

**iDS-2CD7A45G2/P-IZHS(Y)**  
**4MP DeepinView ANPR Moto Varifocal Bullet Camera****DeepinView<sup>series</sup>****DarkFighter<sup>2.0</sup>**

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 protection capability and protect your devices as well as your data from malicious cyber attacks.

- High quality imaging with 4 MP resolution
- Excellent low-light performance via DarkFighter 2.0 technology
- Clear imaging against strong back light due to 150 dB AWDR technology
- Efficient H.265+ compression technology to save bandwidth and storage
- 5 streams to meet a wide variety of applications
- Water and dust resistant (IP67), vandal proof (IK10) and corrosion resistant (NEMA 4X, optional)
- High frame rate, up to 2MP@120fps and 4MP@60fps
- Built-in heater to ensure clear image under rainy or snowy weather
- Built-in G-sensor for vibration detection
- Built-in power meter for historical power statistics
- License plate recognition and vehicle attribution recognition

## ▪ Function

### 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.

### Road Traffic and Vehicle Detection

With embedded deep learning based license plate capture and recognition algorithms, the camera alone can achieve plate capture and recognition. The algorithm enjoys the high recognition accuracy of common plates and complex-structured plates, which is a great step forward comparing to traditional algorithms. Blocklist and allowlist are available for plate categorization and separate alarm triggering.

## ▪ Specification

| Camera                  |   |
|-------------------------|---|
| Image Sensor            | 1/2.7" Progressive Scan CMOS  |
| Max. Resolution         | 2688 × 1520   |
| Min. Illumination       | Color: 0.005 Lux @ (F1.6, AGC ON), B/W: 0.0018 Lux @ (F1.6, 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)   |
| Lens                    |   |
| Focal Length & FOV      | 4.7 to 118 mm, horizontal FOV 55.8° to 2.8°, vertical FOV 32.3° to 1.6°, diagonal FOV 63.3° to 3.2°   |
| Lens Type               | Varifocal lens, motorized lens, 4.7 to 118 mm   |
| Focus                   | Auto, Semi-auto, Manual   |
| Iris Type               | P-iris  |
| Aperture                | 4.7 to 118 mm: F1.6 to F3.8   |
| DORI                    |   |
| OODPCVS                 | <p>Wide:<br/>Overview: 133.3 m, Outline: 66.6 m, Discern: 33.3 m, Perceive: 21.3 m, Characterize: 10.7 m, Validate: 5.3 m, Scrutinize: 1.8 m</p> <p>Tele:<br/>Overview: 2750.0 m, Outline: 1375.0 m, Discern: 687.5 m, Perceive: 440.0 m, Characterize: 220.0 m, Validate: 110.0 m, Scrutinize: 36.7 m</p> <p>The OODPCVS values are calculated using pixel densities for different use cases as recommended by the IEC/EN 62676-4:2025 standard. IEC 62676-4:2025 describes the planning, design, installation, testing, commissioning, and maintaining of video surveillance systems (VSS) comprising image capture device(s), interconnection(s) and image handling device(s), for use in security applications within private or public spaces.</p> |
| Illuminator             |   |
| Supplement Light Type   | IR  |
| Supplement Light Range  | 4.7 to 118 mm: up to 200 m  |
| Smart Supplement Light  | Yes   |
| IR Wavelength           | 850 nm  |
| HEOP                    |   |
| Open Resources          | Memory: 150 MB,<br>Smart RAM: 2200 MB,<br>eMMC: 1288 MB   |
| Computing Power         | 2.5 TOPS  |
| Open Capability         | HEOP 2.0 OpendevSDK   |
| Deep Learning Structure | Caffe, PyTorch, TensorFlow  |
| Programming Language    | C, C++  |

