

## DS-2CD7146G0-IZS 4 MP IR Varifocal Dome Network Camera

**DarkFighter**



### DeepinView<sup>series</sup>

- 1/1.8" Progressive Scan CMOS
- 2560 × 1440 @ 30fps
- MJPEG up to 1920 × 1080 @ 30fps
- 2.8 to 12 mm/8 to 32 mm motorized lens
- Color: 0.002 Lux @ (F1.2, AGC ON), 0.005 Lux @ (F1.8, AGC ON), 0 Lux with IR
- H.265, H.265+, H.264, H.264+
- 140dB WDR
- IR range: up to 30 m
- Alarm 1 input/1 output, audio 1 input/1 output, RS-485
- IK10
- 5 streams and up to 5 custom streams
- 6 behavior analyses, 3 exception detection, and face detection
- Built-in microSD/SDHC/SDXC card slot, up to 256 GB
- Metadata of intrusion detection, line crossing detection, region entrance detection, region exiting detection, unattended baggage detection, object removal, face capture and queue management are supported.



## Function

### Smooth Streaming

Smooth streaming offers solutions to improve the video quality in different network conditions. For example, in poor network conditions, adapting to the detected real-time network condition, streaming bit rate and resolution are automatically adjusted to avoid mosaic and lower latency in live view; in multiplayer network conditions, the camera transmits the redundant data for the self-error correcting in back-end device, so that to solve the mosaic problem because of the packet loss and error rate.

### Metadata

Metadata uses individual instances of application data or the data content. Metadata can be used for third-party application development.

### Face Capture

With embedded deep learning based algorithms, the camera is able to give the best shot of a target face through detecting, tracking, capturing, grading and selecting. The procedure reduces the happening of mistaken capture, and thus gets the best face shot, improving the accuracy rate of face comparison by the back-end devices. The camera uses face exposure function to dynamically adjust face area exposure of captures and ensure high face picture quality.

### Perimeter Protection

With embedded deep learning based target detection and classification algorithms, the camera carries out the duty of perimeter protection, monitoring the actions of line crossing, intrusion, region entrance and region exiting. The algorithms greatly reduce the mistaken alarm caused by the interference of leaves, lights and etc.

### Power Protection

The camera supports a wide voltage range of 10 VDC to 48 VDC. If the voltage instability occurs, the camera still works properly. The camera supports reverse polarity protection which can avoid the camera malfunction caused by false operation.

### Queue Management

With embedded deep learning based algorithms, the camera detects queuing-up people number and waiting time of each person. The body feature detection algorithm helps filter out wrong targets and increase the accuracy of detection.

## Specifications

| Camera            |  |
|-------------------|--|
| Image Sensor      | 1/1.8" Progressive Scan CMOS   |
| Min. Illumination | Color: 0.002 Lux @ (F1.2, AGC ON), 0.005 Lux @ (F1.8, AGC ON), 0 Lux with IR   |
| Shutter Speed     | 1 s to 1/100,000 s   |
| Slow Shutter      | Yes  |
| Day & Night       | IR Cut Filter  |
| WDR               | 140 dB   |
| Angle Adjustment  | Pan: 0° to 355°, tilt: 0° to 75°, rotate: 0° to 355°   |
| Lens              |  |
| Lens Type         | Motorized lens, 2.8 to 12 mm and 8 to 32 mm optional   |
| Aperture          | 2.8 to 12 mm: F1.2 to 2.5<br>8 to 32 mm: F1.8, Constant F1.8 throughout the zoom range   |
| Focus             | Auto, semi-auto, manual  |
| Auto-Iris         | DC drive, P-iris   |
| FOV               | 2.8 to 12 mm, horizontal FOV 109.2° to 38.9°, vertical FOV 56.2° to 21.9°, diagonal FOV 134.5° to 45°<br>8 to 32 mm, horizontal FOV 37.7° to 15.2°, vertical FOV 21° to 8.6°, diagonal FOV 43.3° to 17.24° |
| Lens Mount        | Integrated   |
| Illuminator       |  |
| IR Range          | Up to 30 m   |
| Wavelength        | 850 nm   |
| Video             |  |
| Max. Resolution   | 2560 × 1440  |
| Video Stream      | 5 defined streams and up to 5 custom stream  |
| Main Stream       | 50Hz: 25fps (2560 × 1440, 1920 × 1080, 1280 × 720)<br>60Hz: 30fps (2560 × 1440, 1920 × 1080, 1280 × 720)   |
| Sub Stream        | 50Hz: 25fps (704 × 576, 640 × 480)<br>60Hz: 30fps (704 × 480, 640 × 480)   |
| Third Stream      | 50Hz: 25fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480)<br>60Hz: 30fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)   |
| Fourth Stream     | 50Hz: 25fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480)<br>60Hz: 30fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)   |
| Fifth Stream      | 50Hz: 25fps (704 × 576, 640 × 480)<br>60Hz: 30fps (704 × 480, 640 × 480)   |
| Custom Stream     | 50Hz: 25fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480)<br>60Hz: 30fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)   |
| Video Compression | Main stream: H.265+/H.265/H.264+/H.264<br>Sub stream/third stream/fourth stream/fifth stream/custom stream: H.265/H.264/MJPEG  |

