# DS-2CD3686G2T-IZS/TPM
# 8 MP AcuSense Varifocal Bullet Network Camera

AcuSense

Powered by
**DarkFighter**

**4K** | **WDR** | **Motorized** | **H.265+** | **IP67**
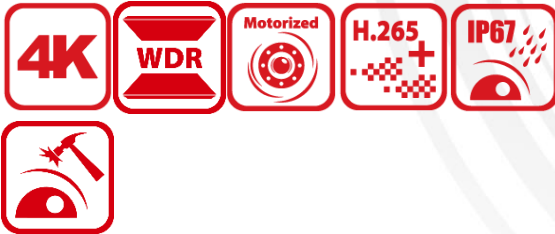
Empowered by deep learning algorithms, Hikvision AcuSense technology brings human and vehicle targets classification alarms to front- and back-end devices. The system focuses on human and vehicle targets, vastly improving alarm efficiency and effectiveness.

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.

- 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 2 GB eMMC storage for sharing resources
- High quality imaging with 8 MP resolution
- Clear imaging against strong back light due to 120 dB true WDR technology
- Efficient H.265+ compression technology
- Focus on human and vehicle targets classification based on deep learning
- Audio and alarm interface available
- Water and dust resistant (IP67) and vandal-resistant (IK10)
- Excellent low-light performance with powered-by-DarkFighter technology
- 3D DNR technology delivers clean and sharp images
- Motorized varifocal lens for easy installation
- Supports TPM 2.0 module

## ▪ Specification

| Camera | |
|---|---|
| Image Sensor | 1/1.8" Progressive Scan CMOS |
| Max. Resolution | 3840 × 2160 |
| Min. Illumination | Color: 0.003 Lux @ (F1.6, AGC ON), B/W: 0 Lux with IR |
| Shutter Time | 1/3 s to 1/100,000 s |
| Day & Night | IR cut filter |
| Angle Adjustment | Pan: 0° to 355°, tilt: 0° to 90°, rotate: 0° to 360° |
| **Lens** | |
| Lens Type | Varifocal lens, motorized lens, 2.7 to 13.5 mm and 7 to 35 mm optional |
| Focal Length & FOV | 2.7 to 13.5 mm: horizontal FOV 108° to 46°, vertical FOV 58° to 26°, diagonal FOV 127° to 52°;<br>7 to 35 mm: horizontal FOV 42° to 15°, vertical FOV 23° to 9°, diagonal FOV 49° to 17° |
| Lens Mount | 2.7 to 13.5 mm: Ø14; 7 to 35 mm: Integrated |
| Iris Type | Auto-iris |
| Focus | Auto, Semi-auto, Manual |
| Aperture | 2.7 to 13.5 mm: F1.6; 7 to 35 mm: F1.6 |
| **DORI** | |
| DORI | 2.7 to 13.5 mm: D: 86 to 192 m, O: 34 to 76 m, R: 17 to 38 m, I: 8 to 19 m<br>7 to 35 mm: D: 218 to 580 m, O: 86 to 230 m, R: 43 to 116 m, I: 21 to 58 m |
| **Illuminator** | |
| Supplement Light Type | IR |
| Supplement Light Range | 2.7 to 13.5 mm: up to 60 m; 7 to 35 mm: up to 80 m |
| Smart Supplement Light | Yes |
| IR Wavelength | 850 nm |
| **HEOP** | |
| Open Resources | Memory: 40 MB,<br>Smart RAM: 350 MB,<br>eMMC: 2 GB |
| Computing Power | 1.5 TOPS |
| Open Capability | HEOP 2.0 OpendevSDK |
| Deep Learning Structure | Caffe, PyTorch, TensorFlow, PaddlePaddle, ONNX |
| Programming Language | C, C++ |
| **Video** | |
| Main Stream | 50 Hz:<br>25 fps (3840 × 2160, 3200 × 1800, 2688 × 1520, 1920 × 1080, 1280 × 720)<br>60 Hz:<br>24 fps (3840 × 2160)<br>30 fps (3200 × 1800, 2688 × 1520, 1920 × 1080, 1280 × 720) |
| Sub-Stream | 50 Hz: 25 fps (1280 × 720, 640 × 480, 640 × 360)<br>60 Hz: 30 fps (1280 × 720, 640 × 480, 640 × 360) |
| Third Stream | 50 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360)<br>60 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360) |
| Fourth Stream | 50 Hz: 10 fps (1280 × 720, 640 × 480, 640 × 360)<br>60 Hz: 10 fps (1280 × 720, 640 × 480, 640 × 360) |

