

# WiseNet III, operational above and beyond the call of duty

## 3Megapixel Network Camera Full Line-up

**SNB-7004/SNO-7084R**  
**SND-7084/SND-7084R**  
**SNV-7084/SNV-7084R**



























- Sharpe & clear vision
  - 30fps@3M
  - 3M real-time 120dB WDR
- Enhance the level of safety in night
- Fully operational in all weather conditions
  - Defog / Enhanced DIS
  - IK10 and IP66 (SNO-7084R, SNV-7084/7084R)
- Supporting your business through video analytics



# WiseNet III 3Megapixel Network Cameras

	SNB-7004	SNO-7084R	SND-7084	SND-7084R	SNV-7084	SNV-7084R
Imaging Device	1/2.8" PS Exmor 3.2M CMOS					
Simple Focus	Yes	Yes (Motorized V/F)	Yes (Motorized V/F)	Yes (Motorized V/F)	Yes (Motorized V/F)	Yes (Motorized V/F)
P-Iris	Yes	Yes	Yes	Yes	Yes	Yes
Wide Dynamic Range	3M 30fps, 120dB (Real-time)					
Video Codec	H.264, MJPEG					
Streaming	Multiple 10, Crop 5					
Resolution	Max. 2048 x 1536 (3M)					
Max. Frame Rate	30fps@3M, 60fps@2M					
Audio	G.711, G.726					
Storage	SD/SDHC/SDXC (Max. 64GB supported)					
Video Analytics	Tampering, Virtual line, Enter / Exit, Appear / Disappear, Audio detection, Face detection with metadata					
Alarm I/O	1 / 1					
Application Programming Interface	ONVIF profile S, HTTP API v2.0, SVPN 1.2					
Security	HTTPS, 802.1X					
Serial Interface	RS-485	N/A	N/A	N/A	N/A	N/A
Environmental Protection	N/A	IP66 / IK10	N/A	N/A	IP66 / IK10	IP66 / IK10
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	24V AC : -50°C ~ +55°C (-58°F ~ +131°F) 12V DC, PoE : -10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)	24V AC : -40°C ~ +55°C (-40°F ~ +131°F) 12V DC, PoE : -10°C ~ +55°C (+14°F ~ +131°F)
Power	24V AC, 12V DC, PoE	24V AC, 12V DC, PoE	12V DC, PoE	12V DC, PoE	24V AC, 12V DC, PoE	24V AC, 12V DC, PoE

## 1.3 ~ 3MP WiseNet III Full Line-up

	BOX	BULLET	DOME	VANDAL	FISHEYE
<b>3MP</b>	 SNB-7004	 SNO-7084R	  SND-7084 SND-7084R	  SNV-7084 SNV-7084R	  SNF-7010 SNF-7010V(M)
<b>2MP</b>	 SNB-6010   SNB-6004 SNB-6003	  SNO-6084R SNO-6011R	  SND-6084 SND-6083   SND-6084R SND-6011R	  SNV-6013 SNV-6012M   SNV-6084 SNV-6084R	
<b>1.3MP</b>	  SNB-5004 SNB-5003		  SND-5084 SND-5083	 SNV-5084	



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**SAMSUNG TECHWIN**

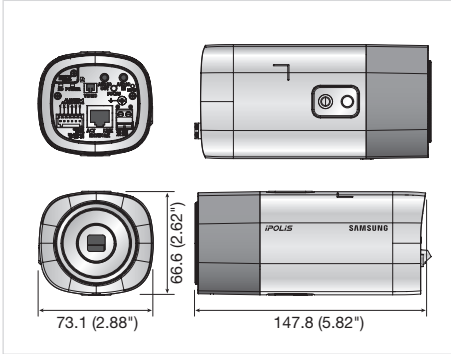


## Key Features

- 30fps@2,048 x 1,536 / 60fps@1,920 x 1,080
- Simple focus, P-Iris
- Day & Night (ICR), Enhanced DIS, Defog
- 3M real-time WDR (Max. 120dB)
- Color : 0.1Lux (F1.2, 50IRE)  
B/W : 0.01Lux (F1.2, 50IRE)
- Built-in SD/SDHC/SDXC memory slot
- Built-in mic.

