

## **SNV-6085R 2Megapixel Full HD Vandal-Resistant Network IR Dome Camera**

### **TECHNICAL SPECIFICATIONS**

### **SECURITY SYSTEM**

#### **DIVISION – 28 ELECTRONIC SAFETIES AND SECURITY**

#### **LEVEL 1 \_\_28 20 00 ELECTRONIC SURVEILLANCE**

#### **LEVEL 2 \_\_28 23 00 VIDEO SURVEILLANCE**

#### **LEVEL 3 \_\_28 23 29 VIDEO SURVEILLANCE REMOTE DEVICES AND SENSORS**

### **PART 2 – PRODUCTS**

#### **2.01 GENERAL**

- A. All equipment and materials used shall be standard components that are regularly manufactured and used in the manufacturer's system.
- B. All systems and components shall have been thoroughly tested and proven in actual use.
- C. All systems and components shall be provided with the availability of a toll-free (U.S. and Canada), 24-hour technical assistance program (TAP) from the manufacturer. The TAP shall allow for immediate technical assistance for either the dealer/installer or the end user at no charge for as long as the product is installed.

#### **2.02 SNV-6085R 2Megapixel Full HD Vandal-Resistant Network IR Dome Camera**

- A. The camera shall be of a vandal-resistant dome type with aluminum body. The camera shall be ivory in appearance.
- B. The camera shall feature up to 2 Megapixel Full HD resolution (1920x1080) in a 16:9 format. 4:3 format shall also be available in other resolutions.
- C. The camera shall offer dual codec, H.264 and MJPEG, with capability to stream up to 10 videos simultaneously.
- D. The camera shall offer maximum frame rate of 60 fps at all resolutions of videos encoded by H.264 codec. For videos encoded by MJPEG, maximum frame rate shall be 15 fps at resolutions from 1920x1080 to 1024x768 and 30 fps at resolutions from 800x600 to 320x180.
- E. When in color mode, the minimum illumination of the camera shall be 0.09 Lux at F1.6. When in black and white mode, it shall be 0 Lux with IR LED on.
- F. The network camera shall feature motorized varifocal lens that varies between 10 mm and 23 mm with zoom ratio of 2.3.
- G. The camera shall feature Wide Dynamic Range with a gain of 120db. This feature will work at 30 images per second at 1920x1080 resolution. The WDR function shall feature an adaptive motion system to eliminate motion blur.
- H. The camera shall feature Simple Focus, an automatic motorized focus adjustment. This should be activated by a button on the camera and remotely through the network interface. This can also be activated when the camera changes from day to night mode.
- I. The camera shall feature P-Iris which automatically adjusts iris opening and makes adjustment using software to respond to changes in light. This feature shall deliver improved clarity and contrast.
- J. The camera shall feature a high performance 2D & 3D noise reduction that automatically adapts the type of technology used according to movement in the field of view. 2D noise reduction compares adjacent pixels while 3D technology compares the same pixel in the previous and subsequent images, giving a higher level of detail. When the camera detects movement in a region of the image it will apply 2D noise reduction to that area and 3D noise reduction to the remainder of the image.
- K. The camera shall feature an automatic back light compensation technology that detects and enhances dark areas in the field of view and increases the gain in those areas.

- L. The camera shall feature built-in license-free video analytics including line crossing, appear/disappear, audio detection, camera tamper (scene change) and enter/exit a predefined zone.
- M. The camera shall feature advanced motion detection with definable detection areas, minimum / maximum object size definition and a learning algorithm that ignores false alarms such as trees and waves on water.
- N. The camera shall support Multi Cropping technology to allow video profiles to be set up with a reduced area of the overall field of view of the camera.
- O. The camera shall feature a face detection technology that can be used to create an event whenever there is a face or multiple faces in the image. The technology should be able to detect 32 faces simultaneously.
- P. The camera shall feature a smart codec that can use a higher quality compression for regions of interest in the image, thereby prioritizing the encoding of the most important areas of the field of view.
- Q. The camera shall feature a Digital Image Stabilization function.
- R. The camera shall support ONVIF Profile S for operations with 3<sup>rd</sup> party systems.
- S. The camera shall be capable of simultaneously transmitting multiple video streams of different resolution, compression, frame-rate and compression settings.
- T. The network camera should be configurable through a built in web server that can be accessed via standard browsers including Internet Explorer, Firefox, Chrome & Safari.
- U. The camera shall feature a line level audio input with an alarm function.
- V. The camera shall feature a line level audio input and output capable of duplex operation.
- W. The cameras shall support micro SD, SDHC & SDXC flash memory card for recording video footage on event, network loss or continuously.
- X. The camera shall provide a customizable on-screen display (OSD) which shall be available in English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Danish, Portuguese, Turkish, Polish, Czech, Romanian, Serbian, Dutch, Croatian, Hungarian, Greek, Finnish, Norwegian

## **2.03 VIDEO**

A. Imaging Device	1/2.8" 2.38M CMOS (IMX136)
B. Total Pixels	1,952(H) x 1,116(V)
C. Effective Pixels	1,944(H) x 1,104(V)
D. Scanning System	Progressive
E. Min. Illumination	
1. Color	0.25Lux (F1.6, 50IRE), 0.09Lux (F1.6, 30IRE)
2. B/W	0Lux (F1.6, 50IRE, IR LED on), 0Lux (F1.6, 30IRE, IR LED on)
F. S / N Ratio	50dB
G. Video Output	CVBS : 1.0 Vpp / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation DIP connector type

## **2.04 LENS**

A. Focal Length (Zoom Ratio)	10 ~ 23mm (2.3x) motorized varifocal
B. Max. Aperture Ratio	F1.6
C. Angular Field of View	H : 31.3°(Wide) ~ 13.9°(Tele)

