

SNB-7004

3M Network Camera



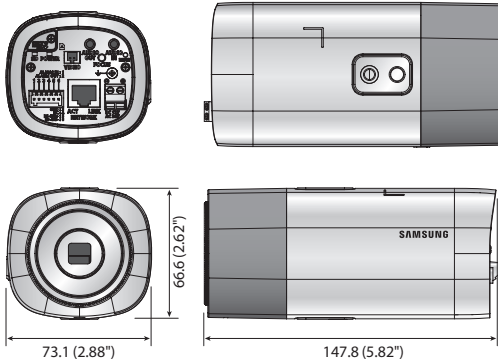
* Lens not included

Key Features

- Max. 3megapixel (2048 x 1536) resolution
- 30fps@2048 x 1536 / 60fps@1920 x 1080
- Simple focus (Motorized V/F), P-Iris
- Day & Night (ICR), Enhanced DIS, Defog
- 3M real-time WDR (Max. 120dB)
- micro SD/SDHC/SDXC memory slot
- Bi-directional audio support, Built-in mic.

Dimensions

Unit : mm (inch)



Available Lenses / Accessories (Optional)



* Data recorded on an SD memory card may be lost or damaged by data access during power-off, mechanical shock, memory card detachment, or other operations. Data loss or damage can also occur when a memory card reaches end of life, which varies according to operational conditions. No guarantee is given against damage (including passive damage).

SNB-7004N/P

VIDEO	
Imaging Device	1/2.8" 3.2M CMOS
Total Pixels	2,065(H) x 1,565(V)
Effective Pixels	2,065(H) x 1,553(V)
Scanning System	Progressive
Min. Illumination	Color : 0.1Lux (F1.2, 50IRE), 0.06Lux (F1.2, 30IRE), 0.0017Lux (2sec, F1.2, 30IRE) B/W : 0.01Lux (F1.2, 50IRE), 0.006Lux (F1.2, 30IRE), 0.00017Lux (2sec, F1.2, 50IRE)
S / N Ratio	50dB
Video Output	CVBS : 1.0Vpp / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation DIP connector type
LENS	
Focus Control	Simple focus (Motorized V/F) / Manual, Remote control via network (Manual, Simple focus, Day & Night)
Lens Type	Manual / DC auto iris, P-Iris
Mount Type	C / CS
OPERATIONAL	
Camera Title	Off / On (Displayed up to 45 characters)
Day & Night	Auto (ICR) / Color / B/W / External / Schedule
Backlight Compensation	Off / BLC / WDR
Wide Dynamic Range	120dB
Contrast Enhancement	SSDR (Off / On)
Digital Noise Reduction	SSNRIII (2D+3D noise filter) (Off / On)
Digital Image Stabilization	Off / On
Defog	Off / Auto / Manual
Motion Detection	Off / On (4 zones with 4-sided polygon)
Privacy Masking	Off / On (32 zones with 4-sided polygon)
Gain Control	Off / Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1 ~ 1/12,000sec)
Flip / Mirror	Off / On
Intelligent Video Analytics	Tampering, Virtual line, Enter / Exit, (Dis)Appear, Audio detection, Face detection with metadata
Alarm I/O	Input 1ea / Output 1ea
Remote Control Interface	RS-485
RS-485 Protocol	Samsung-T/E, Pelco-P/D, Sungjin, Panasonic, Honeywell, AD, Vicon, GE, Bosch
Alarm Triggers	Motion detection, Tampering, Audio detection, Face detection, Network disconnection, Video analytics, Alarm input
Alarm Events	File upload via FTP and E-mail, Notification via E-mail, Local storage (SD/SDHC/SDXC) or NAS recording at Event, External output
NETWORK	
Ethernet	RJ-45 (10/100BASE-T)
Video Compression Format	H.264 (MPEG-4 part 10/AVC), MJPEG
Resolution	2048 x 1536, 1920 x 1080, 1600 x 1200, 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
	H.264 : Max. 30fps@2048 x 1536, 1600 x 1200, Max. 60fps@the other resolutions MJPEG : Max. 10fps@2048 x 1536 Max. 15fps@1920 x 1080, 1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768 Max. 30fps@800 x 600, 800 x 450, 640 x 480, 640 x 360, 320 x 240, 320 x 180
Max. Framerate	
Smart Codec	Manual mode (Area-based : 5ea), Face detection mode
Video Quality Adjustment	H.264 : Compression level, Target bitrate level control, MJPEG : Quality level control
Bitrate Control Method	H.264 : CBR or VBR, MJPEG : VBR
Streaming Capability	Multiple streaming (Up to 10 profiles)
Audio In	Selectable (Mic in / Line in / Built-in mic), Supply voltage : 2.5V DC (4mA), Input impedance : approx. 2K Ohm
Audio Out	Line out (3.5mm mono jack), Max output level : 1Vrms
Audio Compression Format	G.711 u-law/G.726 selectable, G.726 (ADPCM) 8KHz, G.711 8KHz G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps
Audio Communication	Bi-directional audio
IP	IPv4, IPv6
Protocol	TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTCP, RTPSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour
Security	HTTPS(SSL) login authentication, Digest login authentication IP address filtering, User access log, 802.1x authentication
Streaming Method	Unicast / Multicast
Max. User Access	15 users at unicast mode
Edge Storage	micro SD/SDHC/SDXC Motion images recorded in the SDXC/SDHC/SD memory card can be downloaded NAS (Network Attached Storage)
Application Programming Interface	ONVIF profile S, SUNAPI (HTTP API) 2.0, SVNP 1.2
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
Web Viewer	Supported OS : Windows XP / VISTA / 7 / 8 / 8.1, MAC OS X 10.7 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
Central Management Software	SmartViewer, SSM
ENVIRONMENTAL	
Operating Temperature / Humidity	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH
Storage Temperature / Humidity	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
ELECTRICAL	
Input Voltage / Current	24V AC, 12V DC, PoE (IEEE802.3af, Class3)
Power Consumption	Max. 1.1.1W (12V DC), Max. 1.2.6W (PoE), Max. 1.3.1W (24V AC, 50 ~ 60Hz)
MECHANICAL	
Color / Material	Black, Ivory / Aluminium, Plastic
Dimensions (WxHxD)	73.1 x 66.6 x 147.8mm (2.88" x 2.62" x 5.82")
Weight	430g (0.95 lb)