## Dimensions

Unit : mm (inch)



## Accessory (Optional)



<b>VIDEO</b>	
Imaging Device	1/2.8" PS 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) B/W : 0.01Lux (F1.2, 50IRE), 0.006Lux (F1.2, 30IRE)
S / N Ratio	50dB
Video Output	CVBS : 1.0 Vp-p / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation DIP connector type
<b>LENS</b>	
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
<b>OPERATIONAL</b>	
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 (Samsung Super Dynamic Range) (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, Appear / Disappear, 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
<b>NETWORK</b>	
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 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
Max. Framerate	H.264 : Max. 30fps@2048 x 1536, 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
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 : 1 Vrms
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, 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 Interfac	ONVIF profile S, SUNAPI (HTTP API), 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, MAC OS X 10.7 Supported Browser : Microsoft Internet Explorer (Ver. 10, 9, 8), Mozilla Firefox (Ver. 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9), Google Chrome (Ver. 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15), 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
<b>ENVIRONMENTAL</b>	
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
<b>ELECTRICAL</b>	
Input Voltage / Current	24V AC, 12V DC, PoE (IEEE802.3af class3)
Power Consumption	Max. 11.1W (12V DC), Max. 12.6W (PoE), Max. 13.1W (24V AC, 50 ~ 60Hz)
<b>MECHANICAL</b>	
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)

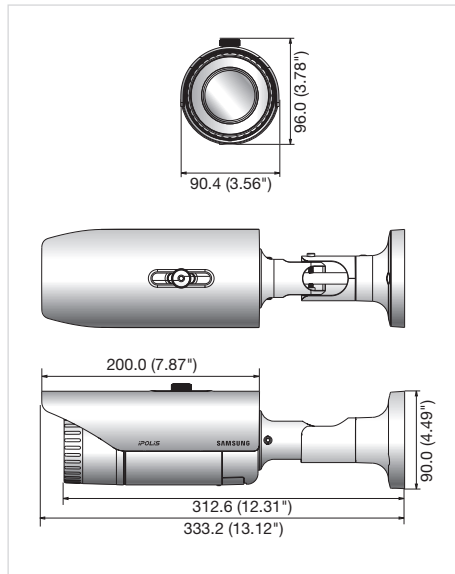


## Key Features

- 30fps@2,048 x 1,536 / 60fps@1,920 x 1,080
- Simple focus (Motorized VF), P-Iris
- Day&Night (ICR), Enhanced DIS, Defog
- 3M real-time WDR (Max. 120dB)
- Color : 0.1Lux (F1.2, 50IRE)  
B/W : 0Lux (IR LED on)
- Built-in SD/SDHC/SDXC memory slot
- Multi-crop streaming
- IP66 / IK10

## Dimensions

Unit : mm (inch)



