

**DS-2CD2023G2-I(U)**  
**2 MP AcuSense Fixed Bullet Network Camera**

# AcuSense



Empowered by deep learning algorithms, Hikvision AcuSense technology brings human and vehicle targets classification alarms to front- and back-end devices. The system focuses on human and vehicle targets, vastly improving alarm efficiency and effectiveness.

- High quality imaging with 2 MP resolution
- Clear imaging against strong backlight due to 120 dB WDR technology
- Efficient H.265+ compression technology
- -U: Built-in microphone for real-time audio security
- Focus on human and vehicle targets classification based on deep learning
- Water and dust resistant (IP67)

## ▪ Specification

| Camera                      |                                                                                                                                                                                                   |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor                | 1/2.8" Progressive Scan CMOS                                                                                                                                                                      |
| Max. Resolution             | 1920 × 1080                                                                                                                                                                                       |
| Min. Illumination           | Color: 0.005 Lux @ (F1.6, AGC ON), B/W: 0 Lux with IR                                                                                                                                             |
| Shutter Time                | 1/3 s to 1/100,000 s                                                                                                                                                                              |
| Day & Night                 | IR cut filter                                                                                                                                                                                     |
| Angle Adjustment            | Pan: 0° to 360°, tilt: 0° to 90°, rotate: 0° to 360°                                                                                                                                              |
| Lens                        |                                                                                                                                                                                                   |
| Lens Type                   | Fixed focal lens, 2.8, 4, and 6 mm optional                                                                                                                                                       |
| Focal Length & FOV          | 2.8 mm, horizontal FOV 107°, vertical FOV 57°, diagonal FOV 127°<br>4 mm, horizontal FOV 87°, vertical FOV 46°, diagonal FOV 104°<br>6 mm, horizontal FOV 54°, vertical FOV 29°, diagonal FOV 63° |
| Lens Mount                  | M12                                                                                                                                                                                               |
| Iris Type                   | Fixed                                                                                                                                                                                             |
| Aperture                    | F1.6                                                                                                                                                                                              |
| Depth of Field              | 2.8 mm: 1 m to ∞<br>4 mm: 1.2 m to ∞<br>6 mm: 2.8 m to ∞                                                                                                                                          |
| DORI                        |                                                                                                                                                                                                   |
| DORI                        | 2.8 mm: D: 44 m, O: 17 m, R: 9 m, I: 4 m<br>4 mm: D: 54 m, O: 21 m, R: 11 m, I: 5 m<br>6 mm: D: 88 m, O: 35 m, R: 18 m, I: 9 m                                                                    |
| Illuminator                 |                                                                                                                                                                                                   |
| Supplement Light Type       | IR                                                                                                                                                                                                |
| Supplement Light Range      | Up to 40 m                                                                                                                                                                                        |
| Smart Supplement Light      | Yes                                                                                                                                                                                               |
| IR Wavelength               | 850 nm                                                                                                                                                                                            |
| Video                       |                                                                                                                                                                                                   |
| Main Stream                 | 50 Hz: 25 fps (1920 × 1080, 1280 × 720)<br>60 Hz: 30 fps (1920 × 1080, 1280 × 720)                                                                                                                |
| Sub-Stream                  | 50 Hz: 25 fps (640 × 480, 640 × 360)<br>60 Hz: 30 fps (640 × 480, 640 × 360)                                                                                                                      |
| Third Stream                | 50 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360)<br>60 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360),<br>*Third stream is supported under certain settings.             |
| Video Compression           | Main stream: H.265/H.264/H.264+/H.265+<br>Sub-stream: H.265/H.264/MJPEG<br>Third stream: H.265/H.264                                                                                              |
| Video Bit Rate              | 32 Kbps to 8 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)    | 1 fixed region(s) for main stream and sub-stream                                                                                                                                                  |

| Audio                       |                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Audio Compression           | -U: G.711/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC                                                                                                                                                                                                                                                                                                                                  |
| Audio Bit Rate              | -U: 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         | -U: 8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz                                                                                                                                                                                                                                                                                                                                       |
| Environment Noise Filtering | -U: Yes                                                                                                                                                                                                                                                                                                                                                                       |
| Network                     |                                                                                                                                                                                                                                                                                                                                                                               |
| Protocols                   | TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour, SSL/TLS, PPPoE, SNMP, WebSocket, WebSockets                                                                                                                                                                                                               |
| Simultaneous Live View      | Up to 6 channels                                                                                                                                                                                                                                                                                                                                                              |
| API                         | ONVIF (ProfileS, ProfileG, ProfileT), ISAPI, SDK, ISUP                                                                                                                                                                                                                                                                                                                        |
| User/Host                   | Up to 32 users<br>3 user levels: administrator, operator, and user                                                                                                                                                                                                                                                                                                            |
| Security                    | Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for Open Network Video Interface, RTP/RTSP over HTTPS, control timeout settings, security audit log, TLS 1.3, host authentication (MAC address) |
| 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 liveview: IE 10, IE 11,<br>Plug-in free live view: 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                                                                                                                                                                                                                                                                                                                                                                        |
| SNR                         | ≥ 52 dB                                                                                                                                                                                                                                                                                                                                                                       |
| Image Enhancement           | BLC, HLC, 3D DNR                                                                                                                                                                                                                                                                                                                                                              |
| Privacy Mask                | Yes                                                                                                                                                                                                                                                                                                                                                                           |
| Interface                   |                                                                                                                                                                                                                                                                                                                                                                               |
| Ethernet Interface          | 1 RJ45 10 M/100 M self-adaptive Ethernet port                                                                                                                                                                                                                                                                                                                                 |
| On-Board Storage            | Built-in memory card slot, support microSD card, up to 512 GB                                                                                                                                                                                                                                                                                                                 |
| Built-in Microphone         | -U: Yes                                                                                                                                                                                                                                                                                                                                                                       |
| Reset Key                   | Yes                                                                                                                                                                                                                                                                                                                                                                           |
| Event                       |                                                                                                                                                                                                                                                                                                                                                                               |
| Basic Event                 | Motion detection (support alarm triggering by specified target types (human and vehicle)), video tampering alarm, exception                                                                                                                                                                                                                                                   |
| Smart Event                 | Face detection                                                                                                                                                                                                                                                                                                                                                                |
| Linkage                     | Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger recording, trigger capture                                                                                                                                                                                                                                                                     |

