HIKVISION®

iDS-2CD7146G0/S-IZS
4 MP IR Varifocal Dome Network Camera

DarkFighter

DeepinView series

| 140dB WDR | P Iris | H.265+ | 3D DNR | smart 60FPS |

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 technology

- Clear imaging against strong back light due to 140 dB WDR technology

- Efficient H.265+ compression technology to save bandwidth and storage

- 5 streams to meet a wide variety of applications

- Vandal proof (IK10)

▪ **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 leafs, 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.

Regional People Counting

With the embedded deep learning algorithms, the camera supports people density detection and will upload detection data through scheduled uploading, number of people change uploading and congestion level uploading. It also supports number of people exception detection and waiting time exception detection.

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.

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 reports an alarm if not.

▪ Specification

Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Max. Resolution	2688 × 1520
Min. Illumination	Color: 0.0005 Lux @ (F1.2, AGC ON); B/W: 0.0001 Lux @ (F1.2, AGC ON), 0 Lux with IR
Day ＆ Night	IR cut filter Blue glass module to reduce ghost phenomenon
Shutter Time	1 s to 1/100,000 s
Angle Adjustment	Pan: 0° to 355°, tilt: 0° to 75°, rotate: 0° to 355°
Lens	
Focal Length ＆ 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°
Focus	Auto,Semi-auto,Manual
Aperture	2.8 to 12 mm: F1.2 to 2.5 8 to 32 mm: F1.7 to F1.73
Iris Type	P-iris
DORI	
DORI	Wide: 2.8 to 12 mm: D (Detect): 60 m, O (Observe): 23.8 m, R (Recognize): 12 m, I (Identify): 6 m 8 to 32 mm: D (Detect): 150.3 m, O (Observe): 59.7 m, R (Recognize): 30.1 m, I (Identify): 15 m Tele: 2.8 to 12 mm: D (Detect): 149 m, O (Observe): 59.1 m, R (Recognize): 29.8 m, I (Identify): 14.9 m 8 to 32 mm: D (Detect): 400 m, O (Observe): 158.7 m, R (Recognize): 80 m, I (Identify): 40 m
Illuminator	
Supplement Light Type	IR
Smart Supplement Light	Yes
Supplement Light Range	2.8 to 12 mm: 30 m 8 to 32 mm: 50 m
IR Wavelength	850 nm
AI Open Platform	
Model Specification	Up to 4 models, Model type: detection model, classification model, mixed model (detection model and classification model)
Video	
Main Stream	50 Hz: 25 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720) 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)
	60 Hz: 30 fps (704 × 480, 640 × 480)
Video Compression	Main stream: H.265+/H.265/H.264+/H.264, Sub-stream: H.265/H.264/MJPEG, Third stream: H.265/H.264, Fourth stream: H.265/H.264/MJPEG, Fifth stream: H.265/H.264/MJPEG
H.265 Type	Main Profile
Video Bit Rate	32 Kbps to 8 Mbps
H.264 Type	Baseline Profile,Main Profile,High 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/44.1 kHz/48 kHz
Environment Noise Filtering	Yes
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, IPv4, IPv6, UDP, Bonjour, SSL/TLS, WebSocket, WebSockets
Simultaneous Live View	Up to 20 channels
API	Open Network Video Interface (Profile S, Profile G, Profile T, Profile M),ISAPI,SDK,ISUP
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 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
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.
Client	iVMS-4200,Hik-Connect,Hik-Central

Web Browser	Plug-in required live view: IE 10, IE 11, Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Edge 89+, Safari 11+, Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+
Image	
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
Wide Dynamic Range (WDR)	140 dB
SNR	≥ 52 dB
Image Enhancement	BLC,HLC,3D DNR,Distortion Correction,Defog
Privacy Mask	8 programmable polygon privacy masks
Image Stabilization	EIS
Picture Overlay	LOGO picture can be overlaid on video with 128 × 128 24 bit bmp format.
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 1 TB
Built-in Microphone	Yes,1 built-in microphone
Audio	1 input (line in), 1 output (line out), 3.5 mm connector
Alarm	1 input, 1 output (max. 24 VDC, 1 A)
RS-485	1 RS-485 (Half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)
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 (network disconnected, IP address conflict, illegal login, abnormal restart, HDD full, HDD error),video quality diagnosis,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
Deep Learning Function	
Perimeter Protection	Line crossing, intrusion, region entrance, region exiting Support alarm triggering by specified target types (human and vehicle) Support combined event alarm triggering

