HIKVISION®

DS-2CD5A85G1-IZ(H)S
8 MP IR Varifocal Bullet Network Camera

- 1/1.8" Progressive Scan CMOS
- 3840 × 2160 @ 30fps
- MJPEG up to 1920 × 1080 @ 30fps
- 2.8 to 12 mm/8 to 32 mm motorized lens
- Color: 0.007 Lux @ (F1.2, AGC ON), 0.016 Lux @ (F1.8, AGC ON), 0 Lux with IR
- H.265, H.265+, H.264, H.264+
- 120dB 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, audio 1 input/1 output, RS-485

- 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, 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

Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Min. Illumination	Color: 0.007 Lux @ (F1.2, AGC ON), 0.016 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	120 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 112.4° to 41°, vertical FOV 58° to 23°, diagonal FOV 137° to 47° 8 to 32 mm, horizontal FOV 39° to 15.6°, vertical FOV 21.8° to 8.9°, diagonal FOV 45° to 17.8°
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	3840 × 2160
Video Stream	5 defined streams and up to 5 custom stream
Main Stream	50Hz: 25fps (3840 × 2160, 3200 × 1800, 2560 × 1440, 1920 × 1080, 1280 × 720) 60Hz: 30fps (3840 × 2160, 3200 × 1800, 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)
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, Email
Region of Interest	Main stream/sub stream/third stream/fourth stream/fifth stream: 4 fixed regions 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
Audio	
Audio Compression	G.711/G.722.1/G.726/MP2L2/PCM/MP3
Audio Bit Rate	64Kbps(G.711)/16Kbps(G.722.1)/16Kbps(G.726)/32-192Kbps(MP2L2)/32Kbps(PCM)/ 8-320Kbps(MP3)
Environment Noise Filtering	Yes
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
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 self-adaptive Ethernet port, RS-485 (half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)

Audio	1 input (line in), 1 output (line out), 3.5 mm connector, mono
Alarm	2 inputs, 2 outputs (max. 24 VDC/VAC, 1A)
Video Out	1Vp-p composite output (75 Ω/CVBS), only for adjustment
Power Output	12 VDC, max. 200mA
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: With extra load: 12 VDC, 1.28 A, max. 15.4 W; PoE (802.3at, 42.5 V to 57 V), 0.36 A to 0.27 A, max. 15.4 W; Without extra load: 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: With extra load: 12 VDC, 1.33 A, max. 15.9 W; PoE (802.3at, 42.5 V to 57 V), 0.50 A to 0.37 A, max. 21.2 W; Without extra load: 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 "With extra load" means that an extra device is connected to and powered by the camera.
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. 1.85 kg (4.07 lb.)
	With package: approx. 2.95 kg (6.50 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-2CD5A85G1-IZS (2.8 to 12 mm), DS-2CD5A85G1-IZHS (2.8 to 12 mm), DS-2CD5A85G1-IZS (8 to 32 mm), DS-2CD5A85G1-IZHS (8 to 32 mm)
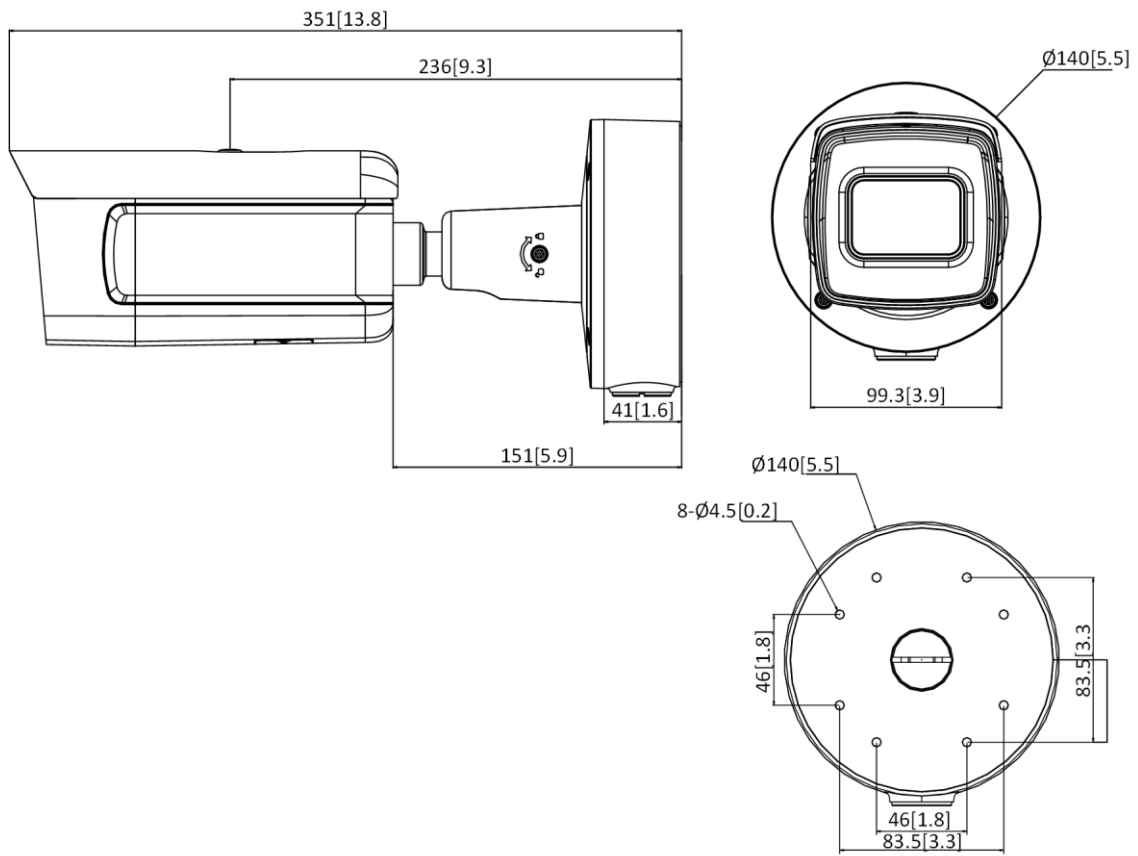
▪ Typical Application

Hikvision products are classified into three levels according to their anti-corrosion performance. Refer to the following description to choose for your using environment.

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.

Dimension

Accessory

DS-1475ZJ-SUS

Vertical Pole Mount

DS-1476ZJ-SUS

Corner Mount

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