	D. Min. Object Distance	V : 17.1°(Wide) ~ 7.8°(Tele) 0.8m (2.62ft)
	E. Focus Control	Simple focus (Motorized V/F) Manual, Remote control via network (Manual, Simple focus) P-Iris
	F. Lens Type	Board-in type
	G. Mount Type	
<b>2.05</b>	<b>PAN / TILT / ROTATE</b>	
	A. Pan / Tilt / Rotate Range	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
<b>2.06</b>	<b>OPERATION</b>	
	A. IR LED	14ea
	B. Viewable Length	20m (65.62ft)
	C. Camera Title	Off / On (Displayed up to 45 characters)
	D. Day & Night	Auto (ICR) / Color / B/W / External / Schedule
	E. Backlight Compensation	Off / BLC
	F. Wide Dynamic Range	120dB
	G. Contrast Enhancement	SSDR (Samsung Super Dynamic Range) (Off / On)
	H. Digital Noise Reduction	SSNRIII (2D+3D noise filter) (Off / On)
	I. Digital Image Stabilization	Off / On
	J. Defog	Off / Auto / Manual
	K. Motion Detection	Off / On (4ea 4 points polygonal zones)
	L. Privacy Masking	Off / On (32 zones with 4 points of polygonal)
	M. Gain Control	Off / Low / Middle / High
	N. White Balance	ATW / AWC / Manual / Indoor / Outdoor
	O. Electronic Shutter Speed	Minimum / Maximum / Anti flicker
	P. Flip / Mirror	Off / On
	Q. Intelligent Video Analytics	Tampering, Virtual line, Enter / Exit, (Dis)Appear, Audio detection, Face detection
	R. Alarm I/O	Input 1ea / Output 1ea
	S. Alarm Triggers	Motion detection, Tampering, Audio detection, Face detection, Video analytics, Network disconnection, Alarm input
	T. Alarm Events	File upload via FTP and E-mail, Notification via E-mail, Local storage (SD/SDHC/SDXC) or NAS recording at Event (Alarm triggers), External output
<b>2.07</b>	<b>NETWORK</b>	
	A. Ethernet	RJ-45 (10/100BASE-T)
	B. Video Compression Format	H.264 (MPEG-4 part 10/AVC), MJPEG
	C. Resolution	1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 800 x 450, 640 x 480, 640 x 360, 320 x 240, 320 x 180
	D. Max. Frame rate	
	1. H.264	60fps @ all resolutions
	2. MJPEG	15fps @ 1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768 30fps @ 800 x 600, 800 x 450, 640 x 480, 640 x 360, 320 x 240, 320 x 180
	E. Smart Codec	Manual mode (Area-based : 5ea),

	Face detection mode
F. Video Quality Adjustment	
1. H.265/H.264	Compression level, Target bitrate level control,
2. MJPEG	Quality level control
G. Bitrate Control Method	
1. H.264	CBR or VBR
2. MJPEG	VBR
H. Streaming Capability	Multiple streaming (Up to 10 profiles)
I. Audio In	Selectable (Mic in / Line in), Max output level : 1 Vrms Supply voltage : 2.5V DC (4mA), Input impedance : approx. 2K Ohm
J. Audio Out	Line out (3.5mm stereo mini jack)
K. Audio Compression Format	G.711 u-law/G.726 selectable, G.726 (ADPCM) 8KHz, G.711 8KHz G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps Bi-directional audio
L. Audio Communication	
M. IP	IPv4, IPv6
N. Protocol	TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour HTTPS(SSL) login authentication, Digest login authentication IP address filtering, User access log, 802.1x authentication
O. Security	Unicast / Multicast
P. Streaming Method	15 users at unicast mode
Q. Max. User Access	
R. Edge Storage	micro SD/SDHC/SDXC Max. 64G, NAS - Motion images recorded in the SD/SDHC/SDXC memory card can be downloaded. Manual recording at local PC
S. Application Programming interface	ONVIF profile S & G, HTTP API (SUNAPI)
T. Webpage Language	English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Danish, Portuguese, Turkish, Polish, Czech, Rumanian, Serbian, Dutch, Croatian, Hungarian, Greek, Norwegian, Finnish
U. Web Viewer	
1. Supported OS	Windows XP / VISTA / 7 / 8 / 8.1, MAC OS X 10.7 ~ 10.10
2. Supported Browser	Microsoft Internet Explorer (Ver. 8 ~ 11), Mozilla Firefox (Ver. 9 ~ 35), Google Chrome (Ver. 15 ~ 44) Apple Safari (Ver. 8.0.2 (Mac OS X 10.10), 7.0.6 (Mac OS X 10.9), 6.0.2 (Mac OS X 10.8, 10.7 only), 5.1.7) * Mac OS X only
V. Central Management Software	SmartViewer
<b>2.08 ENVIRONMENTAL</b>	
A. Operating Temperature / Humidity	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -35°C (-31°F)

B. Storage Temperature / Humidity	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
C. Ingress Protection	IP66
D. Vandal Resistance	IK10

**2.09 Electrical**

A. Input Voltage / Current	12V DC ±10%, 24V AC ±10%, PoE (IEEE802.3af)
B. Power Consumption	Max. 11W (Heater off), Max. 12.95W (Heater on)

**2.10 Mechanical**

A. Color / Material	Ivory / Aluminum
B. Dimension (WxHxD)	Ø160.0 x 118.5mm (Ø6.3" x 4.67")
C. Weight	985g (2.17 lb)

**2.11 CERTIFICATIONS**

- A. CE mark
- B. FCC mark
- C. UL mark

**2.12 WARRANTY**

- A. 3 years, parts and labor.