## SNO-7084RN/P

<b>VIDEO</b>	
Imaging Device	1/2.8" PS 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) B/W : 0Lux (F1.2, 50IRE), 0Lux (F1.2, 30IRE)
S / N Ratio	50dB
Video Output	CVBS : 1.0 Vp-p / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation Connector type
<b>LENS</b>	
Focal Length (Zoom Ratio)	3 ~ 8.5mm (2.8x) motorized varifocal
Max. Aperture Ratio	F1.2
Angular Field of View	H : 100.12°(Wide) ~ 35.38°(Tele) / V : 73.76°(Wide) ~ 26.58°(Tele)
Min. Object Distance	0.5m (1.64ft)
Focus Control	Simple focus (Motorized V/F) / Manual, Remote control via network (Manual, Simple focus)
Lens Type / Mount Type	DC auto iris, P-Iris / Board-in type
<b>PAN / TILT / ROTATE</b>	
Pan / Tilt / Rotate Range	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
<b>OPERATIONAL</b>	
IR LED	20ea
Viewable Length	30m (98.43ft)
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 (Samsung Super Dynamic Range) (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, Appear / Disappear, Audio detection, Face detection with metadata
Alarm I/O	Input 1ea / Output 1ea
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
<b>NETWORK</b>	
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
Max. Framerate	H.264 : Max. 30fps@2048 x 1536, 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
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), Supply voltage : 2.5V DC (4mA), Input impedance : approx. 2K Ohm
Audio Out	Line out (3.5mm mono jack), Max output level : 1 Vrms
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, 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 Interfac	ONVIF profile S, SUNAPI (HTTP API) v2.0, SVN1.2
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, MAC OS X 10.7 Supported Browser : Microsoft Internet Explorer (Ver. 10, 9, 8), Mozilla Firefox (Ver. 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9), Google Chrome (Ver. 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15), 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
<b>ENVIRONMENTAL</b>	
Operating Temperature / Humidity	24V AC : -50°C ~ +55°C (-58°F ~ +131°F) / Less than 90% RH 12V DC, PoE : -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
Ingress Protection / Vandal Resistance	IP66 / IK10
<b>ELECTRICAL</b>	
Input Voltage / Current	24V AC, 12V DC, PoE (IEEE802.3af class3)
Power Consumption	Max. 11.5W (12V DC), Max. 12.5W (PoE), Max. 13.0W / 19.0W (24V AC, Heater off / on) * Heater works at AC power input only
<b>MECHANICAL</b>	
Color / Material	Dark gray / Aluminium
Dimensions (WxHxD)	90.4 x 96.0 x 333.2mm (3.56" x 3.78" x 13.12")
Weight	1.19Kg (2.62 lb)



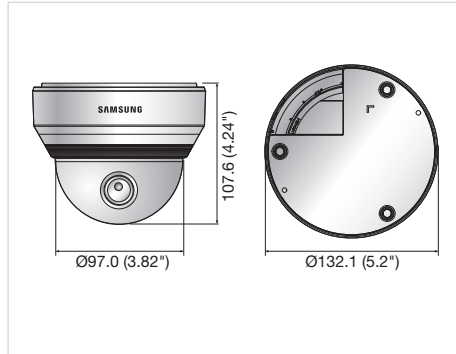


## Key Features

- 30fps@2,048 x 1,536 / 60fps@1,920 x 1,080
- Simple focus (Motorized VF), P-Iris
- Day&Night (ICR), Enhanced DIS, Defog
- 3M real-time WDR (Max. 120dB)
- Color : 0.1Lux (F1.2, 50IRE)  
B/W : 0.01Lux (F1.2, 50IRE)
- Built-in SD/SDHC/SDXC memory slot
- Multi-crop streaming
- Built-in mic.

## Dimensions

Unit : mm (inch)