|                             |  |
|-----------------------------|--|
| H.264 Type                  | Baseline Profile/Main Profile/High Profile   |
| H.264+                      | Main stream support  |
| H.265 Type                  | Main Profile   |
| H.265+                      | Main stream support  |
| Video Bit Rate              | 32 Kbps to 16 Mbps   |
| Scalable Video Coding (SVC) | H.264 and H.265 encoding   |
| <b>Audio</b>                |  |
| Audio Compression           | G.711/G.722.1/G.726/MP2L2/PCM/MP3  |
| Audio Bit Rate              | 64Kbps(G.711)/16Kbps(G.722.1)/16Kbps(G.726)/32-192Kbps(MP2L2)/32Kbps(PCM)/8-320Kbps(MP3)   |
| Environment Noise Filtering | Yes  |
| Audio Sampling Rate         | 8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz  |
| <b>Smart Feature-Set</b>    |  |
| Smart Event                 | Line crossing detection, up to 4 lines configurable<br>Intrusion detection, up to 4 regions configurable<br>Region entrance detection, up to 4 regions configurable<br>Region exiting detection, up to 4 regions configurable<br>Unattended baggage detection, up to 4 regions configurable<br>Object removal detection, up to 4 regions configurable<br>Face detection: detects faces and upload images<br>Scene change detection, audio exception detection, defocus detection |
| Basic Event                 | Motion detection, video tampering alarm, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error)   |
| Face Capture                | Face detection performance: detects up to 30 faces at the same time<br>Detectable face position: supports swing left and right from -90° to 90°, tilt up and down from -30° to 60°   |
| Perimeter Protection        | Line crossing, intrusion, region entrance, and region exiting<br>Support alarm triggering by specified target types (human and vehicle)<br>Filtering out false alarm caused by target types such as leaf, light, animal, and flag, etc.  |
| Queue Management            | Detects queuing-up people number, and waiting time of each person<br>Generates reports to compare the efficiency of different queuing-ups and display the changing status of one queue<br>Supports raw data export for further analysis  |
| Statistics                  | Counting   |
| Linkage Method              | Trigger recording: memory card, network storage, pre-record and post-record<br>Trigger captured pictures uploading: FTP, SFTP, HTTP, NAS, Email<br>Trigger notification: HTTP, ISAPI, alarm output (-S), Email   |
| Region of Interest          | Main stream/sub stream/third stream/fourth stream/fifth stream: 4 fixed regions and dynamic face tracking for each stream  |
| <b>Image</b>                |  |
| Image Enhancement           | BLC, HLC, 3D DNR, Defog, EIS, distortion correction  |
| Image Setting               | Rotate mode, saturation, brightness, contrast, sharpness, AGC, and white balance are adjustable by client software or web browser  |

