HIKVISION

iDS-2CD8A48G0-XZ(H)S(Y)
4 MP DeepinView Multi-sensor Bullet Camera

DarkFighterX

140dB WDR | Iris P | IP67 | 3D DNR

H.265+

·DeepinView series

- Excellent low-light performance via DarkFighterX and ColorVu technology
- Adopt dual-channel design so you can get details in channel 1 and panorama view in channel 2
- High quality imaging with 4 MP resolution in channel 1 and 4 MP resolution in channel 2
- 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
- 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.

Road Traffic and Vehicle Detection

With embedded deep learning based license plate capture and recognition algorithms, the camera alone can achieve plate capture and recognition. The algorithm enjoys the high recognition accuracy of common plates and complex-structured plates, which is a great step forward comparing to traditional algorithms. Blocklist and allowlist are available for plate categorization and separate alarm triggering.

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.

▪ Specification

Camera	
Image Sensor	Channel 1: 1/1.8" Progressive Scan CMOS, Channel 2: 1/1.8" Progressive Scan CMOS
Max. Resolution	Channel 1: 2560 × 1440, channel 2: 2560 × 1440
Min. Illumination	Channel 1: Color: 0.0005 Lux @ (F1.2, AGC ON), 0 Lux with Light, B/W: 0.0001 Lux @ (F1.2, AGC ON), 0 Lux with IR, Channel 2: Color: 0.0005 Lux @ (F1.0, AGC ON), 0 Lux with Light, B/W: 0.0001 Lux @ (F1.0, AGC ON), 0 Lux with IR
Shutter Time	1 s to 1/100,000 s
Day & Night	Blue glass module (less ghost phenomenon)
Angle Adjustment	Pan: 0° to 355°, tilt: 0° to 90°, rotate: 0° to 360°
Lens	
Focal Length & FOV	Channel 1: 5 to 20 mm : horizontal FOV 59° to 24°, vertical FOV: 33.4° to 13.3°, diagonal FOV 67.5° to 27.5° Channel 2: 4 mm: horizontal FOV: 89°, vertical FOV: 45°, diagonal FOV: 107°
Focus	Channel 1: semi-auto
Iris Type	Channel 1: P-iris, Channel 2: Fixed
Aperture	Channel 1: F1.6, Channel 2: F1.0
DORI	
DORI	Channel 1: Wide: D: 99.3 m, O: 39.4 m, R: 19.9 m, I: 9.9 m Tele: D: 248.3 m, O: 98.5 m, R: 49.7 m, I: 24.8 m Channel 2: D: 77 m, O: 30.5 m, R: 15.4 m, I: 7.7 m
Illuminator	
Supplement Light Type	Hybrid (IR and White Light)
Supplement Light Range	Channel 1: up to 60 m, Channel 2: up to 30 m
Smart Supplement Light	Yes
IR Wavelength	750 nm
Video	
Main Stream	Channel 1: 50 Hz: 25 fps (2560 × 1440, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (2560 × 1440, 1920 × 1080, 1280 × 720) Channel 2: 50 Hz: 25 fps (2560 × 1440, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (2560 × 1440, 1920 × 1080, 1280 × 720)
Sub-Stream	Channel 1: 50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480) Channel 2: 50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)