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|---|---|
| Video Compression | Main stream: H.265/H.264/H.264+/H.265+,<br>Sub-stream: H.265/H.264/MJPEG,<br>Third stream: H.265/H.264,<br>Fourth 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 |
| Bit Rate Control | CBR, VBR |
| Scalable Video Coding (SVC) | H.264 and H.265 encoding |
| Region of Interest (ROI) | 5 fixed regions for main stream and sub-stream |
| Target Cropping | Yes |
| **Audio** | |
| Audio Compression | G.711/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC |
| Audio Type | Mono sound |
| 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 |
| **Network** | |
| Protocols | TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, PPPoE, SFTP, ARP, SNMP, WebSocket, WebSockets, SRTP |
| Simultaneous Live View | Up to 6 channels |
| API | ONVIF (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 1.1/1.2/1.3, host authentication (MAC address), TPM 2.0 (FIPS 140-2 level 2) |
| 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, 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+,<br>Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+ |
| **Image** | |
| Image Parameters Switch | Yes |
| Image Settings | Rotate mode, saturation, brightness, contrast, sharpness, gain, white balance, adjustable by client software or web browser |
| Day/Night Switch | Day, Night, Auto, Schedule |
| Wide Dynamic Range (WDR) | 120 dB |
| Image Enhancement | BLC, HLC, 3D DNR, Defog |
| SNR | ≥ 52 dB |

| | |
|---|---|
| Privacy Mask | 4 programmable polygon privacy masks |
| **Interface** | |
| 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 512 GB |
| Audio | 1 input (line in), two-core terminal block, max. input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium, <br> 1 output (line out), two-core terminal block, max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium |
| Alarm | 3 inputs, 3 outputs (max. 24 VDC/24 VAC, 1 A) |
| Reset Key | Yes |
| Power Output | 12 VDC, max. 100 mA |
| **Event** | |
| Basic Event | Motion detection (support alarm triggering by specified target types (human and vehicle)), video tampering alarm, exception |
| Smart Event | scene change detection, audio exception detection, defocus detection, unattended baggage detection, object removal detection |
| Linkage | Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture, audible warning |
| **Deep Learning Function** | |
| Face Capture | Yes |
| People Counting | Yes |
| Perimeter Protection | Line crossing, intrusion, region entrance, region exiting <br> Support alarm triggered by specified target types (human and vehicle) |
| **General** | |
| Power | 12 VDC ± 25%, 1.08 A, max. 13 W, Ø5.5 mm coaxial power plug, reverse polarity protection, <br> PoE: IEEE 802.3at, Class 4, max. 15 W |
| Material | Aluminum alloy body |
| Dimension | Ø105 mm × 332.8 mm (Ø4.1" × 13.1") |
| Package Dimension | 385 mm × 190 mm × 180 mm (15.2" × 7.5" × 7.1") |
| Weight | Approx. 1475 g (3.0 lb.) |
| With Package Weight | Approx. 2276 g (4.6 lb.) |
| 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). Humidity 95% or less (non-condensing) |
| General Function | Heartbeat, anti-banding, mirror, flash log, password reset via email, pixel counter |
| 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 |
| **Approval** | |
| EMC | FCC: 47 CFR Part 15, Subpart B, <br> CE-EMC: EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN 50130-4: 2011 +A1: 2014, <br> IC: ICES-003: Issue 7, <br> KC: KN32: 2015, KN35: 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 |
| 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) |

