

SNP 5321H 1.3MEGAPIXEL HD 32X NETWORK PTZ DOME CAMERA

TECHNICAL SPECIFICATIONS

SECURITY SYSTEM

DIVISION – 28 ELECTRONIC SAFETY 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 SNP 5321H 1.3MEGAPIXEL HD 32X NETWORK PTZ DOME CAMERA

- A. These cameras shall support multi-streaming technologies, transferring real-time high resolution images. It shall support 60fps at all available resolution when using H.264.
- B. The camera shall provide 4.44 ~ 142.6mm (Optical 32x) optical zoom with 16x digital zoom. It shall support SD memory and Bi-directional audio.
- C. All operation and configuration menus shall be provided in English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Danish, Portuguese, Turkish, Polish, Czech, Rumanian, Serbian, Dutch, Croatian, Hungarian, Greek, Finnish and Norwegian.
- D. The camera shall be of a dome type suitable for external installation. The camera shall be ivory in appearance.
- E. The camera shall feature a motorized pan and tilt mechanism capable of panning at 700°/s and tilt movement at 700°/s under preset mode. Under manual mode it shall be possible to move at maximum speed of 120°/s
- F. The camera should be capable of capturing an image size of 1280 x 1024 at 60 images per second.
- G. The camera shall feature a 32x zoom lens with continuous and one shot autofocus functions
- H. The camera shall feature Wide Dynamic Range with a gain of 120dB.

2.03 VIDEO

A. Imaging Device	1/3" 1.3M CMOS
B. Total Pixels	1,312(H) x 1,069(V), 1.40M pixels
C. Effective Pixels	1,305(H) x 1,049(V), 1.37M pixels
D. Scanning System	Progressive
E. Min. Illumination	
1. Color	0.1Lux (1/30sec, F1.6, 50IRE, AGC high) 0.005Lux (2sec, F1.6, 50IRE, AGC high) 0.05Lux (1/30sec, F1.6, 30IRE) 0.0025Lux (2sec, F1.6, 30IRE)
2. B/W	0.01Lux (1/30sec, F1.6, 50IRE, AGC high) 0.0005Lux (2sec, F1.6, 50IRE, AGC high)

	0.005Lux (1/30sec, F1.6, 30IRE) 0.00025Lux (2sec, F1.6, 30IRE)
F. S/N Ratio	50 dB
G. Video Output	CVBS : 1.0 Vpp / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation
2.04 LENS	
A. Focal Length (Zoom Ratio)	4.44 ~ 142.6mm (Optical 32x)
B. Max. Aperture Ratio	F1.6(Wide) / F4.4(Tele)
C. Angular Field of View	H : 56.8°(Wide) ~ 1.99°(Tele) V : 46.3°(Wide) ~ 1.6°(Tele)
D. Min. Object Distance	Wide : 1.5m (4.92ft), Tele : 1.9m (6.23ft)
E. Lens Type	DC auto iris
F. Mount Type	Board-in type
G. Focus Control	Auto / Manual / One push
2.05 PAN/TILT/ROTATE	
A. Pan Range	360°Endless
B. Tilt Range	210° (-15° ~195°)
C. Pan/Tilt Speed	Preset : 700°/sec, Manual : 0.024°/sec ~ 120°/sec
D. Sequence	Preset (255ea), Swing, Group (6ea), Trace, Tour (1ea), Auto run, Schedule
E. Preset Accuracy	±0.2°
F. Azimuth	Yes (E / W / S / N / NE / NW / SE / SW)
2.06 OPERATION	
A. Camera Title	Off / On (Displayed up to 45 characters)
B. Day & Night	Auto (ICR) / Color / B/W
C. Backlight Compensation	Off / BLC / WDR
D. Wide Dynamic Range	120dB
D. Contrast Enhancement	SSDR (Samsung Super Dynamic Range) (Off / On)
E. Digital Noise Reduction	SSNRIII (2D+3D noise filter) (Off / On)
F. Digital Image Stabilization	Off / On
G. Defog	Off / Auto / Manual
H. Motion Detection	Off / On (4ea rectangle zone)
I. Privacy Masking	Off / On (32 zones of rectangle zone) with zoom threshold mosaic option
J. Gain Control	Off / Low / Middle / High
K. White Balance	ATW / AWC / Manual / Indoor / Outdoor / Mercury
L. Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2 ~ 1/12,000sec)
M. Digital Zoom	16x
N. Flip / Mirror	Off / On
O. Intelligent Video Analytics	Tampering, Virtual line, Enter / Exit, (Dis)Appear, Audio detection, Face detection
P. Alarm I/O	Input 4ea / Output 2ea (Relay)
Q. Remote Control Interface	RS-485
R. RS-485 Protocol	Samsung-T/E, Pelco-P/D, Panasonic, Honeywell, AD, Vicon, Bosch, GE
S. Alarm Triggers	Motion detection, Tampering, Audio detection, Face

