



Network

Fisheye

# XNF-A9014RV

12MP AI IR Fisheye Camera



## Key Features

- 1.76mm fixed stereo graphic type lens
- Digital Rotation
- Dual NPU for AI-based Image enhancement
- Resolution/Framerate
  - Original view: Max.30fps@3536x3536
  - Double panorama: Max.30fps@3584x1792
  - Single panorama: Max.30fps@3584x896
  - Quad view: Max.30fps@3584x2688
  - Q1/Q2/Q3/Q4(4:3): Max.30fps@1792x1344
- Analytics events based on AI engine : Object detection (Person/Face/Vehicle/License plate),
- IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Intrusion), Motion detection
- Business intelligence based on AI engine : People/Vehicle/Crowd counting, Queue management, Heatmap
- Support BestShot and color attributes
- extremeWDR, WiseNR II (Based on AI engine), WiseStream(Based on AI engine)
- WiseIR: IR viewable length 20m (64.51ft)
- IP66, NEMA4X, IK10
- NEMA TS-2 (2.2.7.2-8, 2.2.8, 2.2.9), EN50155
- Support Wisepower(Power monitoring)
- Device certificate(Hanwha Vision Root CA), Secure storage(Secure element with FIPS 140-3 level3/CC EAL6+ certified), SBOM

## Compatible Devices



SBP-160HMW1



SBP-140CMB



SBP-180CMB



SBP-180CMS



SBP-150CMP



SBP-300CMP



SBP-900CMP



# XNF-A9014RV

12MP AI IR Fisheye Camera



## Specifications

### Video

Imaging Device	Size	1/1.6"
	Type	CMOS
Resolution	3584x2688, 3584x1792, 3584x896, 3536x3536, 3008x3008, 2560x2560, 2560x1920, 2560x1280, 2560x640, 1920x960, 1920x480, 1792x1344, 1600x1600, 1280x1280, 1280x960, 1280x640, 1280x320, 1024x768, 1024x512, 1024x256, 800x800, 800x600, 640x640, 640x480, 640x320, 640x160, 480x480, 320x240, 160x160	
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	5fps
	Others	Max. 20fps in PoE mode
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.02
	BW(1/30sec, 30IRE)	0.001

### Lens

Focal Length (mm)	1.76	
Max Aperture Ratio (F number)	Wide	1.8
	Tele	1.8
Angular Field of View	Horizontal	185°
	Vertical	185°
	Diagonal	185°
Min. Object Distance	0.5m(1.64ft)	

### Pan / Tilt / Rotate

Pan / Tilt / Rotate Range	Rotate	Digital rotation
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### Operational

Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SDR
Wide Dynamic Range (dB)	120
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V
Digital Image Stabilization	Support
Defog	Support

## Operational

<b>Motion Detection</b>	Quantity	8ea
	Shape	8point Polygonal zones
<b>Privacy Masking</b>	Quantity	32ea
	Shape	8point Polygonal zones
	Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic, Purple, Yellow
<b>Gain Control</b>		Off, Max gain, Manual
<b>White Balance</b>		ATW, NarrowATW, AWC, Manual, Indoor, Outdoor
<b>Electronic Shutter</b>	Mode	Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)
	Speed Range	2~1/30,000sec
<b>Digital PTZ</b>		Support
<b>Video Rotation</b>		Flip, Mirror
<b>Alarm Interface</b>	In/Out	2 configurable I/O ports
	Others	Support extra alarm I/O via optional I/O box
<b>Alarm Triggers</b>		Analytics, Network disconnect, Alarm input, Time schedule, MQTT subscription, Case tampering, Day/Night, Storage disruption
<b>Alarm Events When Alarm Trigger Occurred</b>		File upload(image): e-mail/FTP/SFTP, File upload(video clip): FTP/SFTP, Notification: e-mail, Recording: SD/SDHC/SDXC or NAS recording at event triggers.Alarm output, Handover: PTZ preset,send message by HTTP/HTTPS/TCP,Audio clip playback, MQTT: publication
<b>Audio In</b>		Selectable(mic in/line in), Built-in 3mics
<b>Audio Out</b>		Line out
<b>Light Type</b>		IR LED
<b>Light Viewable Length</b>	IR	WiseIR up to 20m(65.61ft)
<b>IR Wavelength</b>		850nm

## Analytics

<b>Classified Object Type</b>		Person, Vehicle
<b>Attributes</b>	Person	Upper/Lower clothes color
	Vehicle	Color
<b>Re-ID</b>		Person
<b>Thumbnail</b>		BestShot
<b>Analytics Events</b>	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Motion detection, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear)
	Normal	Defocus detection, Tampering, Audio detection, Shock detection
<b>Business Intelligence</b>	Based on AI Engine	People counting, Queue management, Heatmap, Vehicle counting, Crowd counting

