

QNP-6230RH

2 MP H.265 Network 23x IR PTZ Camera



Key Features

- 2 megapixel (1920 x 1080) resolution
- 4.44~102.2mm(23x) lens
- Maximum IR viewable length : 100m
- Day & night (ICR), WDR (120dB), DIS (Built-in gyro sensor)
- Intelligent Analytics
- Multiple streaming, WiseStream II support
- H.265, H.264, MJPEG codec support
- MicroSD / SDHC / SDXC memory
- IP66, IK10

Video

Imaging Device	1/2.8" 2 MP CMOS
Effective Pixels	1944(H)x1212(V)
Minimum Illumination	Color: 0.05Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)
Video Out	CVBS: 1.0 Vp-p / 75Ω composite, 720x480 for installation

Lens

Focal Length (Zoom Ratio)	4.44~102.2mm(23x) zoom
Maximum Aperture Ratio	F1.6(Wide)~F3.6(Tele)
Angular Field of View	H: 61.8°(Wide)~3.08°(Tele) / V: 36.2°(Wide)~1.73°(Tele)
Minimum Object Distance	Wide: 1.5m(4.92ft), Tele: 2m(6.56ft)
Focus Control	Oneshot AF
Lens Type	DC auto iris

Pan / Tilt / Rotate

Pan Range	360° Endless
Pan Speed	Preset: 400°/sec, Manual: 0.024°/sec~250°/sec
Tilt Range	95°(-5°~90°)
Tilt Speed	Preset: 250°/sec, Manual: 0.024°/sec~250°/sec
Sequence	Preset(300ea), Swing, Group(6ea), Trace, Tour, Auto Run, Schedule
Preset Accuracy	±0.2°
Azimuth	Support

Operational

IR Viewable Length	100m(328.08ft)
Camera Title	Displayed up to 85 characters
Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SSDR
Wide Dynamic Range	120dB
Digital Noise Reduction	SSNR V
Digital Image Stabilization	Support(built-in gyro sensor)
Defog	Support
Motion Detection	8ea, 8point polygonal zones
Privacy Masking	24ea, rectangular Support - Color: Grey/Green/Red/Blue/Black/White - Mosaic
Gain Control	Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2~1/12,000sec)
Video Rotation	Flip, Mirror
Analytics	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line
Serial Interface	RS-485(Samsung-T, Pelco-D/P, Panasonic, Bosch, AD, GE, Vicon, Honeywell)
Alarm I/O	Input 4ea / Output 2ea
Alarm Triggers	Analytics, Network disconnect, Alarm input

Alarm Events	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers Alarm output PTZ Preset
Audio In	Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm
Audio Out	Line out, Max.output level: 1Vrms
Network	
Ethernet	RJ-45(10/100BASE-T), SFP(Optional)
Video Compression	H.265/H.264,MJPEG
Resolution	1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Maximum Framerate	H.265/H.264: Maximum 30fps MJPEG: Maximum 30fps
Smart Codec	Manual(5ea area), WiseStream II
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(10 users) / Multicast Multiple streaming(Up to 10 profiles)
Audio Compression	G.711 u-law /G.726 Selectable G.726(ADPCM) 8KHz, G.711 8KHz G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps AAC-LC: 48Kbps at 16KHz
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour, LLDP, SRTP
Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP)
Edge Storage	Micro SD/SDHC/SDXC 1 slot 256GB
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform
Web Viewer	Supported OS: Windows 7, 8.1, 10, Mac OS X 10.12, 10.13, 10.14 Recommended Browser: Google Chrome Supported Browser: MS Explore 11, MS Edge, Mozilla Firefox (Window 64bit only), Apple Safari (Mac OS X only)
Memory	1024MB RAM, 256MB Flash
Environmental	
Operating Temperature / Humidity	24VAC : -50°C~-55°C (-58°F ~ +131°F) / Less than 90% RH HPoE : -40°C~-55°C (-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -35°C
Storage Temperature / Humidity	-50°C~+60°C (-58°F~+140°F) / Less than 90% RH
Certification	IP66, IK10
Electrical	
Input Voltage	24VAC, HPoE (IEEE802.3bt, Class7)
Power Consumption	24VAC: Maximum 83W (typical : 30W) HPoE : Maximum 51W (typical : 30W)
Mechanical	

Color / Material	Body: Ivory / Plastic, Head: Black / Plastic
Product dimensions / weight	Ø236.9x407.7mm(9.33x16.05"), 6.8Kg(14.99 lb)

- The latest product information / specification can be found at hanwhasecurity.com
- Design and specifications are subject to change without notice.
- Wisenet is the proprietary brand of **Hanwha Techwin**, formerly known as Samsung Techwin.

