

## iDS-2CD7T47G0-XHS(Y) 4 MP DarkfighterS Fixed Bullet Network Camera



Hikvision has been dedicated to develop products with security since established. Hikvision always follows security by design principle and has adopted many methods of security technologies into our product development lifecycle, including terminal security, data security, application security, network security, and privacy protection. In the meantime, the security technologies used by Hikvision are all in compliance with local applicable laws and safety regulations. These security measures could enhance product's cyber security defense capability and protect your devices as well as your data from malicious cyber attacks.

- Supports Hikvision Embedded Open Platform (HEOP) and importing third party applications
- Supports 1.5 Tops computing power, 40 MB system memory, 350 MB smart RAM, and 1 GB eMMC storage for sharing resources
- High quality imaging with 4 MP resolution
- Excellent low-light performance via DarkfighterS technology
- Clear imaging against strong back light due to 140 dB WDR technology
- 5 streams to meet a wide variety of applications
- Efficient H.265+ compression technology to save bandwidth and storage
- Water and dust resistant (IP67) and vandal proof (IK10)

## ▪ Function

### Face Capture

With embedded deep learning based algorithms, the camera is able to give the best shot of a target face through detecting, capturing, grading and selecting. 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 leaves, lights, animal, flag, etc.

### Queue Management

With embedded deep learning based algorithms, the camera detects queuing-up people number and waiting time of each person. It can generate reports to compare the efficiency of different queuing-ups and display the changing status of one queue, and supports raw data export for further analysis.

### On/Off Duty Detection

With the embedded deep learning algorithms, the camera supports absence detection and on/off duty detection. It can detect the on/off duty status and people number changes in a predefined area.

### Heat Map

The camera can generate a graphic description of visits (by calculating amount of people or amount of dwell time) in a configured area.

### People Counting

With the embedded deep learning algorithms, the camera integrates multiple intelligences. It counts persons and reports a face alarm simultaneously to achieve both the entrance control and people counting.

## ▪ Specification

| <b>Camera</b>           |   |
|-------------------------|---|
| Image Sensor            | 1/1.8" Progressive Scan CMOS  |
| Max. Resolution         | 2688 × 1520   |
| Min. Illumination       | Color: 0.0003 Lux @ (F1.0, AGC ON), B/W: 0.0001 Lux @ (F1.0, AGC ON), B/W: 0 Lux with IR  |
| Shutter Time            | 1 s to 1/100,000 s  |
| Day & Night             | IR cut filter,<br>Blue glass module (less ghost phenomenon)   |
| Angle Adjustment        | Pan: 0° to 355°, tilt: 0° to 90°, rotate: 0° to 360°  |
| <b>Lens</b>             |   |
| Focal Length & FOV      | 2.8 mm: horizontal FOV 111.0°, vertical FOV 57.6°, diagonal FOV 138.4°<br>4 mm: horizontal FOV 94.7°, vertical FOV 49.4°, diagonal FOV 112.6° |
| Iris Type               | Fixed   |
| Aperture                | F1.0  |
| <b>DORI</b>             |   |
| DORI                    | 2.8 mm: D: 61.5 m, O: 24.4 m, R: 12.73 m, I: 6.2 m<br>4 mm: D: 72.1 m, O: 28.6 m, R: 14.4 m, I: 7.2 m   |
| <b>Illuminator</b>      |   |
| Supplement Light Type   | Hybrid (IR and White Light)   |
| Supplement Light Range  | Up to 40 m  |
| Smart Supplement Light  | Yes   |
| IR Wavelength           | 850 nm  |
| <b>HEOP</b>             |   |
| Open Resources          | Memory: 40 MB,<br>Smart RAM: 350 MB,<br>eMMC: 1 GB  |
| Computing Power         | 1.5 TOPS  |
| Open Capability         | HEOP 2.0 OpendevSDK   |
| Deep Learning Structure | Caffe, TensorFlow, PaddlePaddle, ONNX   |
| Programming Language    | C++   |
| <b>Video</b>            |   |
| Main Stream             | 50 Hz: 25 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720)<br>60 Hz: 30 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720)        |
| Sub-Stream              | 50 Hz: 25 fps (704 × 576, 640 × 480)<br>60 Hz: 30 fps (704 × 480, 640 × 480)  |
| Third Stream            | 50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480)<br>60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)                |
| Fourth Stream           | 50 Hz: 25 fps (704 × 576, 640 × 480)<br>60 Hz: 30 fps (704 × 480, 640 × 480)  |
| Fifth Stream            | 50 Hz: 25 fps (704 × 576, 640 × 480)<br>60 Hz: 30 fps (704 × 480, 640 × 480)  |