Third Stream	Channel 1:
	50 Hz: 10 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480)
	60 Hz: 10 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
	Channel 2:
	50 Hz: 10 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480)
	60 Hz: 10 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Fourth Stream	Channel 1:
	50 Hz: 25 fps (704 × 576, 640 × 480)
	60 Hz: 30 fps (704 × 480, 640 × 480)
	Channel 2:
	50 Hz: 25 fps (704 × 576, 640 × 480)
	60 Hz: 30 fps (704 × 480, 640 × 480)
Fifth Stream	Channel 1:
	50 Hz: 25 fps (704 × 576, 640 × 480)
	60 Hz: 30 fps (704 × 480, 640 × 480)
	Channel 2:
	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
Video Bit Rate	32 Kbps to 8 Mbps
H.264 Type	Baseline Profile, Main Profile, High Profile
H.265 Type	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
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, DHCP, DNS, DDNS, RTP, SRTP, 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), 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
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: IE 10, IE11, Plug-in free live view: Chrome 57.0+, Firefox 52.0+
Image	
Image Parameters Switch	Yes
Image Settings	Saturation, brightness, contrast, sharpness, AGC, white balance, adjustable by client software or web browser
Day/Night Switch	Channel 1: Day, Night, Day (DarkfighterX), Auto (DarkfighterX), Schedule (DarkfighterX), Full Time Color, Channel 2: Day, Night, Auto, Scheduled-Switch, Triggered by Alarm input
Wide Dynamic Range (WDR)	140 dB
Image Enhancement	Channel 1: BLC, HLC, 3D DNR, Defog, EIS, Channel 2: 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.
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 256 GB
Alarm	2 inputs, 2 outputs (max. 24 VDC, 1 A)
Audio	1 input (line in), 3.5 mm connector, three-contact, max. input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium, 1 output (line out), 3.5 mm connector, three-contact, max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium, mono sound
RS-485	1 RS-485 (Half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)
Reset Key	Yes
Power Output	12 VDC, max. 50 mA
Event	
Basic Event	Motion detection, video tampering alarm, network disconnected, IP address conflict, illegal login, HDD full, HDD error, video quality diagnosis, vibration detection
Smart Event	Line crossing detection, intrusion detection, region entrance detection, region exiting detection (support alarm triggered by specified target types (human and vehicle)), 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, white light flashing, audible warning

Deep Learning Function	
Multi-target-type Detection	Channel 1, Detects up to 60 targets simultaneously, Supports simultaneous detection and capture of human body, face and vehicle, Gets 7 face features, Gets 13 human body features, Gets 2 vehicle features
Face Capture	Channel 1, Detects up to 120 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	Channel 1, Up to 10 face libraries. 30,000 faces for each library. 150,000 faces in total. , Recognizes face identity via face modeling, grading and comparing to those in face library, Supports face library encryption
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
Perimeter Protection	Channel 1, Line crossing, intrusion, region entrance, region exiting, Support alarm triggering by specified target types (human and vehicle), Channel 2, Line crossing, intrusion, region entrance, region exiting, Support alarm triggering by specified target types (human and vehicle)
Road Traffic and Vehicle Detection	Channel 1, Blocklist and allowlist: up to 10,000 records Support license plate recognition of motorcycles (only in checkpoint scenario) Support vehicle attribute detection, including vehicle type, color, brand, etc. (City Street mode is recommended.) License plate recognition rate ≥98%
General	
Power	Three-core terminal block, 12 VDC ± 20%, 1.87A, max. 22.4 W, 24 VAC ± 20%, 1.38 A, max. 22.1 W, PoE: 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.57 A to 0.42 A, max. 23.9 W
Material	Aluminum alloy body
Dimension	Ø140 mm × 410.1 mm (Ø5.5" × 16.1")
Package Dimension	462 mm × 197 mm × 195 mm (18.2" × 7.76" × 7.68")

Weight	Approx. 2.36 kg (5.2 lb.)
With Package Weight	Approx. 3.64 kg (8.0 lb.)
Storage Conditions	-40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing)
Startup and Operating Conditions	With -H: -40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing), 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, privacy mask, watermark, IP address filter, flash log, control time out, anti-banding
Heater	With -H: Yes
Demist	Yes
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, 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 model: 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.

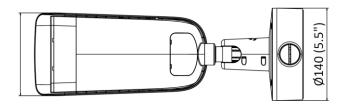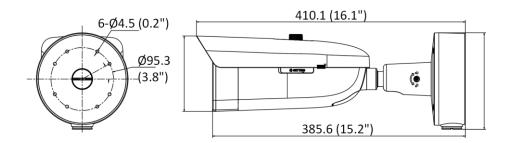| Level	Description
Top-level protection	Hikvision products at this level are equipped for use in areas where professional anti-corrosion protection is a must. Typical application scenarios include coastlines, docks, chemical plants, and more.
Moderate protection	Hikvision products at this level are 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-2CD8A48G0-XZS(5-20/4),

iDS-2CD8A48G0-XZHSY(5-20/4)

▪Dimension

Unit: mm (inch)

▪ Accessory

▪Optional

DS-1476ZJ-SUS Corner Mount	DS-1476ZJ-Y Corner Mount	DS-1275ZJ-S-SUS Vertical Pole Mount	DS-1475ZJ-SUS Vertical Pole Mount	DS-1475ZJ-Y Vertical Pole Mount

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