

DS-2CD2H83G2-IZS

8 MP AcuSense Motorized Varifocal Turret Network Camera

AcuSense



Empowered by deep learning algorithms, Hikvision AcuSense technology brings human and vehicle targets classification alarms to front- and back-end devices. The system focuses on human and vehicle targets, vastly improving alarm efficiency and effectiveness.

- High quality imaging with 8 MP resolution
- Motorized varifocal lens for easy installation and monitoring
- Efficient H.265+ compression technology
- Clear imaging against strong backlight due to 120 dB true WDR technology
- Focus on human and vehicle targets classification based on deep learning
- Audio and alarm interface available
- Water and dust resistant (IP67) and vandal-resistant (IK10)



## ▪ Specification

| Camera                 |                                                                                                                     |
|------------------------|---------------------------------------------------------------------------------------------------------------------|
| Image Sensor           | 1/2.8" Progressive Scan CMOS                                                                                        |
| Min. Illumination      | Color: 0.005 Lux @ (F1.6, AGC ON), B/W: 0 Lux with IR                                                               |
| Shutter Speed          | 1/3 s to 1/100,000 s                                                                                                |
| Slow Shutter           | Yes                                                                                                                 |
| P/N                    | P/N                                                                                                                 |
| Wide Dynamic Range     | 120 dB                                                                                                              |
| Day & Night            | IR cut filter                                                                                                       |
| Angle Adjustment       | Pan: 0° to 360°, tilt: 0° to 75°, rotate: 0° to 360°                                                                |
| Lens                   |                                                                                                                     |
| Lens Type              | Varifocal lens, motorized lens, 2.8 to 12 mm                                                                        |
| Focal Length & FOV     | 2.8 to 12 mm, horizontal FOV 108° to 30°, vertical FOV 56° to 17°, diagonal FOV 131° to 35°                         |
| Lens Mount             | Ø14                                                                                                                 |
| Iris Type              | Fixed                                                                                                               |
| Aperture               | F1.6                                                                                                                |
| DORI                   |                                                                                                                     |
| DORI                   | 2.8 to 12 mm: D: 97 m to 290 m, O: 38 m to 115 m, R: 19 m to 58 m, I: 9 m to 29 m                                   |
| Illuminator            |                                                                                                                     |
| Supplement Light Type  | IR                                                                                                                  |
| Smart Supplement Light | Yes                                                                                                                 |
| IR Wavelength          | 850 nm                                                                                                              |
| IR Range               | Up to 40 m                                                                                                          |
| Video                  |                                                                                                                     |
| Max. Resolution        | 3840 × 2160                                                                                                         |
| Main Stream            | 50 Hz: 20 fps (3840 × 2160)<br>25 fps (3200 × 1800, 2688 × 1520, 1920 × 1080, 1280 × 720)                           |
|                        | 60 Hz: 20 fps (3840 × 2160)<br>30 fps (3200 × 1800, 2688 × 1520, 1920 × 1080, 1280 × 720)                           |
| Sub Stream             | 50 Hz: 25 fps (640 × 480, 640 × 360)                                                                                |
|                        | 60 Hz: 30 fps (640 × 480, 640 × 360)                                                                                |
| Third Stream           | 50 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360)                                                       |
|                        | 60 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360)<br>*Third stream is supported under certain settings. |
| Video Compression      | Main stream: H.265/H.264/H.264+/H.265+                                                                              |
|                        | Sub-stream: H.265/H.264/MJPEG<br>Third stream: H.265/H.264<br>*Third stream is supported under certain settings.    |
| Video Bit Rate         | 32 Kbps to 16 Mbps                                                                                                  |
| H.264 Type             | Baseline Profile/Main Profile/High Profile                                                                          |
| H.265 Type             | Main Profile                                                                                                        |
| H.264+                 | Main stream supports                                                                                                |
| H.265+                 | Main stream supports                                                                                                |

