005Lux (30 IRE) / 0.4Lux (50 IRE)
	Sens-up 512x	0.00023Lux (15 IRE) / 0.0005Lux (30 IRE) / 0.0008Lux (50 IRE)
	Number of Privacy Zone	12ea (Polygonal method)
	Day & Night	Color / B/W (Auto Soft method)
	eXtended Dynamic Range (XDR)	On / Off (Level setting)
	Wide Dynamic Range	NTSC : On / Off (128x) / PAL : On / Off (160x)
	Digital Zoom	1x ~ 16x (0.1x step)
	PIP	On / Off
	Electronic Shutter Speed	NTSC : 1/60 ~ 1/10Ksec / PAL : 1/50 ~ 1/10Ksec
	Flickerless	On / Off
	Sens-up (Frame Integration)	2x ~ 512x
	Backlight Compensation	On / Off (Area setting)
	AGC	On / Off (Max. level setting)
	White Balance	ATW1 / ATW2 / AWC / Manual
	Digital Noise Reduction	On / Off (Adaptive 3D + 2D)
	Digital Image Stabilization	On / Off
	Camera ID	On / Off (Max. 54ea / 2 line)
	Etc. Function	Detail, Reverse (H/V), Posi/Nega
<b>Resolution Video Output</b>	Horizontal / Vertical	600TV lines / 350TV lines
<b>S/N Ratio</b>		VBS 1.0Vp-p
	Focal Length	2.8 ~ 11mm
	Zoom Ratio	3.9x
	Aperture Ratio	F1.2
	Angular Field of View	H : 94.6°(Wide) ~ 28.8°(Tele) / V : 68.4°(Wide) ~ 21.6°(Tele)
	Mount Type	AI (DC)
	Mount Drive Type	Board type
	Operating Temperature	-10°C ~ +50°C (+14°F ~ +122°F)
	Operating Humidity	0% ~ 90% RH
	Power Requirement	Dual (12V DC / 24V AC), PoE
	Power Consumption	Max. 6W
	LED Indicator	Yes
<b>Physical Specification</b>	Dimensions (WxH)	SND-3080 : 113.3 x 129.4mm (05.24" x 5.09") SND-3080F : 115.9 x 126mm (06.3" x 4.96") SND-3080 : 523g (1.15 lb) / SND-3080F : 650g (1.43 lb)
	Weight	
	Color / Case	White / Plastic

