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

- 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, and object removal are supported.

www.hikvision.com
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

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image Sensor</td>
<td>1/1.8” Progressive Scan CMOS</td>
</tr>
<tr>
<td>Min. Illumination</td>
<td>Color: 0.002 Lux @ (F1.2, AGC ON), 0.005 Lux @ (F1.8, AGC ON), 0Lux with IR</td>
</tr>
<tr>
<td>Shutter Speed</td>
<td>1 s to 1/100,000 s</td>
</tr>
<tr>
<td>Slow Shutter</td>
<td>Yes</td>
</tr>
<tr>
<td>Day &amp; Night</td>
<td>IR cut filter</td>
</tr>
<tr>
<td>WDR</td>
<td>140 dB</td>
</tr>
<tr>
<td>Angle Adjustment</td>
<td>Bracket, pan: 0° to 355°, tilt: 0° to 90°, rotate: 0° to 360°</td>
</tr>
</tbody>
</table>

### Lens

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens Type</td>
<td>Motorized lens, 2.8 to 12 mm and 8 to 32 mm optional</td>
</tr>
<tr>
<td>Aperture</td>
<td>2.8 to 12 mm: F1.2 to 2.5, 8 to 32 mm: F1.8, Constant F1.8 throughout the zoom range</td>
</tr>
<tr>
<td>Focus</td>
<td>Auto, semi auto, manual</td>
</tr>
<tr>
<td>Auto-iris</td>
<td>P-iris</td>
</tr>
<tr>
<td>FOV</td>
<td>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°</td>
</tr>
<tr>
<td></td>
<td>8 to 32 mm, horizontal FOV 37.7° to 15.2°, vertical FOV 21° to 8.6°, diagonal FOV 43.3° to 17.24°</td>
</tr>
<tr>
<td>Lens Mount</td>
<td>Integrated</td>
</tr>
</tbody>
</table>

### Illuminator

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR Range</td>
<td>2.8 to 12 mm: up to 50 m; 8 to 32 mm: up to 100 m</td>
</tr>
<tr>
<td>Wavelength</td>
<td>850 nm</td>
</tr>
</tbody>
</table>

### Video

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Resolution</td>
<td>2560 × 1440</td>
</tr>
<tr>
<td>Video Stream</td>
<td>5 defined streams and up to 5 custom stream</td>
</tr>
<tr>
<td>Main Stream</td>
<td>50Hz: 25fps (2560 × 1440, 1920 × 1080, 1280 × 720) 60Hz: 30fps (2560 × 1440, 1920 × 1080, 1280 × 720)</td>
</tr>
<tr>
<td>Sub Stream</td>
<td>50Hz: 25fps (704 × 576, 640 × 480) 60Hz: 30fps (704 × 480, 640 × 480)</td>
</tr>
<tr>
<td>Third Stream</td>
<td>50Hz: 25fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60Hz: 30fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)</td>
</tr>
<tr>
<td>Fourth Stream</td>
<td>50Hz: 25fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60Hz: 30fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)</td>
</tr>
<tr>
<td>Fifth Stream</td>
<td>50Hz: 25fps (704 × 576, 640 × 480) 60Hz: 30fps (704 × 480, 640 × 480)</td>
</tr>
<tr>
<td>Custom Stream</td>
<td>50Hz: 25fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60Hz: 30fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)</td>
</tr>
<tr>
<td><strong>H.264 Type</strong></td>
<td>Baseline Profile/Main Profile/High Profile</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td><strong>H.264+</strong></td>
<td>Main stream support</td>
</tr>
<tr>
<td><strong>H.265 Type</strong></td>
<td>Main Profile</td>
</tr>
<tr>
<td><strong>H.265+</strong></td>
<td>Main stream support</td>
</tr>
<tr>
<td><strong>Video Bit Rate</strong></td>
<td>32 Kbps to 16 Mbps</td>
</tr>
<tr>
<td><strong>Scalable Video Coding (SVC)</strong></td>
<td>H.264 and H.265 encoding</td>
</tr>
</tbody>
</table>

**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 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: Chrome 57.0+, Firefox 52.0+

## Interface

<table>
<thead>
<tr>
<th>Communication Interface</th>
<th>1 RJ45 10M/100M/1000M Ethernet port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm</td>
<td>2 inputs, 2 outputs (max. 24 VDC/VAC, 1A)</td>
</tr>
<tr>
<td>Video Out</td>
<td>1Vp-p composite output (75 Ω/CVBS), only for adjustment</td>
</tr>
<tr>
<td>Interface Style</td>
<td>Connector panel</td>
</tr>
<tr>
<td>On-board storage</td>
<td>Built-in micro SD/SDHC/SDXC slot, up to 256 GB</td>
</tr>
</tbody>
</table>

## General

<table>
<thead>
<tr>
<th>Firmware Version</th>
<th>5.6.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Client Language</td>
<td>32 languages</td>
</tr>
<tr>
<td></td>
<td>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)</td>
</tr>
<tr>
<td>Embedded Open Platform</td>
<td>Yes. The camera supports installation and running up to 4 extra applications.</td>
</tr>
<tr>
<td>General Function</td>
<td>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</td>
</tr>
<tr>
<td>Reset</td>
<td>Reset via reset button on camera body, web browser and client software</td>
</tr>
<tr>
<td>Startup and Operating Conditions</td>
<td>-30 °C to 65 °C (-22 °F to 149 °F), -H: -40 °C to 65 °C (-40 °F to 149 °F)</td>
</tr>
<tr>
<td>Storage Conditions</td>
<td>Humidity 95% or less (non-condensing)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>12 VDC ± 20%, two-core terminal block; reverse polarity protection, PoE (802.3at, class 4)</td>
</tr>
<tr>
<td>Power Consumption and Current</td>
<td>-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</td>
</tr>
<tr>
<td></td>
<td>-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</td>
</tr>
<tr>
<td>Heater</td>
<td>-H: yes</td>
</tr>
<tr>
<td>Material</td>
<td>Metal</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Camera: Φ144 × 347 mm (Ø5.7” × 13.7”)</td>
</tr>
<tr>
<td></td>
<td>With package: 405 × 190 × 180 mm (15.9” × 7.5” × 7.1”)</td>
</tr>
<tr>
<td>Weight</td>
<td>Camera: approx. 2.45 kg (5.40 lb.)</td>
</tr>
<tr>
<td></td>
<td>With package: approx. 2.7 kg (5.95 lb.)</td>
</tr>
</tbody>
</table>

## Approval

**Safety**

**Chemistry**

**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**

![Dimension Diagram]

**Accessory**

DS-1475ZJ-SUS
Vertical Pole Mount

DS-1476ZJ-SUS
Corner Mount