

DS-2CD3956G2-IS(U) 5 MP AcuSense Fisheye Network Camera

HEOP



Hikvision has been dedicated to develop products with security since established. Hikvision always follows security by design principle and has adopted many methods of security technologies into our product development lifecycle, including terminal security, data security, application security, network security, and privacy protection. In the meantime, the security technologies used by Hikvision are all in compliance with local applicable laws and safety regulations. These security measures could enhance product's cyber security protection capability and protect your devices as well as your data from malicious cyber attacks.

- Supports Hikvision Embedded Open Platform (HEOP) and importing third party applications
- Supports 1.5 TOPS computing power, 60 MB system memory, 400 MB smart RAM, and 2 GB eMMC storage for sharing resources
- Efficient H.265+ compression technology
- 360° fisheye view (Ceiling mount)
- High quality imaging with 5 MP resolution
- Up to 4 live view display modes
- Clear imaging against strong back light due to 120 dB true WDR technology

▪ Specification

Camera	
Image Sensor	1/2.7" Progressive Scan CMOS
Max. Resolution	2560 × 1920
Min. Illumination	Color: 0.017 Lux @ (F2.25, AGC ON), B/W: 0 Lux with IR
Shutter Time	1/3 s to 1/100,000 s
Day & Night	IR cut filter
Lens	
Lens Type	Fixed focal lens, 1.05 mm
Focal Length & FOV	1.05 mm, horizontal FOV: 360°, vertical FOV : 180°
Lens Mount	M12
Iris Type	Fixed
Aperture	F2.25
Depth of Field	0.1 m to ∞
DORI	
DORI	D: 21 m, O: 8 m, R: 4 m, I: 2 m
Illuminator	
Supplement Light Type	IR
Supplement Light Range	Up to 8 m
Smart Supplement Light	Yes
IR Wavelength	850 nm
HEOP	
Open Resources	Memory: 60 MB, Smart RAM: 400 MB, eMMC: 2 GB
Computing Power	1.5 TOPS
Open Capability	HEOP 1.0 OpendevSDK
Deep Learning Structure	Caffe, PyTorch, TensorFlow
Programming Language	C, C++
Video	
Main Stream	50 Hz: 25 fps/60 Hz: 30 fps: Fisheye View: 2560 × 1920, 2048 × 1536, 1280 × 960 180 Panorama View: 2048 × 1152, 1280 × 720 180 Dual Channel Panorama View: 4096 × 576, 2048 × 288 4PTZ View: camera 01/camera 02/camera 03/camera 04: 1200 × 900 Fisheye + 3PTZ View: camera 01: 2048 × 1536, 1280 × 960 camera 02/camera 03/camera 04: 1200 × 900

Sub-Stream	50 Hz: 25 fps/60 Hz: 30 fps: Fisheye View: 640 × 480, 640 × 360 180 Panorama View: 640 × 480, 640 × 360 Fisheye + 3PTZ View: camera 01: 640 × 480, 640 × 360
Video Compression	Main stream: H.265/H.264/H.264+/H.265+ Sub-stream: H.265/H.264/MJPEG
Video Bit Rate	32 Kbps to 16 Mbps
H.264 Type	Baseline Profile/Main Profile/High Profile
H.265 Type	Main Profile
Bit Rate Control	CBR/VBR
Scalable Video Coding (SVC)	H.264 and H.265 encoding
Region of Interest (ROI)	5 fixed regions for main stream and sub-stream
Target Cropping	Yes
Fisheye Display	
Mount Type	Ceiling mounting
Decoding Mode	Support hardware decoding and software decoding
Audio	
Audio Compression	G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC
Audio Bit Rate	64 Kbps (G.711ulaw/G.711alaw)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps (MP2L2)/8 to 320 Kbps (MP3)/16 to 64 Kbps (AAC-LC)
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
Environment Noise Filtering	Yes
Network	
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, PPPoE, SFTP, ARP, SNMP, WebSocket, WebSockets, SRTP
Simultaneous Live View	Up to 20 channels
API	Open Network Video Interface (Profile S, Profile G, Profile T), ISAPI, SDK, ISUP
User/Host	Up to 32 users. 3 user levels: administrator, operator and user
Security	Password protection, complicated password, HTTPS encryption, IP address filter, Security Audit Log, basic and digest authentication for HTTP/HTTPS, TLS 1.2, WSSE and digest authentication for Open Network Video Interface
Network Storage	NAS (NFS, SMB/CIFS), auto network replenishment (ANR) Together with high-end Hikvision memory card, memory card encryption and health detection are supported.
Client	iVMS-4200, Hik-Connect, Hik-Central
Web Browser	Plug-in required live view: IE 10, IE 11 Plug-in free live view : Chrome 57.0+, Firefox 52.0+ Local service: Chrome 57.0+, Firefox 52.0+
Image	
Image Parameters Switch	Yes