|                             |                                                                                                                                                                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bit Rate Control            | CBR/VBR                                                                                                                                                                                                                                                                       |
| Scalable Video Coding (SVC) | H.264 and H.265 encoding                                                                                                                                                                                                                                                      |
| Region of Interest (ROI)    | 1 fixed region for main stream and sub-stream                                                                                                                                                                                                                                 |
| <b>Audio</b>                |                                                                                                                                                                                                                                                                               |
| Audio Compression           | G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/MP3/AAC                                                                                                                                                                                                                           |
| Audio Bit Rate              | 64 Kbps (G.711ulaw/G.711alaw)/16 Kbps (G.722.1)/16 Kbps (G.726)/16 Kbps to 64Kbps (AAC)/32 to 192 Kbps (MP2L2)/8 to 320 Kbps (MP3)                                                                                                                                            |
| Audio Sampling Rate         | 8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz                                                                                                                                                                                                                                           |
| Environment Noise Filtering | Yes                                                                                                                                                                                                                                                                           |
| <b>Network</b>              |                                                                                                                                                                                                                                                                               |
| Protocols                   | TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, PPPoE, SNMP                                                                                                                                |
| Simultaneous Live View      | Up to 6 channels                                                                                                                                                                                                                                                              |
| API                         | Open Network Video Interface (Profile S, Profile G), ISAPI, SDK                                                                                                                                                                                                               |
| User/Host                   | Up to 32 users. 3 user levels: administrator, operator and user                                                                                                                                                                                                               |
| Security                    | Password protection, complicated password, HTTPS encryption, IP address filter, Security Audit Log, basic and digest authentication for HTTP/HTTPS, TLS 1.1/1.2, WSSE and digest authentication for Open Network Video Interface                                              |
| Network Storage             | NAS (NFS, SMB/CIFS), auto network replenishment (ANR)                                                                                                                                                                                                                         |
| Client                      | iVMS-4200, Hik-Connect, Hik-Central                                                                                                                                                                                                                                           |
| Web Browser                 | Plug-in required live view: IE 10, IE 11<br>Plug-in free live view : Chrome 57.0+, Firefox 52.0+<br>Local service: Chrome 57.0+, Firefox 52.0+                                                                                                                                |
| <b>Image</b>                |                                                                                                                                                                                                                                                                               |
| Image Parameters Switch     | Yes                                                                                                                                                                                                                                                                           |
| Image Settings              | Rotate, mirror, privacy mask, saturation, brightness, contrast, sharpness, gain, white balance adjustable by client software or web browser                                                                                                                                   |
| Day/Night Switch            | Day, Night, Auto, Schedule                                                                                                                                                                                                                                                    |
| Image Enhancement           | BLC, HLC, 3D DNR                                                                                                                                                                                                                                                              |
| SNR                         | ≥ 52 dB                                                                                                                                                                                                                                                                       |
| <b>Interface</b>            |                                                                                                                                                                                                                                                                               |
| Ethernet Interface          | 1 RJ45 10 M/100 M self-adaptive Ethernet port                                                                                                                                                                                                                                 |
| On-board Storage            | Built-in memory card slot, support micro SD card, up to 256 GB                                                                                                                                                                                                                |
| Audio                       | 1 input (line in), two-core terminal block, max. input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium<br>1 output (line out), two-core terminal block, max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium |
| Alarm                       | 1 input, 1 output (max. 24 VDC/24 VAC, 500 mA)                                                                                                                                                                                                                                |
| Hardware Reset              | Yes                                                                                                                                                                                                                                                                           |
| <b>Event</b>                |                                                                                                                                                                                                                                                                               |
| Basic Event                 | Motion detection (human and vehicle targets classification), video tampering alarm, exception                                                                                                                                                                                 |
| Face Detection              | Yes                                                                                                                                                                                                                                                                           |

## Deep Learning Function

|                      |                                                                                                   |
|----------------------|---------------------------------------------------------------------------------------------------|
| Perimeter Protection | Line crossing detection, intrusion detection<br>Supports human and vehicle targets classification |
|----------------------|---------------------------------------------------------------------------------------------------|