* The latest product information / sepecification can be found at <http://security.hanwhatechwin.com>

SNB-8000

5M Network Camera



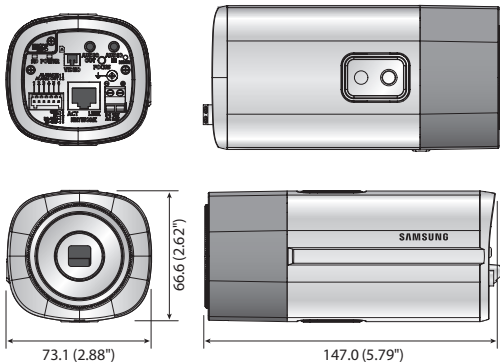
* Lens not included

Key Features

- Max. 5megapixel (2592 x 1944) high resolution
- 20fps@5M, P-iris, Simple focus
- Up to 32 privacy masking zones
- Tampering, Audio detection
- micro SD/SDHC/SDXC memory slot
- Bi-directional audio support, Built-in mic.

Dimensions

Unit : mm (inch)



Available Lenses / Accessories (Optional)



SNB-8000N/P

VIDEO	
Imaging Device	1/1.8" 6M CMOS
Total Pixels	6megapixel (3,096 x 2,094)
Effective Pixels	2,592(H) x 1,944(V)
Scanning System	Progressive
Min. Illumination	Color : 0.2Lux (1/20sec, F1.2, 50IRE), 0.005Lux (2sec, F1.2, 50IRE) 0.1Lux (1/20sec, F1.2, 30IRE), 0.0025Lux (2sec, F1.2, 30IRE) B/W : 0.02Lux (1/20sec, F1.2, 50IRE), 0.0005Lux (2sec, F1.2, 50IRE) 0.01Lux (1/20sec, F1.2, 30IRE), 0.00025Lux (2sec, F1.2, 30IRE)
S / N Ratio	50dB
Video Output	CVBS : 1.0Vpp / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation DIP connector type
LENS	
Focus Control	Simple focus / Manual, Remote control via network, Button control (Manual, Simple focus)
Lens Type	Manual / DC auto iris, P-Iris
Mount Type	C / CS
OPERATIONAL	
Camera Title	Off / On (Displayed up to 15 characters)
Day & Night	Auto (ICR) / Color / B/W / External / Schedule
Backlight Compensation	Off / BLC
Contrast Enhancement (DWRD)	SSDR (Off / On)
Digital Noise Reduction	SSNR (2D+3D noise filter) (Off / On)
Motion Detection	Off / On (4ea, Rectangular zones)
Privacy Masking	Off / On (32ea, Rectangular zones)
Gain Control	Off / Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor (Include mercury)
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2 ~ 1/12,000sec)
Digital PTZ	16x, Digital PTZ (Preset, Group)
Flip / Mirror	Off / On
Intelligent Video Analytics	Tampering, Audio detection
Alarm I/O	Input 1ea / Output 1ea
Remote Control Interface	RS-485
RS-485 Protocol	Samsung-T/E, Pelco-P/D, Sungjin, Panasonic, Honeywell, AD, Vicon, GE, Bosch
Alarm Triggers	Motion detection, Tampering, Audio detection, Alarm input, Network disconnection
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 Network disconnected & Event (Alarm triggers), External output
NETWORK	
Ethernet	RJ-45 (10/100BASE-T)
Video Compression Format	H.264 (MPEG-4 part 10/AVC), MJPEG
Resolution	5M mode : 2592 x 1944, 1920 x 1080, 1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 720 x 576, 720 x 480, 640 x 480, 320 x 240 2M mode : 1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 720 x 576, 720 x 480, 640 x 480, 320 x 240