## Dimensions

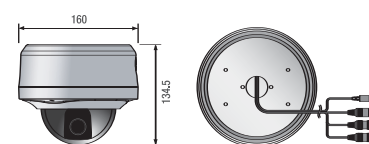


Network	SND-3080/3080F	
<b>OS</b>		Embedded Linux
	Flash memory	32M byte
	RAM	256M byte
<b>Network Board</b>	Hardware	Ethernet RJ-45 (10/100 Base-T)
	Video Out	VBS 1.0Vp-p
	Audio	N/A
	SD Memory Slot	Yes (SD / SDHC)
	PoE	Yes (IEEE802.3af)
<b>Alarm</b>	Input / Output	2ea / 2ea
	Compression	H.264 / MPEG-4 / MJPEG Multiple code (H.264 / MPEG-4 selectable/simultaneous dual streaming)
	4CIF	NTSC : 704 x 480 / PAL : 704 x 576
	Color / B/W	640 x 480
	CIF	NTSC : 352 x 240 / PAL : 352 x 288
	Max. Frame Rate	NTSC : 30, 15, 8, 3, 1fps / PAL : 25, 13, 6, 3, 1fps
	Quality	1 ~ 10 level (CBR / VBR)
	Compression	N/A
	Bi-Directional Communication	N/A
<b>OSD</b>	Camera Control and Adjustment	OSD menu on video (Menu enter/exit, move by Web UI)
	Sensitivity and Area Setting	On / Off (Menu / Live)
	IP	IPv4 / IPv6
<b>Protocol</b>	Network Protocol	TCP/IP, UDP/IP, RTP, (UDP), RTP, (TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP
	Streaming	PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3 (MIB-2), ARP, DNS, DDNS
	Security	TCP/IP, HTTP, HTTPS, SSL, DHCP
	DDNS	Unicast, Multicast
	Maximum User Access	HTTPS (SSL) login authentication, Digest login authentication, IP address filtering
	User Access Level	Supporting samsung DDNS and public DDNS services
	Administrator	Max. 10 users at Unicast mode, Max. 20 users at Multicast mode
	Operator	Live monitoring, Alarm I/O control, OSD menu control, Set up
	User	Live monitoring, Alarm I/O control
<b>Event Management</b>	Alarm Input	JPEG image transfer / FTP, JPEG image recording / SD memory
	Motion Detection	Notification : notify to viewer or by E-mail (one image attachment), Alarm out
	Schedule	JPEG image transfer / FTP, E-mail, JPEG image recording / SD memory
	Supported OS	Windows XP, VISTA, 7
<b>Web Browser</b>	Supported Browser	Internet Explorer 6.0 or higher
	Viewer (Default)	English, French, German, Spanish, Italian, Chinese, Korean
	UI Language	
	S/W Upgrade	Using web viewer UI
<b>Video Player</b>	RTP / RTSP Streaming	Quicktime, VLC player
<b>Video Management Software</b>	Application	Samsung CMS S/W, 3rd party S/W application
	IP Installation	IP installer application for all Samsung IP devices
<b>SDK</b>	HTTP API	Provides functionality to control cameras and set/retrieve internal parameter values
	CGI Command	Get, JPEG image or MJPEG stream, Alarm in/out control
	RTP/RTSP API	RTP header, RTSP command document
	ActiveX	ActiveX API for viewing data streams from IP camera

## Technical Specifications

Camera	SNV-3080	
<b>Camera Type</b>	Color / B/W	Color
<b>Image</b>	Device	Super HAD PS CCD
	Size	1/3"
	Scan	Progressive Scan (When WDR on, Interlaced Scan)
	Pixels	NTSC : 811 x 508 / PAL : 795 x 596
	Effective	NTSC : 768 x 494 / PAL : 752 x 582
<b>Scanning</b>	Horizontal Frequency	NTSC : 15.734Hz
	Internal Mode	PAL : 15.625Hz
	Vertical Frequency	NTSC : 59.94Hz
	Internal Mode	PAL : 50Hz
<b>Min. Scene Illumination</b>	Color	0.12Lux (15 IRE) / 0.2Lux (30 IRE) / 0.4Lux (50 IRE)
	Sens-up 512x	0.00023Lux (15 IRE) / 0.0005Lux (30 IRE) / 0.0008Lux (50 IRE)
	Sens-off	0.00023Lux (15 IRE) / 0.0005Lux (30 IRE) / 0.4Lux (50 IRE)
	Sens-up 512x	0.00023Lux (15 IRE) / 0.0005Lux (30 IRE) / 0.0008Lux (50 IRE)
	Number of Privacy Zone	12ea (4-point polygonal method)
	Day & Night	Color / B/W (Auto ICR)
	eXtended Dynamic Range (XDR)	On / Off (Level setting)
	Wide Dynamic Range	NTSC : On / Off (128x) / PAL : On / Off (160x)
	Digital Zoom	1x ~ 16x (0.1x step)
	PIP	On / Off
	Electronic Shutter Speed	NTSC : 1/60 ~ 1/10Ksec / PAL : 1/50 ~ 1/10Ksec
	Flickerless	On / Off
	Sens-up (Frame Integration)	2x ~ 512x
	Backlight Compensation	On / Off (Area setting)
	AGC	On / Off (Max. level setting)
	White Balance	ATW1 / ATW2 / AWC / Manual (ATW1 : 2,500 ~ 9,500K, ATW2 : 2,000 ~ 10,000K)
	Digital Noise Reduction	On / Off (Adaptive 3D + 2D)
	Digital Image Stabilization	On / Off
	Camera ID	On / Off (Max. 54ea / 2 line)
	Etc. Function	Detail, Reverse (H/V), Posi/Nega, PIP
<b>Resolution Video Output</b>	Horizontal / Vertical	600TV lines / 350TV lines
<b>S/N Ratio</b>		VBS 1.0Vp-p
	Focal Length	2.8 ~ 11mm
	Zoom Ratio	3.9x
	Aperture Ratio	F1.2
	Angular Field of View	H : 94.6°(Wide) ~ 28.8°(Tele) / V : 68.4°(Wide) ~ 21.6°(Tele)
	Mount Type	AI (DC)
	Mount Drive Type	Board type
	Operating Temperature	-40°C ~ +50°C (Built-in fan/heater)
	Operating Humidity	0% ~ 90% RH (Waterproof)
	Power Requirement	Dual (12V DC / 24V AC), PoE
	Power Consumption	Max. 6W (Heater off) / Max. 11W (Heater on)
	LED Indicator	Yes
<b>Physical Specification</b>	Dimensions (WxH)	116.0 x 134.5mm (6.3" x 5.3")
	Weight	1.28kg (2.82 lb)
	Color / Case	White Grey / Aluminum (IP66)