QNF-9010

12MP Network Fisheye Camera



Key Features

- Maximum 3008 x 3008 resolution
- H.265, H.264, MJPEG codec
- On-camera dewarping with multi-channel support: Original fisheye view, Single panorama, Double panorama, Quad view
- 120dB WDR, WiseStreamII
- Digital PTZ
- People counting, Heatmap
- Micro SD/SDHC/SDXC slot maximum 256 GB, PoE powered

Video

Imaging Device	1/2.3" 12M CMOS
Effective Pixels	3008(H) x 3008(V)
Minimum Illumination	Color: 0.39 Lux (F2.2, 1/30sec)
Video Out	CVBS : 1.0 Vp-p / 75Ω composite, 720x480, for Installation

Lens

Focal Length (Zoom Ratio)	1.08mm fixed focal
Maximum Aperture Ratio	F2.2
Angular Field of View	H: 187° / V: 187° / D: 187°
Minimum Object Distance	0.5m(1.64ft)

Operational

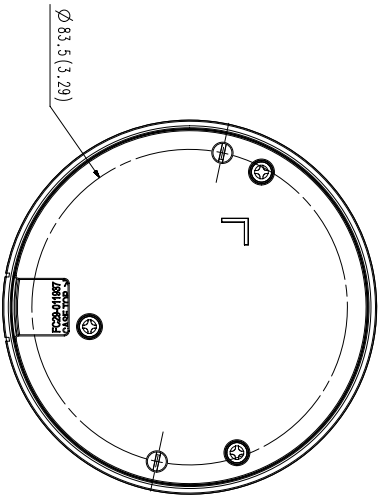
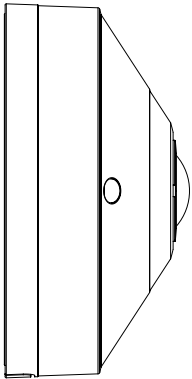
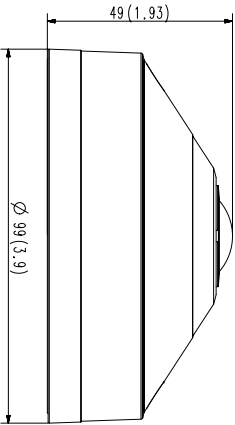
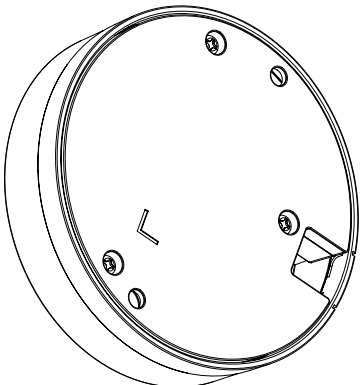
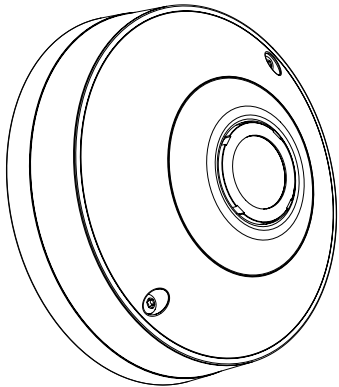
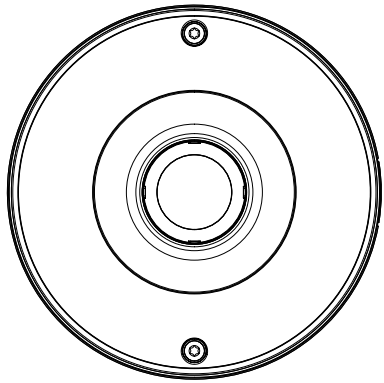
Camera Title	Displayed up to 85 characters
Day & Night	Auto(Electrical)
Backlight Compensation	BLC, WDR, SSDR
Wide Dynamic Range	120dB
Digital Noise Reduction	SSNR V
Motion Detection	4ea, polygonal zones
Privacy Masking	6ea, Rectangle zones
Gain Control	Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2~1/12,000sec)
Video Rotation	Flip, Mirror
Analytics	Defocus detection, Motion detection, Tampering
Business Intelligence	People counting, Heatmap
Alarm Triggers	Analytics, Network disconnect
Alarm Events	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers

