SNO 6084R 2MEGAPIXEL FULL HD NETWORK IR BULLET 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

1. All equipment and materials used shall be standard components that are regularly manufactured and used in the manufacturer’s system.
2. All systems and components shall have been thoroughly tested and proven in actual use.
3. 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 SNO 6084R 2MEGAPIXEL FULL HD NETWORK IR BULLET CAMERA

1. The camera shall be of a dome type suitable for outdoor installation. The camera shall be dark gray in appearance with an aluminum body and integrated wall bracket.
2. The camera shall feature an Adaptive Infrared illumination system with 20 LEDs giving a viewable distance of 30m (98.43ft) in complete darkness.
3. The camera shall provide video compression dual codec ( H.264 and MJPEG).
4. The network camera shall feature up to 2 Megapixel resolution in a 16:9 format.
5. The camera shall provide Defog and WDR.
6. The camera shall provide Audio, Face and Motion detection.
7. The camera shall provide memory slot for micro SD, SDHC and SDXC.
8. The camera shall provide Multi-crop streaming.
9. The camera shall support Bi-directional audio.
10. 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, Norwegian, and Finnish.

**2.03 CAMERA**

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| --- | --- | --- |
| 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 | 0.1Lux (F1.2, 50IRE)  0.0017Lux (2sec, F1.2, 50IRE)  0.03Lux (F1.2, 30IRE) |
|  | 2. B/W | 0Lux (F1.2, 50IRE, IR LED on)  0Lux (F1.2, 30IRE, IR LED on) |
| F. S/N Ratio | | 50dB |
| G. Video Output | | CVBS : 1.0 Vpp / 75Ω composite, 704 x 480(N), 704 x 576(P), for installation  DIP connector type |

2.04 LENS TYPE

|  |  |
| --- | --- |
| A. Focal Length (Zoom Ratio) | 3 ~ 8.5mm (2.8x) motorized varifocal |
| B. Max. Aperture Ratio | F1.2 |
| C. Angular Field of View | H : 105.5°(Wide) ~ 37.1°(Tele)  V : 57.5°(Wide) ~ 21.0°(Tele) |
| D. Min. Object Distance | 0.5m (1.64ft) |
| E. Lens Type | DC auto iris, P-Iris |
| F. Mount Type | Board-in type |
| G. Focus Control | Simple focus (Motorized V/F) / Manual  Remote control via network (Manual, Simple focus) |

2.05 OPERATION

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| --- | --- |
| 1. IR LED | 20ea |
| 1. Viewable Length | 30m (98.43ft) |
| 1. Camera Title | Off / On (Displayed up to 45 characters) |
| 1. Day & Night | Auto (ICR) / Color / B/W / External / Schedule |
| 1. Backlight Compensation | Off / BLC |
| 1. Wide Dynamic Range | 120dB |
| 1. Contrast Enhancement | SSDR (Samsung Super Dynamic Range) (Off / On) |
| 1. Digital Noise Reduction | SSNRIII (2D+3D noise filter) (Off / On) |
| 1. Digital Image Stabilization | Off / On |
| 1. Defog | Off / Auto / Manual |
| 1. Motion Detection | Off / On (4ea 4 points polygonal zones) |
| 1. Privacy Masking | Off / On (32 zones with 4 points of polygonal) |
| 1. Gain Control | Off / Low / Middle / High |
| 1. White Balance | ATW / AWC / Manual / Indoor / Outdoor |
| 1. Electronic Shutter Speed | Minimum / Maximum / Anti flicker |
| 1. Flip / Mirror | Off / On |
| 1. Intelligent Video Analytics | Tampering, Virtual line, Enter / Exit, (Dis)Appear, Audio detection, Face detection |
| 1. Alarm I/O | Input 1ea / Output 1ea |
| 1. Alarm Triggers | Motion detection, Tampering, Audio detection,  Face detection, Video analytics,  Network disconnection, Alarm input |
| 1. 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 |

2.06 NETWORK PROTOCOL

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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 | | 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. Framerate | |  |
|  | 1. H.264 | Max. 60fps @ all resolutions |
|  | 2. MJPEG | Max. 30fps @ 800 x 600, 800 x 450, 640 x 480, 640 x 360, 320 x 240, 320 x 180  Max. 15fps @ 1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768 |
| 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) |
| H. Audio In | | Selectable (Mic in / Line in), Max output level : 1 Vrms  Supply voltage : 2.5V DC (4mA), Input impedance : approx. 2K Ohm |
| I. Audio Out | | Line out (3.5mm stereo mini jack) |
| J. Audio Compression Format | | G.711 u-law/G.726 selectable  G.726 (ADPCM) 8KHz, G.711 8KHz  G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps |
| K. Audio Communication | | Bi-directional audio |
| L. IP | | IPv4, IPv6 |
| M. 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 |
| N. Security | | HTTPS(SSL) login authentication  Digest login authentication  IP address filtering  User access log  802.1x authentication |
| O. Streaming Method | | Unicast / Multicast |
| P. Max. User Access | | 15 users at unicast mode |
| Q. Edge Storage | | micro SD/SDHC/SDXC (4GB included) - motion images recorded in the SD/SDHC/SDXC memory card can be downloaded.  NAS (Network Attached Storage) |
| R. Application Programming interface | | ONVIF profile S & G, HTTP API (SUNAPI) 2.0  SVNP 1.2 |
| S. 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 |
| T. Web Viewer | |  |
|  | 1. Supported OS | Windows XP / VISTA / 7 / 8 / 8.1, MAC OS X 10.7 |
|  | 2. Supported Browser | Microsoft Internet Explorer (Ver. 11 ~ 8)  Mozilla Firefox (Ver. 19 ~ 9) \* Windows only  Google Chrome (Ver. 25 ~ 15) \* Windows only  Apple Safari (Ver. 6.0.2(Mac OS X 10.8, 10.7 only), 5.1.7) \* Mac OS X only |
| U. Central Management Software | | SmartViewer |

**2.07 ELECTRICAL**

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| A. Voltage | 24V AC ±10%, 12V DC ±10%, PoE (IEEE802.3af) |
| B. Consumption | Max. 11W (Heater off)  Max. 17W (24V AC - Heater on) |

**2.08 ENVIRONMENTAL SPECIFICATIONS**

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| 1. Operating Temperature / Humidity | 24V AC : -50°C ~ +55°C (-58°F ~ +131°F)  / Less than 90% RH  12V DC, PoE : -20°C ~ +55°C (-4°F ~ +131°F)  / Less than 90% RH  \* Start up should be done at above -10°C (+14°F) |
| 1. Storage Temperature / Humidity | -30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH |
| 1. Ingress Protection | IP66 |
| 1. Vandal Resistance | IK10 |

**2.09 PHYSCIAL SPECIFICATIONS**

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| --- | --- |
| A. Dimension | 82.4 x 82.4 x 312.6mm (3.24" x 3.24" x 12.31") (Without sunshield) |
| B. Weight | 1.19Kg (2.62 lb) (With sunshield) |
| C. Color/Material | Dark gray / Aluminum |

**2.10 CERTIFICATIONS**

1. CE mark
2. FCC mark
3. UL mark

2.11 WARRANTY

A. 3 years, parts and labor.