

## DS-2CD5A46G0-IZ(H)S 4 MP Varifocal Bullet Network Camera

**DarkFighter**



- 1/1.8" Progressive Scan CMOS
- 2560 × 1440 @ 30 fps
- MJPEG up to 1920 × 1080 @ 30 fps
- 2.8 to 12 mm, 8 mm to 32 mm motorized lens
- H.265, H.265+, H.264, H.264+
- 5 defined streams and up to 5 custom streams
- 140dB WDR
- Alarm 2 inputs/2 outputs
- IP67, IK10
- 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, and object removal 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.

## Specifications

<b>Camera</b>	
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 on
Shutter Speed	1 s to 1/100,000 s
Slow Shutter	Yes
Day & Night	IR Cut Filter
Wide Dynamic Range	140 dB
Digital Noise Reduction	3D DNR
Angle Adjustment	Bracket, pan: 0° to 355°, tilt: 0° to 90°, rotate: 0° to 360°
<b>Lens</b>	
Lens Type	Motorized lens, 2.8 to 12 mm, 8 to 32 mm
Aperture	2.8 to 12 mm: F1.2 to F2.5 8 to 32 mm: F1.8, Constant F1.8 throughout the zoom range
Focus	Auto, semi-auto, manual
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 43.4° to 17.24°
Lens Mount	Integrated
<b>Illuminator</b>	
IR Range	2.8 to 12 mm: up to 50 m 8 to 32 mm: up to 100 m
Wavelength	850 nm
<b>Video</b>	
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) Up to five custom streams are supported
Video Compression	Main stream: H.265/H.264/H.265+/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 supports
H.265 Type	Main Profile
H.265+	Main stream supports
Video Bit Rate	256 Kbps to 16 Mbps

Scalable Video Coding (SVC)	H.265 and H.264 support
<b>Smart Feature-set</b>	
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)
Statistics	Counting
Linkage Method	Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture
Region of Interest	Main stream/sub stream/third stream/fourth stream/fifth stream: 4 fixed regions for each stream and dynamic face tracking
<b>Image</b>	
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
<b>Network</b>	
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.
API	ONVIF (PROFILE S, PROFILE G), ISAPI, SDK
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour
Smooth Streaming	Yes
Security Measures	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
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+, Chrome 41.0-44, Mozilla Firefox30.0-51, Safari8.0-11 Plug-in free live view: Chrome 45+, Mozilla Firefox52+
<b>Interface</b>	
Communication Interface	1 RJ45 10M/100M/1000M Ethernet port
Alarm	2 inputs, 2 outputs (24 VAC/VDC, 1A max)
Video Output	1Vp-p composite output (75 Ω/CVBS), only for adjustment
On-board storage	Built-in micro SD/SDHC/SDXC slot, up to 256 GB
Interface Style	Socket style interface
<b>General</b>	
Firmware Version	5.5.90

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)
Embedded Open Platform	Yes. The camera supports installation and running up to 4 extra applications.
General Function	Anti-flicker, 5 streams and up to 5 custom streams, heartbeat, mirror, password protection, privacy mask, flash log, password reset via e-mail, pixel counter, control timeout setting
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, 1.08 A, max. 13 W; PoE (802.3at, 42.5 V to 57 V), 0.31 A to 0.23 A, max. 13 W -IZHS: 12 VDC, 1.13 A, max. 13.5 W; PoE (802.3at, 42.5 V to 57 V), 0.42 A to 0.32 A, max. 18 W
Heater	-H: yes
Material	Metal
Dimensions	Camera: Φ144 × 347 mm (Φ5.7" × 13.7") With package: 405 × 190 × 180 mm (15.9" × 7.5" × 7.1")
Weight	Camera: approx. 2.45 kg (5.40 lb.) With package: approx. 2.70 kg (5.95 lb.)
<b>Approval</b>	
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.

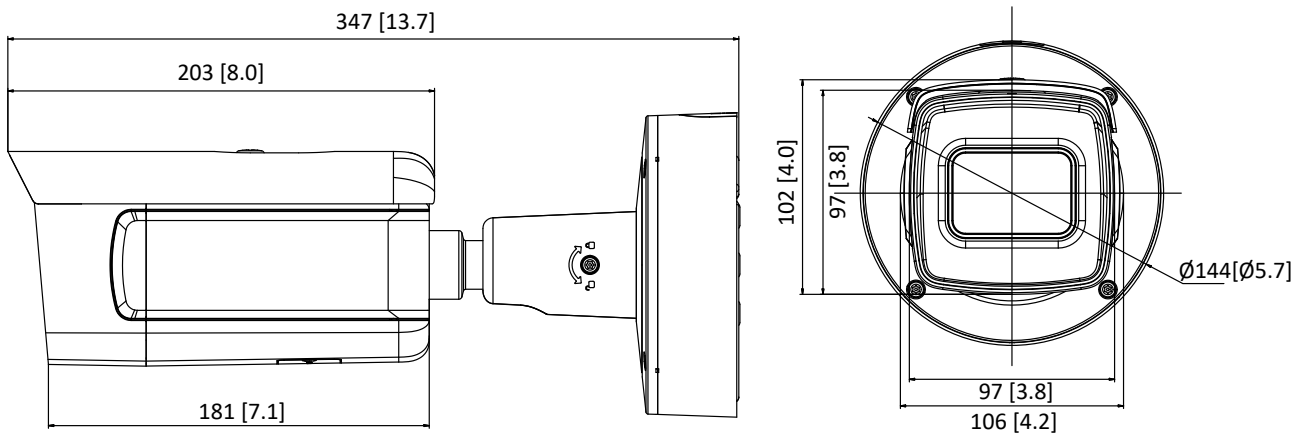
## Available Model

DS-2CD5A46G0-IZS (2.8 to 12 mm), DS-2CD5A46G0-IZHS (2.8 to 12 mm)

DS-2CD5A46G0-IZS (8 to 32 mm), DS-2CD5A46G0-IZHS (8 to 32 mm)

\*-H: Heater supported

## Dimension



Unit: mm[inch]

### Accessory



DS-1475ZJ-SUS  
Vertical Pole Mount



DS-1476ZJ-SUS  
Corner Mount

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