

iDS-2CD7146G0-IZS

4 MP IR Varifocal Dome Network Camera

**DarkFighter**



## DeepinView<sup>series</sup>

- High quality imaging with 4 MP resolution
- Excellent low-light performance via DarkFighter technology
- Clear imaging against strong back light due to 140 dB WDR technology
- Efficient H.265+ compression technology to save bandwidth and storage
- Advanced streaming technology that enables smooth live view and data self-correcting in poor network
- 5 streams and up to 5 custom streams to meet a wide variety of applications
- Vandal proof (IK10)



## ▪ Function

### **Face Counting**

With the embedded deep learning algorithms, the camera integrates multiple intelligences. It counts persons and samples the face features simultaneously, and compares them with the built-in face library, so to remove the duplicated person. It counts persons and reports a face alarm simultaneously to achieve both the entrance control and people counting.

### **Hard Hat Detection**

With the embedded deep learning algorithms, the camera detects the persons in the specified region. It detects whether the person is wearing a hard hat, and captures the head of the person and reports an alarm if not.

### **Multi-Target-Type Detection**

With the embedded deep learning algorithms, the camera detects and captures the face and human body in the specified region and outputs the features, such as gender, age and top color. It supports a structured modeling of the face and human body to achieve a structured data collection.

### **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.

### **Metadata**

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

### **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.

## ▪ Specification

| Camera                 |                                                                                                                                    |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor           | 1/1.8" Progressive Scan CMOS                                                                                                       |
| Min. Illumination      | Color: 0.001 Lux @ (F1.2, AGC ON); B/W: 0.0003 Lux @ (F1.2, AGC ON)                                                                |
| Shutter Speed          | 1 s to 1/100,000 s                                                                                                                 |
| Slow Shutter           | Yes                                                                                                                                |
| P/N                    | P/N                                                                                                                                |
| Wide Dynamic Range     | 140 dB                                                                                                                             |
| Day & Night            | IR cut filter                                                                                                                      |
| Angle Adjustment       | Pan: 0° to 355°, tilt: 0° to 75°, rotate: 0° to 355°                                                                               |
| Power-off Memory       | Yes                                                                                                                                |
| Lens                   |                                                                                                                                    |
| Focus                  | Auto, semi-auto, manual                                                                                                            |
| Lens Type & FOV        | 2.8 to 12 mm, horizontal FOV 114.5° to 41.8°, vertical FOV 59.3° to 23.6°, diagonal FOV 141.1° to 48°                              |
|                        | 8 to 32 mm, horizontal FOV 42.5° to 15.1°, vertical FOV 23.3° to 8.64°, diagonal FOV 49.6° to 17.3°                                |
| Aperture               | 2.8 to 12 mm: F1.2 to 2.5<br>8 to 32 mm: F1.7 to F1.73                                                                             |
| Lens Mount             | Integrated                                                                                                                         |
| Blue Glass Module      | Blue glass module to reduce ghost phenomenon.                                                                                      |
| P-Iris                 | Yes                                                                                                                                |
| Illuminator            |                                                                                                                                    |
| IR Range               | 2.8 to 12 mm: 30 m<br>8 to 32 mm: 50 m                                                                                             |
| Wavelength             | 850 nm                                                                                                                             |
| Smart Supplement Light | Yes                                                                                                                                |
| Video                  |                                                                                                                                    |
| Max. Resolution        | 2680 × 1520                                                                                                                        |
| Main Stream            | 50Hz: 25fps (2680 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720)<br>60Hz: 30fps (2680 × 1520, 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     |
| Video Bit Rate         | 32 Kbps to 16 Mbps                                                                                                                 |
| H.264 Type             | Baseline Profile/Main Profile/High Profile                                                                                         |
| H.265 Type             | Main Profile                                                                                                                       |
| H.264+                 | Main Stream supports                                                                                                               |
| H.265+                 | Main Stream supports                                                                                                               |
| Bit Rate Control       | CBR/VBR                                                                                                                            |

