

## iDS-2CD70C5G0/E-IHSY(R) 12 MP Box Network Camera

DeepinView<sup>series</sup>



Hikvision has been dedicated to develop products with security since established. Hikvision always follows security by design principle and has adopted many methods of security technologies into our product development lifecycle, including terminal security, data security, application security, network security, and privacy protection. In the meantime, the security technologies used by Hikvision are all in compliance with local applicable laws and safety regulations. These security measures could enhance product's cyber security protection capability and protect your devices as well as your data from malicious cyber attacks.

- High quality imaging with 12 MP resolution
- Clear imaging against strong back light due to DWDR technology
- Efficient H.265+ compression technology to save bandwidth and storage
- Advanced streaming technology that enables smooth live view and data self-correcting in poor network
- 5 streams and up to 5 custom streams to meet a wide variety of applications
- Water and dust resistant (IP66) and vandal proof (IK10)

## ▪ Function

### Face Counting

With the embedded deep learning algorithms, the camera integrates multiple intelligences. It counts persons and samples the face features simultaneously, and compares them with the built-in face library, so to remove the duplicated person. It counts persons and reports a face alarm simultaneously to achieve both the entrance control and people counting.

### Hard Hat Detection

With the embedded deep learning algorithms, the camera detects the persons in the specified region. It detects whether the person is wearing a hard hat, and captures the head of the person and reports an alarm if not.

### Multi-Target-Type Detection

With the embedded deep learning algorithms, the camera detects and captures the face and human body in the specified region. It supports a structured modeling of the face and human body to achieve a structured data collection.

### 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.

### Metadata

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

### 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.

### Anti-Corrosion Coating

The camera adopts high weatherproof and wearproof molding powder that confirms to AAMA2604-02 and Qualicoat (Class2) specifications, and uses two-layer special spraying technology, so its surface has excellent long-term anti-corrosion performance and physical protection function. Besides, all the exposed screws use SUS316 material and features high anti-corrosion performance. Therefore, the whole camera meets anti-corrosion requirements NEMA 250-2018.

## ▪ Specification

Camera	
Image Sensor	1/1.7" Progressive Scan CMOS
Max. Resolution	4000 × 3000
Min. Illumination	Color: 0.002 Lux @ (F1.4, AGC ON); B/W: 0.002 Lux @ (F1.4, AGC ON)
Shutter Time	1 s to 1/100,000 s
Day & Night	IR cut filter Blue glass module to reduce ghost phenomenon
Lens	
Focal Length & FOV	3.8 to 16 mm, horizontal FOV: 103.5° to 28.1°, vertical FOV: 77.3° to 21.1°, diagonal FOV: 129.3° to 35.0° 11 to 40 mm, horizontal FOV: 36.9° to 11.5°, vertical FOV: 27.1° to 8.6°, diagonal FOV: 47.5° to 14.4°
Lens Mount	CS mount
Iris Type	P-iris
Aperture	3.8 to 16 mm: F1.4 11 to 40 mm: constant F1.4 throughout the zoom range
Illuminator	
Supplement Light Type	IR
Supplement Light Range	3.8 to 16 mm: 80 m 11 to 40 mm: 120 m
Smart Supplement Light	Yes
IR Wavelength	850 nm
Video	
Main Stream	50 Hz: 25 fps (4096 × 2160, 3840 × 2160, 3072 × 1728, 2560 × 1440, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (4096 × 2160, 3840 × 2160, 3072 × 1728, 2560 × 1440, 1920 × 1080, 1280 × 720) 50 Hz: 20 fps (4000 × 3000) 60 Hz: 20 fps (4000 × 3000)
Sub-Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Third Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Fourth Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Fifth Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Custom Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (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
Video Bit Rate	32 Kbps to 16 Mbps
H.264 Type	Baseline Profile/Main Profile/High Profile
H.265 Type	Main Profile