## Network

<b>Ethernet</b>	Metal shielded RJ-45(10/100BASE-T)
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## Network

<b>Video Compression</b>		H.265/H.264: Main/Baseline/High, MJPEG
<b>Audio Compression</b>		Opus 8/16kHz, G.711(PCM): 8kHz(64kbps), G.726(ADPCM): 8kHz(16/24/32/40kbps), OPUS: 16kHz(64kbps), AAC-LC: 16/32/44.1/48kHz(48kbps), OPUS: 48kHz(64kbps)
<b>Smart Codec</b>		WiseStream(Based on AI engine)
<b>Bitrate Control</b>		H.265/H.264: CBR or VBR, MJPEG: VBR
<b>Streaming</b>	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 5 profiles
<b>Protocol</b>		IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SFTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT, SMTP(StartTLS), Syslog
<b>Application Programming Interface</b>	ONVIF	S, G, T, M
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform
<b>Direct Cloud Connection</b>		Support

## Security

<b>OS / Firmware Protect</b>	Encrypted firmware, Secure boot, Signed firmware
<b>User authentication</b>	Digest authentication, Prevent brute-force attack
<b>Network authentication</b>	IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)
<b>Secure Communication</b>	HTTPS, WSS(WebSocket Secure), SRTP, 802.1AE(MACsec)
<b>Access Control</b>	IP-based access control, MAC-based access control, Auto logout
<b>Data Protect</b>	Encryption credentials, Encrypt compress for live recording file export
<b>Audit</b>	Access / System / Event Log management
<b>Device ID</b>	Device certificate(Hanwha Vision Root CA)
<b>Secure Storage</b>	SDcard partition encrypt(AES-256), Secure element
<b>Supply Chain Security</b>	SBOM
<b>Security Certificate</b>	Secure element(FIPS 140-3 level3, CC EAL6+), Consumer IoT Security Standard (ETSI EN 303 645)

## General

<b>SoC</b>	Type	Wisenet 9
	Dual NPU	Support
<b>Memory</b>	RAM	4GB
	Flash	8GB eMMC
<b>Edge Storage</b>	Micro SD/SDHC/SDXC	Max. 1TB x 1slot
<b>Edge Storage(OnCloud)</b>	Micro SD/SDHC/SDXC	Max. 1TB x 1slot *Hanwha Vision branded microSD cards have been certified and recommended for OnCloud edge recording.

## Environmental & Electrical

Operating Condition	Temperature	-40°C~+55°C(-40°F~+131°F)
	Humidity	0~100% RH(condensing)
	Others	In PoE+ mode, IR illuminator will turn off if the temperature is higher than 50°C
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~95% RH(non-condensing)
Input Voltage		PoE(IEEE802.3af, Class3), PoE+(IEEE802.3at, Class4), 12VDC
Power Consumption	PoE	Max. 19.8W, typical 10.5W
	12VDC	Max. 20W, typical 10.9W
WisePower		Power mode, Power monitoring
Power Redundance Failover		Support

## Mechanical

Color		White
Material		Aluminum, Hard-coated dome
Material Management	Declaration	RoHS(EU RoHS directive 2011/65/EU and IEC/EN 63000:2018)
RAL Code		RAL9003
Product Dimensions		Ø160x75mm(6.23x2.95")
Product Weight		1020g(2.25 lb)
Compatible Gang Box		Single, Double, 4" Octagon, Square

## Certifications & Standards

EMC	EN 50121-4, FCC 47 CFR 15 Subpart B Class A, ICES-3(A)/NMB-3(A), CE/UKCA - EN55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3, VCCI CISPR 32 Class A, RCM AS-NZS CISPR 32 Class A, KS C 9832 Class A, KS C 9835, EN 50121-3-2
Safety	UL 62368-1, CAN/CSA C22.2 NO. 62368-1, IEC 62471
Environment	IEC/EN 63000, IEC 60529 IP66, IEC 62262 IK10, NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9), NEMA 250 type 4X, EN 50155, IEC 62236-4, EN 50121-4, EN 50498, IEC/EN 61373, EN 45545, IEC 62236-3-2, IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78

## DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide	43.4m(142.24ft)
Observe (63PPM/ 19PPF)	Wide	17.3m(56.89ft)
Recognize (125PPM/ 38PPF)	Wide	8.7m(28.45ft)
Identify (250PPM/ 76PPF)	Wide	4.3m(14.22ft)

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## CAD

Unit: mm [inch]

$\varnothing 160 [6.3]$   
 $\varnothing 52 [2.05]$   
 $45 [1.77]$   
 $75 [2.95]$

3	MODEL 2	
2	MODEL 1	
1	XNF-A9014RV/A8014RV	'25.09.08
No.	MODEL NAME	DATE
Unit:mm[inch] SCALE:1/1		

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