| Video                       |  |
|-----------------------------|--|
| Main Stream                 | Monitoring mode:<br>50 Hz: up to 50 fps (2688 × 1520, 1920 × 1080, 1280 × 720)<br>60 Hz: up to 60 fps (2688 × 1520, 1920 × 1080, 1280 × 720)<br>*High frame rate is supported under monitoring mode only.<br>smart mode:<br>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, 704 × 576, 640 × 480)<br>60 Hz: 30 fps (1280 × 720, 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   |
| Region of Interest (ROI)    | 4 fixed regions for each stream  |
| Target Cropping             | Yes  |
| e-PTZ                       | Support Patrol and Auto Tracking settings  |
| Audio                       |  |
| 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/48 kHz   |
| Environment Noise Filtering | Yes  |
| Network                     |  |
| Protocols                   | TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, SRTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, WebSocket, WebSockets, MQTT/MQTTS, RTMP. Support X.509 authentication, Support 802.1xEAP-GTC and MSCHAP V2; 802.1xEAP 1.2 supports a maximum 32-bit key.                              |
| Simultaneous Live View      | Up to 20 channels  |
| API                         | ISAPI, SDK, ISUP, OTAP, ONVIF (Profile S, Profile G, Profile T, Profile M)   |
| 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, TPM 2.0 (FIPS 140-2 level 2), AES128/256 |
| Smooth Streaming         | Yes   |
| Network Storage          | NAS (NFS, SMB/CIFS), Auto Network Replenishment (ANR), Together with high-end Hikvision memory card, memory card encryption and health detection are supported., Cloud Storage  |
| 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+, Safari 11+,<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, white balance, AGC, adjustable by client software or web browser  |
| Day/Night Switch         | Day, Night, Auto, Schedule, Alarm Trigger, Video Trigger  |
| Wide Dynamic Range (WDR) | 150 dB  |
| Image Enhancement        | BLC, HLC, 3D DNR, Distortion Correction, Defog  |
| Privacy Mask             | 8 programmable polygon privacy masks  |
| SNR                      | ≥ 52 dB   |
| 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/1000 M self-adaptive Ethernet port  |
| On-Board Storage         | Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 1 TB   |
| Alarm                    | 2 inputs, 2 outputs (max. 24 VDC/24 VAC, 1 A)   |
| Audio                    | 1 input (line in), 3.5 mm connector, three-contact, max. input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium,<br>1 output (line out), 3.5 mm connector, three-contact, max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium, mono sound  |
| RS-485                   | -Y: 1 RS-485 (Half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)  |
| Reset Key                | Yes   |
| Power Output             | -Y: 12 VDC, max. 100 mA   |
| Wiegand                  | -Y: 1 Wiegand (CardID 26bit, SHA-1 26bit, Hik 34bit, NEWG 72 bit)   |
| <b>Event</b>             |   |
| Basic Event              | Motion detection (support alarm triggering by specified target types (human and vehicle)), exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error), video tampering alarm, crying sound detection, gunshot and explosion sound detection, scream detection, glass break detection   |
| Smart Event              | Line crossing detection, intrusion detection, region entrance detection, region exiting detection   |

|                                    |  |
|------------------------------------|--|
| Linkage                            | Upload to FTP/NAS/memory card, notify surveillance center, trigger recording, trigger capture, trigger alarm output, send email, audible warning, HTTP custom alarm  |
| <b>Deep Learning Function</b>      |  |
| Perimeter Protection               | Line crossing, intrusion, region entrance, region exiting<br>Support alarm triggering by specified target types (human and vehicle)<br>Support combined event alarm triggering   |
| Metadata                           | Intrusion detection, line crossing detection, region entrance detection, region exiting detection, road traffic  |
| Road Traffic and Vehicle Detection | <p>Smart Function:</p> <p>Support license plate recognition of vehicles and motorcycles (only in checkpoint scenario)</p> <p>Support vehicle attribute detection, including vehicle type, color, brand, driving direction, etc.</p> <p>Support vehicle and non-vehicle counting</p> <p>Blocklist and allowlist: up to 50,000 records</p> <p>LPR Countries/Regions:</p> <p>4 areas (Europe, Middle East, Asia-Pacific, Africa) and more than 124 countries/regions</p> <p>Accuracy (Under recommended installation and lighting conditions):</p> <p>License plate recognition rate <math>\geq 98\%</math></p> <p>Capture rate <math>\geq 99\%</math></p> <p>Driving direction accuracy rate <math>\geq 98\%</math></p> <p>Vehicle Capture Speed:</p> <p>Front installation in checkpoint scenario: up to 120 km/h</p> <p>Side installation: up to 80 km/h</p> <p>Capture Mode: License Plate and Vehicle Mode, Vehicle Priority Mode</p> <p>Supports license plate recognition in detection area or lane line in the entrance and exit.</p> <p>Supports Reverse License Plate Secondary Detection. If the vehicle is always in the camera view, when it triggers one capture, another capture will be triggered when it backs out of parking lot.</p> |
| Parking Management                 | <p>Support distant view mode and close view mode</p> <p>Distant view mode: support status detection on up to 40 parking spaces, parking duration detection, and vacant parking space alarm</p> <p>Close view mode: support status detection on up to 4 parking spaces, license plate recognition, parking timeout alarm, and vacant parking space alarm</p>  |
| AcuSeek                            | Support searching for humans, license plates, vehicles, non-motorized vehicles, and animals and uploading the feature information. This function requires use with AcuSeek NVR/Servers.  |
| Vehicle Event Detection            | Supports Parking Detection and Congestion Detection.   |