|                                  |  |
|----------------------------------|--|
| Target Cropping                  | Yes  |
| Day/Night Switch                 | Day/Night/Auto/Schedule/Triggered by Alarm In  |
| Picture Overlay                  | LOGO picture can be overlaid on video with 128 × 128 24bit bmp format  |
| SNR                              | ≥52dB  |
| <b>Network</b>                   |  |
| Network Storage                  | microSD/SDHC/SDXC card (256 GB), local storage and NAS (NFS,SMB/CIFS), ANR Together with high-end Hikvision memory card, memory card encryption and health detection are supported.  |
| Protocols                        | TCP/IP, ICMP, HTTP, HTTPS, FTP, SFTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour, SSL/TLS   |
| API                              | ONVIF (PROFILE S, PROFILE G, PROFILE T), ISAPI, SDK, Ehome   |
| Smooth Streaming                 | Yes  |
| 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 ONVIF, RTP/RTSP over HTTPS, control timeout settings, security audit log, TLS 1.2, TLS1.0, TLS1.1          |
| Simultaneous Live View           | Up to 20 channels  |
| User/Host                        | Up to 32 users. 3 user levels: administrator, operator and user  |
| Client                           | iVMS-4200, Hik-Connect, Hik-Central  |
| Web Browser                      | Plug-in required live view: IE8+<br>Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Safari 11+<br>Local service: Chrome57.0+, Firefox52.0+  |
| <b>Interface</b>                 |  |
| Audio                            | 1 input (line in, 3.5 mm), 1 output (line out, 3.5 mm), mono sound   |
| Communication Interface          | 1 RJ45 10M/100M/1000M Ethernet port<br>1 RS-485 interface (half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)  |
| Alarm                            | 1 input, 1 output (max. 24 VDC/VAC, 1A)  |
| Video Out                        | 1Vp-p composite output (75 Ω/CVBS), only for adjustment  |
| Power Output                     | 12 VDC, max. 200 mA  |
| Interface Style                  | Connector panel  |
| On-board Storage                 | Built-in microSD/SDHC/SDXC slot, up to 256 GB  |
| <b>General</b>                   |  |
| Firmware Version                 | 5.6.0  |
| Web Client Language              | 32 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) |
| General Function                 | Anti-flicker, 5 streams and up to 5 custom streams, heartbeat, mirror, privacy masks, flash log, password reset via e-mail, pixel counter, HTTP listening  |
| Reset                            | Reset via reset button on camera body, web browser and client software   |
| Startup and Operating Conditions | -30 °C to 60 °C (-22 °F to 140 °F), humidity 95% or less (non-condensing)  |

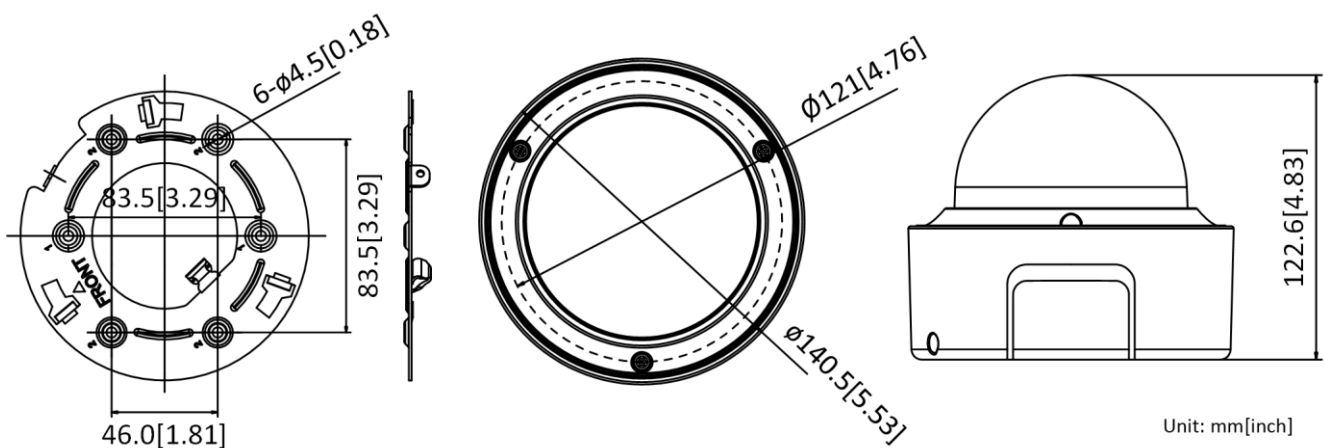
|                               |   |
|-------------------------------|---|
| Storage Conditions            | -30 °C to 60 °C (-22 °F to 140 °F), humidity 95% or less (non-condensing)   |
| Power Supply                  | 12 VDC is recommended, 10 to 48 VDC; reverse polarity protection; two-core terminal block; PoE (802.3af, class 3)   |
| Power Consumption and Current | With extra load: 12 VDC, 0.8 A, max. 10.5 W; PoE (802.3af, 36 V to 57 V), 0.2 A to 0.3 A, class 3<br>Without extra load: 12 VDC, 0.6 A, max. 8.0 W; PoE (802.3af, 36 V to 57 V), 0.2 A to 0.3 A, class 3<br>"with extra load" means that an extra device is connected to and powered by the camera. |
| Material                      | Metal   |
| Dimensions                    | Camera: $\Phi 140.5 \times 122.6$ mm ( $\Phi 5.5'' \times 4.8''$ )<br>With package: $244 \times 174 \times 173$ mm ( $9.6'' \times 6.9'' \times 6.8''$ )  |
| Weight                        | Camera: approx. 950 g (2.09 lb.)<br>With Package: approx. 1300 g (2.87 lb.)   |
| <b>Approval</b>               |   |
| EMC                           | 47 CFR Part 15, Subpart B; EN 55032: 2015, EN 61000-3-2: 2014, EN 61000-3-3: 2013, EN 50130-4: 2011 +A1: 2014; AS/NZS CISPR 32: 2015; ICES-003: Issue 6, 2016; KN 32: 2015, KN 35: 2015   |
| Safety                        | UL 60950-1, IEC 60950-1:2005 + Am 1:2009 + Am 2:2013, EN 60950-1:2005 + Am 1:2009 + Am 2:2013, IS 13252(Part 1):2010+A1:2013+A2:2015  |
| Chemistry                     | 2011/65/EU, 2012/19/EU, Regulation (EC) No 1907/2006  |
| Protection                    | Ingress protection: IK10 (IEC 62262:2002)   |