Network

Ethernet	RJ-45(10/100BASE-T)
Video Compression	H.265/H.264: Main/High, MJPEG
Resolution	Overview : 3008x3008, 640x640 Double panorama: 2560x1280, 1920x960, 1280x640, 1024x512, 640x320 Single panorama: 3200x800, 2560x640, 1920x480, 1280x320, 1024x256 Quad view: 2560x1920, 1920x1440, 1280x960, 1024x768, 640x480
Max. Framerate	H.265/H.264: Overview-Maximum 30fps@3008x3008, Double panorama-Maximum 28fps@2560x1280, Single panorama-Maximum 28fps@3200x800, MJPEG: Maximum 5fps
Smart Codec	Manual(5ea area), WiseStream II
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles)

Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour
Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP) Device Certificate(Hanwha Techwin Root CA)
Edge Storage	Micro SD/SDHC/SDXC slot 256GB
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform
Web Viewer	Supported OS: Windows 7, 8.1, 10, Mac OS X 10.12, 10.13, 10.14 Recommended Browser: Google Chrome Supported Browser : MS Internet Explorer 11, MS Edge, Mozilla Firefox (Windows 64-bit only), Apple Safari (Mac OS X only)
Memory	2048MB RAM, 256MB Flash
Environmental	
Operating Temperature / Humidity	-10°C ~ +40°C(+14°F ~ +104°F) / Less than 90% RH
Storage Temperature / Humidity	-50°C ~ +60°C(-58°F ~ +140°F) / Less than 90% RH
Certification	IP42
Electrical	
Input Voltage	PoE(IEEE802.3af, Class3)
Power Consumption	PoE: Maximum 7.7W, typical 6.4W
Mechanical	
Color / Material	White / Plastic
RAL Code	RAL9003
Product dimensions / weight	Ø99x49mm, 370g
DORI	
Detect (25PPM/ 8PPF)	34.9m(114.49ft)
Observe (63PPM/ 19PPF)	13.9m(45.60ft)
Recognize (125PPM/ 38PPF)	7.0m(22.96ft)
Identify (250PPM/ 76PPF)	3.5m(11.48ft)

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2	QNF-9010	'19.11.20
1	QNF-8010	'19.09.02
No.	MODEL NAME	DATE
Unit:mm (inch)	SCALE:1/1	© Hanwha Techwin

PNO-9080R

4K Network IR Bullet Camera

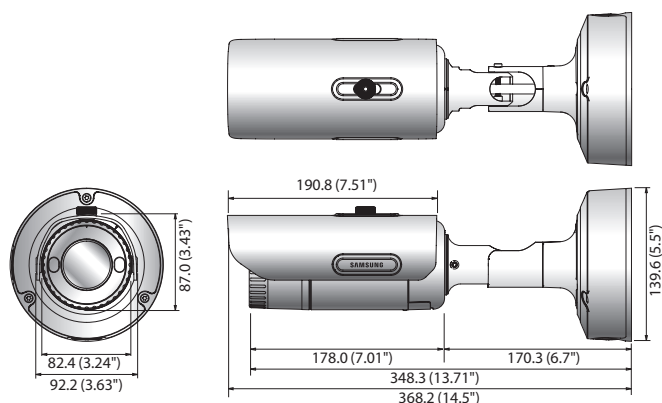


Key Features

- Max. 12megapixel (4000 x 3000) resolution
- Max. 20fps@12M, Max.30fps@8M
- 0.3Lux@F1.6 (Color), 0Lux (B/W : IR LED on)
- 4.5 ~ 10mm (2.2x) motorized varifocal lens
- H.265, H.264, MJPEG support
- Day & Night (ICR), WDR (120dB), Simple focus, P-Iris
- Motion detection, Defocus detection, Tampering
- SD/SDHC/SDXC memory slot (Max, 128GB), NAS, Local PC support
- Hallway view (Rotate 90° / 270°)
- WiseStream support, Digital auto tracking
- IP66, IK10, Bi-directional audio support

Dimensions

Unit : mm (inch)