| General                          |   |
|----------------------------------|---|
| Power                            | With -Y:<br>three-core terminal block,<br>12 VDC $\pm$ 20%, 1.85A, max. 22.2W,<br>24 VAC $\pm$ 20%, 1.65A, max. 21.7 W,<br>PoE: IEEE 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.57 A to 0.43 A, max. 24.2 W<br>Without -Y:<br>three-core terminal block,<br>12 VDC $\pm$ 20%, 1.75A, max. 21W,<br>24 VAC $\pm$ 20%, 1.55A, max. 20.5 W,<br>PoE: IEEE 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.57 A to 0.43 A, max. 23 W |
| Material                         | Aluminum alloy body   |
| Dimension                        | With -Y: $\varnothing$ 140 mm $\times$ 377.4 mm ( $\varnothing$ 5.5" $\times$ 14.9"), Without -Y: $\varnothing$ 144.1 mm $\times$ 374.7 mm ( $\varnothing$ 5.7" $\times$ 14.8")   |
| Package Dimension                | 425 mm $\times$ 190 mm $\times$ 180 mm (16.7" $\times$ 7.5" $\times$ 7.1")  |
| Weight                           | Approx. 2350 g (5.18 lb.)   |
| With Package Weight              | Approx. 3467 g (7.65 lb.)   |
| Storage Conditions               | -40 °C to 65 °C (-40 °F to 149 °F). Humidity 95% or less (non-condensing)   |
| Startup and Operating Conditions | -40 °C to 65 °C (-40 °F to 149 °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   |
| De-icing                         | Yes   |
| Device Management                | Supports adding alarm box (DS-FM2466) in the LAN to expand 6 additional input and 6 output alarm interfaces. Supports adding network microphone and speaker.  |
| Integrated Connector Panel       | -Y: No  |
| Approval                         |   |
| EMC                              | CE-EMC: EN 55032:2015+A1:2020, EN 50130-4:2011+A1:2014, EN IEC 61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A1:2019+A2:2021, RCM: AS/NZS CISPR 32: 2015, IC: ICES-003: Issue 7, KC: KN32: 2015, KN35: 2015   |
| Safety                           | 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                       | IP67: IEC 60529-2013, IK10: IEC 62262:2002  |
| Anti-Corrosion Protection        | -Y: NEMA 4X (NEMA 250-2018)   |
| Automotive and Railway           | EN50121-4   |

|       |          |
|-------|----------|
| Other | PVC FREE |
|-------|----------|

