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

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

- 180° fisheye view

- 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: 180°, vertical FOV: 180°, diagonal 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<br><br>180 Panorama View: 2048 × 1152, 1280 × 720<br><br>180 Dual Channel Panorama View: 4096 × 576, 2048 × 288<br><br>4PTZ View: camera 01/camera 02/camera 03/camera 04: 1200 × 900<br><br>Fisheye + 3PTZ View: camera 01: 2048 × 1536, 1280 × 960<br>camera 02/camera 03/camera 04: 1200 × 900 |

| | |
|---|---|
| Sub-Stream | 50 Hz: 25 fps/60 Hz: 30 fps:<br>Fisheye View:<br>640 × 480, 640 × 360<br><br>180 Panorama View:<br>640 × 480, 640 × 360<br><br>Fisheye + 3PTZ View:<br>camera 01: 640 × 480, 640 × 360 |
| Video Compression | Main stream: H.265/H.264/H.264+/H.265+<br>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)<br>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<br>Plug-in free live view : Chrome 57.0+, Firefox 52.0+<br>Local service: Chrome 57.0+, Firefox 52.0+ |
| **Image** | |
| Image Parameters Switch | Yes |

| | |
|---|---|
| Image Settings | Rotate mode, 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.) |
| General Function | Anti-banding, heartbeat, mirror, privacy mask, flash log, password reset via email, pixel counter |
| Storage Conditions | -10 °C to 50 °C (-14 °F to 122 °F). Humidity 95% or less (non-condensing) |
| 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,<br>CB: IEC 62368-1: 2014+A11,<br>CE-LVD: EN 62368-1: 2014/A11: 2017 |
|---|---|
| Environment | CE-RoHS: 2011/65/EU,<br>WEEE: 2012/19/EU,<br>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. |

## ▪ Available Model

DS-2CD3956G2-IS(1.05mm)

DS-2CD3956G2-ISU(1.05mm)

DS-2CD3956G2-ISU(1.05mm)(HIK USA)

DS-2CD3956G2-ISU(1.05mm)SKD

## ▪ Dimension

Ø119.9 (4.7")

41.2 (1.6")
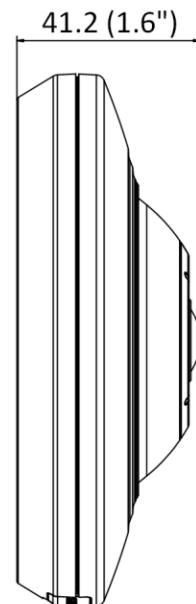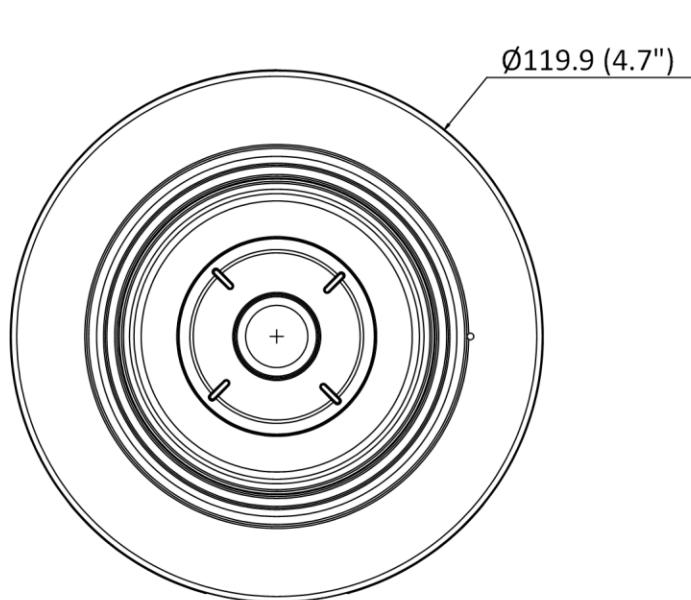
Unit: mm (inch)

▪ **Accessory**

▪ **Optional**

| DS-1297ZJ-M | DS-1297ZJ-ES | DS-1299ZJ | DS-1297ZJ | DS-1294ZJ |
|---|---|---|---|---|
|  |  |  |  |  |

| DS-1281ZJ-DM27 |
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