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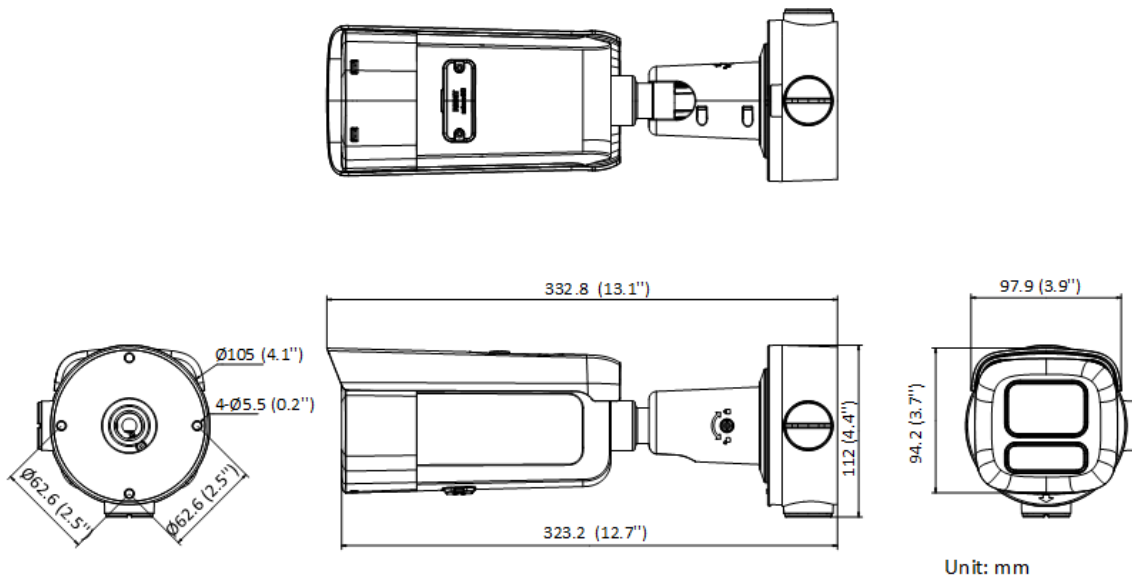
With -Y model: This model has MODERATE PROTECTION.
Without -Y model: This model has NO SPECIFIC PROTECTION.

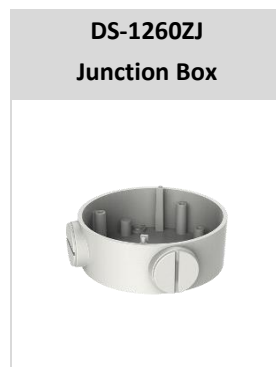| Level | Description |
| --- | --- |
| Top-level protection | Hikvision products at this level are equipped for use in areas where professional anti-corrosion protection is a must. Typical application scenarios include coastlines, docks, chemical plants, and more. |
| Moderate protection | Hikvision 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

DS-2CD3686G2T-IZS/TPM(2.7-13.5mm)

## ▪ Dimension



332.8 (13.1")
Ø105 (4.1")
4-Ø5.5 (0.2")
Ø62.6 (2.5")
Ø62.6 (2.5")
112 (4.4")
323.2 (12.7")
97.9 (3.9")
94.2 (3.7")

Unit: mm

## ▪ Accessory

### ▪ Included

| DS-1260ZJ<br>Junction Box |
|---|
|  |

### ▪ Optional

| DS-1275ZJ-S-SUS<br>Vertical Pole Mount | DS-1275ZJ-SUS<br>Vertical Pole Mount | DS-1276ZJ-SUS<br>Corner Mount |
|---|---|---|
|  |  |  |

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