|                             |   |
|-----------------------------|---|
| Video Compression           | Main stream: H.265+/H.265/H.264+/H.264,<br>Sub-stream: H.265/H.264/MJPEG,<br>Third stream: H.265/H.264,<br>Fourth stream: H.265/H.264/MJPEG,<br>Fifth 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  |
| Target Cropping             | Yes   |
| Region of Interest (ROI)    | 4 fixed regions for each stream   |
| <b>Audio</b>                |   |
| Audio Type                  | Mono sound  |
| 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, SFTP, DHCP, DNS, DDNS, SRTP, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv4/IPv6, UDP, Bonjour, SSL/TLS, ARP, WebSocket, WebSockets   |
| 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<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 1.2, TLS 1.3 |
| 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  |
| Web Browser                 | Plug-in required live view: IE 10, IE 11,<br>Plug-in free live view: Chrome 57.0+, Firefox 52.0+  |
| <b>Image</b>                |   |
| Image Parameters Switch     | Yes   |
| Image Settings              | Saturation, brightness, contrast, sharpness, AGC, white balance, adjustable by client software or web browser   |
| Day/Night Switch            | Day, Night, Auto, Schedule, Alarm Trigger, Video Trigger  |
| Wide Dynamic Range (WDR)    | 140 dB  |
| Image Enhancement           | BLC, HLC, 3D DNR, Defog   |
| Privacy Mask                | 8 programmable polygon privacy masks  |

|                               |  |
|-------------------------------|--|
| Picture Overlay               | LOGO picture can be overlaid on video with 128 × 128 24 bit bmp format.  |
| Image Stabilization           | EIS  |
| <b>Interface</b>              |  |
| Video Output                  | 1 Vp-p Composite Output (75 Ω/CVBS) (Only for debugging)   |
| 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 1 TB  |
| Alarm                         | 3 inputs, 2 outputs (max. 12 VDC, 30 mA)   |
| Audio                         | 1 input (line in), input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium, 1 output (line out), output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium, mono sound  |
| RS-485                        | 1 RS-485 (Half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)   |
| Reset Key                     | Yes  |
| Power Output                  | 12 VDC, max. 100 mA  |
| <b>Event</b>                  |  |
| Basic Event                   | Motion detection, video tampering alarm, video quality diagnosis, exception (network disconnected, IP address conflict, illegal login, abnormal restart, HDD full, HDD error), vibration detection   |
| Smart Event                   | 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                  | Detects up to 60 faces simultaneously,<br>Supports swing left and right from -60° to 60°, tilt up and down from -30° to 30°,<br>Uploads face with background and closed-up face pictures   |
| People Counting               | Supports crossline people counting,<br>Supports counting, displaying and exporting the people flow data of entering and exiting. (The data is stored in the flash.),<br>The real-time people flow data is displayed on the screen. ,<br>Supports swing left and right from -60° to 60°, tilt up and down from -30° to 30°.,<br>Uploads face with background and closed-up face picture.,<br>Supports real-time uploading and uploading by statistic cycle  |
| Queue Management              | Supports up to 8 detection regions, and independent arming schedule and linkage method,<br>Supports 2 detection modes: regional people queuing-up, waiting time detection,<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,<br>Supports real-time data uploading and scheduled data uploading,<br>Regional people queuing-up: supports 4 alarm trigger conditions, including greater than threshold, less than threshold, equal to threshold, not equal to threshold,<br>Waiting time detection: supports 1 alarm trigger condition, including greater than threshold |
| Heat Map                      | A graphic description of visits (by calculating amount of people or amount of dwell time) in a configured area.,<br>Two report types are available, space heat map and time heat map line chart.   |

