

## DS-2CD3146G2-IS(U) 4 MP AcuSense IR Fixed Dome 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.

- 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
- High quality imaging with 4 MP resolution
- Excellent low-light performance with powered-by-DarkFighter technology
- Efficient H.265+ compression technology
- Clear imaging against strong back light due to 120 dB true WDR technology
- Focus on human and vehicle target classification based on deep learning
- Water and dust resistant (IP67) and vandal-resistant (IK10)

## ▪ Specification

| Camera                  |  |
|-------------------------|--|
| Image Sensor            | 1/3" Progressive Scan CMOS   |
| Max. Resolution         | 2688 × 1520  |
| Min. Illumination       | Color: 0.003 Lux @ (F1.4, 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 355°, tilt: 0° to 75°, rotate: 0° to 355°   |
| Lens                    |  |
| Lens Type               | Fixed focal lens, 2.8, 4, and 6 mm optional  |
| Focal Length & FOV      | 2.8 mm, horizontal FOV 101°, vertical FOV 54°, diagonal FOV 122°<br>4 mm, horizontal FOV 84°, vertical FOV 45°, diagonal FOV 99°<br>6 mm, horizontal FOV 53°, vertical FOV 28°, diagonal FOV 64° |
| Lens Mount              | M12  |
| Iris Type               | Fixed  |
| Aperture                | F1.4   |
| DORI                    |  |
| DORI                    | 2.8 mm: D: 63 m, O: 25 m, R: 12 m, I: 6 m<br>4 mm: D: 77 m, O: 30 m, R: 15 m, I: 7 m<br>6 mm: D: 126 m, O: 50 m, R: 25 m, I: 12 m  |
| Illuminator             |  |
| Supplement Light Type   | IR   |
| Supplement Light Range  | Up to 40 m   |
| Smart Supplement Light  | Yes  |
| IR Wavelength           | 850 nm   |
| HEOP                    |  |
| Open Resources          | Memory: 60 MB,<br>Smart RAM: 400 MB,<br>eMMC: 2 GB   |
| Computing Power         | 1.5 TOPS   |
| Open Capability         | HEOP 2.0 OpendevSDK  |
| Deep Learning Structure | Caffe, PyTorch, TensorFlow, PaddlePaddle, ONNX   |
| Programming Language    | C, C++   |
| 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)   |
| Fourth Stream           | 50 Hz: 10 fps (1280 × 720, 640 × 480, 640 × 360)<br>60 Hz: 10 fps (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,<br>Fourth stream: H.265/H.264/MJPEG   |
| 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)    | 5 fixed regions for main stream and sub-stream  |
| Target Cropping             | Yes   |
| e-PTZ                       | Support Preset and Auto Tracking settings   |
| <b>Audio</b>                |   |
| 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)   |
| Audio Sampling Rate         | 8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz   |
| Environment Noise Filtering | Yes   |
| <b>Network</b>              |   |
| Protocols                   | TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, 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 6 channels  |
| API                         | ONVIF (Profile S, Profile G, Profile T), 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 1.1/1.2/1.3, host authentication (MAC address) |
| 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>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  |
| Wide Dynamic Range (WDR)    | 120 dB  |
| Image Enhancement           | BLC, HLC, 3D DNR, Defog   |