Accessories (Optional)



SBP-301PM

SBP-302PM

PNO-9080R

VIDEO	
Imaging Device	1/1.7" 12.4M CMOS
Total Pixels / Effective Pixels	4,168(H) x 3,062(V) / 4,072(H) x 3,046(V)
Scanning System	Progressive
Min. Illumination	Color : 0.3Lux (1/30sec, F1.6, 30IRE), 0.01Lux (2sec, F1.6, 30IRE) B/W : 0Lux (IR LED on)
S / N Ratio	50dB
Video Output	CVBS : 1.0Vpp / 75Ω composite, 714 x 480(N), 702 x 576(P), for installation DIP connector type
LENS	
Focal Length (Zoom Ratio)	4.5 ~ 10mm (2.2x) motorized varifocal
Max. Aperture Ratio	F1.6
Angular Field of View	[4096 x 2160] H : 100.3° (Wide) ~ 45.6° (Tele) / V : 49.7° (Wide) ~ 24.0° (Tele) [3840 x 2160] H : 92.3° (Wide) ~ 42.6° (Tele) / V : 49.7° (Wide) ~ 24.0° (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	P-Iris mode / Board-in type
OPERATIONAL	
IR Viewable Length	40m (131.23ft)
Camera Title	Off / On (Displayed up to 60 characters)
	- W/W : English / Numeric / Special characters
	- China : English / Numeric / Special / Chinese characters
Day & Night	- Common : Multi-line (Max. 5), Color (Grey / Green / Red / Blue / Black / White), Transparency, Auto scale by resolution
	Auto (ICR) / Color / B/W / External / Schedule
	Off / BLC / WDR
Backlight Compensation	120dB
Wide Dynamic Range	SSDR (Off / On)
Contrast Enhancement	SSNR (2D+3D noise filter) (Off / On)
Digital Noise Reduction	Off / Auto / Manual
Defog	Off / On (8ea, Polygonal)
Motion Detection	Off / On (16ea, Polygonal) - Color : Gray / Green / Red / Blue / Black / White
Privacy Masking	Off / Low / Middle / High
Gain Control	ATW / AWC / Manual / Indoor / Outdoor (Include mercury & sodium)
White Balance	Minimum / Maximum / Anti flicker (2 ~ 1/12,000sec)
Electronic Shutter Speed	Off / On, Hallway : 90° / 270°
Flip / Mirror	Tampering (Scene change), Virtual line, Enter / Exit, (Dis)Appear, Audio detection, Defocus detection, Digital auto tracking - with metadata
Intelligent Video Analytics	Input 1ea / Output 1ea
Alarm I/O	Alarm input, Motion detection, Video analytics, Audio detection, Network disconnect
Alarm Triggers	File upload via FTP and E-mail, Notification via E-mail
Alarm Events	Local storage (SD/SDHC/SDXC) or NAS recording at event triggers, External output Support (Plug-in viewer only)
Pixel Counter	
NETWORK	
Ethernet	RJ-45 (10/100/1000BASE-T)
Video Compression Format	H.265 / H.264 (MPEG-4 part 10/AVC) : Main / Baseline / High, MJPEG
Resolution	[8M mode] 4096 x 2160, 3840 x 2160, 2592 x 1944, 2592 x 1464, 1920 x 1080, 1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 800 x 448, 720 x 576, 720 x 480, 640 x 480, 640 x 360, 320 x 240
	[12M mode] 4000 x 3000, 3840 x 2160, 2592 x 1944, 2592 x 1464, 1920 x 1080, 1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 800 x 448, 720 x 576, 720 x 480, 640 x 480, 640 x 360, 320 x 240
	H.265 / H.264 : 20fps@4000 x 3000, 30fps@4096 x 2160
Max. Framerate	MJPEG : 2fps@4000 x 3000 ~ 2592 x 1464, 15fps@1920 x 1080 ~ 320 x 240
Smart Codec / WiseStream	Manual mode (Area-based : 5ea) / Support
Video Quality Adjustment	H.265 / H.264 : Target bitrate level control, MJPEG : Quality level control
Bitrate Control Method	H.265 / H.264 : CBR or VBR, MJPEG : VBR
Streaming Capability	Multiple streaming (Up to 3 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 : 1Vrms
Audio Compression Format	G.711 u-law/G.726 selectable, G.726 (ADPCM) 8KHz, G.711 8KHz G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps, AAC-LC : 48Kbps at 16KHz
Audio Communication	Bi-directional audio (2-way)
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	HTTPTS(SSL) login authentication, Digest login authentication
Streaming Method	IP address filtering, User access log, 802.1x authentication (EAP-TLS, EAP-LEAP)
Max. User Access	Unicast / Multicast 15 users at unicast mode
Edge Storage	SD/SDHC/SDXC (128GB) - Motion images recorded in the SD/SDHC/SDXC memory card can be downloaded, Camera can detect automatically when the memory is connected, Memory status display (Normal / Error / Active / Formatting / Lock), NAS (Network Attached Storage), Local PC for instant recording (Plug-in viewer only)
	ONVIF profile S/G, SUNAPI (HTTP API), VSNP, Wisenet Open Platform
	Application Programming Interface
Webpage Language	English, French, German, Spanish, Italian, Chinese, Russian, Japanese, Swedish, Portuguese, Turkish, Polish, Czech, Dutch, Hungary, Greek
Web Viewer	Supported OS : Windows 7, 8.1, 10, Mac OS X 10.9, 10.10, 10.11
	Plug-in free Webviewer
	- Supported Browser : Google Chrome 47, MS Edge 20
Central Management Software	Plug-in Webviewer
	- Supported Browser : MS Explore 11, Mozilla Firefox 43, Apple Safari 9 * Mac OS X only
	SmartViewer
ENVIRONMENTAL	
Operating Temperature / Humidity	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH
Storage Temperature / Humidity	* Start up should be done at above -35°C (-31°F)
Ingress Protection / Vandal Resistance	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH IP66 / IK10
ELECTRICAL	
Input Voltage / Current	24V AC, 12V DC, PoE (IEEE802.3af, Class3)
Power Consumption	12V DC : Max. 11.55W, PoE : Max. 12.95W, 24V AC (50/60Hz) : 14.08W - Heater on 12V DC : Max. 10.45W, PoE : Max. 11.77W, 24V AC (50/60Hz) : 12.43W - Heater off
MECHANICAL	
Color / Material	Dark gray / Aluminium
Dimensions (WxHxD)	82.4 x 87.0 x 348.3mm (3.24" x 3.43" x 13.71") (Without sunshield)
Weight	1.4Kg (3.09 lb)