| Deep Learning Function           |                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Perimeter Protection             | Line crossing, intrusion<br>Support alarm triggering by specified target types (human and vehicle)                                                                                                                                                                                                                                                      |
| General                          |                                                                                                                                                                                                                                                                                                                                                         |
| Power                            | 12 VDC $\pm$ 25%, 0.5 A, max. 6 W, $\varnothing$ 5.5 mm coaxial power plug, reverse polarity protection,<br>PoE: IEEE 802.3af, Class 3, 36 V to 57 V, 0.2 A to 0.13 A, max. 7 W                                                                                                                                                                         |
| Material                         | Metal                                                                                                                                                                                                                                                                                                                                                   |
| Dimension                        | $\varnothing$ 74.4 mm $\times$ 179.2 mm ( $\varnothing$ 2.9" $\times$ 7.1")                                                                                                                                                                                                                                                                             |
| Package Dimension                | 216 mm $\times$ 121 mm $\times$ 118 mm (8.5" $\times$ 4.8" $\times$ 4.6")                                                                                                                                                                                                                                                                               |
| Weight                           | Approx. 500 g (1.1 lb.)                                                                                                                                                                                                                                                                                                                                 |
| With Package Weight              | Approx. 750 g (1.7 lb.)                                                                                                                                                                                                                                                                                                                                 |
| Storage Conditions               | -30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)                                                                                                                                                                                                                                                                               |
| Startup and Operating Conditions | -30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)                                                                                                                                                                                                                                                                               |
| Language                         | 33 languages<br>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 |
| General Function                 | Anti-flicker, heartbeat, mirror, password reset via email, password protection, one-key reset                                                                                                                                                                                                                                                           |
| Approval                         |                                                                                                                                                                                                                                                                                                                                                         |
| EMC                              | FCC: 47 CFR Part 15, Subpart B,<br>CE-EMC: EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN 50130-4: 2011 +A1: 2014,<br>IC: ICES-003: Issue 7,<br>KC: KN32: 2015, KN35: 2015                                                                                                                                                           |
| Safety                           | UL: UL 62368-1,<br>CB: IEC 62368-1: 2014+A11,<br>CE-LVD: EN 62368-1: 2014/A11: 2017,<br>BIS: IS 13252 (Part 1): 2010/IEC 60950-1: 2005                                                                                                                                                                                                                  |
| Environment                      | CE-RoHS: 2011/65/EU,<br>WEEE: 2012/19/EU,<br>Reach: Regulation (EC) No 1907/2006                                                                                                                                                                                                                                                                        |
| Protection                       | IP67: IEC 60529-2013                                                                                                                                                                                                                                                                                                                                    |

## ▪ 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-2CD2023G2-I(2.8mm)(D)

DS-2CD2023G2-I(4mm)(D)

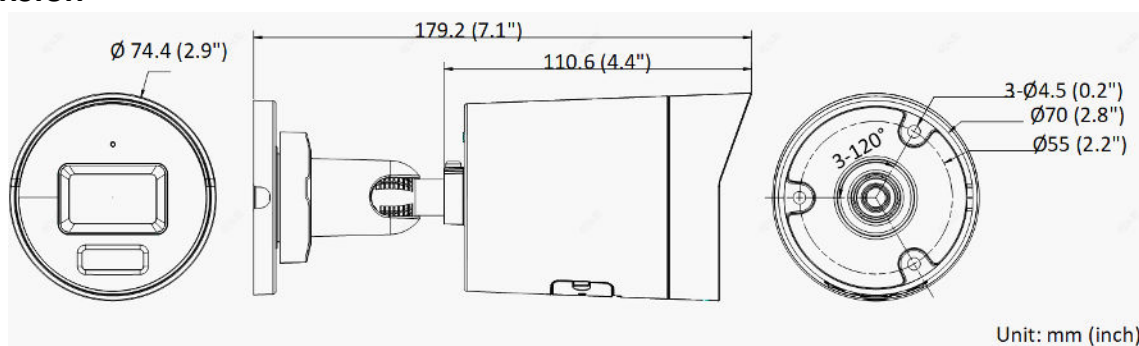
DS-2CD2023G2-I(6mm)(D)

DS-2CD2023G2-IU(2.8mm)(D)

DS-2CD2023G2-IU(4mm)(D)

DS-2CD2023G2-IU(6mm)(D)

## ▪ Dimension



## ▪ Accessory

### ▪ Optional

| DS-1275ZJ-SUS | DS-1276ZJ-SUS | DS-1280ZJ-XS |
|---------------|---------------|--------------|
|               |               |              |

## ▪ Installation Methods

| Vertical Pole Mounting<br>DS-1275ZJ-SUS+DS-1280ZJ-XS | Corner Mounting<br>DS-1276ZJ-SUS+DS-1280ZJ-XS | Junction Box<br>DS-1280ZJ-XS |
|------------------------------------------------------|-----------------------------------------------|------------------------------|
|                                                      |                                               |                              |

# See Far, Go Further



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