

**DS-2CD2446G2-IW**

**4 MP AcuSense Fixed Cube 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 4 MP resolution
- Excellent low-light performance with powered by DarkFighter technology
- Clear imaging against strong backlight due to 120 dB WDR technology
- Efficient H.265+ compression technology
- Focus on human and vehicle classification based on deep learning
- Provide real-time security via built-in two-way audio
- Detect human body through passive infrared which is sensitive to body temperature (PIR)

## ▪ Specification

| Camera                      |                                                                                                                                                                                                                      |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor                | 1/3" Progressive Scan CMOS                                                                                                                                                                                           |
| Min. Illumination           | 2 mm: color: 0.008 Lux @ (F2.25, AGC ON), B/W: 0 Lux with IR<br>2.8 mm and 4 mm: color: 0.003 Lux @ (F1.4, AGC ON), B/W: 0 Lux with IR                                                                               |
| Max. Resolution             | 2688 × 1520                                                                                                                                                                                                          |
| 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                        |                                                                                                                                                                                                                      |
| Focal Length & FOV          | 2 mm, horizontal FOV 128.4°, vertical FOV 75.4°, diagonal FOV 147.1°<br>2.8 mm, horizontal FOV 102.7°, vertical FOV 55.2°, diagonal FOV 122.5°<br>4 mm, horizontal FOV 82.8°, vertical FOV 45.3°, diagonal FOV 97.7° |
| Aperture                    | 2 mm: F2.25<br>2.8 mm: F1.4<br>4 mm: F1.4                                                                                                                                                                            |
| Lens Mount                  | M12                                                                                                                                                                                                                  |
| DORI                        |                                                                                                                                                                                                                      |
| DORI                        | 2 mm: D: 45.5 m, O: 18.0 m, R: 9.1 m, I: 4.5 m<br>2.8 mm: D: 64.2 m, O: 25.5 m, R: 12.8 m, I: 6.4 m<br>4 mm: D: 77.4 m, O: 30.7 m, R: 15.5 m, I: 7.7 m                                                               |
| Illuminator                 |                                                                                                                                                                                                                      |
| Supplement Light Type       | IR                                                                                                                                                                                                                   |
| Supplement Light Range      | Up to 10 m                                                                                                                                                                                                           |
| IR Wavelength               | 850 nm                                                                                                                                                                                                               |
| Smart Supplement Light      | Yes                                                                                                                                                                                                                  |
| Video                       |                                                                                                                                                                                                                      |
| Main Stream                 | 50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720)<br>60 Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720)                                                                                                         |
| Sub-Stream                  | 50 Hz: 25 fps (1280 × 720, 640 × 480, 640 × 360)<br>60 Hz: 30 fps (1280 × 720, 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)                                                                                       |
| 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) | Yes                                                                                                                                                                                                                  |
| Region of Interest (ROI)    | 1 fixed region for main stream and sub-stream                                                                                                                                                                        |
| Audio                       |                                                                                                                                                                                                                      |
| Environment Noise Filtering | Yes                                                                                                                                                                                                                  |

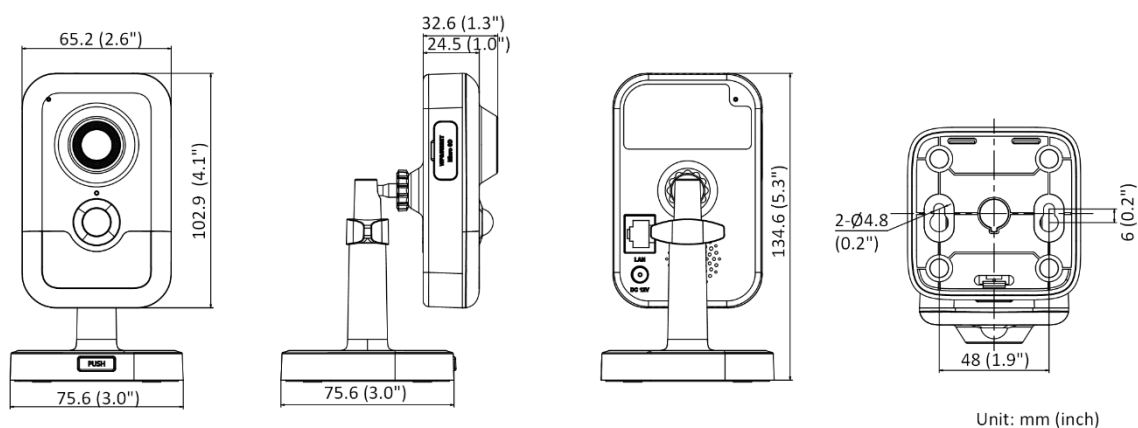
|                          |                                                                                                                                                                                                                                  |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Audio Sampling Rate      | 8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz                                                                                                                                                                                              |
| Audio Compression        | G.711/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)                                                                                                |
| <b>Network</b>           |                                                                                                                                                                                                                                  |
| Simultaneous Live View   | Up to 6 channels                                                                                                                                                                                                                 |
| API                      | Open Network Video Interface (Profile S, Profile G, Profile T), ISAPI, SDK, ISUP                                                                                                                                                 |
| Protocols                | TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP, UPnP, SMTP, IGMP, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, PPPoE, SNMP, WebSocket, WebSockets                                                              |
| User/Host                | Up to 32 users<br>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 1.1/1.2, 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+, Edge 89+,<br>Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+                                                              |
| <b>Wi-Fi</b>             |                                                                                                                                                                                                                                  |
| Encryption Mode          | 64/128-bit WEP, WPA-EAP/WPA2-EAP, WPA-PSK/WPA2-PSK                                                                                                                                                                               |
| Wi-Fi Protocol           | IEEE802.11b, 802.11g, 802.11n                                                                                                                                                                                                    |
| Frequency Range          | 2.412 GHz - 2.472 GHz                                                                                                                                                                                                            |
| Channel Bandwidth        | 20/40 MHz                                                                                                                                                                                                                        |
| Modulation               | 802.11b: CCK, QPSK, BPSK<br>802.11g/n: OFDM                                                                                                                                                                                      |
| Wireless Range           | Up to 50 m (The performance varies based on actual environment)                                                                                                                                                                  |
| Transfer Rate            | 11 b/g: 54 Mbps, 11 n: up to 150 Mbps                                                                                                                                                                                            |
| <b>Image</b>             |                                                                                                                                                                                                                                  |
| Wide Dynamic Range (WDR) | 120 dB                                                                                                                                                                                                                           |
| Privacy Mask             | 4 programmable polygon privacy masks                                                                                                                                                                                             |
| Day/Night Switch         | Day, Night, Auto, Schedule                                                                                                                                                                                                       |
| Image Enhancement        | BLC, HLC, 3D DNR                                                                                                                                                                                                                 |
| Image Parameters Switch  | Yes                                                                                                                                                                                                                              |
| Image Settings           | Rotate mode, saturation, brightness, contrast, sharpness, gain, white balance adjustable by client software or web browser                                                                                                       |
| <b>Transducer</b>        |                                                                                                                                                                                                                                  |
| Detection Angle          | Horizontal: 90°, vertical: 80°                                                                                                                                                                                                   |
| Detection Range          | Up to 8 m                                                                                                                                                                                                                        |
| Transducer Type          | PIR                                                                                                                                                                                                                              |
| <b>Interface</b>         |                                                                                                                                                                                                                                  |
| Built-in Microphone      | Yes                                                                                                                                                                                                                              |
| Built-in Speaker         | Power: 1 W. Max. sound pressure level: 10 cm: 91 dB.                                                                                                                                                                             |