* The latest product information / sepecification can be found at hanwha-security.com

PNV-9080R

4K Vandal-Resistant Network IR Dome Camera

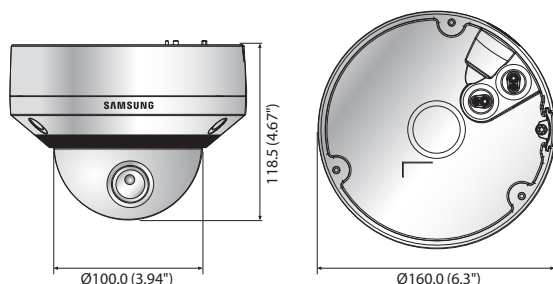


Key Features

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- Max. 20fps@12M, Max.30fps@8M
- 0.3Lux@F1.6 (Color), 0Lux (B/W : IR LED on)
- 4.5 ~ 10mm (2.2x) motorized varifocal lens
- H.265, H.264, MJPEG support
- Day & Night (ICR), WDR (120dB), Simple focus, P-Iris
- Motion detection, Defocus detection, Tampering
- SD/SDHC/SDXC memory slot (Max, 128GB), NAS, Local PC support
- Hallway view (Rotate 90° / 270°)
- WiseStream support, Digital auto tracking
- IP66, IP67, IK10, Bi-directional audio support

Dimensions

Unit : mm (inch)



Accessories (Optional)



