iDS-2CD7A86G0-IZHS(Y)
8 MP IR Varifocal Bullet Network Camera

Dark Fighter

4K | **P Iris** | **WDR** | **3D DNR** | | **H.265+**

·DeepinView series

- 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 Recognition

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.

People Counting

With the embedded deep learning algorithms, the camera integrates multiple intelligences. It counts persons and reports a face 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
Day & Night	IR cut filter Blue glass module to reduce ghost phenomenon

Lens	
Focal Length & FOV	2.8 to 12 mm, horizontal FOV: 112.3° to 41.2°, vertical FOV: 58° to 23.1°, diagonal FOV: 137.3° to 47.3° 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
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: 87 m, O: 34.5 m, R: 17.4 m, I: 8.7 m 8 to 32 mm: D: 218 m, O: 86.5 m, R: 43.6 m, I: 21.8 m Tele: 2.8 to 12 mm: D: 216 m, O: 85.7 m, R: 43.2 m, I: 21.6 m 8 to 32 mm: D: 580 m, O: 230.2 m, R: 116 m, I: 58 m

Illuminator	
Supplement Light Type	IR
Supplement Light Range	2.8 to 12 mm: 50 m 8 to 32 mm: 100 m
Smart Supplement Light	Yes
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 (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 × 480, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Third Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Fourth Stream	50 Hz: 25 fps (704 × 480, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Fifth Stream	50 Hz: 25 fps (704 × 480, 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
Video Bit Rate	32 Kbps to 16 Mbps
H.264 Type	Main Profile
H.265 Type	Baseline Profile,Main Profile,High Profile
Scalable Video Coding (SVC)	H.264 and H.265 encoding
Region of Interest (ROI)	4 fixed region(s) for each stream
Target Cropping	Yes
Bit Rate Control	CBR,VBR
Audio	
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 Compression	G.711/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC
Environment Noise Filtering	Yes
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
Audio Type	Mono sound
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, IPv6, UDP, Bonjour, SSL/TLS
Simultaneous Live View	Up to 20 channels
API	Open Network Video Interface (PROFILE S, PROFILE G, PROFILE T), 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
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
Web Browser	Plug-in required live view: IE9+, Chrome 41.0 to 44, Firefox 30.0 to 51, Safari 8.0 to 11
	Plug-in free live view: Chrome 45.0+, Firefox 52.0+
	Not recommended: Safari 11+, Edge
Image	
Image Parameters Switch	Yes
Image Settings	Saturation, brightness, contrast, sharpness, white balance, and 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, Defog, 3D DNR

Privacy Mask	8 programmable polygon privacy masks, mask color or mosaic configurable
Picture Overlay	LOGO picture can be overlaid on video with 128 × 128 24bit 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
Audio	With -Y: 1 input (line in), 1 output (line out), 3.5 mm connector
Alarm	2 input, 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, video tampering alarm, exception (network disconnected, IP address conflict, illegal login, abnormal reboot, HDD full, HDD error), video quality diagnosis, vibration detection
Smart Event	Line crossing detection, intrusion detection, region entrance detection, region exiting detection, audio exception detection, scene change 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	
Multi-target-type Detection	Supports simultaneous detection and capture of human body, face and vehicle Gets 7 face features, 13 human body features and 2 vehicle features
Face Capture	Detects up to 60 faces simultaneously 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
Face Comparison	Up to 10 face libraries. Up to 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)
People Counting	Supports crossline people counting, Supports counting, displaying and exporting the people flow data of entering and exiting. (The data is stored in the flash.), The real-time people flow data is displayed on the screen. , 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 picture., Supports real-time uploading and uploading by statistic cycle

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, face capture, multi-target-type 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%, 1.19 A, max. 14.28 W, three-core terminal block PoE: 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
Dimension	Without -Y: Ø144 × 347 mm (Ø5.7" × 13.7") With -Y: Ø140 × 351 mm (Ø5.5" × 13.8")
Package Dimension	405 × 190 × 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 Conditions	-40 °C to 60 °C (-40 °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, watermark, privacy mask, IP address filter, one-key reset, five streams
Heater	Yes
Approval	
EMC	FCC (47 CFR Part 15, Subpart B); CE-EMC (EN 55032: 2015, EN 61000-3-2:2019, EEN 61000-3-3:2013+A1:2019, EN 50130-4: 2011+A1: 2014); RCM (AS/NZS CISPR 32: 2015); IC (ICES-003: Issue 7); KC (KN 32: 2015, KN 35: 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), IP67 (IEC 60529-2013)
Anti-Corrosion Protection	With -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.