|                                  |                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| On-Board Storage                 | Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 512 GB                                                                                                                                                                                                                                                                     |
| Reset Key                        | Yes                                                                                                                                                                                                                                                                                                                                                   |
| Ethernet Interface               | 1 RJ45 10 M/100 M self-adaptive Ethernet port                                                                                                                                                                                                                                                                                                         |
| <b>Event</b>                     |                                                                                                                                                                                                                                                                                                                                                       |
| Basic Event                      | Motion detection (support alarm triggering by specified target types (human and vehicle)), video tampering alarm, exception                                                                                                                                                                                                                           |
| Smart Event                      | Scene change detection                                                                                                                                                                                                                                                                                                                                |
| Linkage                          | Upload to FTP/NAS/memory card, notify surveillance center, trigger recording, trigger capture, send email, audible warning                                                                                                                                                                                                                            |
| <b>Deep Learning Function</b>    |                                                                                                                                                                                                                                                                                                                                                       |
| Face Capture                     | Yes                                                                                                                                                                                                                                                                                                                                                   |
| Perimeter Protection             | Line crossing, intrusion, region entrance, region exiting<br>Support alarm triggering by specified target types (human and vehicle)                                                                                                                                                                                                                   |
| <b>General</b>                   |                                                                                                                                                                                                                                                                                                                                                       |
| Power                            | 12 VDC $\pm$ 25%, 0.63 A, max. 7.5 W, $\varnothing$ 5.5 mm coaxial power plug<br>PoE: IEEE 802.3af, Class 3, 36 V to 57 V, 0.24 A to 0.15 A, max. 8.5 W                                                                                                                                                                                               |
| 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 |
| General Function                 | Heartbeat, mirror, password reset via email, pixel counter, anti-banding                                                                                                                                                                                                                                                                              |
| Storage Conditions               | -10 °C to 40 °C (14 °F to 104 °F). Humidity 95% or less (non-condensing)                                                                                                                                                                                                                                                                              |
| Startup and Operating Conditions | -10 °C to 40 °C (14 °F to 104 °F). Humidity 95% or less (non-condensing)                                                                                                                                                                                                                                                                              |
| Material                         | Plastic                                                                                                                                                                                                                                                                                                                                               |
| Dimension                        | 2.8 mm and 4 mm: 102.9 mm $\times$ 65.2 mm $\times$ 32.6 mm (4.1" $\times$ 2.6" $\times$ 1.3")<br>2 mm: 102.9 mm $\times$ 65.2 mm $\times$ 28.8 mm (4.1" $\times$ 2.6" $\times$ 1.1")                                                                                                                                                                 |
| Package Dimension                | 150 mm $\times$ 125 mm $\times$ 99 mm (5.9" $\times$ 4.9" $\times$ 3.9")                                                                                                                                                                                                                                                                              |
| Weight                           | Approx. 120 g (0.3 lb.)                                                                                                                                                                                                                                                                                                                               |
| With Package Weight              | Approx. 430 g (0.9 lb.)                                                                                                                                                                                                                                                                                                                               |
| <b>Approval</b>                  |                                                                                                                                                                                                                                                                                                                                                       |
| EMC                              | FCC SDoC (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>KC (KN 32: 2015, KN 35: 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)                                                                                                                                                                                                                                                                     |

## Available Model

DS-2CD2446G2-IW(2mm)(C)  
DS-2CD2446G2-IW(4mm)(C)  
DS-2CD2446G2-IW(2.8mm)(C)

## Dimension



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