## Accessory (Optional)



## SND-7084N/P

<b>VIDEO</b>	
Imaging Device	1/2.8" PS 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) B/W : 0.01Lux (F1.2, 50IRE), 0.006Lux (F1.2, 30IRE)
S / N Ratio	50dB
Video Output	CVBS : 1.0 Vp-p / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation DIP connector type
<b>LENS</b>	
Focal Length (Zoom Ratio)	3 ~ 8.5mm (2.8x) motorized varifocal
Max. Aperture Ratio	F1.2
Angular Field of View	H : 100.12°(Wide) ~ 35.38°(Tele) / V : 73.76°(Wide) ~ 26.58°(Tele)
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Focus Control	Simple focus (Motorized V/F) / Manual, Remote control via network (Manual, Simple focus)
Lens Type / Mount Type	DC auto iris, P-Iris / Board-in type
<b>PAN / TILT / ROTATE</b>	
Pan / Tilt / Rotate Range	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
<b>OPERATIONAL</b>	
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 (Samsung Super Dynamic Range) (Off / On)
Digital Noise Reduction	SSNR3II (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, Appear / Disappear, Audio detection, Face detection with metadata
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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 : 1 Vrms
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, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour
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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. 10, 9, 8), Mozilla Firefox (Ver. 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9), Google Chrome (Ver. 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15), 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
<b>ENVIRONMENTAL</b>	
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
<b>ELECTRICAL</b>	
Input Voltage / Current	12V DC, PoE (IEEE802.3af class 3)
Power Consumption	Max. 9.6W (12V DC), Max. 11.6W (PoE)
<b>MECHANICAL</b>	
Color / Material	Ivory / Plastic
Dimensions (WxH)	Ø132.1 x 107.6mm (Ø5.2" x 4.24")
Weight	605g (1.33 lb)

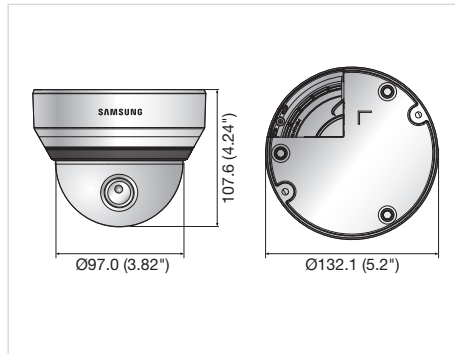


## Key Features

- 30fps@2,048 x 1,536 / 60fps@1,920 x 1,080
- Simple focus (Motorized VF), P-Iris
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- 3M real-time WDR (Max. 120dB)
- Color : 0.1Lux (F1.2, 50IRE)  
B/W : 0Lux (IR LED on)
- Built-in SD/SDHC/SDXC memory slot
- Multi-crop streaming
- Built-in mic.

## Dimensions

Unit : mm (inch)



## Accessory (Optional)



## SND-7084RN/P

<b>VIDEO</b>	
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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) B/W : 0Lux (F1.2, 50IRE), 0Lux (F1.2, 30IRE)
S / N Ratio	50dB
Video Output	CVBS : 1.0 Vp-p / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation DIP connector type
<b>LENS</b>	
Focal Length (Zoom Ratio)	3 ~ 8.5mm (2.8x) motorized varifocal
Max. Aperture Ratio	F1.2
Angular Field of View	H : 100.12°(Wide) ~ 35.38°(Tele) / V : 73.76°(Wide) ~ 26.58°(Tele)
Min. Object Distance	0.5m (1.64ft)
Focus Control	Simple focus (Motorized V/F) / Manual, Remote control via network (Manual, Simple focus)
Lens Type / Mount Type	DC auto iris, P-Iris / Board-in type
<b>PAN / TILT / ROTATE</b>	
Pan / Tilt / Rotate Range	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
<b>OPERATIONAL</b>	
IR LED	12ea
Viewable Length	25m (82.02ft)
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 (Samsung Super Dynamic Range) (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, Appear / Disappear, Audio detection, Face detection with metadata
Alarm I/O	Input 1ea / Output 1ea
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
<b>NETWORK</b>	
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
Max. Framerate	H.264 : Max. 30fps@2048 x 1536, 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
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 : 1 Vrms
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, 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 Interfac	ONVIF profile S, SUNAPI (HTTP API), 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, MAC OS X 10.7 Supported Browser : Microsoft Internet Explorer (Ver. 10, 9, 8), Mozilla Firefox (Ver. 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9), Google Chrome (Ver. 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15), 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
<b>ENVIRONMENTAL</b>	
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
<b>ELECTRICAL</b>	
Input Voltage / Current	12V DC, PoE (IEEE802.3af class 3)
Power Consumption	Max. 10.0W (12V DC), Max. 11.0W (PoE)
<b>MECHANICAL</b>	
Color / Material	Ivory / Aluminum
Dimensions (WxH)	Ø132.1 x 107.6mm (Ø5.2" x 4.24")
Weight	575g (1.27 lb)