|                                  |   |
|----------------------------------|---|
| Perimeter Protection             | Line crossing, intrusion, region entrance, region exiting,<br>Support alarm triggering by specified target types (human and vehicle)  |
| Metadata                         | Intrusion detection, line crossing detection, region entrance detection, region exiting detection   |
| On/Off Duty Detection            | Supports up to 8 detection regions, and independent arming schedule and linkage method,<br>Supports 2 detection modes: absence detection, on/off duty detection,<br>Supports parameter settings: person on duty, absence duration   |
| <b>General</b>                   |   |
| Power                            | 12 VDC $\pm$ 20%, 1.1A, max. 13.2 W,<br>PoE: IEEE 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.3 A to 0.43 A, max. 17.9 W  |
| Material                         | Aluminum alloy body   |
| Dimension                        | $\varnothing$ 110.02 mm $\times$ 324.6 mm ( $\varnothing$ 4.33" $\times$ 12.78")  |
| Package Dimension                | 386 mm $\times$ 156 mm $\times$ 155 mm (16.7" $\times$ 7.5" $\times$ 7.1")  |
| Weight                           | Approx. 1365 g (3.01 lb.)   |
| With Package Weight              | Approx. 2079 g (4.59 lb.)   |
| Storage Conditions               | -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)   |
| 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, anti-banding, one-key reset, mirror, password protection, flash log  |
| Heater                           | Yes   |
| Demist                           | Yes   |
| <b>Approval</b>                  |   |
| EMC                              | CE-EMC: EN 55032: 2015+A1:2020, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019,<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  |
| Anti-Corrosion Protection        | -Y model: NEMA 4X (NEMA 250-2018)   |

## ▪ 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.

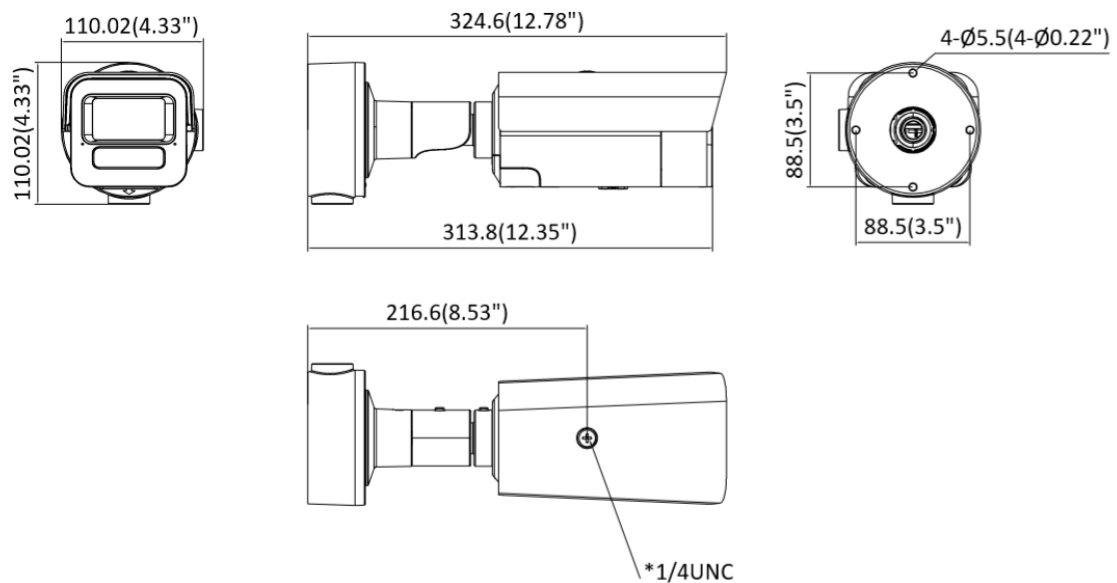
With -Y model: This model has MODERATE PROTECTION.  
 Without -Y model: This model has NO SPECIFIC PROTECTION.

| 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

- iDS-2CD7T47G0-XHS(2.8mm)
- iDS-2CD7T47G0-XHSY(2.8mm)
- iDS-2CD7T47G0-XHS(4mm)
- iDS-2CD7T47G0-XHSY(4mm)




### ▪ Dimension



Unit: mm (inch)

▪ **Accessory**

▪ **Optional**

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

**Headquarters**

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



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