

DS-2CD7A46G0-IZ(H)S 4 MP IR Varifocal Bullet Network Camera

DarkFighter



DeepinView^{series}

- 1/1.8" Progressive Scan CMOS
- 2560 × 1440 @ 30fps
- MJPEG up to 1920 × 1080 @ 30fps
- 2.8 to 12 mm/8 to 32 mm motorized lens
- Color: 0.002 Lux @ (F1.2, AGC ON), 0.005 Lux @ (F1.8, AGC ON), 0 Lux with IR
- H.265, H.265+, H.264, H.264+
- 140dB WDR
- 2.8 to 12 mm lens: IR range up to 50 m, 8 to 32 mm lens: IR range up to 100 m
- Alarm 2 inputs/2 outputs
- IP67, IK10
- 5 streams and up to 5 custom streams
- 6 behavior analyses, 2 exception detections, and face detection
- Built-in microSD/SDHC/SDXC card slot, up to 256 GB
- Metadata of intrusion detection, line crossing detection, region entrance detection, region exiting detection, unattended baggage detection, object removal, face capture and queue management are supported.



Function

Smooth Streaming

Smooth streaming offers solutions to improve the video quality in different network conditions. For example, in poor network conditions, adapting to the detected real-time network condition, streaming bit rate and resolution are automatically adjusted to avoid mosaic and lower latency in live view; in multiplayer network conditions, the camera transmits the redundant data for the self-error correcting in back-end device, so that to solve the mosaic problem because of the packet loss and error rate.

Metadata

Metadata uses individual instances of application data or the data content. Metadata can be used for third-party application development.

Face Capture

With embedded deep learning based algorithms, the camera is able to give the best shot of a target face through detecting, tracking, capturing, grading and selecting. The procedure reduces the happening of mistaken capture, and thus gets the best face shot, improving the accuracy rate of face comparison by the back-end devices. The camera uses face exposure function to dynamically adjust face area exposure of captures and ensure 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 reduce the mistaken alarm caused by the interference of leaves, lights and etc.

Queue Management

With embedded deep learning based algorithms, the camera detects queuing-up people number and waiting time of each person. The body feature detection algorithm helps filter out wrong targets and increase the accuracy of detection.

Specifications

Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Min. Illumination	Color: 0.002 Lux @ (F1.2, AGC ON), 0.005 Lux @ (F1.8, AGC ON), 0 Lux with IR
Shutter Speed	1 s to 1/100,000 s
Slow Shutter	Yes
Day & Night	IR cut filter
WDR	140 dB
Angle Adjustment	Bracket, pan: 0° to 355°, tilt: 0° to 90°, rotate: 0° to 360°
Lens	
Lens Type	Motorized lens, 2.8 to 12 mm and 8 to 32 mm optional
Aperture	2.8 to 12 mm: F1.2 to 2.5 8 to 32 mm: F1.8, Constant F1.8 throughout the zoom range
Focus	Auto, semi auto, manual
Auto-Iris	P-iris
FOV	2.8 to 12 mm, horizontal FOV 109.2° to 38.9°, vertical FOV 56.2° to 21.9°, diagonal FOV 134.5° to 45° 8 to 32 mm, horizontal FOV 37.7° to 15.2°, vertical FOV 21° to 8.6°, diagonal FOV 43.3° to 17.24°
Lens Mount	Integrated
Illuminator	
IR Range	2.8 to 12 mm: up to 50 m; 8 to 32 mm: up to 100 m
Wavelength	850 nm
Video	
Max. Resolution	2560 × 1440
Video Stream	5 defined streams and up to 5 custom stream
Main Stream	50Hz: 25fps (2560 × 1440, 1920 × 1080, 1280 × 720) 60Hz: 30fps (2560 × 1440, 1920 × 1080, 1280 × 720)
Sub Stream	50Hz: 25fps (704 × 576, 640 × 480) 60Hz: 30fps (704 × 480, 640 × 480)
Third Stream	50Hz: 25fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60Hz: 30fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Fourth Stream	50Hz: 25fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60Hz: 30fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Fifth Stream	50Hz: 25fps (704 × 576, 640 × 480) 60Hz: 30fps (704 × 480, 640 × 480)
Custom Stream	50Hz: 25fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60Hz: 30fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Video Compression	Main stream: H.265+/H.265/H.264+/H.264 Sub stream/third stream/fourth stream/fifth stream/custom stream: H.265/H.264/MJPEG

