Network   Fisheye

QNF-C9010V
12MP AI Fisheye Camera

Key Features

- 1/1.6" 12MP CMOS
- 1.76mm fixed stereo graphic type lens
- Color: 0.02Lux(F1.8, 1/30sec), BW: 0.001Lux(F1.8, 1/30sec)
- Digital Rotation
- Resolution/Framerate
- Original view: Max. 20fps@3008x3008
- Double panorama: Max. 20fps@3584x1792
- Single panorama: Max. 20fps@3584x896
- Quad view: Max. 20fps@3584x2688
- Q1/Q2/Q3/Q4(4:3): Max. 20fps@1792x1344
- Day & Night (ICR), WDR (120dB), WiseNR II (Using AI engine)
- H.265, H.264, MJPEG, WiseStreamIII (Using AI engine)
- Analytics events based on AI engine
- Object detection (Person/Vehicle)
- Color Attribute, BestShot
- Motion detection, Virtual line (Crossing/Direction),
Virtual area (Loitering/Intrusion/Enter/Exit)
- IP66, IK10, NEMA4X

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Specifications

Video

Imaging Device	1/1.6" 12MP CMOS
Resolution	Overview : 3008x3008, 2560x2560, 1920x1920, 1504x1504, 1280x1280, 800x800, 640x640, 480x480 Double panorama: 3584x1792, 1920x960, 1280x640, 1024x512, 640x320 Single panorama: 3584x896, 1920x480, 1280x320, 1024x256, 640x160 Quad view: 3584x2688, 2048x1536, 1792x1344, 1024x768, 768x576, 512x384 Q1/Q2/Q3/Q4(4:3): 1792x1344, 1024x768, 768x576, 512x384
Max. Framerate	Original view: Max.20ps@3008x3008, Double panorama: Max.20fps@3584x1792 Single panorama: Max.20fps@3584x896 Quad view: Max.20fps@3584x2688 Q1/Q2/Q3/Q4(4:3): Max.20fps@1792x1344 MJPEG: Max.5fps
Min. Illumination	Color: 0.02Lux (F1.8, 1/30sec) BW: 0.001Lux (F1.8, 1/30sec)
Video Out	USB: Micro USB Type B, 1280x720 for installation

Lens

Focal Length (Zoom Ratio)	1.76mm fixed focal
Max. Aperture Ratio	F1.8
Angular Field of View	H: 185° / V: 185° / D: 185°
Min. Object Distance	0.5m(1.64ft)

Pan / Tilt / Rotate

Pan / Tilt / Rotate Range	Digital Rotation

Operational

Camera Title	Displayed up to 85 characters
Day & Night	Auto(ICR)
Backlight Compensation	BLC, WDR, SSDR
Wide Dynamic Range	120dB
Digital Noise Reduction	SSNR V , WiseNR II (Based on AI engine)
Motion Detection	8ea, 8point polygonal zones
Privacy Masking	32ea, 4point quadrangle zones
Gain Control	Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor
LDC	Support
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1/5~1/12,000sec)
Video Rotation	Flip, Mirror

Q series QNF-C9010V

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Analytics	Classified object type: Person/Vehicle Attributes: Person(Upper/lower clothes color), Vehicle(color) Support BestShot Analytics events based on AI engine - Motion detection*, Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit/Appear/Disappear) Analytics events - Defocus detection, Tampering * Some of the video analytics only works with people and vehicle detection
Business Intelligence	Based on AI engine: People counting, Queue management, Heatmap
Alarm Triggers	Analytics, Network disconnect
Alarm Events	When alarm trigger occurred - File upload(image) : e-mail/FTP/SFTP - Notification : e-mail - Recording : SD/SDHC/SDXC or NAS recording at event triggers - Handover(PTZ preset, Send message by HTTP/HTTPS/TCP) - MQTT: publication

Network

Ethernet	RJ-45(10/100BASE-T)
Video Compression	H.265/H.264: Main/High, MJPEG
Smart Codec	Manual(5ea area), WiseStreamIII(Based on AI engine)
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast Multiple streaming(Up to 5 profiles)
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP/SFTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP (TCP, UDP Unicast), MQTT
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Hanwha Vision Open Platform - Cloud connector application included

Security

OS / Firmware Protect	Secure boot, Signed firmware, Firmware encryption
User authentication	Digest Authentication, Prevent brute-force attack
Network authentication	802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2)
Secure Communication	HTTPS, SRTP, WSS(Websocket secure)
Access Control	Access control based on IP address
Data Protect	Authentication information encryption, ZIP compression encryption
Audit	User Access/System/Event log management
Device ID	Device Certificate(Hanwha Private Root CA)
Secure Storage	SDcard partition encrypt
Security Certificate	Secure by default

General

Webpage Language	English, Korean, Simplified Chinese, Traditional Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB
Memory	2GB RAM, 1GB Flash

Environmental & Electrical

Operating Temperature / Humidity	-40°C~+55°C(-40°F~+131°F) / 0~100% RH(condensing) * Start up should be done at above -30°C

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com.
Hanwha Vision is formerly known as Hanwha Techwin.

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Storage Temperature / Humidity	-50°C~+60°C(-58°F~+140°F) / Less than 95% RH
Certification	IP66, IK10, NEMA4X
Input Voltage	PoE(IEEE802.3af, Class3)
Power Consumption	PoE: Max 6.7W, typical 4.8W

Mechanical

Color / Material	White / Aluminum
RAL Code	RAL9003
Product Dimensions / Weight	ø120x72.3mm(ø4.7x2.85"), 583g(1.28lb)

Certifications & Standards

EMC	FCC 47 CFR 15 Subpart B Class A ICES-3(A)/NMB-3(A) CE/UKCA - EN 55032 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
Safety	UL 62368-1, CAN/CSA C22.2 NO. 62368-1 IEC/EN 62471
Environment	IEC/EN 63000 IEC/EN 60529 IP66, IEC/EN 62262 IK10

Compatible Models

Hanging Adaptor	SBP-120HMW
Back Box	SBV-140BW, SBV-140WW
Ceiling Mount (Assy)	SBP-150CMI, SBP-300CMI, SBP-300CMW1, SBP-900CMW, SBP-300CMTW, SBP-300CMTS
Ceiling Mount (Single Unit)	SBP-140CMB, SBP-140CMT, SBP-180CMB, SBP-180CMS, SBP-150CMP, SBP-300CMP, SBP-900CMP, SBP-C15P, SBP-C15H
Wall Mount	SBP-125WMW1, SBP-250WMW, SBP-300WMW, SBP-300WMW1, SBP-400WMW
Pole Mount	SBD-140PMB, SBD-140PMW, SBP-300PMW2
Corner Mount	SBD-140KMB
Parapet Mount	SBP-156LMW1, SBP-300LMW
Tilt Mount	SBV-140TMW
Cabinet	SBP-150NBW

DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	36.9m(121.03ft)
Observe (63PPM/ 19PPF)	14.8m(48.42ft)
Recognize (125PPM/ 38PPF)	7.4m(24.21ft)
Identify (250PPM/ 76PPF)	3.7m(12.10ft)

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