PNV-9080R

VIDEO	
Imaging Device	1/1.7" 12.4M CMOS
Total Pixels / Effective Pixels	4,168(H) x 3,062(V) / 4,072(H) x 3,046(V)
Scanning System	Progressive
Min. Illumination	Color : 0.3Lux (1/30sec, F1.6, 30IRE), 0.01Lux (2sec, F1.6, 30IRE) B/W : 0Lux (IR LED on)
S / N Ratio	50dB
Video Output	CVBS : 1.0Vpp / 75Ω composite, 714 x 480(N), 702 x 576(P), for installation DIP connector type
LENS	
Focal Length (Zoom Ratio)	4.5 ~ 10mm (2.2x) motorized varifocal
Max. Aperture Ratio	F1.6
Angular Field of View	[4096 x 2160] H : 100.3° (Wide) ~ 45.6° (Tele) / V : 49.7° (Wide) ~ 24.0° (Tele) [3840 x 2160] H : 92.3° (Wide) ~ 42.6° (Tele) / V : 49.7° (Wide) ~ 24.0° (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	P-Iris mode / Board-in type
PAN / TILT / ROTATE	
Pan / Tilt / Rotate Range	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
OPERATIONAL	
IR Viewable Length	40m (131.23ft)
Camera Title	Off / On (Displayed up to 60 characters) - W/W : English / Numeric / Special characters - China : English / Numeric / Special / Chinese characters - Common : Multi-line (Max. 5), Color (Grey / Green / Red / Blue / Black / White), Transparency, Auto scale by resolution
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	SSNR (2D+3D noise filter) (Off / On)
Defog	Off / Auto / Manual
Motion Detection	Off / On (8ea, Polygonal)
Privacy Masking	Off / On (16ea, Polygonal) - Color : Gray / Green / Red / Blue / Black / White
Gain Control	Off / Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor (Include mercury & Sodium)
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2 ~ 1/12,000sec)
Flip / Mirror	Off / On, Hallway : 90° / 270°
Intelligent Video Analytics	Tampering (Scene change), Virtual line, Enter / Exit, (Dis)Appear, Audio detection, Defocus detection, Digital auto tracking - with metadata
Alarm I/O	Input 1ea / Output 1ea
Alarm Triggers	Alarm input, Motion detection, Video analytics, Audio detection, Network disconnect
Alarm Events	File upload via FTP and E-mail, Notification via E-mail
Pixel Counter	Local storage (SD/SDHC/SDXC) or NAS recording at event triggers, External output Support (Plug-in viewer only)
NETWORK	
Ethernet	RJ-45 (10/100/1000BASE-T)
Video Compression Format	H.265 / H.264 (MPEG-4 part 10/AVC) : Main / Baseline / High, MJPEG [8M mode] 4096 x 2160, 3840 x 2160, 2592 x 1944, 2592 x 1464, 1920 x 1080, 1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 800 x 448, 720 x 576, 720 x 480, 640 x 480, 640 x 360, 320 x 240 [12M mode] 4000 x 3000, 3840 x 2160, 2592 x 1944, 2592 x 1464, 1920 x 1080, 1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 800 x 448, 720 x 576, 720 x 480, 640 x 480, 640 x 360, 320 x 240
Resolution	
Max. Framerate	H.265 / H.264 : 20fps@4000 x 3000, 30fps@4096 x 2160 MJPEG : 2fps@4000 x 3000 ~ 2592 x 1464, 15fps@1920 x 1080 ~ 320 x 240
Smart Codec / WiseStream	Manual mode (Area-based : 5ea) / Support
Video Quality Adjustment	H.265 / H.264 : Target bitrate level control, MJPEG : Quality level control
Bitrate Control Method	H.265 / H.264 : CBR or VBR, MJPEG : VBR
Streaming Capability	Multiple streaming (Up to 3 profiles)
Audio In	Selectable (Mic in / Line in), Supply voltage : 2.5VDC (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, AAC-LC : 48Kbps at 16KHz
Audio Communication	Bi-directional audio (2-way)
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 HTTPS(SSL) login authentication, Digest login authentication
Security	IP address filtering, User access log, 802.1x authentication (EAP-TLS, EAP-LEAP)
Streaming Method	Unicast / Multicast
Max. User Access	15 users at unicast mode
Edge Storage	SD/SDHC/SDXC (128GB) - Motion images recorded in the SD/SDHC/SDXC memory card can be downloaded, Camera can detect automatically when the memory is connected, Memory status display (Normal / Error / Active / Formatting / Lock), NAS (Network Attached Storage), Local PC for instant recording (Plug-in viewer only)
Application Programming Interface	ONVIF profile S/G/Q, SUNAPI (HTTP API), SVNP, Wisenet Open Platform
Webpage Language	English, French, German, Spanish, Italian, Chinese, Russian, Japanese, Swedish, Portuguese, Turkish, Polish, Czech, Dutch, Hungary, Greek Supported OS : Windows 7, 8.1, 10, Mac OS X 10.9, 10.10, 10.11 Plug-in free Webviewer - Supported Browser : Google Chrome 47, MS Edge 20 Plug-in Webviewer - Supported Browser : MS Explore 11, Mozilla Firefox 43, Apple Safari 9 * Mac OS X only SmartViewer
Web Viewer	
Central Management Software	
ENVIRONMENTAL	
Operating Temperature / Humidity	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -35°C (-31°F)
Storage Temperature / Humidity	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH
Ingress Protection / Vandal Resistance	IP66, IP67 / IK10
ELECTRICAL	
Input Voltage / Current	24V AC, 12VDC, PoE (IEEE802.3af, Class3)
Power Consumption	12V DC : Max. 11.55W, PoE : Max. 12.95W, 24V AC (50/60Hz) : 14.08W - Heater on 12V DC : Max. 10.45W, PoE : Max. 11.77W, 24V AC (50/60Hz) : 12.43W - Heater off
MECHANICAL	
Color / Material	Ivory / Aluminium
Dimensions (WxH) / Weight	Ø160.0 x 118.5mm (Ø6.3" x 4.67") / 990g (2.18 lb)