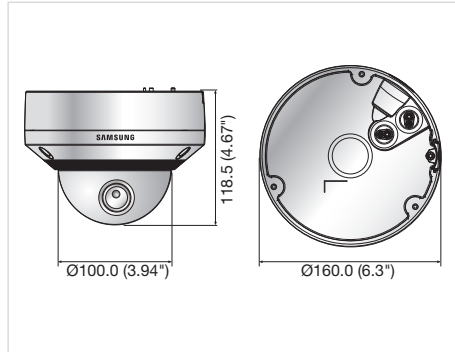


## Key Features

- 30fps@2,048 x 1,536 / 60fps@1,920 x 1,080
- Simple focus (Motorized VF), P-Iris
- Day&Night (ICR), Enhanced DIS, Defog
- 3M real-time WDR (Max. 120dB)
- Color : 0.1Lux (F1.2, 50IRE)  
B/W : 0.01Lux (F1.2, 50IRE)
- Built-in SD/SDHC/SDXC memory slot
- Multi-crop streaming, Heater by PoE
- IP66 / IK10

## Dimensions

Unit : mm (inch)



## Accessory (Optional)



## SNV-7084N/P

<b>VIDEO</b>	
Imaging Device	1/2.8" PS 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) B/W : 0.01Lux (F1.2, 50IRE), 0.006Lux (F1.2, 30IRE)
S / N Ratio	50dB
Video Output	CVBS : 1.0 Vp-p / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation DIP connector type
<b>LENS</b>	
Focal Length (Zoom Ratio)	3 ~ 8.5mm (2.8x) motorized varifocal
Max. Aperture Ratio	F1.2
Angular Field of View	H : 100.12°(Wide) ~ 35.38°(Tele) / V : 73.76°(Wide) ~ 26.58°(Tele)
Min. Object Distance	0.5m (1.64ft)
Focus Control	Simple focus (Motorized V/F) / Manual, Remote control via network (Manual, Simple focus)
Lens Type / Mount Type	DC auto iris, P-Iris / Board-in type
<b>PAN / TILT / ROTATE</b>	
Pan / Tilt / Rotate Range	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
<b>OPERATIONAL</b>	
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 (Samsung Super Dynamic Range) (Off / On)
Digital Noise Reduction	SSNR III (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, Appear / Disappear, Audio detection, Face detection with metadata
Alarm I/O	Input 1ea / Output 1ea
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
<b>NETWORK</b>	
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
Max. Framerate	H.264 : Max. 30fps@2048 x 1536, 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
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), Supply voltage : 2.5V DC (4mA), Input impedance : approx. 2K Ohm
Audio Out	Line out (3.5mm mono jack), Max output level : 1 Vrms
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, 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 Interfac	ONVIF profile S, SUNAPI (HTTP API), 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, MAC OS X 10.7 Supported Browser : Microsoft Internet Explorer (Ver. 10, 9, 8), Mozilla Firefox (Ver. 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9), Google Chrome (Ver. 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15), 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
<b>ENVIRONMENTAL</b>	
Operating Temperature / Humidity	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH *Start up should be done at above -35°C
Storage Temperature / Humidity	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
Ingress Protection	IP66
Vandal Resistance	IK10
<b>ELECTRICAL</b>	
Input Voltage / Current	24V AC, 12V DC, PoE (IEEE802.3af class 3)
Power Consumption	Max. 9.0W / 11.5W (12V DC, Heater off / on), Max. 10.0W / 12.5W (PoE, Heater off / on) Max. 11.0W / 13.0W (24V AC, Heater off / on)
<b>MECHANICAL</b>	
Color / Material	Ivory / Aluminum
Dimensions (WxH)	Ø160.0 x 118.5mm (Ø6.3" x 4.67")
Weight	960g (2.12 lb)