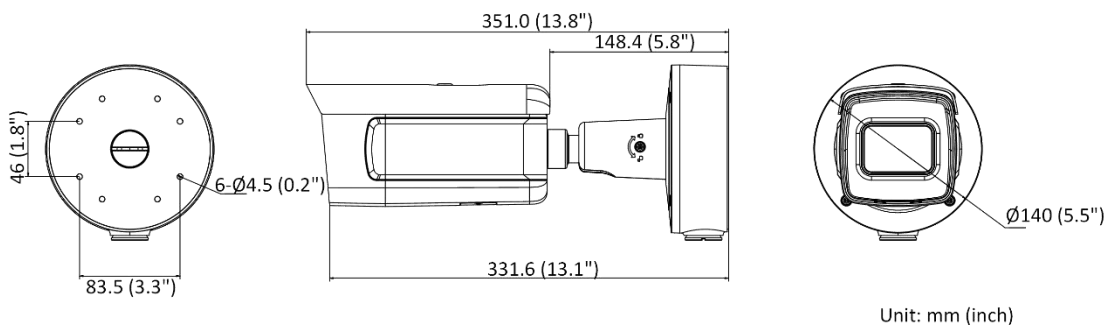| Level	Description
Top-level protection	Hikvision products at this level are equipped for use in areas where professional anti-corrosion protection is a must. Typical application scenarios include coastlines, docks, chemical plants, and more.
Moderate protection	Hikvision products at this level are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

▪ Available Model

iDS-2CD7A86G0-IZHS (2.8 to 12 mm, 8 to 32 mm)
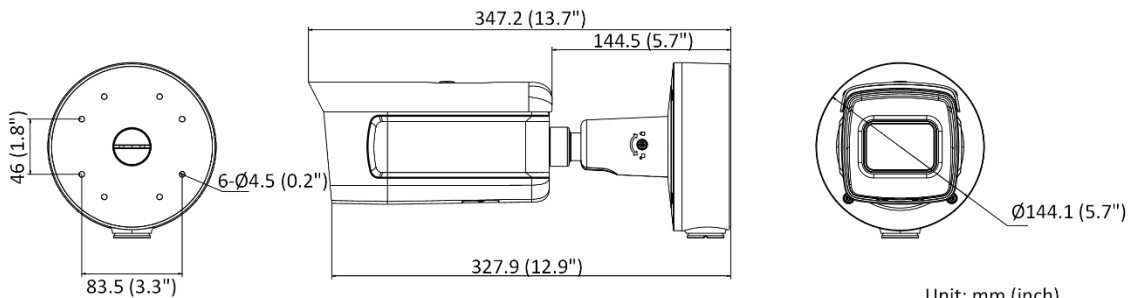iDS-2CD7A86G0-IZHSY (2.8 to 12 mm, 8 to 32 mm)

▪ Dimension

With -Y model:

351.0 (13.8")
148.4 (5.8")
46 (1.8")
6-Ø4.5 (0.2")
83.5 (3.3")
331.6 (13.1")
Ø140 (5.5")

Unit: mm (inch)

Without -Y model:

347.2 (13.7")
144.5 (5.7")
46 (1.8")
6-Ø4.5 (0.2")
83.5 (3.3")
327.9 (12.9")
Ø144.1 (5.7")

Unit: mm (inch)

▪ Accessory

▪ Optional

DS-1475ZJ-SUS Vertical Pole Mount	DS-1475ZJ-Y Vertical Pole Mount	DS-1476ZJ-SUS Corner Mount	DS-1476ZJ-Y Corner Mount

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