

SND 7084 3 MEGAPIXEL NETWORK 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 SND 7084 3 MEGAPIXEL NETWORK DOME CAMERA

- A. The camera shall be of a dome type suitable for internal installation. The camera shall be ivory in appearance.
- B. The network camera shall feature up to 3 Mega Pixel resolution in a 16:9 format. 4:3 format shall also be available in smaller resolutions.
- C. The camera should be capable of capturing and transmitting an image size of 1920 x 1080 at 60 images per second

2.03 CAMERA

- | | |
|----------------------|--|
| A. Imaging Device | 1/ 2.8" PS Exmor 3.2M CMOS |
| B. Total Pixels | 2,065(H) x 1,565(V) |
| C. Effective Pixels | 2,065(H) x 1,553(V) |
| D. Scanning System | Progressive |
| E. Min. Illumination | |
| 1. Color | 0.1 Lux (F1.2, 50IRE),
0.06Lux (F1.2, 30IRE) |
| 2. B/W | 0.01 Lux (F1.2, 50IRE)
0.006 Lux (F1.2, 30IRE) |
| F. S / N Ratio | 50dB |
| G. Video Output | CVBS : 1.0 Vp-p / 75Ω composite, 704x480(N),
704x576(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 : 100.12°(Wide) ~ 35.38°(Tele) /
V : 73.76°(Wide) ~ 26.58°(Tele) |
| D. Min. Object Distance | 0.5m (1.64ft) |
| E. Lens Type | Simple Focus / 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 PAN / TILT / ROTATE

Pan / Tilt / Rotate Range 0° ~ 354° / 0° ~ 67° / 0° ~ 355°

2.06 OPERATION

A. Camera Title	Off / On (Displayed up to 45 characters)
B. Day & Night	Auto (ICR) / Color / B/W / External / Schedule
C. Backlight Compensation	Off, BLC, WDR
D. Wide Dynamic Range	120dB
E. Contrast Enhancement	SSDR (Samsung Super Dynamic Range) (Off / On)
F. Digital Noise Reduction	SSNR III (2D + 3D noise filter) (Off / On)
G. Motion Detection	Off / On (4ea 4 Points Polygonal zones)
H. Privacy Masking	Off / On (32ea Rectangular zones)
I. Gain Control	Off / Low / Middle / High
J. White Balance	ATW / AWC / Manual / Indoor / Outdoor
K. Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1 ~ 1/12,000sec)
L. Flip / Mirror	Off, On
M. Intelligent Video Analytics	Tampering, Virtual Line, Enter/Exit, Appear / Disappear, Audio Detection, Face Detection with metadata
N. Alarm I/O	Input 1ea / Output 1ea
O. Alarm Triggers	Motion detection, Tampering, Audio Detection, Face Detection, Video Analytics, Alarm Input, Network Disconnection
P. Alarm Events	File upload via FTP and E-Mail Notification via E-Mail, local storage(SD/SDHC/SDXC) recording at Network disconnected & Event (Alarm Triggers) External output
Q. Defog	Auto/Manual/Off
R. Digital Image Stabilization	Off / On

2.07 NETWORK PROTOCOL

A. Ethernet	RJ-45 (10/100Base-T)
B. Video Compression Format	H.264(MPEG-4 part 10/AVC), MJPEG
C. Resolution	2048 x 1536 / 1920x1080 / 1600x1200 / 1280x1024 / 1280x960 / 1280x720 / 1024x768 / 800x600 / 800x450 / 640x480 / 640x360 / 320x240 / 320x180
D. Max. Framerate	Max 30fps@2048x1536, Max 60fps at all resolutions
1. H.264	Max. 10fps@2048 x 1536Max. 15fps@1920 x 1080,
2. Motion JPEG	1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768Max. 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	Compression level, Target bit rate level control
1. H.264	Quality level control
2. MJPEG	
G. Bitrate Control Method	CBR or VBR
1. H.264	VBR
2. MJPEG	Multiple Streaming (Up to 10 Profiles)
H. Streaming Capability	Selectable (Mic in / Line in / Built-in mic),
I. Audio In	Supply voltage : 2.5V DC (4mA),
	Input impedance : approx. 2K Ohm
J. Audio Out	Line out (3.5mm mono jack), Max output level : 1 Vrms
K. Audio Compression Format	G.711 u-law /G.726 Selectable
	G.726 (ADPCM) 8KHz, G.711 8KHz

L. Audio Communication	G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps
M. IP	Bi-directional audio
N. Protocol	IPv4, IPv6
	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
O. Security	HTTPS(SSL) Login Authentication
	Digest Login Authentication
	IP Address Filtering
	User access Log
P. Streaming Method	802.1x Authentication
Q. Max. User Access	Unicast, Multicast
R. Edge Storage	15 users at Unicast mode
	micro SD/SDHC/SDXC
	Motion images recorded in the SDXC/SDHC/SD memory card can be downloaded
S. Application Programming interface	ONVIF profile S, SUNAPI (HTTP API) v2.0, SVNP 1.2
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, MAC OS X 10.7
2. Supported Browser	Microsoft Internet Explorer (Ver. 8~10), Mozilla Firefox (Ver. 9~19), Google Chrome (Ver. 15~25), Apple Safari (Ver. 6.0.2(Mac OS X 10.8, 10.7 Only), 5.1.7)
	* Mac OS X Only
3. Central Management Software	SmartViewer
2.08 ELECTRICAL	
A. Voltage	DC12V, PoE(IEEE802.3af,Class3)
B. Consumption	Max. 9.6W (DC 12V)
	Max. 11.6W (PoE, Class3)
2.09 ENVIRONMENTAL SPECIFICATIONS	
A. Operating Temperature / Humidity	-10°C ~ +55°C (14°F ~ 131°F)
	Less than 90% RH
B. Storage Temperature / Humidity	-30°C ~ +60°C (-22°F ~ +140°F)
	Less than 90% RH
2.10 PHYSICAL SPECIFICATIONS	
A. Dimension	132.1 x 107.6mm (5.2" x 4.24")
B. Weight	605g(1.33lb)
C. Color	Ivory / Plastic
2.11 CERTIFICATIONS	
A. CE mark	
B. FCC mark	
2.12 WARRANTY	

A. 3 years, parts and labor.