

# iDS-2CD7A45G0-IZ(H)S(Y) 4 MP 25 × IR Varifocal Bullet Network Camera















### - DeepinView

- High quality imaging with 4 MP resolution
- 25 × optical zoom captures details in remote area
- Clear imaging against strong back light due to 140 dB WDR technology
- Efficient H.265+ compression technology to save bandwidth and storage
- Built-in heater on the front viewing window to ensure clear image under snowy weather
- Built-in gyroscope to ensure stable image output
- Water and dust resistant (IP67) and vandal proof (IK10)





#### Function

**Face Recognition** 

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 camera captures the face and outputs the features, such as gender, age, and expression. The camera uses face exposure function to dynamically adjust face area exposure of captures and ensures 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 filter out the mistaken alarm caused by the interference of leafs, lights, animal, flag, etc.

Multi-Target-Type Recognition

With the embedded deep learning algorithms, the camera detects and captures the face, human body, vehicle in the specified region and outputs the features, such as gender, age, top color, and vehicle type.



### Specification

| Camera                      |   |  |  |  |
|-----------------------------|---|--|--|--|
| Image Sensor                | 1/2.5" Progressive Scan CMOS  |  |  |  |
| Max. Resolution             | 2688 × 1520   |  |  |  |
| Min. Illumination           | Color: 0.009 Lux @ (F1.6, AGC ON), B/W: 0.0018 Lux @ (F1.6, AGC ON), 0 Lux with IR    |  |  |  |
| Shutter Time                | 1 s to 1/30,000 s   |  |  |  |
| Day & Night                 | IR cut filter   |  |  |  |
| Angle Adjustment            | Pan: 0° to 355°, tilt: 0° to 90°, rotate: 0° to 360°                                  |  |  |  |
| Lens                        | 1 dil. 0 to 353 ; tilt. 0 to 36 ; Totate. 0 to 360                                    |  |  |  |
| Lens                        | 4.7 to 118 mm, horizontal FOV 55.8° to 2.8°, vertical FOV 32.3° to 1.6°, diagonal FOV |  |  |  |
| Focal Length & FOV          | 63° to 3°   |  |  |  |
| Focus                       |   |  |  |  |
| Iris Type                   | Auto, semi-auto, manual   |  |  |  |
|                             | P-iris  |  |  |  |
| Aperture                    | 4.7 to 118 mm: F1.6 to F3.8   |  |  |  |
| Illuminator                 | JD.   |  |  |  |
| Supplement Light Type       | IR  |  |  |  |
| Supplement Light Range      | Up to 200 m   |  |  |  |
| Smart Supplement Light      | Yes   |  |  |  |
| IR Wavelength               | 850 nm  |  |  |  |
| Video                       |   |  |  |  |
|                             | 50 Hz: 25 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720)                     |  |  |  |
| Main Stream                 | 50 fps (2560 × 1440, 1920 × 1080, 1280 × 720)   |  |  |  |
|                             | 60 Hz: 30 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720)                     |  |  |  |
|                             | 60 fps (2560 × 1440, 1920 × 1080, 1280 × 720)   |  |  |  |
| Sub-Stream                  | 50 Hz: 25 fps (704 × 576, 640 × 480)  |  |  |  |
|                             | 60 Hz: 30 fps (704 × 480, 640 × 480)  |  |  |  |
| Third Stream                | 50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480)                         |  |  |  |
|                             | 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)                         |  |  |  |
| Fourth Stream               | 50 Hz: 25 fps (704 × 576, 640 × 480)  |  |  |  |
|                             | 60 Hz: 30 fps (704 × 480, 640 × 480)  |  |  |  |
| Fifth Stream                | 50 Hz: 25 fps (704 × 576, 640 × 480)  |  |  |  |
| - man Jarcanii              | 60 Hz: 30 fps (704 × 480, 640 × 480)  |  |  |  |
|                             | Main stream: H.265+/H.265/H.264+/H.264  |  |  |  |
| Video Compression           | Sub-stream/Fourth stream/Fifth stream: H.265/H.264/MJPEG                              |  |  |  |
|                             | 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) | H.264 and H.265 encoding  |  |  |  |
| Region of Interest (ROI)    | 4 fixed regions for each stream   |  |  |  |
| Target Cropping             | Yes   |  |  |  |
| e-PTZ                       | Supports Patrol and Auto-tracking settings  |  |  |  |