|                             |                                                                                                                                                                                                                                                                                                                     |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stream Type                 | Main stream/Sub-stream/third stream/fourth stream/fifth stream/custom stream                                                                                                                                                                                                                                        |
| Scalable Video Coding (SVC) | H.265 and H.264 support                                                                                                                                                                                                                                                                                             |
| Region of Interest (ROI)    | 4 fixed regions for each stream                                                                                                                                                                                                                                                                                     |
| <b>Audio</b>                |                                                                                                                                                                                                                                                                                                                     |
| 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                                                                                                                                                                                                                                                                                   |
| Audio Bit Rate              | 64Kbps(G.711)/16Kbps(G.722.1)/16Kbps(G.726)/32-192Kbps(MP2L2)/32Kbps(PCM)/8-320Kbps(MP3)                                                                                                                                                                                                                            |
| Audio Type                  | Mono sound                                                                                                                                                                                                                                                                                                          |
| <b>Network</b>              |                                                                                                                                                                                                                                                                                                                     |
| Simultaneous Live View      | Up to 20 channels                                                                                                                                                                                                                                                                                                   |
| API                         | ONVIF (PROFILE S, PROFILE G, PROFILE T), ISAPI, SDK, ISUP                                                                                                                                                                                                                                                           |
| Protocols                   | TCP/IP, ICMP, HTTP, HTTPS, FTP, SFTP, SRTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour, SSL/TLS                                                                                                                                                          |
| Smooth Streaming            | Yes                                                                                                                                                                                                                                                                                                                 |
| 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 ONVIF, RTP/RTSP OVER HTTPS, Control Timeout Settings, Security Audit Log, TLS 1.2 |
| Network Storage             | microSD/SDHC/SDXC card (256 GB) local storage, and 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: IE8+<br>Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Safari 11+<br>Local service: Chrome 41.0+, Firefox 30.0+                                                                                                                                                                   |
| <b>Image</b>                |                                                                                                                                                                                                                                                                                                                     |
| Smart IR                    | The IR LEDs on camera should support Smart IR function to automatically adjust power to avoid image overexposure.                                                                                                                                                                                                   |
| Day/Night Switch            | Day, Night, Auto, Schedule, Triggered by Alarm In                                                                                                                                                                                                                                                                   |
| Target Cropping             | Yes                                                                                                                                                                                                                                                                                                                 |
| Picture Overlay             | LOGO picture can be overlaid on video with 128 × 128 24bit bmp format                                                                                                                                                                                                                                               |
| Image Enhancement           | BLC, HLC, 3D DNR, Defog, EIS, Distortion Correction                                                                                                                                                                                                                                                                 |
| Image Parameters Switch     | Yes                                                                                                                                                                                                                                                                                                                 |
| Image Settings              | Rotate mode, saturation, brightness, contrast, sharpness, gain, white balance adjustable by client software or web browser                                                                                                                                                                                          |
| SNR                         | ≥52 dB                                                                                                                                                                                                                                                                                                              |
| <b>Interface</b>            |                                                                                                                                                                                                                                                                                                                     |
| Alarm                       | 1 input, 1 output (max. 24 VDC, 1 A)                                                                                                                                                                                                                                                                                |
| Audio                       | 1 input (line in), 3.5 mm connector, max. input amplitude: 3.3 vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium; 1 output (line out), 3.5 mm connector, max. output amplitude: 3.3 vpp, output impedance: 100 Ω, interface type: non-equilibrium, mono sound, 1 built-in microphone                    |
| RS-485                      | 1 RS-485(half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)                                                                                                                                                                                                                                                   |
| Video Output                | 1 Vp-p Composite Output(75Ω/CVBS)(Only for Debug)                                                                                                                                                                                                                                                                   |
| On-board Storage            | Built-in micro SD/SDHC/SDXC slot, up to 256 GB                                                                                                                                                                                                                                                                      |
| Hardware Reset              | Yes                                                                                                                                                                                                                                                                                                                 |