|                                  |   |
|----------------------------------|---|
| SNR                              | ≥ 52 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   |
| Audio                            | 1 input (line in), two-core terminal block, max. input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium,<br>1 output (line out), two-core terminal block, max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium  |
| Built-in Microphone              | -U: Yes   |
| Alarm                            | 1 input, 1 output (max. 12 VDC, 30 mA)  |
| Reset Key                        | Yes   |
| Power Output                     | 12 VDC, max. 100 mA   |
| <b>Event</b>                     |   |
| Basic Event                      | Motion detection (support alarm triggering by specified target types (human and vehicle)), video tampering alarm, exception   |
| Smart Event                      | Line crossing detection, intrusion detection, region entrance detection, region exiting detection (support alarm triggered by specified target types (human and vehicle)), scene change detection, audio exception detection, defocus detection   |
| Linkage                          | Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture, audible warning  |
| <b>Deep Learning Function</b>    |   |
| Face Capture                     | Yes   |
| People Counting                  | Yes   |
| <b>General</b>                   |   |
| Power                            | 12 VDC ± 25%, 0.62 A, max. 7.5 W, Ø5.5 mm coaxial power plug, reverse polarity protection,<br>PoE: IEEE 802.3af, Class 3, max. 9 W  |
| Material                         | Base: Metal, cover: Metal   |
| Dimension                        | Ø121.5 mm × 97.6 mm (Ø4.8" × 3.8")  |
| Package Dimension                | 150 mm × 150 mm × 141 mm (5.9" × 5.9" × 5.6")   |
| Weight                           | Approx. 500 g (1.1 lb.)   |
| With Package Weight              | Approx. 700 g (1.54 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, anti-banding, mirror, flash log, password reset via email, pixel counter   |
| 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,<br>RCM: AS/NZS CISPR 32: 2015,<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,<br>LOA: IEC/EN 60950-1                            |
| Environment | CE-RoHS: 2011/65/EU,<br>WEEE: 2012/19/EU,<br>Reach: Regulation (EC) No 1907/2006  |
| Protection  | IP67: IEC 60529-2013, IK10: IEC 62262:2002  |

## ▪ 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-2CD3146G2-IS (2.8 mm)(H)

DS-2CD3146G2-IS (4 mm)(H)

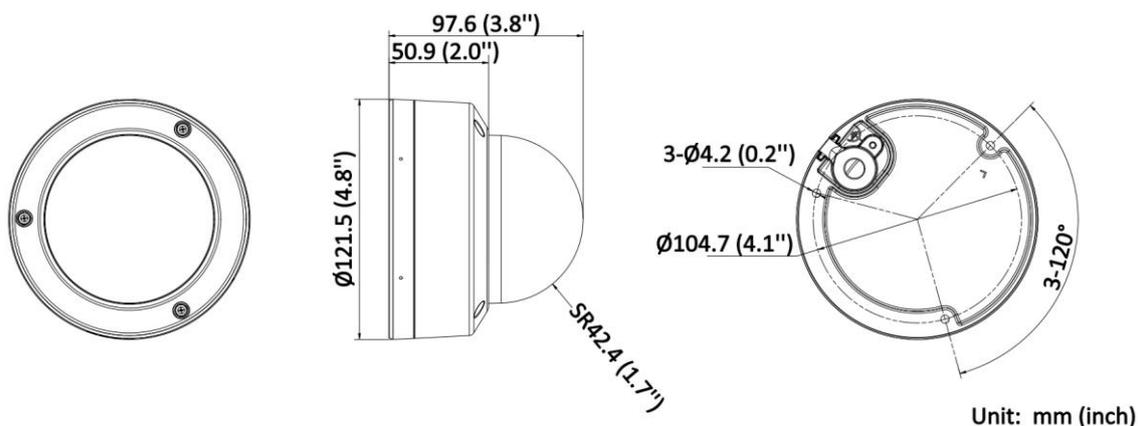
DS-2CD3146G2-IS (6 mm)(H)

DS-2CD3146G2-ISU (2.8 mm)(H)

DS-2CD3146G2-ISU (4 mm)(H)

DS-2CD3146G2-ISU (6 mm)(H)

▪ **Dimension**



▪ **Accessory**

▪ **Optional**

| DS-1253ZJ-M<br>Rain Shade   | DS-1271ZJ-120<br>Pendant Mount  | DS-1275ZJ-SUS<br>Vertical Pole Mount  | DS-1276ZJ-SUS<br>Corner Mount   | DS-1272ZJ-120-TR15<br>Wall Mount  |
|---|---|---|---|---|
|  |  |  |  |  |
| DS-1272ZJ-120<br>Wall Mount   | DS-1272ZJ-120B<br>Wall Mount  | DS-1280ZJ-DM46<br>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.

