

iDS-2CD7A47G2-XZHS(Y) 4MP DarkfighterS DeepinView Moto Varifocal Bullet Camera

# **DeepinView**







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 2.0 technology
- Clear imaging against strong back light due to 150 dB AWDR 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), vandal proof (IK10) and corrosion resistant (NEMA 4X, optional)
- Capture vehicles and humans of different speed clearly via ShotN technology
- High frame rate, up to 2MP@120fps and 4MP@60fps
- Built-in heater to ensure clear image under rainy or snowy weather
- Built-in G-sensor for vibration detection
- Built-in power meter for historical power statistics



### 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	2688 × 1520			
Min. Illumination	Color: 0.0003 Lux @ (F1.0, AGC ON),B/W: 0.0001 Lux @ (F1.0, AGC ON),B/W: 0 Lux with IR			
Shutter Time	1 s to 1/100,000 s			
Day & Night	IR cut filter, Blue glass module (less ghost phenomenon)			
Lens				
Focal Length & FOV	2.8 to 12 mm, horizontal FOV 91.3° to 44.2°, vertical FOV 49.3° to 24.8°, diagonal FOV 108.6° to 50.9°			
Lens Type	Varifocal lens, motorized lens, 2.8 to 12 mm			
Focus	Auto,Semi-auto,Manual			
Iris Type	P-iris			
Aperture	2.8 to 12 mm: F1.0 to F1.2			
DORI				
DORI	<ul> <li>2.8 to 12 mm:</li> <li>D (Detect): 140.7 m, O (Observe): 55.8 m, R (Recognize): 28.1 m, I (Identify): 14.1 m</li> <li>The DORI values are calculated using pixel densities for different use cases as</li> <li>recommended by the EN 62676-4 standard.</li> </ul>			
Illuminator				
Supplement Light Type	IR,White Light			
Supplement Light Range	2.8 to 12 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	Monitoring mode: 50 Hz: up to 50 fps (2688 × 1520, 1280 × 720), up to 100 fps (1920 × 1080) 60 Hz: up to 60 fps (2688 × 1520, 1280 × 720), up to 120 fps (1920 × 1080) *High frame rate is supported under monitoring mode only. smart mode: 50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720)			
Sub-Stream	50 Hz: 25 fps (1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (1280 × 720, 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)			
	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 8 Mbps			
Н.264 Туре	Baseline Profile, Main Profile, High Profile			
Н.265 Туре	Main 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			
	64 Kbps (G.711ulaw/G.711alaw)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps			
Audio Bit Rate	(MP2L2)/8 to 320 Kbps (MP3)/16 to 64 Kbps (AAC-LC)			
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/48 kHz			
Environment Noise Filtering	Yes			
Network				
	TCP/IP, ICMP, HTTP, HTTPS, FTP, SFTP, DHCP, DNS, DDNS, SRTP, RTP, RTSP, RTCP,			
Protocols	PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour,			
	SSL/TLS, ARP, WebSocket, WebSockets			
Simultaneous Live View	Up to 20 channels			
API	ISAPI,SDK,ISUP,OTAP,ONVIF (Profile S, Profile G, Profile T, Profile M)			
	Up to 32 users			
User/Host	3 user levels: administrator, operator, and user			
	Password protection, complicated password, HTTPS encryption, 802.1X authenticatio			
	(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			
	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	Local Scivice. Chrome 57.01, Filelox 52.01, Euge 657			
IIIIGEC				
	Voc			
Image Parameters Switch	Yes Rotate mode, saturation, brightness, contrast, sharpness, white balance, AGC, adjustable			



Day/Night Switch	Day,Night,Auto,Schedule,Alarm Trigger			
Wide Dynamic Range (WDR)	150 dB			
Image Enhancement	BLC,HLC,3D DNR,Distortion Correction,Defog			
SNR	≥ 52 dB			
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 $\Omega$ /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			
Alarm	2 inputs, 2 outputs (max. 24 VDC/24 VAC, 1 A)			
	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			
RS-485	-Y: 1 RS-485 (Half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)			
Reset Key	Yes			
Power Output	-Y: 12 VDC, max. 100 mA			
Event				
LVCIIC	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			
	error),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				
	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,			
	Supports dynamic mosaic mask			
	Detects up to 120 faces simultaneously, captures up to 40 face pictures per frame			
	simultaneously and uploads up to 10 face pictures per second,			
Face Capture	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,			
	Supports dynamic mosaic mask,			
	Gets 7 face features			
Food Comparison	Up to 10 face libraries. 30,000 faces for each library. 150,000 faces in total,			
Face Comparison	Supports face library encryption			



