

## DS-2CD2086G2H-I(U)

### 8 MP AcuSense Powered-by-Darkfighter Fixed Mini Bullet Network Camera

AcuSense

Powered by

**DarkFighter**



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 8 MP resolution
- Excellent low-light performance via powered-by-DarkFighter technology
- Clear imaging against strong back light due to 120 dB WDR technology
- Efficient H.265+ compression technology
- Focus on human and vehicle classification based on deep learning
- -U: Built-in microphone for real-time audio security
- Water and dust resistant (IP67)

## ▪ Specification

Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Max. Resolution	3840 × 2160
Min. Illumination	Color: 0.0008 Lux @ (F1.0, 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 and 4 mm optional
Focal Length & FOV	2.8 mm, horizontal FOV 105.1°, vertical FOV 54.8°, diagonal FOV 128.2° 4 mm, horizontal FOV 90.0°, vertical FOV 45.8°, diagonal FOV 109.4°
Lens Mount	M16
Iris Type	Fixed
Aperture	F1.0
Depth of Field	2.8 mm: 3.3 m to ∞ 4 mm: 3.8 m to ∞
DORI	
DORI	2.8 mm: D: 89 m, O: 35 m, R: 17 m, I: 8 m 4 mm: D: 109 m, O: 43 m, R: 21 m, I: 10 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 (3840 × 2160, 3200 × 1800, 2688 × 1520, 1920 × 1080, 1280 × 720) 60 Hz: 24 fps (3840 × 2160) 30 fps (3200 × 1800, 2688 × 1520, 1920 × 1080, 1280 × 720)
Sub-Stream	50 Hz: 25 fps (1280 × 720, 640 × 480, 640 × 360) 60 Hz: 30 fps (1280 × 720, 640 × 480, 640 × 360)
Third Stream	50 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360) 60 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360) *Third stream is supported under certain settings.
Video Compression	Main stream: H.265/H.264/H.264+/H.265+, Sub-stream: H.265/H.264/MJPEG, Third stream: H.265/H.264, *Third stream is supported under certain settings.
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)	1 fixed region for main stream and sub-stream

<b>Audio</b>	
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)/16 Kbps to 64 Kbps (AAC-LC)/32 to 192 Kbps (MP2L2)/8 to 320 Kbps (MP3)
Audio Sampling Rate	-U: 8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
Environment Noise Filtering	-U: Yes
<b>Network</b>	
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, SNMP, WebSocket, WebSockets, SRTP, SFTP
Simultaneous Live View	Up to 6 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, 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 1.1/1.2/1.3, host authentication (MAC address)
Network Storage	NAS (NFS, SMB/CIFS), Auto Network Replenishment (ANR)
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+, Edge 89+, Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+
<b>Image</b>	
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
Image Enhancement	BLC, HLC, 3D DNR
SNR	≥ 52 dB
Wide Dynamic Range (WDR)	120 dB
Privacy Mask	4 programmable polygon privacy masks
<b>Interface</b>	
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
Reset Key	Yes
<b>Event</b>	
Basic Event	Motion detection (support alarm triggering by specified target types (human and vehicle)), video tampering alarm, exception
Linkage	Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger recording, trigger capture
Smart Event	Scene change detection
<b>Deep Learning Function</b>	
Face Capture	Yes

Perimeter Protection	Line crossing, intrusion, region entrance, region exiting Support alarm triggering by specified target types (human and vehicle)
<b>General</b>	
Power	12 VDC $\pm$ 25%, 0.58 A, max. 7 W, $\varnothing$ 5.5 mm coaxial power plug, reverse polarity protection, PoE: IEEE 802.3af, Class 3, max. 8.5 W
Material	Front cover: metal, body: metal, bracket: Metal
Dimension	$\varnothing$ 74.4 mm $\times$ 179.2 mm ( $\varnothing$ 2.9" $\times$ 7.1")
Package Dimension	234 mm $\times$ 120 mm $\times$ 117 mm (9.2" $\times$ 4.7" $\times$ 4.6")
Weight	Approx. 525 g (1.2 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)
General Function	Heartbeat, mirror, password reset via email, pixel counter, anti-banding
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
<b>Approval</b>	
EMC	CE-EMC: EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN 50130-4: 2011 +A1: 2014, IC: ICES-003: Issue 7, RCM: AS/NZS CISPR 32: 2015
Safety	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
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.

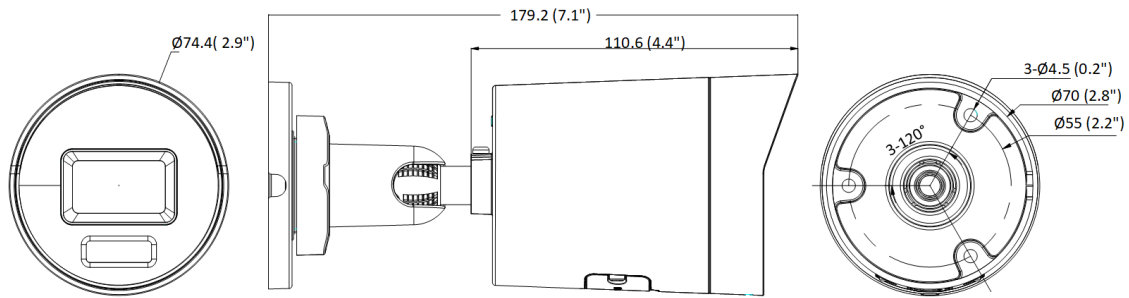
This model has NO SPECIFIC PROTECTION.

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-2CD2086G2H-I(2.8mm)
- DS-2CD2086G2H-I(4mm)
- DS-2CD2086G2H-IU(2.8mm)/Black
- DS-2CD2086G2H-IU(2.8mm)
- DS-2CD2086G2H-IU(4mm)

▪ **Dimension**



Unit: mm (inch)

▪ **Accessory**

▪ **Optional**

DS-1275ZJ-SUS Vertical Pole Mount	DS-1276ZJ-SUS Corner Mount	DS-1280ZJ-XS Junction Box
DS-1275ZJ-SUS(Black) Vertical Pole Mount	DS-1276ZJ-SUS(Black) Corner Mount	DS-1280ZJ-XS(Black) Junction Box

**Headquarters**

No.555 Qianmo Road, Binjiang District,  
Hangzhou 310051, China  
T +86-571-8807-5998  
www.hikvision.com



Follow us on social media to get the latest product and solution information.