	detection, Video analytics, Alarm input, Network disconnection
T. Alarm Events	File upload via FTP and E-mail, Notification via E-mail, TCP and HTTP, Local storage (SD/SDHC/SDXC) or NAS recording at Alarm triggers, External output
2.07 NETWORK	
A. Ethernet	RJ-45 (10/100BASE-T)
B. Video Compression Format	H.264 (MPEG-4 part 10 / AVC), MJPEG
C. Resolution	1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 800 x 450, 720 x 576, 640 x 480, 640 x 360, 320 x 240, 320 x 180
D. Max. Framerate	
1. H.264	Max. 60fps @ all resolutions
2. MJPEG	Max. 15fps @ 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768 Max. 30fps @ 800 x 600, 800 x 450, 720 x 576, 640 x 480, 640 x 360, 320 x 240, 320 x 180
E. Video Quality Adjustment	
1. H.264	Compression level, Target bitrate level control
2. MJPEG	Quality level control
F. Bitrate Control Method	
1. H.264	CBR or VBR
2. MJPEG	VBR
G. Streaming Capability	Multiple streaming (Up to 10 profiles)
Smart Codec	Manual mode (Area-based : 5ea), Face detection mode
H. Audio In	Selectable (Mic in / Line in), Supply voltage : 2.5V DC (4mA), Input impedance : approx. 2K Ohm
Audio Out	Line out (3.5mm mono jack), Max output level : 1 Vrms
I. Audio Compression Format	G.711 u-law/G.726 selectable, G.726 (ADPCM) 8KHz, G.711 8KHz, G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps
J. Audio Communication	Bi-directional audio
K. IP	IPv4, IPv6
L. 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
M. Security	HTTPS(SSL) login authentication, Digest login authentication, IP address filtering, User access log, 802.1x authentication
N. Streaming Method	Unicast / Multicast
O. Max. User Access	10 users at unicast mode
P. Edge Storage	SD/SDHC/SDXC slot for supporting memory card Motion Images recorded in the SD/SDHC/SDXC memory card can be downloaded NAS (Network Attached Storage)
Q. Application Programming interface	ONVIF profile S, SUNAPI (HTTP API), SVNP 1.2, Samsung Techwin Open Platform

R. Webpage Language	English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Danish, Portuguese, Turkish, Polish, Czech, Rumanian, Serbian, Dutch, Croatian, Hungarian, Greek, Finnish, Norwegian
S. Web Viewer	
1. Supported OS	Windows XP / VISTA / 7 / 8, MAC OS X 10.7
2. Supported Browser	Microsoft Internet Explorer (Ver. 8 ~ 11), Mozilla Firefox (Ver. 9 ~ 19), Google Chrome (Ver. 15 ~ 32), Apple Safari (Ver. 6.0.2(Mac OS X 10.8, 10.7 only), 5.1.7) * Mac OS X only
T Central Management Software	SmartViewer, SSM
2.08 ELECTRICAL	
A. Voltage	24V AC $\pm 10\%$, PoE+ (IEEE802.3af, Class4)
B. Power Consumption	
1. 24V AC	Max. 65W (24V AC heater on & PoE heater on)
2. PoE +	Max. 25W (24V AC heater off / PoE heater on)
2.09 ENVIRONMENTAL SPECIFICATIONS	
A. Operating Temperature / Humidity	
1. 24V AC	50°C ~ +55°C (-58°F ~ +131°F) / Less than ~ 90% RH
2. PoE +	30°C ~ +55°C (-22°F ~ +131°F) / Less than 90% RH
B. Storage Temperature / Humidity	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
C. Ingress Protection	IP66
D. Vandal Resistance	IK10
2.10 PHYSICAL SPECIFICATIONS	
A. Dimension	Ø223.4 x 293.6mm (Ø8.8" x 11.56")
B. Weight	3.2Kg (7.05 lb)
C. Color/Material	Ivory / Plastic + Metal
2.11 CERTIFICATIONS	
A. CE mark	
B. FCC mark	
C. UL mark	
2.12 WARRANTY	
A. 3 years, parts and labor.	