	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,
	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
	A graphic description of visits (by calculating amount of people or amount of dwell
Heat Map	time) in a configured area.,
	Two report types are available, space heat map and time heat map line chart.
	Line crossing, intrusion, region entrance, region exiting
Perimeter Protection	Support alarm triggering by specified target types (human and vehicle)
	Support combined event alarm triggering
	Detects up to 30 human targets simultaneously
Hard Hat Detection	Supports up to 4 shield regions
	Intrusion detection, line crossing detection, region entrance detection, region exiting
Metadata	detection, face capture, multi-target-type detection
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	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				
Regional People Counting	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				
Onyon Duty Detection	Supports 2 detection modes: absence detection, on/off duty detection				
	Supports parameter settings: person on duty, absence duration				
General					
	With -Y:				
	three-core terminal block,				
	12 VDC ± 20%, 1.98A, max. 23.8 W,				
	24 VAC ± 20%, 1.81A, max. 23.6 W,				
Power	PoE: IEEE 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.6 A to 0.45 A, max. 25.2 W				
	Without -Y:				
	three-core terminal block,				
	12 VDC ± 20%, 1.89A, max. 22.6 W,				
	24 VAC ± 20%, 1.8A, max. 22.4 W,				
Matarial	PoE: IEEE 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.50 A to 0.37 A, max. 23.7 W				
Material	Aluminum alloy body With -Y: Ø140 mm × 377.4 mm (Ø5.5" × 14.9"), Without -Y: Ø144.1 mm × 374.7 mm				
Dimension	$(05.7" \times 14.8")$				
Package Dimension	425 mm × 190 mm × 180 mm (16.7" × 7.5" × 7.1")				
Weight	Approx. 2380 g (5.25 lb.)				
With Package Weight	Approx. 3488 g (7.69 lb.)				
Storage Conditions	-40 °C to 65 °C (-40 °F to 149 °F). Humidity 95% or less (non-condensing)				
Startup and Operating					
Conditions	-40 °C to 65 °C (-40 °F to 149 °F). Humidity 95% or less (non-condensing)				
	33 languages: English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian				
	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, anti-banding, one-key reset, mirror, password protection, flash log				
Heater	Yes				



Demist	Yes		
Dovice Management	Supports adding alarm box (DS-FM2466) in the LAN to expand 6 additional input and 6		
Device Management	output alarm interfaces		
Approval			
	CE-EMC: EN 55032:2015+A1:2020, EN 50130-4:2011+A1:2014, EN IEC		
	61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A1:2019+A2:2021,		
EMC	RCM: AS/NZS CISPR 32: 2015,		
	IC: ICES-003: Issue 7,		
	KC: KN32: 2015, KN35: 2015		
	CB: IEC 62368-1: 2014+A11,		
Cafat	CE-LVD: EN 62368-1: 2014/A11: 2017,		
Safety	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)		
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.

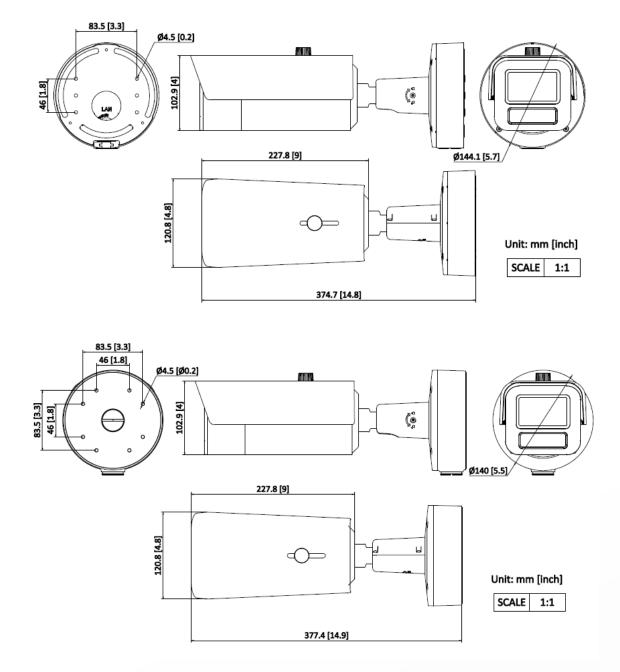
evel Description	
	Hikvision products at this level are equipped for use in areas
Tan lovel protection	where professional anti-corrosion protection is a must.
Top-level protection	Typical application scenarios include coastlines, docks,
	chemical plants, and more.
	Hikvision products at this level are equipped for use in areas
	with moderate anti-corrosion demands. Typical application
Moderate protection	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
No specific protection	where no specific anti-corrosion protection is needed.

## Available Model

iDS-2CD7A47G2-XZHS(2.8-12mm) iDS-2CD7A47G2-XZHSY(2.8-12mm)



## Dimension





## Accessory

## Optional

DS-1475ZJ-SUS Vertical pole mount	DS-1476ZJ-SUS Corner mount	DS-1275ZJ-S-SUS Vertical pole mount	DS-1475ZJ-Y Vertical pole mount	DS-1476ZJ-Y Corner mount
		(D)		

# See Far, Go Further



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