H.264 Type	Baseline Profile/Main Profile/High Profile
H.264+	Main stream support
H.265 Type	Main Profile
H.265+	Main stream support
Video Bit Rate	32 Kbps to 16 Mbps
Scalable Video Coding (SVC)	H.264 and H.265 encoding
Smart Feature-Set	
Smart Event	Line crossing detection, up to 4 lines configurable Intrusion detection, up to 4 regions configurable Region entrance detection, up to 4 regions configurable Region exiting detection, up to 4 regions configurable Unattended baggage detection, up to 4 regions configurable Object removal detection, up to 4 regions configurable Face detection: detects faces and upload images Scene change detection, defocus detection
Basic Event	Motion detection, video tampering alarm, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error)
Face Capture	Face detection performance: detects up to 30 faces at the same time Detectable face position: supports swing left and right from -90° to 90°, tilt up and down from -30° to 60°
Perimeter Protection	Line crossing, intrusion, region entrance, region exiting Support alarm triggering by specified target types (human and vehicle) Filtering out false alarm caused by target types such as leaf, light, animal, and flag, etc.
Queue Management	Detects queuing-up people number, and waiting time of each person 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
Statistics	Counting
Linkage Method	Trigger recording: memory card, network storage, pre-record and post-record Trigger captured pictures uploading: FTP, SFTP, HTTP, NAS, Email Trigger notification: HTTP, ISAPI, alarm output (-S), Email
Region of Interest	Main stream/sub stream/third stream/fourth stream/fifth stream: 4 fixed regions and dynamic face tracking for each stream
Image	
Image Enhancement	BLC, HLC, 3D DNR, Defog, EIS, distortion correction
Image Setting	Rotate mode, saturation, brightness, contrast, sharpness, AGC, and white balance are adjustable by client software or web browser
Target Cropping	Yes
Day/Night Switch	Day/Night/Auto/Schedule/Triggered by Alarm In
Picture Overlay	LOGO picture can be overlaid on video with 128 × 128 24bit bmp format
SNR	≥52dB

Network	
Network Storage	microSD/SDHC/SDXC card (256 GB), local storage and NAS (NFS,SMB/CIFS), ANR Together with high-end Hikvision memory card, memory card encryption and health detection are supported.
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, SFTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour, SSL/TLS
API	ONVIF (PROFILE S, PROFILE G, PROFILE T), ISAPI, SDK, Ehome
Smooth Streaming	Yes
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 ONVIF, RTP/RTSP over HTTPS, control timeout settings, security audit log, TLS 1.2, TLS1.0, TLS1.1
Simultaneous Live View	Up to 20 channels
User/Host	Up to 32 users. 3 user levels: administrator, operator and user
Client	iVMS-4200, Hik-Connect, Hik-Central
Web Browser	Plug-in required live view: IE8+ Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Safari 11+ Local service: Chrome57.0+, Firefox52.0+
Interface	
Communication Interface	1 RJ45 10M/100M/1000M Ethernet port
Alarm	2 inputs, 2 outputs (max. 24 VDC/VAC, 1A)
Video Out	1Vp-p composite output (75 Ω/CVBS), only for adjustment
Interface Style	Connector panel
On-board storage	Built-in micro SD/SDHC/SDXC slot, up to 256 GB
General	
Firmware Version	5.6.0
Web Client Language	32 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)
General Function	Anti-flicker, 5 streams and up to 5 custom streams, heartbeat, mirror, privacy masks, flash log, password reset via e-mail, pixel counter, HTTP listening
Reset	Reset via reset button on camera body, web browser and client software
Startup and Operating Conditions	-30 °C to 65 °C (-22 °F to 149 °F), -H: -40 °C to 65 °C (-40 °F to 149 °F) Humidity 95% or less (non-condensing)
Storage Conditions	-30 °C to 65 °C (-22 °F to 149 °F) Humidity 95% or less (non-condensing)
Power Supply	12 VDC ± 20%, two-core terminal block; reverse polarity protection, PoE (802.3at, class 4)
Power Consumption and Current	-IZS: 12 VDC, 1.2 A, 14 W; PoE (802.3at, 42.5 V to 57 V), 0.4 A to 0.3 A, class 4 -IZHS: 12 VDC, 1.4 A, 16.5 W; PoE (802.3at, 42.5 V to 57 V), 0.4 A to 0.3 A, class 4
Heater	-H: yes