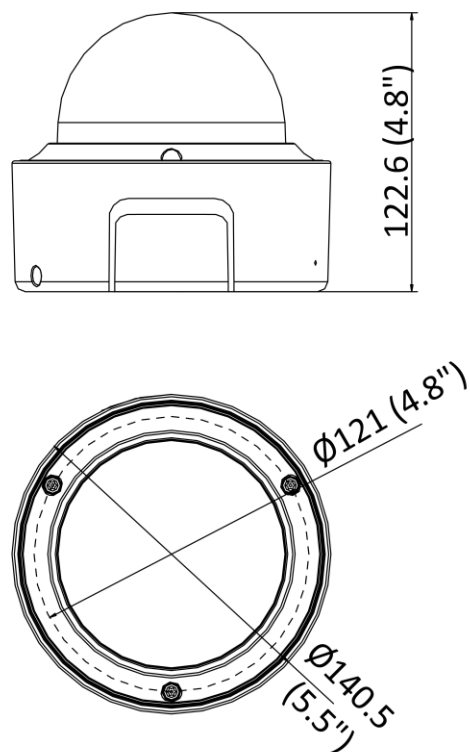
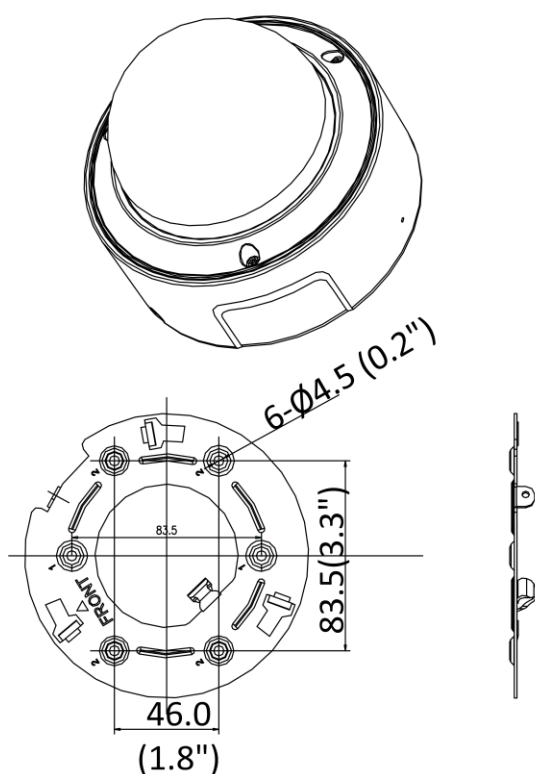
|                                              |                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Communication Interface                      | 1 RJ45 10M/100M/1000M self-adaptive Ethernet port                                                                                                                                                                                                                                                                                                                                                          |
| Power Output                                 | 12 VDC, max. 200 mA (supported by all power supply types)                                                                                                                                                                                                                                                                                                                                                  |
| <b>Smart Feature-Set</b>                     |                                                                                                                                                                                                                                                                                                                                                                                                            |
| Basic Event                                  | Motion detection, video tampering alarm, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error)                                                                                                                                                                                                                                                                         |
| 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>Scene change detection, audio exception detection |
| Counting                                     | Yes                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Intelligent (Deep Learning Algorithm)</b> |                                                                                                                                                                                                                                                                                                                                                                                                            |
| Face Recognition                             | Detects up to 30 faces simultaneously;<br>Supports swing left and right from -60° to 60°, tilt up and down from -30° to 30°;<br>Up to 3 face libraries with up to 30000 faces each are configurable;<br>Recognizes face identity via face modeling, grading and comparing to those in face library;<br>Supports face library encryption.                                                                   |
| Multi-target-type Detection                  | Supports simultaneous detection of human body and face<br>Gets 8 face features and 13 human body features                                                                                                                                                                                                                                                                                                  |
| Face Counting                                | Supports entering/exiting counting (track 30 targets simultaneously);<br>Supports facial recognition;<br>Supports 24-hour dynamic deduplication and face library deduplication (up to 3 face libraries with up to 30000 faces);<br>Supports reporting alarms when detecting the face is the same as that in the face library.                                                                              |
| Hard Hat Detection                           | Detects up to 30 human targets simultaneously<br>Supports up to 4 shield regions                                                                                                                                                                                                                                                                                                                           |
| 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                                                                                                                                                                    |
| Premier Protection                           | Line crossing, intrusion, region entrance, region exiting<br>Support alarm triggering by specified target types (human and vehicle)<br>Filtering out mistaken alarm caused by target types such as leaf, light, animal, and flag, etc.                                                                                                                                                                     |
| <b>General</b>                               |                                                                                                                                                                                                                                                                                                                                                                                                            |
| Linkage Method                               | Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture<br>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, Email                                                              |
| Online Upgrade                               | Yes                                                                                                                                                                                                                                                                                                                                                                                                        |
| Dual Backup                                  | Yes                                                                                                                                                                                                                                                                                                                                                                                                        |
| Firmware Version                             | V5.5.121                                                                                                                                                                                                                                                                                                                                                                                                   |