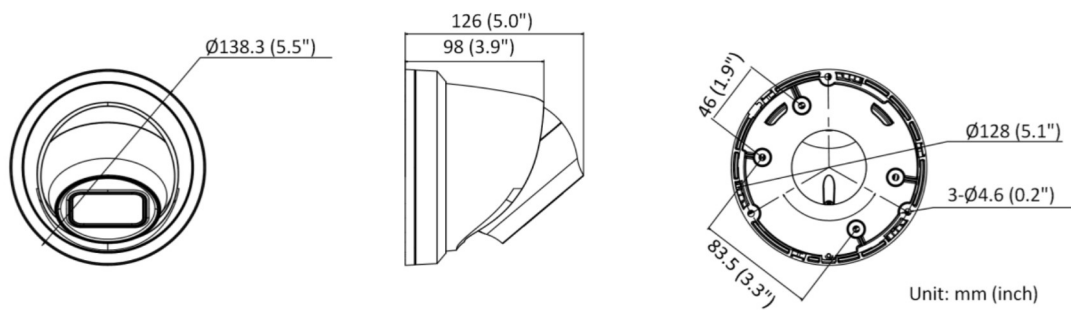
## General

|                                  |                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Linkage Method                   | Upload to FTP/memory card/NAS, notify surveillance center, trigger recording, trigger capture, send email                                                                                                                                                                                                                                               |
| Camera Material                  | Aluminum alloy body                                                                                                                                                                                                                                                                                                                                     |
| Camera Dimension                 | Ø138.3 mm × 126 mm (Ø5.5" × 5.0")                                                                                                                                                                                                                                                                                                                       |
| Package Dimension                | 216 mm × 121 mm × 118 mm (8.5" × 4.8" × 4.6")                                                                                                                                                                                                                                                                                                           |
| Camera Weight                    | Approx. 830 g (1.8 lb.)                                                                                                                                                                                                                                                                                                                                 |
| With Package Weight              | Approx. 1160 g (2.6 lb.)                                                                                                                                                                                                                                                                                                                                |
| Storage Conditions               | -30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)                                                                                                                                                                                                                                                                               |
| Startup and Operating Conditions | -30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)                                                                                                                                                                                                                                                                               |
| Web Client Language              | 33 languages<br>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                 | Anti-flicker, heartbeat, password reset via email, pixel counter                                                                                                                                                                                                                                                                                        |
| Firmware Version                 | V5.5.113                                                                                                                                                                                                                                                                                                                                                |
| Software Reset                   | Yes                                                                                                                                                                                                                                                                                                                                                     |
| Power Consumption and Current    | 12 VDC, 0.92 A, max. 11.04 W<br>PoE (802.3af, 36 V to 57 V), 0.35 A to 0.22 A, max. 12.5 W                                                                                                                                                                                                                                                              |
| Power Supply                     | 12 VDC ± 25%, reverse polarity protection<br>PoE: 802.3af, Class 3                                                                                                                                                                                                                                                                                      |
| Power Interface                  | Ø5.5 mm coaxial power plug                                                                                                                                                                                                                                                                                                                              |
| <b>Approval</b>                  |                                                                                                                                                                                                                                                                                                                                                         |
| EMC                              | FCC (47 CFR Part 15, Subpart B); CE-EMC (EN 55032: 2015, EN 61000-3-2: 2014, EN 61000-3-3: 2013, EN 50130-4: 2011 +A1: 2014); RCM (AS/NZS CISPR 32: 2015); IC (ICES-003: Issue 6, 2016); KC (KN 32: 2015, KN 35: 2015)                                                                                                                                  |
| Safety                           | UL (UL 60950-1); CB (IEC 60950-1:2005 + Am 1:2009 + Am 2:2013); CE-LVD (EN 60950-1:2005 + Am 1:2009 + Am 2:2013)                                                                                                                                                                                                                                        |
| 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)                                                                                                                                                                                                                                                                                                           |

## Available Model

DS-2CD2H83G2-IZS (2.8 to 12 mm)

▪ Dimension



▪ Accessory

▪ Optional

| WML+PC140<br>Wall Mount                                                            | CB140PT<br>Junction Box                                                           | CPM+PC140<br>Pendant Mount                                                           |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |

Distributed by



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