### ▪ Typical Application

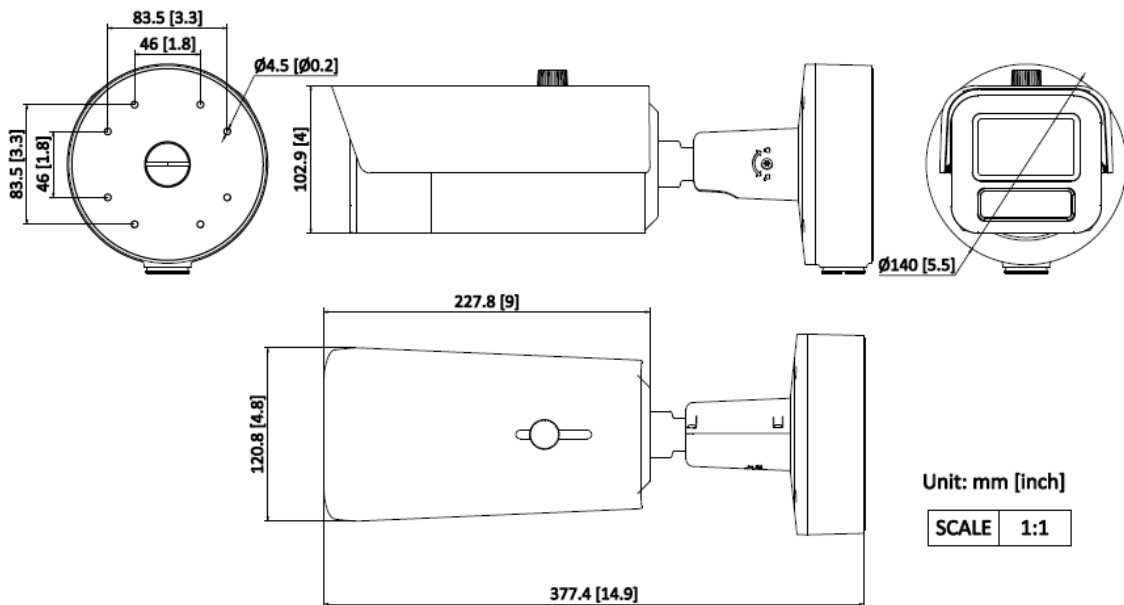
Hikvision products are classified into three levels according to their anti-corrosion performance. Refer to the following description to choose for your using environment.

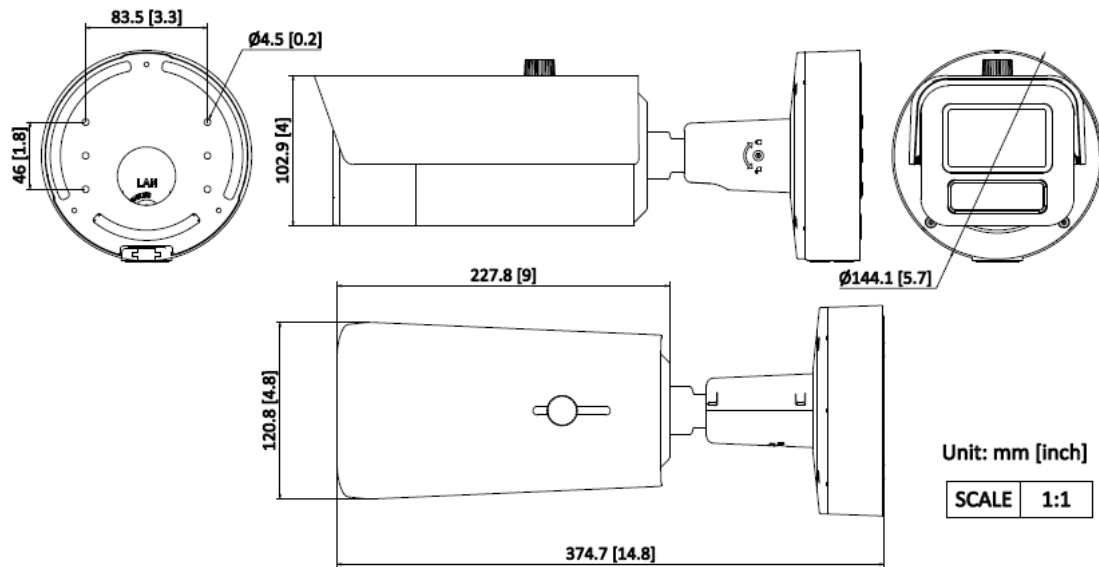
With -Y model: This model has MODERATE PROTECTION.

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.  |

### ▪ Dimension





▪ **Accessory**

▪ **Optional**

| DS-1476ZJ-Y | DS-1476ZJ-SUS | DS-1475ZJ-SUS | DS-1475ZJ-Y | DS-1275ZJ-S-SUS |
|-------------|---------------|---------------|-------------|-----------------|
|             |               |               |             |                 |

▪ **Installation Methods**

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

# See Far, Go Further



[www.hikvision.com](http://www.hikvision.com)  
[support@hikvision.com](mailto:support@hikvision.com)