Image Settings	Saturation, brightness, contrast, sharpness, gain, white balance adjustable by client software or web browser
Day/Night Switch	Day, Night, Auto, Schedule
Wide Dynamic Range (WDR)	120 dB
Image Enhancement	BLC, HLC, 3D DNR
SNR	≥ 52 dB
Interface	
Ethernet Interface	1 RJ45 10 M/100 M self-adaptive Ethernet port
On-Board Storage	Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 512 GB
Built-in Microphone	-U: Yes
Audio	1 input(s) (line in), four-core terminal block, max. input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium, 1 output(s) (line out), four-core terminal block, max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium
Alarm	1 input, 1 output (max. 12 VDC, 30 mA)
RS-485	1 RS-485 (Half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)
Reset Key	Yes
Event	
Basic Event	Motion detection, video tampering alarm, exception
Linkage	Upload to NAS/memory card/FTP, notify surveillance center, send email, trigger recording, trigger capture, trigger alarm output, audible warning
Deep Learning Function	
Heat Map	Yes
General	
Power	12 VDC ± 25%, 0.50 A, max. 6 W, Ø5.5 mm coaxial power plug, PoE: 802.3af, Class 3, 36 V to 57 V, 0.20 A to 0.13 A, max. 7.5 W
Dimension	Ø119.9 mm × 41.2 mm (Ø4.7" × 1.6")
Package Dimension	150 mm × 125 mm × 99 mm (5.9" × 4.9" × 3.9")
Weight	Approx. 320 g (0.7 lb.)
With Package Weight	Approx. 510 g (1.1 lb.)
Storage Conditions	-10 °C to 50 °C (-14 °F to 122 °F). Humidity 95% or less (non-condensing)
General Function	Anti-banding, heartbeat, privacy mask, flash log, password reset via email, pixel counter
Startup and Operating Conditions	-10 °C to 50 °C (-14 °F to 122 °F). Humidity 95% or less (non-condensing)
Language	33 languages: English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil), Ukrainian
Approval	
EMC	FCC: 47 CFR Part 15, Subpart B, CE-EMC: EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3:2013+A1:2019, EN 50130-4:2011+A1: 2014, RCM: AS/NZS CISPR 32: 2015

Safety	UL: UL 62368-1, CB: IEC 62368-1: 2014+A11, CE-LVD: EN 62368-1: 2014/A11: 2017
Environment	CE-RoHS: 2011/65/EU, WEEE: 2012/19/EU, Reach: Regulation (EC) No 1907/2006

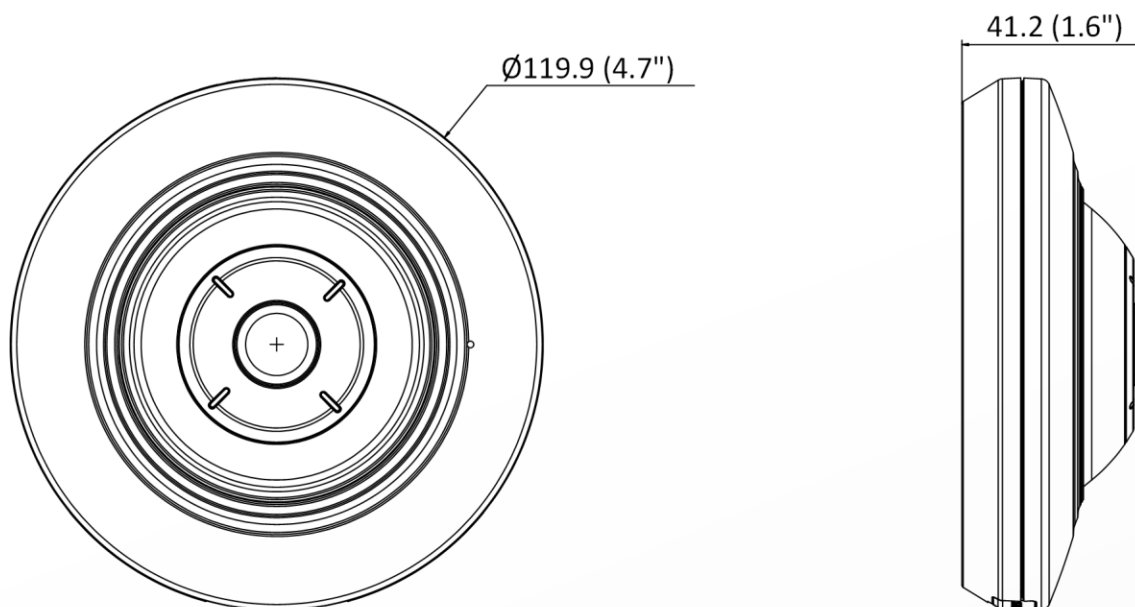
▪ Typical Application

Hikvision products are classified into three levels according to their anti-corrosion performance. Refer to the following description to choose for your using environment.

This model has NO SPECIFIC PROTECTION.

Level	Description
Top-level protection	Hikvision products at this level are equipped for use in areas where professional anti-corrosion protection is a must. Typical application scenarios include coastlines, docks, chemical plants, and more.
Moderate protection	Hikvision products at this level are equipped for use in areas with moderate anti-corrosion demands. Typical application scenarios include coastal areas about 2 kilometers (1.24 miles) away from coastlines, as well as areas affected by acid rain.
No specific protection	Hikvision products at this level are equipped for use in areas where no specific anti-corrosion protection is needed.

▪ Dimension



Unit: mm (inch)

▪ **Accessory**

▪ **Optional**

DS-1297ZJ-M	DS-1297ZJ-ES	DS-1299ZJ	DS-1297ZJ	DS-1294ZJ
				
DS-1281ZJ-DM27				
				

See Far, Go Further



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