Max. Framerate	5M mode - H.264 : 20fps for all resolution MJPEG : 2592 x 1944 : 10fps 1920 x 1080, 1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768 : 15fps 800 x 600, 720 x 576, 720 x 480, 640 x 480, 320 x 240 : 20fps 2M mode - H.264 : 30fps for all resolution MJPEG : 1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768 : 15fps 800 x 600, 720 x 576, 720 x 480, 640 x 480, 320 x 240 : 20fps
Video Quality Adjustment	H.264 : Compression level, Target bitrate level control, MJPEG : Quality level control
Bitrate Control Method	H.264 : CBR or VBR, MJPEG : VBR
Streaming Capability	Multiple streaming (Up to 6 profiles)
Audio In	Selectable (Mic in / Line in) (Built-in mic) Supply voltage : 2.5V DC (4mA), Input impedance : approx. 2K Ohm
Audio Out	Line out (3.5mm stereo mini jack), Max output level : 1Vrms
Audio Compression Format	G.711 u-law/G.726 selectable, G.726 (ADPCM) 8KHz, G.711 8KHz G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps
Audio Communication	Bi-directional audio
IP	IPv4, IPv6
Protocol	TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3 (MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour
Security	HTTPS (SSL) login authentication, Digest login authentication IP address filtering, User access log, 802.1x authentication
Streaming Method	Unicast / Multicast
Max. User Access	10 users at unicast mode
Edge Storage	micro SD/SDHC/SDXC (64GB) - Motion images recorded in the SDXC/SDHC/SD memory card can be downloaded, NAS (Network Attached Storage)
Application Programming Interface	ONVIF profile S, SUNAPI (HTTP API), SVNP 2.0, Wisenet Open Platform
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
Web Viewer	Supported OS : Windows XP / VISTA / 7 / 8, MAC OS X 10.7 Supported Browser : Microsoft Internet Explorer (Ver. 8 ~ 11), 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
Central Management Software	SmartViewer, SSM
ENVIRONMENTAL	
Operating Temperature / Humidity	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH
Storage Temperature / Humidity	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
ELECTRICAL	
Input Voltage / Current	24V AC±10%, 12V DC±10%, PoE (IEEE802.3af, Class3)
Power Consumption	Max. 12.65W (24V AC, 50/60Hz), Max. 10.68W (12V DC), Max. 12.14W (PoE, Class3)
MECHANICAL	
Color / Material	Black, Ivory / Aluminium
Dimensions (WxHxD)	73.1 x 66.6 x 147.0mm (2.88" x 2.62" x 5.79")
Weight	566g (1.25 lb)

* The latest product information / sepecification can be found at <http://security.hanwhatechwin.com>

SNB-9000

4K UHD & 12M Network Camera



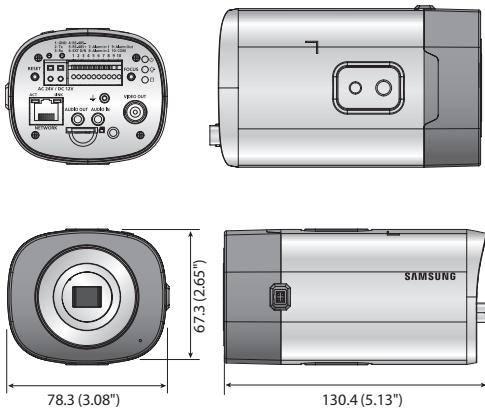
* Lens not included

Key Features

- Max. 12megapixel (4000 x 3000) / 8megapixel (3840 x 2160) resolution
- 20fps@4000 x 3000 / 30fps@3840 x 2160
- Simple focus, Day & Night (ICR)
- Intelligent video analytics
- micro SD/SDHC/SDXC memory slot
- Bi-directional audio support

Dimensions

Unit : mm (inch)



Accessories (Optional)