* The latest product information / sepecification can be found at hanwha-security.com

XRN-3010A

64 Channel Network Video Recorder

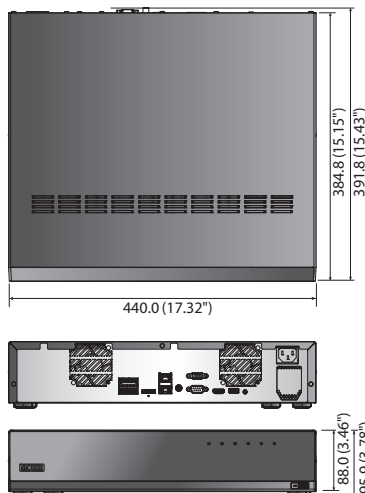


Key Features

- Up to 64 Channel, Maximum 12-megapixel camera supported
- Maximum 300Mbps network camera recording
- 4K video out on HDMI monitor support
- Dual monitor video out support
- H.265, H.264, MJPEG compression support
- WiseStream support
- Maximum 8 internal HDDs (64TB), e-SATA storage support
- ARB & Failover (N+1) support
- P2P service (QR code connect) support

Dimensions

Unit : mm (inch)



		XRN-3010A
DISPLAY		
Video	Inputs	Up to 64 channels
	Resolution	CIF ~ 12 MP
	Protocols	Wisenet, ONVIF, RTSP
Live	Local Display	1x HDMI, 1x VGA dual monitor
	Multi Screen Display	[Local monitor] 1 / 2V / 3V / 4 / 9 / 16 / 25 / 36 / Sequence, [Web] 1 / 4 / 9 / 16 / 25 / 36 / Sequence
	Performance	[Local monitor] 12 MP (30fps), 8.3 MP (120fps), 1080p (480fps), 720P (960fps), D1 (1560fps)
PERFORMANCE		
Operating System	Embedded	Linux
	Compression	H.265, H.264, MJPEG, WiseStream (H.265, H.264)
	Recording Bandwidth	Maximum 300Mbps
Recording	Resolution	CIF ~ 12 MP
	Mode	Normal, Schedule (Continuous / Event), Event (Pre / Post)
	Event Trigger	Alarm input (8), Video loss, Camera event (Sensor, MD, Video analytics, Defocus)
Search & Playback	Event Action	E-mail, PTZ preset, Alarm out, Buzzer, Monitor out
	Playback Bandwidth	32Mbps (16 channels simultaneously)
	Performance	Max. 4 users (Local 1, Remote 3)
Storage	Mode	Date & Time (Calendar) / Event log list / Text search (POS, ANPR) / ARB search / Smart search (Virtual line w/direction, Enter / Exit)
	Simultaneous Playback	Maximum 16 channels (Local monitor, CMS)
	Resolution	CIF ~ 12 MP
Backup	Fish-eye Dewarping	WEB / CMS
	Playback Control	Fast/Slow Forward/Backward, Move one step up/down
	Default Built-In	0TB ~ 8TB
Sensor	Internal HDD	8 (Maximum 64TB)
	File Backup (Via Web)	BU/Exe (GUI), JPG/AVI (Network)
	Function	Multi channel (Up to 16 channel) play, Date-time/title display
Audio	Input / Output	8 / 4 (NO/NC selectable)
	Input	64 channels with camera inputs (Network)
	Compression	G.711, G.726, AAC (16/48KHz)
NETWORK	Audio Communication	2-way
	Interface	RJ-45, Gigabit ethernet x 2
	Protocol Support	TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, DHCP (Server, Client), PPPoE, SMTP, ICMP, IGMP, ARP, DNS, DDNS, uPnP, HTTPS, SNMP, ONVIF (Profile-S), SUNAPI (Server, Client)
DDNS	Transmission Bandwidth	Hanwha DDNS, 3rd party DDNS
	Maximum Remote Users	512Mbps