|                                  |                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Web Client Language              | 33 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), Ukrainian |
| 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                                                                                                                                                                                                              |
| Software Reset                   | Yes                                                                                                                                                                                                                                                                                                                                                     |
| 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)                                                                                                                                                                                                                                                                                                                      |
| Power Supply                     | 12 VDC $\pm$ 20%, two-core terminal block, reverse polarity protection;<br>24 VAC $\pm$ 20%;<br>PoE: 802.3af, Type 1 Class 3                                                                                                                                                                                                                            |
| Power Consumption and Current    | 12 VDC, 0.83 A, max. 9.96 W<br>24 VAC, 0.85 A, max. 12 W<br>PoE(802.3af, 36 V to 57 V), 0.35 A to 0.21 A, max. 12 W                                                                                                                                                                                                                                     |
| Power Interface                  | Two-core terminal block                                                                                                                                                                                                                                                                                                                                 |
| Screw Material                   | Mild steel                                                                                                                                                                                                                                                                                                                                              |
| Camera Dimension                 | Ø140.5 × 122.6 mm (Ø5.5" × 4.8")                                                                                                                                                                                                                                                                                                                        |
| Package Dimension                | 244 × 174 × 173 mm (9.6" × 6.9" × 6.8")                                                                                                                                                                                                                                                                                                                 |
| Camera Weight                    | Approx. 950 g (2.1 lb.)                                                                                                                                                                                                                                                                                                                                 |
| With Package Weight              | Approx. 1300 g (2.9 lb.)                                                                                                                                                                                                                                                                                                                                |
| <b>Metadata</b>                  |                                                                                                                                                                                                                                                                                                                                                         |
| Metadata                         | 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.                                                                                                                                           |
| <b>Approval</b>                  |                                                                                                                                                                                                                                                                                                                                                         |
| Class                            | Class B                                                                                                                                                                                                                                                                                                                                                 |
| EMC                              | FCC (47 CFR Part 15, Subpart B); CE-EMC (EN 55032: 2015, EN 61000-3-2: 2014, EN 61000-3-3: 2013, EN 50130-4: 2011 +A1: 2014); RCM (AS/NZS CISPR 32: 2015); IC (ICES-003: Issue 6, 2016); KC (KN 32: 2015, KN 35: 2015)                                                                                                                                  |
| Safety                           | UL (UL 60950-1); CB (IEC 60950-1:2005 + Am 1:2009 + Am 2:2013); CE-LVD (EN 60950-1:2005 + Am 1:2009 + Am 2:2013); BIS (IS 13252(Part 1):2010+A1:2013+A2:2015); LOA (IEC/EN 60950-1)                                                                                                                                                                     |
| Environment                      | CE-RoHS (2011/65/EU); WEEE (2012/19/EU); Reach (Regulation (EC) No 1907/2006)                                                                                                                                                                                                                                                                           |
| Protection                       | Ingress protection: IK10(IEC 62262:2002)                                                                                                                                                                                                                                                                                                                |

## ▪ Available Model

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

## Dimension



Unit: mm(inch)

## Accessory



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



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



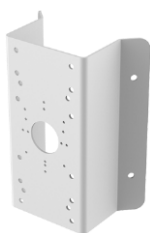
**DS-1271ZJ-130**  
Pendant Mount



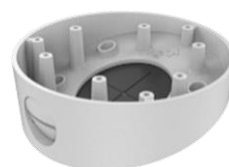
**DS-1275ZJ-SUS**  
Vertical Pole Mount



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



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



**DS-1281ZJ-DM23**  
Inclined Ceiling 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  
saleru@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