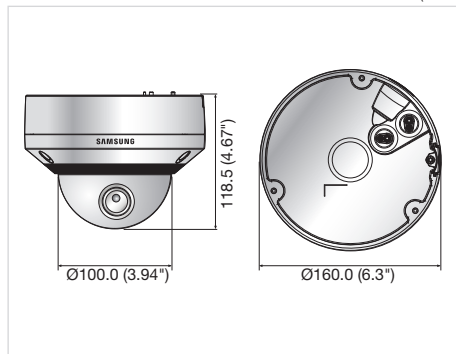


## Key Features

- 30fps@2,048 x 1,536 / 60fps@1,920 x 1,080
- Simple focus (Motorized VF), P-Iris
- Day&Night (ICR), Enhanced DIS, Defog
- 3M real-time WDR (Max. 120dB)
- Color : 0.1Lux (F1.2, 50IRE)  
B/W : 0Lux (IR LED on)
- Built-in SD/SDHC/SDXC memory slot
- Multi-crop streaming
- IP66 / IK10

## Dimensions

Unit : mm (inch)



## Accessory (Optional)



## SNV-7084RN/P

<b>VIDEO</b>	
Imaging Device	1/2.8" PS Exmor 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) B/W : 0Lux (F1.2, 50IRE), 0Lux (F1.2, 30IRE)
S / N Ratio	50dB
Video Output	CVBS : 1.0 Vp-p / 75Ω composite, 720 x 480(N), 720 x 576(P), for installation DIP connector type
<b>LENS</b>	
Focal Length (Zoom Ratio)	3 ~ 8.5mm (2.8x) motorized varifocal
Max. Aperture Ratio	F1.2
Angular Field of View	H : 100.12°(Wide) ~ 35.38°(Tele) / V : 73.76°(Wide) ~ 26.58°(Tele)
Min. Object Distance	0.5m (1.64ft)
Focus Control	Simple focus (Motorized V/F) / Manual, Remote control via network (Manual, Simple focus)
Lens Type / Mount Type	DC auto iris, P-Iris / Board-in type
<b>PAN / TILT / ROTATE</b>	
Pan / Tilt / Rotate Range	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
<b>OPERATIONAL</b>	
IR LED	12ea
Viewable Length	25m (82.02ft)
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 (Samsung Super Dynamic Range) (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, Appear / Disappear, Audio detection, Face detection with metadata
Alarm I/O	Input 1ea / Output 1ea
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
<b>NETWORK</b>	
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
Max. Framerate	H.264 : Max. 30fps@2048 x 1536, 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
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), Supply voltage : 2.5V DC (4mA), Input impedance : approx. 2K Ohm
Audio Out	Line out (3.5mm mono jack), Max output level : 1 Vrms
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, 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 Interfac	ONVIF profile S, SUNAPI (HTTP API), 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, MAC OS X 10.7 Supported Browser : Microsoft Internet Explorer (Ver. 10, 9, 8), Mozilla Firefox (Ver. 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9), Google Chrome (Ver. 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15), 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
<b>ENVIRONMENTAL</b>	
Operating Temperature / Humidity	24V AC : -40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH 12V DC, PoE : -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
Ingress Protection / Vandal Resistance	IP66 / IK10
<b>ELECTRICAL</b>	
Input Voltage / Current	24V AC, 12V DC, PoE (IEEE802.3af class 3)
Power Consumption	Max. 10.5W (12V DC), Max. 11.5W (PoE), Max. 12.0W / 15.0W (24V AC, Heater off / on) * Heater works at AC power input only
<b>MECHANICAL</b>	
Color / Material	Ivory / Aluminum
Dimensions (WxH)	Ø160.0 x 118.5mm (Ø6.3" x 4.67")
Weight	975g (2.15 lb)