

## iDS-2CD7186G0-IZ(H)S(Y) **4K IR Varifocal Dome 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 protection capability and protect your devices as well as your data from malicious cyber attacks.

- High quality imaging with 8 MP resolution
- Clear imaging against strong back light due to 120 dB WDR 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) 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 leafs, lights, animal, flag, etc.

#### Multi-Target-Type Detection

With the embedded deep learning algorithms, the camera detects and captures the face, human body, vehicle in the specified region.

#### 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.

#### Multi-Dimension People Counting

With the embedded deep learning algorithms, the camera integrates multiple intelligences. It counts persons and compares them with the built-in face picture library to remove duplicates. It counts persons and reports an alarm simultaneously to achieve both the entrance control and people counting.

#### 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	3840 × 2160				
Min. Illumination	Color: 0.002 Lux @ (F1.2, AGC ON),B/W: 0.0002 Lux @ (F1.2, AGC ON),B/W: 0 Lux wit IR				
Shutter Time	1 s to 1/100,000 s				
Day & Night	IR cut filter				
Angle Adjustment	Pan: 0° to 355°,tilt: 0° to 75°,rotate: 0° to 355°				
Lens	Lens				
Focal Length & FOV	2.8 to 12 mm, horizontal FOV 98.0° to 38.1°, vertical FOV 51.4° to 21.6°, diagonal FOV 118.0° to 44° 8 to 32 mm, horizontal FOV 37.0° to 15.0°, vertical FOV 21.0° to 9.0°, diagonal FOV 43.0° to 17.0°				
Focus	Auto,Semi-auto,Manual				
Iris Type	P-iris				
Aperture	2.8 to 12 mm: F1.2 to F2.5, 8 to 32 mm: F1.7 to F1.73				
DORI					
DORI	Wide:  2.8 to 12 mm: D (Detect): 89.2 m, O (Observe): 35.4 m, R (Recognize): 17.8 m, I (Identify): 8.9 m  8 to 32 mm: D (Detect): 218.0 m, O (Observe): 86.5 m, R (Recognize): 43.6 m, I (Identify): 21.8 m  Tele:  2.8 to 12 mm: D (Detect): 220.0 m, O (Observe): 87.3 m, R (Recognize): 44.0 m, I (Identify): 22.0 m  8 to 32 mm: D (Detect): 580.0 m, O (Observe): 230.2 m, R (Recognize): 116.0 m, I (Identify): 58.0 m				
Illuminator					
Supplement Light Type	IR				
Supplement Light Range	2.8 to 12 mm: Monitoring: 40 m; 8 to 32 mm: Monitoring: 60 m				
Smart Supplement Light	Yes				
IR Wavelength	850 nm				
Al 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 (3840 × 2160, 3072 × 1728, 2560 × 1440, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (3840 × 2160, 3072 × 1728, 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)					



	FOUR 25 for /704 v. F7C (40 v. 400)			
Fourth Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)			
	50 Hz: 25 fps (704 × 480, 640 × 480)			
Fifth Stream	60 Hz: 30 fps (704 × 480, 640 × 480)			
	Main stream: H.265+/H.265/H.264+/H.264,			
	Sub-stream: H.265/H.264/MJPEG,			
Video Compression	Third stream: H.265/H.264,			
Video Compression	Fourth stream: H.265/H.264/MJPEG,			
	Fifth 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)	· ·			
Region of Interest (ROI)	H.264 and H.265 encoding  4 fixed regions for each stream			
Target Cropping	Yes			
Audio	TES .			
	Mono sound			
Audio Type	1110110 0001110			
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			
Audia Cassaliaa Data	(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	TOD/ID ICAAD LITTO LITTOC ETD CETD COTD DUCD DAIG DONG DTD DTCD DTCD			
Drotocols	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,			
Protocols	WebSocket, WebSockets			
Simultaneous Live View	Up to 20 channels			
	Open Network Video Interface (Profile S, Profile G, Profile T, Profile M),ISAPI,SDK,ISUP			
API	Up to 32 users			
User/Host	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			
Cocurity				
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, 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			
Client	detection are supported.			
Client	iVMS-4200,Hik-Connect,Hik-Central			
Woh Provices	Plug-in required live view: IE 10, IE 11,			
Web Browser	Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Edge 89+, Safari 11+,			
lmaga	Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+			
Image	Mar			
Image Parameters Switch	Yes			



Image Settings	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)	120 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				
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, 2 built-in microphones				
	Max. power consumption: 1.5 W, max. sound pressure level: 98 dB, speaker range: 10				
Built-in Speaker	m				
	1 input (line in), 3.5 mm connector, three-contact, max. input amplitude: 3.3 Vpp,				
	input impedance: 4.7 K $\Omega$ , interface type: non-equilibrium,				
Audio	1 output (line out), 3.5 mm connector, three-contact, max. output amplitude: 3.3 Vpp,				
	output impedance: 100 $\Omega$ , interface type: non-equilibrium, mono sound				
Alarm	2 inputs, 2 outputs (max. 24 VDC/24 VAC, 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	12 VDC, IIIdX. 100 IIIA				
Lvent	Motion detection (support alarm triggering by specified target types (human and				
	vehicle)),video tampering alarm,video quality diagnosis,exception (network				
Basic Event	disconnected, IP address conflict, illegal login, abnormal restart, HDD full, HDD				
Smart Event	error),vibration detection scene change detection,audio exception detection,defocus detection				
Smart Event	Upload to FTP/NAS/memory card,notify surveillance center,send email,trigger alarm				
Linkage	output,trigger recording,trigger capture,audible warning				
Deep Learning Function	output,trigger recording,trigger capture, addible warning				
Deep Learning Function	Supports simultaneous detection and capture of human body, face, and vehicle,				
	Gets 7 face features,				
	Gets 13 human body features,				
Multi-target-type Detection	Gets 2 vehicle features,				
	Supports counting the number of line crossing targets by type, including human body,				
	non-motor vehicle, motor vehicle				
	Detects up to 120 faces simultaneously, captures up to 40 face pictures per frame				
Face Capture	simultaneously and uploads up to 10 face pictures per second,				
	Supports swing left and right from -60° to 60°, tilt up and down from -30° to 30°,				
	Uploads face with background and closed-up face pictures,				
	Supports best shot and quick shot for capture mode,				
	Gets 7 face features				
	Up to 10 face libraries. 30,000 faces for each library. 150,000 faces in total,				
Face Comparison	Supports face library encryption				
	Supports face fibrially efficiency				