| Audio                       |  |  |  |  |  |
|-----------------------------|--|--|--|--|--|
| Audio Compression           | G.711/G.722.1/G.726/MP2L2/PCM/AAC/MP3  |  |  |  |  |
| Audio Type                  | Mono sound   |  |  |  |  |
| Audio Sampling Rate         | 8 kHz/16 kHz/32 kHz/44.1 kHZ/48 kHz  |  |  |  |  |
| Environment Noise Filtering | Yes  |  |  |  |  |
| Audio Bit Rate              | 64 Kbps (G.711)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps (MP2L2)/16 to 64    |  |  |  |  |
|                             | Kbps (AAC)/8 to 320 Kbps (MP3)   |  |  |  |  |
| Network                     |  |  |  |  |  |
| 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         |  |  |  |  |
| Simultaneous Live View      | Up to 20 channels  |  |  |  |  |
| API                         | Open Network Video Interface (PROFILE S, PROFILE G, PROFILE T), ISAPI, SDK, ISUP     |  |  |  |  |
| User/Host                   | Up to 32 users   |  |  |  |  |
|                             | 3 user levels: administrator, operator, and user                                     |  |  |  |  |
|                             | Password protection, complicated password, HTTPS encryption, 802.1X authentication   |  |  |  |  |
|                             | (EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest         |  |  |  |  |
| Security                    | authentication for HTTP/HTTPS, WSSE and digest authentication for Open Network       |  |  |  |  |
|                             | Video Interface, RTP/RTSP OVER HTTPS, Control Timeout Settings, Security Audit Log,  |  |  |  |  |
|                             | TLS 1.2  |  |  |  |  |
|                             | NAS (NFS, SMB/CIFS), auto network replenishment (ANR)                                |  |  |  |  |
| Network Storage             | Together with high-end Hikvision memory card, memory card encryption and health      |  |  |  |  |
|                             | detection are supported.   |  |  |  |  |
| Client                      | iVMS-4200, Hik-Connect, Hik-Central  |  |  |  |  |
|                             | Plug-in required live view: IE10+  |  |  |  |  |
| Web Browser                 | Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Safari 12+                      |  |  |  |  |
|                             | Local service: Chrome 57.0+, Firefox 52.0+   |  |  |  |  |
| Image                       |  |  |  |  |  |
| Image Parameters Switch     | Yes  |  |  |  |  |
| Image Settings              | Saturation, brightness, contrast, sharpness, white balance, and AGC adjustable by    |  |  |  |  |
|                             | client software or web browser   |  |  |  |  |
| Day/Night Switch            | Day, Night, Auto, Schedule   |  |  |  |  |
| Wide Dynamic Range (WDR)    | 140 dB   |  |  |  |  |
| Image Enhancement           | BLC, HLC, Defog, 3D DNR  |  |  |  |  |
| SNR                         | ≥ 52 dB  |  |  |  |  |
| Privacy Mask                | 8 programmable polygon privacy masks, mask color or mosaic configurable              |  |  |  |  |
| Picture Overlay             | LOGO picture can be overlaid on video with 128 × 128 24bit bmp format                |  |  |  |  |
| Image Stabilization         | EIS (Built-in gyroscope to improve EIS performance)                                  |  |  |  |  |
| Interface                   |  |  |  |  |  |
| Video Output                | 1 Vp-p Composite Output (75 Ω/CVBS) (Only for debugging)                             |  |  |  |  |
| Ethernet Interface          | 1 RJ45 10 M/100 M/1000 M self-adaptive Ethernet port                                 |  |  |  |  |
| On-Board Storage            | Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 256 G     |  |  |  |  |
| Audio                       | 1 input (line in), 3.5 mm connector, max. input amplitude: 3.3 vpp, input impedance: |  |  |  |  |
|                             | 4.7 K $\Omega$ , interface type: non-equilibrium;                                    |  |  |  |  |
|                             | 1 output (line out), 3.5 mm connector, max. output amplitude: 3.3 vpp, output        |  |  |  |  |
|                             | impedance: $100 \Omega$ , interface type: non-equilibrium                            |  |  |  |  |



