

Network Fisheye

XNF-9013RV

12MP AI IR Fisheye Camera

Key Features

- AI technology
  - Classified object type: Person/Face/Vehicle/License plate
  - Support Detection Shot
  - Object detection-Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)
- Stereographic type fisheye lens
- Improved image quality
  - extreme WDR by scene Analysis and Local contrast enhancement
  - WiseNR II , Auto prefer shutter control based on AI
- Resolution/Framerate
  - Original view-Max.30fps/25fps@3008x3008 (60Hz/50Hz)
  - Double panorama-Max.30fps/25fps@3584x1792 (60Hz/50Hz)
  - Single panorama-Max.30fps/25fps@3584x896 (60Hz/50Hz)
- WiseStreamIII based on AI
- Next level cybersecurity
  - Device Certificate (Root CA, pre-installed)
  - TPM 2.0 (FIPS 140-2 certified), Secure OS/boot/storage, Verified FW forgery
- Adjustable IR distance with WisePower : PoE+mode-13m, PoE mode-8m
- Mirco SD/SDHC/SDXC 2 slot: Max. 1TB (512GBx2ea)
- Reinforced durability
  - IP66, NEMA4X, IK10, Metal shielded RJ-45
  - Hard-coated dome bubble
- Additional accessories
  - Black Skin Cover (SBC-160BF), Tilted wall mount (SBP-160TMW1)

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Specifications

Video

Imaging Device	Size	1/2.3"
	Type	CMOS
Resolution		3584x2688, 3584x1792, 3584x896, 3008x3008, 1920x960, 1920x480, 1792x1344, 1792x896, 1504x1504, 1080x1080, 1024x768, 960x960, 800x600, 768x768, 720x720, 704x576, 640x640, 640x480, 640x320, 640x160, 480x480
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps(@9MP Max. 5fps)
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.39
	BW(1/30sec, 30IRE)	0.039
Video Out		CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.

Lens

Focal Length (mm)		1.08
Max Aperture Ratio (F number)	Wide	2.2
Angular Field of View	Horizontal	187°
	Vertical	187°
	Diagonal	187°
Min. Object Distance		0.5m(1.64ft)
Focus Control		Simple focus

Pan / Tilt / Rotate

Pan / Tilt / Rotate Range	Rotate	Lens rotation

Operational

Day & Night		Auto(ICR)
Backlight Compensation		BLC, HLC, WDR, SSDR
Wide Dynamic Range (dB)		120
Digital Noise Reduction		WiseNR II (Based on AI engine), SSNR V
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones

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Operational

Privacy Masking	Quantity	32ea
	Shape	4point Quadrangle zones
	Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic
Gain Control		Off, Max gain, Manual
White Balance		ATW, NarrowATW, AWC, Manual, Indoor, Outdoor
Electronic Shutter	Mode	Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)
	Speed Range	1/5~1/12,000sec
Video Rotation		Flip, Mirror
Alarm Interface	In/Out	2 configurable I/O ports
Alarm Triggers		Analytics, Network disconnect, Alarm input, App event, Time schedule, MQTT subscription
Alarm Events When Alarm Trigger Occurred		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
Audio In		Selectable(mic in/line in), Built-in mic
Audio Out		Line out
Light Type		IR LED
Light Viewable Length	IR	WiseIR 8m(26.25ft)(PoE), 13m(42.65ft)(PoE+)
IR Wavelength		850nm

Analytics

Classified Object Type		Person, Face, Vehicle, License plate
Attributes	Vehicle	Type(car, bus, truck, motorcycle, bicycle)
Thumbnail		DetectionShot
Analytics Events	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Motion detection
	Normal	Defocus detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear)
Business Intelligence	Based on AI Engine	People counting, Queue management, Heatmap, Vehicle counting

Network

Ethernet	Metal shielded RJ-45(10/100BASE-T)
Video Compression	H.265: Main, H.264: Main/Baseline/High,MJPEG
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
Smart Codec	Manual, WiseStreamIII
Bitrate Control	H.265/H.264: CBR or VBR, MJPEG: VBR

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Network

Streaming	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 10 profiles
Protocol		IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SFTP, SMTP, ICMP, IGMPv1/v2/v3, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT
Application Programming Interface	ONVIF	S, G, T, M
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform
Direct Cloud Connection		Support

Security

OS / Firmware Protect	Encrypted firmware, Secure boot, Signed firmware
User authentication	Digest authentication, Prevent brute-force attack
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)
Secure Communication	HTTPS, WSS(WebSocket Secure), SRTP
Access Control	IP-based access control
Data Protect	Encryption credentials, Encrypt compress for live recording file export
Audit	Access / System / Event Log management
Device ID	Device certificate(Hanwha Vision Root CA)
Secure Storage	TPM(Trusted platform module), HTPM(Hanwha Trusted Platform Module), SDcard partition encrypt(AES-256)
Security Certificate	TPM 2.0 with FIPS 140-2 level2

General

Memory	RAM	4GB
	Flash	512MB
Edge Storage	Micro SD/SDHC/SDXC	Max. 512GB x 2slot(Total 1TB)

Environmental & Electrical

Operating Condition	Temperature	-40°C~+60°C(-40°F~+140°F)
	Humidity	0~95% RH(non-condensing)
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
Input Voltage		PoE(IEEE802.3af, Class3), PoE+(IEEE802.3at, Class4), 12VDC
Power Consumption	PoE	PoE mode: Max 12.95W,typical 9.4W, PoE+ mode: Max 23.0W,typical 9.4W,
	12VDC	PoE mode: Max 12.9W,typical 9.0W, PoE+ mode: Max 22.0W,typical 9.0W

Mechanical

Color	White

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Mechanical

Material	Aluminum
RAL Code	RAL9003
Product Dimensions	ø160x72mm(ø6.30x2.83")
Product Weight	1170g(2.58 lb)
Compatible Gang Box	Single, Double, 4" Octagon, Square

Certifications & Standards

EMC	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
Safety	UL 62368-1, CAN/CSA C22.2 NO. 62368-1, IEC 62471
Environment	IEC/EN 63000, IEC 60529 IP66, IEC 62262 IK10, NEMA 250 type 4X

DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide	34.9m(114.49ft)
Observe (63PPM/ 19PPF)	Wide	13.9m(45.60ft)
Recognize (125PPM/ 38PPF)	Wide	7.0m(22.96ft)
Identify (250PPM/ 76PPF)	Wide	3.5m(11.48ft)

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Compatible Devices


SBC-160BF


SBP-160HMW1


SBV-180BW


SBV-180WW


SBP-150CMI


SBP-300CMI


SBP-300CMW1


SBP-900CMW

SBP-300CMTW


SBP-300CMTS


SBP-300WMW


SBP-300WMW1


SBP-390WMW2


SBP-160WMW1


SBD-180PMW


SHD-1600FPW


SHD-1600FW


SBP-300LMW


SBP-156LMW1


SBP-300KMW1


SBP-160TMW1


SBP-300NBW

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