Matadata	Intrusion detection, line crossing detection, region entrance detection, region exiting
Metadata	detection, face capture, multi-target-type detection
Perimeter Protection	Line crossing, intrusion, region entrance, region exiting
	Support alarm triggering by specified target types (human and vehicle)
	Support combined event alarm triggering
	Supports Multi-Dimension People Counting,
	Supports counting, displaying and exporting the people flow data of entering, exiting
	and passing by (The data is stored in the flash.),
	Supports real-time uploading and uploading by statistic cycle,
Doonlo Counting	Supports generating daily, weekly, monthly or annually reports,
People Counting	Supports dynamic deduplication based on face picture comparison, and can filter out
	the target with the same custom face pictures, same attributes, or filter out repeated
	invalid targets within the set time interval,
	Supports face feature deduplication,
	Supports people flow data replenishment
	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
Queue Management	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
Hard Hat Detection	Supports up to 4 shield regions



	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
Regional People Counting	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)
	Supports up to 8 detection regions, and independent arming schedule and linkage
On/Off Duty Detection	method
on, on buty beteetion	Supports 2 detection modes: absence detection, on/off duty detection
	Supports parameter settings: person on duty, absence duration
General	
	12 VDC ± 25%, 0.97 A, max. 11.43 W,three-core terminal block,reverse polarity
Power	protection,
1 GWC1	24 VAC +24.9%/-25%, 0.73 A, max. 10.67 W,
	PoE: IEEE 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.19 A to 0.28 A, max. 11.92 W
Material	Base: metal, cover: metal
Dimension	Ø144.3 mm × 114.1 mm (Ø5.7" × 4.5")
Package Dimension	244 mm × 174 mm × 173 mm (9.6" × 6.9" × 6.8")
Weight	Approx. 990 g (2.0 lb.)
With Package Weight	Approx. 1425 g (3.1 lb.)
Storage Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)
Startup and Operating	With -H: -40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing),
Conditions	Without -H: -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, one-key reset, mirror, password protection
Cable Length	0.25 m (0.8 ft.)
Davisa Managamant	Supports adding alarm box (DS-FM2466) in the LAN to expand 6 additional input and 6
Device Management	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, EN50121-4,		
LIVIC	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		
	CE-RoHS: 2011/65/EU,		
Environment	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)		
CC	Common Criteria, Assurance Level: EAL2 + ALC_FLR.2		
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.

-Y model: This model has MODERATE PROTECTION.

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

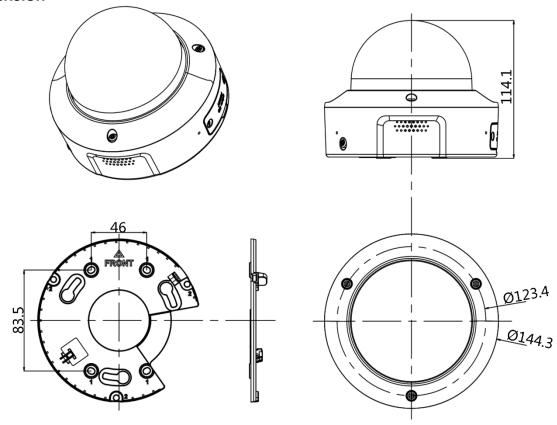
Level Description	
	Hikvision products at this level are equipped for use in
Top-level protection	areas where professional anti-corrosion protection is a
Top-level protection	must. Typical application scenarios include coastlines,
	docks, chemical plants, and more.
	Hikvision products at this level are equipped for use in
	areas with moderate anti-corrosion demands. Typical
Moderate protection	application scenarios include coastal areas about 2
	kilometers (1.24 miles) away from coastlines, as well as
	areas affected by acid rain.
No enocific protection	Hikvision products at this level are equipped for use in
No specific protection	areas where no specific anti-corrosion protection is needed.

### Available Model

iDS-2CD7186G0-IZS(2.8-12mm)(D) iDS-2CD7186G0-IZS(8-32mm)(D) iDS-2CD7186G0-IZHSY(2.8-12mm)(D) iDS-2CD7186G0-IZHSY(8-32mm)(D)



## Dimension



Unit: mm



### Accessory

### Optional

PM Vertical pole mount	RCM-VH In-ceiling mount	CM Corner mount	DS-1475ZJ-Y Vertical pole mount	DS-1476ZJ-Y Corner mount
			OUU.	
DS-2280ZJ-WA140 Junction box	WML+PC160 Wall mount	CPM+PC160 Pendant Mount		

<sup>\*</sup>Bracket model with -Y supports anti-corrosion protection.

#### Headquarters

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<sup>\*</sup>PC160 must be produced after April. 2023