Material	Metal
Dimensions	Camera: $\Phi 144 \times 347$ mm ($\Phi 5.7'' \times 13.7''$) With package: $405 \times 190 \times 180$ mm ($15.9'' \times 7.5'' \times 7.1''$)
Weight	Camera: approx. 2.45 kg (5.40 lb.) With package: approx. 2.7 kg (5.95 lb.)
Approval	
EMC	47 CFR Part 15, Subpart B; EN 55032: 2015, EN 61000-3-2: 2014, EN 61000-3-3: 2013, EN 50130-4: 2011 +A1: 2014; AS/NZS CISPR 32: 2015; ICES-003: Issue 6, 2016; KN 32: 2015, KN 35: 2015
Safety	UL 60950-1, IEC 60950-1:2005 + Am 1:2009 + Am 2:2013, EN 60950-1:2005 + Am 1:2009 + Am 2:2013, IS 13252(Part 1):2010+A1:2013+A2:2015
Chemistry	2011/65/EU, 2012/19/EU, Regulation (EC) No 1907/2006
Protection	Ingress protection: IK10 (IEC 62262:2002), IP67 (IEC 60529-2013)

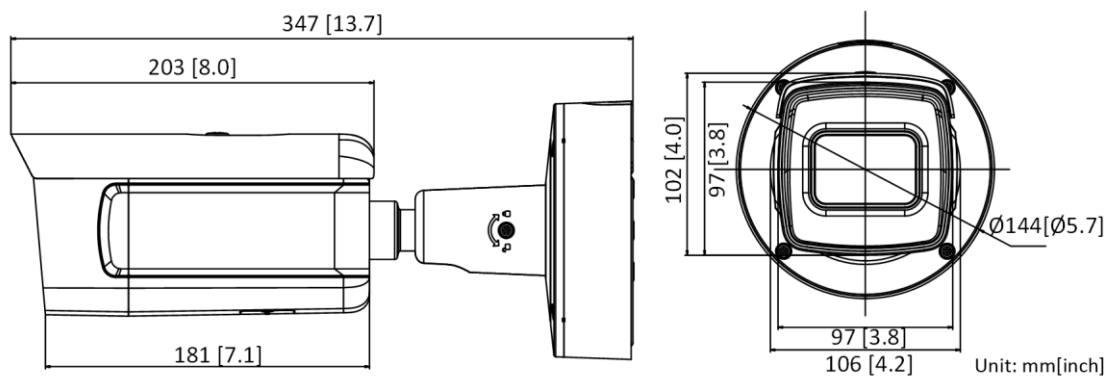
* Listed resolutions are only selectable options. It does not mean that all streams can work at their maximum resolution at the same time.

Available Model

DS-2CD7A46G0-IZS (2.8 to 12 mm), DS-2CD7A46G0-IZHS (2.8 to 12 mm), DS-2CD7A46G0-IZS (8 to 32 mm), DS-2CD7A46G0-IZHS (8 to 32 mm)

* -H: Heater supported.

Dimension



Accessory



DS-1475ZJ-SUS
Vertical Pole Mount



DS-1476ZJ-SUS
Corner Mount

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