	Search 3 / Live unicast 10 / Live multicast 20	
IP	Security	IPv4 / IPv6
	Language	IP address filtering, User access log, 802.1x authentication, Encryption
	OS	English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese, Japanese, Thai
Web Browser	Viewer	Window 7, 8, 10, Mac OS X (10.8 or above)
	Type	MS IE, Google Chrome, Mac Safari, Firefox
	Software	Wisenet WAVE, SSM, Webviewer, SmartViewer, Wisenet Mobile viewer
CMS Support	SDK / CGI (Wisenet SUNAPI)	
	FUNCTIONS	
	Register	Auto, Manual
Camera Setup	Setup Items	IP address, Add profile edit, Bitrate, Compression, GOP, Quality, Camera MD setup, Camera video setup (Simple focus, Brightness/Contrast, Flip/Mirror, IRIS, WDR, D&N, SSNR, Shutter, SSDR, DIS), Fisheye dewarping mode, Hallway view setup, Camera webpage
	Easy Configuration	P2P (QR code)
	PTZ	Control / Preset
Smart Phone	OS	Via GUI, Webviewer, SPC-2000 / 255 presets
	Protocol Support	Android, iOS
	Control	RTP, RTSP, HTTP, CGI (SUNAPI)
Redundancy	Max. Remote Users	Live (16 channel) : Multi-profile support, Playback
	Failover / ARB	Search 3 / Live unicast 10 / Live multicast 20
	System Control	N + 1 (Include fail-back) / Yes
INTERFACE	Mouse, Web, SPC-2000 (Controller)	
	Front	Indicator
	LED (Status indicator) : 6ea	
Connections	VGA	HDD action 1, Alarm 1, Power 1, Record 1, Backup 1, Network1
	HDMI	Sub mode : 1ea (Supports live screen up to 16 division mode)
	Audio	Main : 1ea (Both monitors support Live / Playback / Setup)
Ethernet	Out 1ea (RCA, Line)	Support up to 4K (3840 x 2160, Single monitor mode)
	Alarm	Out 1ea (RCA, Line)
	USB	RJ-45 2ea (LAN/WAN, 1Gbps)
Storage	Serial / Reset	In 8ea (Terminal block), Alarm reset 1ea
	Power Cord	Out 4ea (Terminal block) - Relay out1 (NO/NC/COM) - Relay out 2 ~ 4 (NO/COM)
	Log List	2ea (Front 1, Rear 1)
SYSTEM	Log	1 e-SATA
	Log List	RS-232C / Switch 1ea
	Log List	1ea AC Inlet
GENERAL	Log List	Maximum 20,000 (System log, Event log each)
	Log List	
	Log List	
Electrical	Input Voltage / Current	100 ~ 240V AC ±10%, 50/60Hz / 4 ~ 1.5A
	Power Consumption	Maximum 99W (338BTU, 8TB HDD x 8ea)
	Operating Temperature	+0°C ~ +40°C (+32°F ~ +104°F)
Environmental	Operating Humidity	20% ~ 85% RH
	Color / Material	20% ~ 85% RH
	Dimensions (WxHxD)	Black / Metal
Mechanical	Weight	440.0 x 88.0 x 384.8mm (17.32" x 3.46" x 15.15") (2U)
	Weight	4.86Kg (10.71 lb) (without HDD)
	Weight	

* The latest product information / specification can be found at hanwhasecurity.com

* Design and specifications are subject to change without notice.

* Wisenet is the proprietary brand of Hanwha Techwin.