\* Listed resolutions are only selectable options. It does not mean that all streams can work at their maximum resolution at the same time.

## Available Model

DS-2CD7146G0-IZS (2.8 to 12 mm), DS-2CD7146G0-IZS (8 to 32 mm)

## Dimension



**Accessory**



**DS-1273ZJ-130**  
Wall Mount



**DS-1273ZJ-130B**  
Wall Mount



**DS-1271ZJ-130**  
Pendant Mount



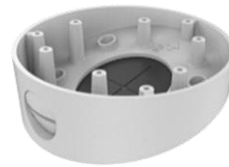
**DS-1279ZJ**  
Pole



**DS-1227ZJ**  
In-ceiling Mount



**DS-1276ZJ-SUS**  
Corner Mount



**DS-1281ZJ-DM23**  
Inclined Ceiling Mount



**DS-1275ZJ-SUS**  
Vertical Pole Mount

Distributed by

**HIKVISION®****Headquarters**

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

**Hikvision USA**  
T +1-909-895-0400  
sales.usa@hikvision.com

**Hikvision Australia**  
T +61-2-8599-4233  
salesau@hikvision.com

**Hikvision India**  
T +91-22-28469900  
sales@pramahikvision.com

**Hikvision Canada**  
T +1-866-200-6690  
sales.canada@hikvision.com

**Hikvision Thailand**  
T +662-275-9949  
sales.thailand@hikvision.com

**Hikvision Europe**  
T +31-23-5542770  
sales.eu@hikvision.com

**Hikvision Italy**  
T +39-0438-6902  
info.it@hikvision.com

**Hikvision Brazil**  
T +55 11 3318-0050  
Latam.support@hikvision.com

**Hikvision Turkey**  
T +90 (216)521 7070- 7074  
sales.tr@hikvision.com

**Hikvision Malaysia**  
T +601-7652-2413  
sales.my@hikvision.com

**Hikvision UK & Ireland**  
T +01628-902140  
sales.uk@hikvision.com

**Hikvision South Africa**  
Tel: +27 (10) 0351172  
sale.africa@hikvision.com

**Hikvision France**  
T +33(0)1-85-330-450  
info.fr@hikvision.com

**Hikvision Kazakhstan**  
T +7-727-9730667  
nikia.panfilov@hikvision.ru

**Hikvision Vietnam**  
T +84-974270888  
sales.vt@hikvision.com

**Hikvision UAE**  
T +971-4-4432090  
salesme@hikvision.com

**Hikvision Singapore**  
T +65-6684-4718  
sg@hikvision.com

**Hikvision Spain**  
T +34-91-737-16-55  
info.es@hikvision.com

**Hikvision Tashkent**  
T +99-87-1238-9438  
uzb@hikvision.ru

**Hikvision Hong Kong**  
T +852-2151-1761  
info.hk@hikvision.com

**Hikvision Russia**  
T +7-495-669-67-99  
sateru@hikvision.com

**Hikvision Korea**  
T +82-(0)31-731-8817  
sales.korea@hikvision.com

**Hikvision Poland**  
T +48-22-460-01-50  
info.pl@hikvision.com

**Hikvision Indonesia**  
T +62-21-2933759  
Sales.Indonesia@hikvision.com

**Hikvision Colombia**  
sales.colombia@hikvision.com