| Alarm   | 2 inputs, 2 outputs (max. 24 VDC, 1 A)  |  |  |  |  |
|---|---|--|--|--|--|
| RS-485  | With -Y: 1 RS-485 (half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)   |  |  |  |  |
| Reset Key   | Yes   |  |  |  |  |
| Power Output  | With -Y: 12 VDC, max. 100 mA  |  |  |  |  |
| Event   | -, · · · · · · · · · · · · · · · · · · ·  |  |  |  |  |
| Basic Event   | Motion detection (support alarm triggering by specified target types (human and vehicle)), video tampering alarm, exception (network disconnected, IP address co illegal login, abnormal reboot, HDD full, HDD error), video quality diagnosis, vibrat detection  |  |  |  |  |
| Smart Event   | Line crossing detection, intrusion detection, region entrance, region exiting (support alarm triggering 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  |  |  |  |  |
| B   | output, trigger recording, trigger capture  |  |  |  |  |
| Deep Learning Function  Multi-target-type Detection | Detects up to 60 taregets simultaneously Supports simultaneous detection and capture of human body, face and vehicle Gets 7 face features, 13 human body features and 2 vehicle features  |  |  |  |  |
| Face Capture  | <ol> <li>Detects up to 60 faces simultaneously</li> <li>Supports swing left and right from -60° to 60°, tilt up and down from -30° to 30°</li> <li>Uploads face with background and closed-up face pictures</li> </ol>  |  |  |  |  |
| Face Comparison                                     | Up to 10 face libraries. Up to 150,000 faces for each library. 150,000 faces in total.  Supports face library encryption  |  |  |  |  |
| General   |   |  |  |  |  |
| Power   | -IZHSY:  12 VDC ± 20%, 1.73 A, max. 20.7 W, three-core terminal block  24 VAC ± 20%, 1.31 A, max. 19.9 W, three-core terminal block  PoE: 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.46 A to 0.35 A, max. 19.5 W  -IZHS:  12 VDC ± 20%, 1.62 A, max. 19.4 W, two-core terminal block  24 VAC ± 20%, 1.21 A, max. 18.7 W, two-core terminal block  PoE: 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.43 A to 0.32 A, max. 18.2 W  -IZSY:  12 VDC ± 20%, 1.13 A, max. 13.48 W, three-core terminal block  24 VAC ± 20%, 0.89 A, max. 12.14 W, three-core terminal block  PoE: 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.22 A to 0.29 A, max. 12.29 W  -IZS:  12 VDC ± 20%, 1.02 A, max. 12.22 W, two-core terminal block  PoE: 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.20 A to 0.26 A, max. 10.50 W |  |  |  |  |
| Material  | Aluminum alloy body   |  |  |  |  |
| Dimension   | With -Y: Ø140 mm × 378.4 mm (Ø5.5" × 14.9") Without -Y: Ø144.1 mm × 375.2 mm (Ø5.7" × 14.8")  |  |  |  |  |
| Package Dimension                                   | 425 mm × 190 mm × 180 mm (16.7" × 7.5" × 7.1")  |  |  |  |  |
| Weight  | With -Y: Approx. 2160 g (4.8 lb.) Without -Y: Approx. 2130 g (4.7 lb.)  |  |  |  |  |



