

# iDS-2CD7AMO86G0-IZHS(Y) 8 MP IR Varifocal 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 protection capability and protect your devices as well as your data from malicious cyber attacks.

- High quality imaging with 8 MP resolution
- Excellent low-light performance via DarkFighter technology
- Clear imaging against strong back light due to 120 dB true 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), 0 Lux with IR				
Shutter Time	1 s to 1/100,000 s				
Davi Q Nijaha	IR cut filter				
Day & Night	Blue glass module to reduce ghost phenomenon				
Lens					
	2.8 to 12 mm, horizontal FOV: 112.3° to 41.2°, vertical FOV: 58° to 23.1°, diagonal FOV:				
Focal Length & FOV	137.3° to 47.3°				
rocal Length & FOV	8 to 32 mm, horizontal FOV: 41.8° to 14.9°, vertical FOV: 22.92° to 8.48°, diagonal FOV:				
	48.7° to 17°				
Focus	Auto,Semi-auto,Manual				
Iris Type	P-iris				
A	2.8 to 12 mm: F1.2 to F2.5				
Aperture	8 to 32 mm: F1.7 to F1.73				
DORI					
	Wide:				
	2.8 to 12 mm: D (Detect): 87 m, O (Observe): 34.5 m, R (Recognize): 17.4 m, I				
	(Identify): 8.7 m				
	8 to 32 mm: D (Detect): 218 m, O (Observe): 86.5 m, R (Recognize): 43.6 m, I (Identify):				
	21.8 m				
DORI	Tele:				
	2.8 to 12 mm: D (Detect): 216 m, O (Observe): 85.7 m, R (Recognize): 43.2 m, I				
	(Identify): 21.6 m				
	8 to 32 mm: D (Detect): 580 m, O (Observe): 230.2 m, R (Recognize): 116 m, I				
	(Identify): 58 m				
Illuminator					
Supplement Light Type	IR				
	2.8 to 12 mm: 50 m				
Supplement Light Range	8 to 32 mm: 100 m				
Smart Supplement Light	Yes				
IR Wavelength	850 nm				
Al Open Platform					
	Up to 4 models,				
Model Specification	Model type: detection model, classification model, mixed model (detection model and				
woder specification	classification model)				
Video	, , , , , , , , , , , , , , , , , , ,				
	50 Hz: 25 fps (3840 × 2160, 3072 × 1728, 2560 × 1440, 1920 × 1080, 1280× 720)				
Main Stream	60 Hz: 30 fps (3840 × 2160, 3072 × 1728, 2560 × 1440, 1920 × 1080, 1280× 720)				
	50 Hz: 25 fps (704 × 576, 640 × 480)				
Sub-Stream	60 Hz: 30 fps (704 × 480, 640 × 480)				
	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480)				
Third Stream	60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)				