Queue Management	Supports up to 8 detection regions, and independent arming schedule and linkage method
	Supports 2 detection modes: regional people queuing-up, waiting time detection
	Generates reports to compare the efficiency of different queuing-ups and display the changing status of one queue
	Supports raw data export for further analysis
	Supports real-time data uploading and scheduled data uploading
	Regional people queuing-up: supports 4 alarm trigger conditions, including greater than threshold, less than threshold, equal to threshold, not equal to threshold
	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.,
	Two report types are available, space heat map and time heat map line chart.
Hard Hat Detection	Detects up to 30 human targets simultaneously
	Supports up to 4 shield regions
Metadata	Intrusion detection,line crossing detection,region entrance detection,region exiting detection
Regional People Counting	Supports up to 8 detection regions, and independent arming schedule and linkage method
	Supports 3 detection modes: people density detection, number of people exception detection, waiting time exception detection
	Supports parameter settings: alarm times per exception, alarm interval, first alarm delay
	Supports searching real-time number of people
	People density detection: supports scheduled uploading, number of people change uploading, congestion level uploading
	Number of people exception detection: supports 6 alarm trigger conditions, including greater than threshold A, less than threshold A, equal to threshold A, not equal to threshold A, greater than threshold A and less than threshold B, less than threshold A or greater than threshold B (threshold A should be less than threshold B)
	Waiting time exception detection: supports 3 alarm trigger conditions, including greater than threshold A, less than threshold A, greater than threshold A and less than threshold B (threshold A should be less than threshold B)
On/Off Duty Detection	Supports up to 8 detection regions, and independent arming schedule and linkage method
	Supports 2 detection modes: absence detection, on/off duty detection
	Supports parameter settings: person on duty, absence duration
General	
Power	12 VDC ± 20%, 1.02 A, max. 12.4 W, two-core terminal block
	24 VAC ± 20%, 0.49 A, max. 11.8 W, two-core terminal block
	PoE: IEEE 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.22 A to 0.29 A, max. 12.5 W
Material	Aluminum alloy body
Dimension	Ø140.5 mm × 122.6 mm (Ø5.5" × 4.8")
Package Dimension	244 mm × 174 mm × 173 mm (9.6" × 6.9" × 6.8")
Weight	Approx. 875 g (1.93 lb.)
With Package Weight	Approx. 1415 g (3.11 lb.)

Startup and Operating Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)
Storage Conditions	-30 °C to 60 °C (-22 °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, mirror, password protection, one-key reset
Device Management	Supports adding alarm box (DS-FM2466) in the LAN to expand 6 additional input and 6 output alarm interfaces
Approval	
EMC	FCC: 47 CFR Part 15, Subpart B, CE-EMC: EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN 50130-4: 2011 +A1: 2014, RCM: AS/NZS CISPR 32: 2015, IC: ICES-003: Issue 7, 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, 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
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.
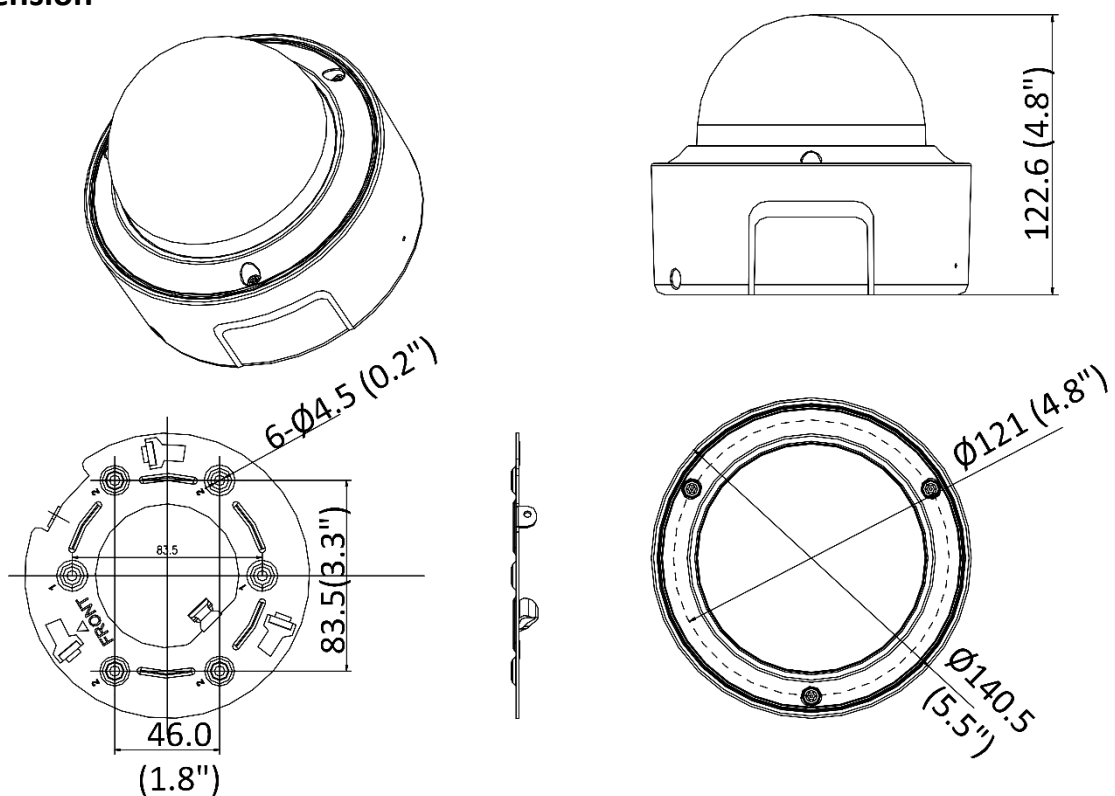
This model has NO SPECIFIC PROTECTION.

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-2CD7146G0/S-IZS(8-32mm)(C)

iDS-2CD7146G0/S-IZS(2.8-12mm)(C)

▪**Dimension**

122.6 (4.8")

6-Ø4.5 (0.2")

83.5(3.3")

83.5

46.0
(1.8")

Ø121 (4.8")

Ø140.5
(5.5")

Unit: mm(inch)

▪ **Accessory**

▪**Optional**

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			

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