

**DS-2CD2086G2H-IU**  
**8 MP Powered by Darkfighter Fixed Mini Bullet Network Camera**

114-618-2  
114-618-2-BLK  
114-618-4



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

Model		DS-2CD2086G2H-IU
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
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
	Reset Key	Yes
Event	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
Deep Learning Function	Face Capture	Yes
	Perimeter Protection	Line crossing, intrusion, region entrance, region exiting Support alarm triggering by specified target types (human and vehicle)
General	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
Approval	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




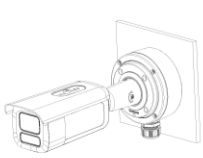
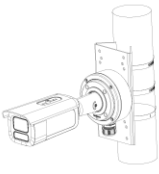
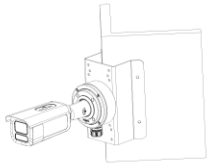
DS-2CD2086G2H-IU(2.8mm)

DS-2CD2086G2H-IU(4mm)

DS-2CD2086G2H-IU(4mm)(BK BLACK)

## ▪ Accessory

### ▪ Optional

DS-1280ZJ-XS Junction box	DS-1275ZJ-SUS Vertical pole mount	DS-1276ZJ-SUS Corner mount
		
		



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