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

1. 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.
2. 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.
3. 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.
4. The camera shall be of a dome type suitable for external installation. The camera shall be ivory in appearance.
5. 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
6. The camera should be capable of capturing an image size of 1280 x 1024 at 60 images per second.
7. The camera shall feature a 32x zoom lens with continuous and one shot autofocus functions
8. The camera shall feature Wide Dynamic Range with a gain of 120dB.

**2.03 VIDEO**

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| 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

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| --- | --- |
| 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

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| --- | --- |
| 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

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| 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**

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| A. Voltage | | 24V AC ±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**

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| 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 PHYSCIAL SPECIFICATIONS**

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| --- | --- |
| 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.