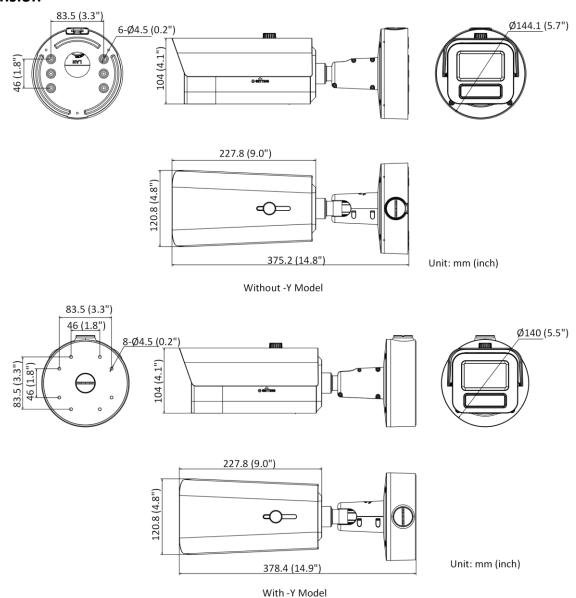
|                           | With -Y: Approx. 3310 g (7.3 lb.)   |  |  |  |
|---------------------------|---|--|--|--|
| With Package Weight       | Without -Y: Approx. 3200 g (7.1 lb.)  |  |  |  |
| Storage Conditions        | Without -H: -30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)   |  |  |  |
|                           | With -H: -40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing)      |  |  |  |
| Startup and Operating     |   |  |  |  |
| Conditions                | -40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing)               |  |  |  |
|                           | 33 languages: English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, |  |  |  |
|                           | Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish,   |  |  |  |
| Language                  | Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, |  |  |  |
|                           | Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil), Ukrainian         |  |  |  |
| General Function          | 5 streams, heartbeat, mirror, privacy mask, flash log, password reset via email, pixel  |  |  |  |
| General Function          | counter   |  |  |  |
| Heater                    | Yes   |  |  |  |
| De-icing                  | Yes   |  |  |  |
| Approval                  |   |  |  |  |
| EMC                       | FCC (47 CFR Part 15, Subpart B);  |  |  |  |
|                           | CE-EMC (EN 55032: 2015, EN 61000-3-2:2019, EEN 61000-3-3:2013+A1:2019, EN               |  |  |  |
|                           | 50130-4: 2011+A1: 2014);  |  |  |  |
|                           | RCM (AS/NZS CISPR 32: 2015);  |  |  |  |
|                           | IC (ICES-003: Issue 7);   |  |  |  |
|                           | KC (KN 32: 2015, KN 35: 2015)   |  |  |  |
| Safety                    | UL (UL 62368-1);  |  |  |  |
|                           | CB (IEC 62368-1:2014+A11);  |  |  |  |
|                           | CE-LVD (EN 62368-1:2014/A11:2017);  |  |  |  |
|                           | BIS (IS 13252(Part 1):2010/ IEC 60950-1 : 2005);  |  |  |  |
|                           | LOA (IEC/EN 60950-1)  |  |  |  |
| Environment               | CE-RoHS (2011/65/EU);   |  |  |  |
|                           | WEEE (2012/19/EU);  |  |  |  |
|                           | Reach (Regulation (EC) No 1907/2006)  |  |  |  |
| Protection                | IK10 (IEC 62262:2002), IP67 (IEC 60529-2013)  |  |  |  |
| Anti-Corrosion Protection | With -Y: NEMA 4X(NEMA 250-2018)   |  |  |  |
| Other                     | PVC FREE  |  |  |  |

#### Available Model

iDS-2CD7A45G0-IZHSY (4.7 to 118 mm) iDS-2CD7A45G0-IZHS (4.7 to 118 mm) iDS-2CD7A45G0-IZSY (4.7 to 118 mm) iDS-2CD7A45G0-IZS (4.7 to 118 mm)



### Dimension



#### Accessory

### Optional

| DS-1275ZJ-S-SUS     | DS-1476ZJ-SUS | DS-1476ZJ-Y  | DS-1475ZJ-Y         | DS-1475ZJ-SUS       |
|---------------------|---------------|--------------|---------------------|---------------------|
| Vertical Pole Mount | Corner Mount  | Corner Mount | Vertical Pole Mount | Vertical Pole Mount |
|                     |               |              |                     |                     |





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