## Dimensions



Network	SNV-3080	
<b>OS</b>		Embedded Linux
	Flash memory	32M byte
	RAM	256M byte
<b>Network Board</b>	Hardware	Ethernet RJ-45 (10/100 Base-T)
	Video Out	VBS 1.0Vp-p
	Audio	Line in / Line out
	SD Memory Slot	Yes (SD / SDHC)
	PoE	Yes (IEEE802.3af)
<b>Alarm</b>	Input / Output	2ea / 2ea
	Compression	H.264 / MPEG-4 / MJPEG Multiple code (H.264 / MPEG-4 selectable/simultaneous dual streaming)
	4CIF	NTSC : 704 x 480 / PAL : 704 x 576
	Color / B/W	640 x 480
	CIF	NTSC : 352 x 240 / PAL : 352 x 288
	Max. Frame Rate	NTSC : 30, 15, 8, 3, 1fps / PAL : 25, 13, 6, 3, 1fps
	Quality	1 ~ 10 level (CBR / VBR)
	Compression	G.711
	Bi-Directional Communication	Yes
<b>OSD</b>	Camera Control and Adjustment	OSD menu on video (Menu enter/exit, move by Web UI)
	Intelligent Video Analytics	Scene change, Virtual line, Enter/Exit, Appear/Disappear
	IP	IPv4 / IPv6
<b>Protocol</b>	Network Protocol	TCP/IP, UDP/IP, RTP, (UDP), RTP, (TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP
	Streaming	PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3 (MIB-2), ARP, DNS, DDNS
	Security	TCP/IP, HTTP, HTTPS, SSL, DHCP
	DDNS	Unicast, Multicast
	Maximum User Access	HTTPS (SSL) login authentication, Digest login authentication, IP address filtering
	User Access Level	Supporting samsung DDNS and public DDNS services
	Administrator	Max. 10 users at Unicast mode, Max. 20 users at Multicast mode
	Operator	Live monitoring, Alarm I/O control, OSD menu control, Set up
	User	Live monitoring, Alarm I/O control
<b>Event Management</b>	Alarm Input	JPEG image transfer / FTP, JPEG image recording / SD memory
	Intelligent Video Detection	Notification : notify to viewer or by E-mail (one image attachment), Alarm out
	Schedule	JPEG image transfer / FTP, E-mail, JPEG image recording / SD memory
	Supported OS	Windows XP, VISTA, 7
<b>Web Browser</b>	Supported Browser	Internet Explorer 6.0 or higher
	Viewer (Default)	English, French, German, Spanish, Italian, Chinese, Korean
	UI Language	
	S/W Upgrade	Using web viewer UI
<b>Video Player</b>	RTP / RTSP Streaming	Quicktime, VLC player
<b>Video Management Software</b>	Application	Samsung CMS S/W, 3rd party S/W application
	IP Installation	IP installer application for all Samsung IP devices
<b>SDK</b>	HTTP API	Provides functionality to control cameras and set/retrieve internal parameter values
	CGI Command	Get, JPEG image or MJPEG stream, Alarm in/out control
	RTP/RTSP API	RTP header, RTSP command document
	ActiveX	ActiveX API for viewing data streams from IP camera