SNB-9000N/P

VIDEO	
Imaging Device	1/2.3" 12M CMOS
Total Pixels	12megapixel (4,168 x 3,062)
Effective Pixels	4,072(H) x 3,046(V)
Scanning System	Progressive
Min. Illumination	Color : 0.28Lux (1/30sec, F1.2), 0.01Lux (1sec, F1.2) B/W : 0.03Lux (1/30sec, F1.2), 0.001Lux (1sec, F1.2)
S / N Ratio	50dB
Video Output	CVBS : 1.0 Vpp / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation BNC type
LENS	
Focus Control	Simple focus / Manual Remote control via network, Button control (Manual, Simple focus, Day & Night)
Lens Type	Manual / DC auto iris
Mount Type	C / CS
OPERATIONAL	
Camera Title	Off / On (Displayed up to 20 characters)
Day & Night	Auto (ICR) / Color / B/W / External / Schedule
Backlight Compensation	Off / BLC / HLC
Contrast Enhancement (DWDR)	SSDR (Off / On)
Digital Noise Reduction	SSNRIII (2D+3D noise filter) (Off / On)
Motion Detection	Off / On (4ea 4 points polygonal zones)
Privacy Masking	Off / On (32 zones of rectangular)
Gain Control	Off / Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor / mercury
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1 ~ 1/12,000sec)
D-PTZ	8x, Digital PTZ (Preset, Group)
Flip / Mirror	Off / On
Intelligent Video Analytics	Tampering, Virtual line, Enter / Exit, (Dis)Appear, Audio detection, Face detection with metadata (to NVR / SSM recording server)
Alarm I/O	Input 2ea / Output 1ea
Remote Control Interface	RS-485
RS-485 Protocol	Samsung-T/E, Pelco-P/D, Sungjin, Panasonic, Honeywell, AD, Vicon, GE, Bosch
Alarm Triggers	Motion detection, Tampering, Audio detection, Face detection, Video analytics, Alarm input, Network disconnection
Alarm Events	File upload via FTP and E-mail, Notification via E-mail, TCP and HTTP Local storage (SD/SDHC/SDXC) recording at Network disconnected & Event (Alarm triggers) or NAS recording at event (Alarm triggers), External output
NETWORK	
Ethernet	RJ-45 (10/100/1000BASE-T)
Video Compression Format	H.264 (MPEG-4 part 10/AVC), MJPEG
Resolution	4000 x 3000, 4096 x 2160, 3840 x 2160, 2592 x 1944, 2048 x 1536, 1920 x 1080, 1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 720 x 576, 720 x 480, 704 x 576, 640 x 480, 640 x 360, 320 x 240
Max. Framerate	H.264 : 3840 x 2160 ~ 320 x 240 : 30fps, 4096 x 2160 : 25fps, 4000 x 3000 : 20fps MJPEG : 800 x 600 ~ 320 x 240 : 20fps, 1024 x 768 ~ 1920 x 1080 : 15fps, 2048 x 1536 ~ 2592 x 1944 : 10fps, 3840 x 2160 ~ 4000 x 3000 : 5fps
Smart Codec	Yes (Area based method)
Video Quality Adjustment	H.264 : Target bitrate level control, MJPEG : Quality level control
Bitrate Control Method	H.264 : CBR or VBR, MJPEG : VBR
Streaming Capability	Multiple streaming (Up to 3 profiles per each resolution mode)
Audio In	Selectable (Mic in / Line in), Max output level : 1Vrms
Audio Out	Line out (3.5mm mono mini jack)
Audio Compression Format	G.711 u-law/G.726 selectable, G.726 (ADPCM) 8KHz, G.711 8KHz G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps
Audio Communication	Bi-directional audio
IP	IPv4, IPv6
Protocol	TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour
Security	HTTPS (SSL) login authentication, Digest login authentication IP address filtering, User access log, 802.1x authentication
Streaming Method	Unicast / Multicast
Max. User Access	Maximum 15 users access (Maximum 5 users each profile)
Edge Storage	micro SD/SDHC/SDXC (128GB) Motion images recorded in the SD/SDHC/SDXC memory card can be downloaded.
Application Programming Interface	ONVIF profile S, SUNAPI (HTTP API) 2.0, SVPNP 2.0
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
Web Viewer	Supported OS : Windows XP / VISTA / 7 / 8, MAC OS X 10.7 Supported Browser : Microsoft Internet Explorer (Ver. 8 ~ 11), 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
Central Management Software	SmartViewer, SSM
ENVIRONMENTAL	
Operating Temperature / Humidity	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH
Storage Temperature / Humidity	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 95% RH
ELECTRICAL	
Input Voltage / Current	24V AC ±10%, 12V DC ±10%, PoE (IEEE802.3af, Class3)
Power Consumption	Max. 12.5W (24V AC, 50 ~ 60Hz), Max. 12W (12V DC), Max. 12W (PoE, Class3)
MECHANICAL	
Color / Material	Black, Ivory / Aluminium
Dimensions (WxHxD)	78.3 x 67.3 x 130.4mm (3.08" x 2.65" x 5.13")
Weight	493g (1.09 lb)

* The latest product information / sepecification can be found at <http://security.hanwhatechwin.com>