	50 Hz: 25 fps (704 × 576, 640 × 480)			
Fourth Stream	60 Hz: 30 fps (704 × 480, 640 × 480)			
E.U. C.	50 Hz: 25 fps (704 × 576, 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,			
	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			
Scalable Video Coding (SVC)	H.264 and H.265 encoding			
Region of Interest (ROI)	4 fixed regions for each stream			
Target Cropping	Yes			
Bit Rate Control	CBR,VBR			
Audio				
Environment Noise Filtering	Yes			
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz			
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			
Audio bit Nate	(MP2L2)/8 to 320 Kbps (MP3)/16 to 64 Kbps (AAC-LC)			
Audio Type	Mono sound			
Network				
	TCP/IP, ICMP, HTTP, HTTPS, FTP, SFTP, SRTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP,			
Protocols	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			
	Password protection, complicated password, HTTPS encryption, 802.1X authentication			
	(EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest			
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			
	NAS (NFS, SMB/CIFS),Auto Network Replenishment (ANR),			
Network Storage	Together with high-end Hikvision memory card, memory card encryption and health			
	detection are supported.			
Client	iVMS-4200,Hik-Connect,Hik-Central			
W   D	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+,			
	Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+			
Image	l M			
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				
SNR	≥ 52 dB				
Image Enhancement	BLC,HLC,3D DNR,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				
Audio	With -Y: 1 input (line in), 1 output (line out), 3.5 mm connector				
Alarm	2 inputs, 2 outputs (max. 24 VDC, 1 A)				
RS-485	With -Y: 1 RS-485 (half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)				
Reset Key	Yes				
Power Output	With -Y: 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				
	Upload to FTP/NAS/memory card,notify surveillance center,send email,trigger alarm				
Linkage	output,trigger recording,trigger capture,audible warning				
Deep Learning Function					
Multi-target-type Detection	Supports simultaneous detection and capture of human body, face, and vehicle, Gets 7 face features, Gets 13 human body features, Gets 2 vehicle features, Supports counting the number of line crossing targets by type, including human body, non-motor vehicle, motor vehicle				
Face Capture	Detects up to 120 faces simultaneously, captures up to 40 face pictures per frame 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				
Face Comparison	Up to 10 face libraries. 30,000 faces for each library. 150,000 faces in total, Supports face library encryption				
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,	
People Counting	Supports generating daily, weekly, monthly or annually reports,	
reopie 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	
0.00	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	
	A graphic description of visits (by calculating amount of people or amount of dwell	
Heat Map	time) in a configured area.,	
rieat iviap	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,face capture,multi-target-type detection	
	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		
	Supports 2 detection modes: absence detection, on/off duty detection		
	Supports parameter settings: person on duty, absence duration		
General			
	12 VDC ± 20%, 1.19 A, max. 14.28 W, three-core terminal block,		
Power	PoE: IEEE 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.396 A to 0. 295 A, max. 16.8 W		
Material	Aluminum alloy body		
	Without -Y: Ø144 mm × 347 mm (Ø5.7" × 13.7")		
Dimension	With -Y: Ø140 mm × 351 mm (Ø5.5" × 13.8")		
Package Dimension	405 mm × 190 mm × 180 mm (15.9" × 7.5" × 7.1")		
Weight	Approx. 1950 g (4.2 lb.)		
With Package Weight	Approx. 3070 g (6.7 lb.)		
Storage Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)		
Startup and Operating	40.00 - 50.00 / 40.05 - 440.05 - 11.050 / - 1.0		
Conditions	-40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing)		
	33 languages: English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian,		
Lanavasa	Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish,		
Language	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		
Heater	Yes		
Davies Management	Supports adding alarm box (DS-FM2466) in the LAN to expand 6 additional input and 6		
Device Management	output alarm interfaces		
Approval			
	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		
EMC	50130-4: 2011 +A1: 2014,		
LIVIC	RCM: AS/NZS CISPR 32: 2015,		
	IC: ICES-003: Issue 7,		
	KC: KN32: 2015, KN35: 2015		
	UL: UL 62368-1,		
	CB: IEC 62368-1: 2014+A11,		
Safety	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		
CC	Common Criteria, Assurance Level: EAL2 + ALC_FLR.2		

### 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	
	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 specific protection	Hikvision products at this level are equipped for use in	
No specific protection	areas where no specific anti-corrosion protection is needed.	

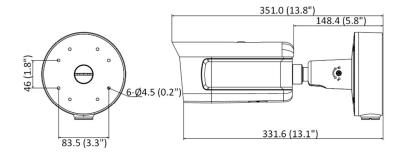
#### Available Model

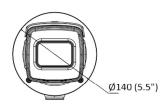
iDS-2CD7AMO86G0-IZHS(2.8-12mm) iDS-2CD7AMO86G0-IZHS(8-32mm) iDS-2CD7AMO86G0-IZHSY(2.8-12mm) iDS-2CD7AMO86G0-IZHSY(8-32mm)



#### Dimension

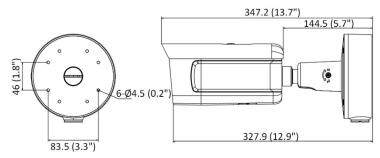
With -Y model:

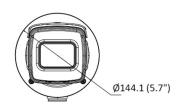




Unit: mm (inch)

Without -Y model:





Unit: mm (inch)

### Accessory

#### Optional

DS-1475ZJ-SUS	DS-1476ZJ-SUS	DS-1475ZJ-Y	DS-1476ZJ-Y
Vertical pole mount	Corner mount	Vertical pole mount	Corner mount
NOO.		anc.	

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