Bit Rate Control	CBR/VBR
Scalable Video Coding (SVC)	H.264 and H.265 encoding
Region of Interest (ROI)	4 fixed regions for each stream
Target Cropping	Yes
<b>Audio</b>	
Audio Type	Mono sound
Audio Compression	G.711/G.722.1/G.726/MP2L2/PCM/MP3
Audio Bit Rate	64 Kbps (G.711)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps (MP2L2)/32 Kbps (PCM)/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, SFTP, SRTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour, SSL/TLS
Simultaneous Live View	Up to 20 channels
API	ONVIF (PROFILE S, PROFILE G, PROFILE T), ISAPI, SDK, ISUP
Smooth Streaming	Yes
User/Host	Up to 32 users. 3 user levels: administrator, operator and user
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
Network Storage	NAS (NFS, SMB/CIFS), auto network replenishment (ANR) Together with high-end Hikvision memory card, memory card encryption and health detection are supported.
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 41.0+, Firefox 30.0+
<b>Image</b>	
Image Parameters Switch	Yes
Image Settings	Saturation, brightness, contrast, sharpness, gain, white balance adjustable by client software or web browser
Day/Night Switch	Day, Night, Auto, Schedule, Alarm Trigger
Wide Dynamic Range (WDR)	Digital WDR
SNR	≥52 dB
Image Enhancement	BLC, HLC, 3D DNR, Defog, EIS, Distortion Correction
Picture Overlay	LOGO picture can be overlaid on video with 128 × 128 24 bit bmp format
<b>Interface</b>	
Video Output	1 Vp-p Composite Output(75 Ω/CVBS) (For debugging only)
Ethernet Interface	1 RJ45 100 M/1000 M self-adaptive Ethernet port
On-Board Storage	Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 256 GB
Audio	-IHSY: 1 input (line in), 1 output (line out), 3.5 mm connector, 2 channels
Alarm	2 inputs, 2 outputs (max. 24 VDC, 1 A)
RS-485	1 RS-485 (half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)
Reset Key	Yes

Power Output	12 VDC, max. 100 mA (supported by all power supply types)
Fiber Optical	No
<b>Event</b>	
Basic Event	Motion detection, video tampering alarm, vibration detection, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error)
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 Scene change detection, audio exception detection, defocus detection
Linkage	Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture 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
<b>Deep Learning Function</b>	
Multi-target-type Detection	Supports simultaneous detection of human body and face Gets 8 face features and 13 human body features
Face Capture	Detects up to 30 faces simultaneously; Supports swing left and right from -60° to 60°, tilt up and down from -30° to 30°;
Face Comparison	Up to 3 face libraries with up to 30000 faces each are configurable; Recognizes face identity via face modeling, grading and comparing to those in face library; Supports face library encryption.
People Counting	Supports counting, entering/exiting counting (track 30 targets simultaneously); Supports facial recognition; Supports 24-hour dynamic deduplication and face library deduplication (up to 3 face libraries with up to 30000 faces); Supports reporting alarms when detecting the face is the same as that in the face library.
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
Hard Hat Detection	Detects up to 30 human targets simultaneously Supports up to 4 shield regions
Perimeter Protection	Line crossing, intrusion, region entrance, region exiting Support alarm triggering by specified target types (human and vehicle) Filtering out mistaken alarm caused by target types such as leaf, light, animal, and flag, etc.
Metadata	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.

General	
Power	With extra load: 24 VDC $\pm$ 20%, 1.07 A, 25.4 W; 24 VAC $\pm$ 20%, 1.64 A, 50/60 Hz, 26.8 W, three-core terminal block, reverse polarity protection; PoE: IEEE 802.3bt, Type3, Class 5, 42.5 VDC to 57 VDC, 0.7 A to 0.5 A, 28 W "With extra load" means that an extra device is connected to and powered by the camera.
Material	Aluminum alloy body, PP sun shield, PC front panel
Dimension	465.3 mm $\times$ 169.2 mm $\times$ 164.7 mm (18.3" $\times$ 6.7 $\times$ 6.5")
Package Dimension	615 mm $\times$ 360 mm $\times$ 225 mm (24.2" $\times$ 14.2" $\times$ 8.9")
Weight	Approx. 3800 g (8.4 lb.)
With Package Weight	Approx. 6000 g (13.2 lb.)
Storage Conditions	-30 $^{\circ}$ C to 60 $^{\circ}$ C (-22 $^{\circ}$ F to 140 $^{\circ}$ F). Humidity 95% or less (non-condensing)
Startup and Operating Conditions	-40 $^{\circ}$ C to 65 $^{\circ}$ C (-40 $^{\circ}$ F to 149 $^{\circ}$ F). Humidity 95% or less (non-condensing)
Language	33 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), Ukrainian
General Function	Anti-flicker, 5 streams and up to 5 custom streams, EPTZ, heartbeat, mirror, privacy masks, flash log, password reset via e-mail, pixel counter
Heater	Yes
Approval	
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); BIS (IS 13252(Part 1):2010+A1:2013+A2:2015); LOA (IEC/EN 60950-1)
Environment	CE-RoHS (2011/65/EU); WEEE (2012/19/EU); Reach (Regulation (EC) No 1907/2006)
Protection	IP66 (IEC 60529-2013), IK10 (IEC 62262:2002)
Anti-Corrosion Protection	With -Y: NEMA 4X (NEMA 250-2018)
Automotive and Railway	With -R: EN50121-4

## ▪ 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 MODERATE PROTECTION.

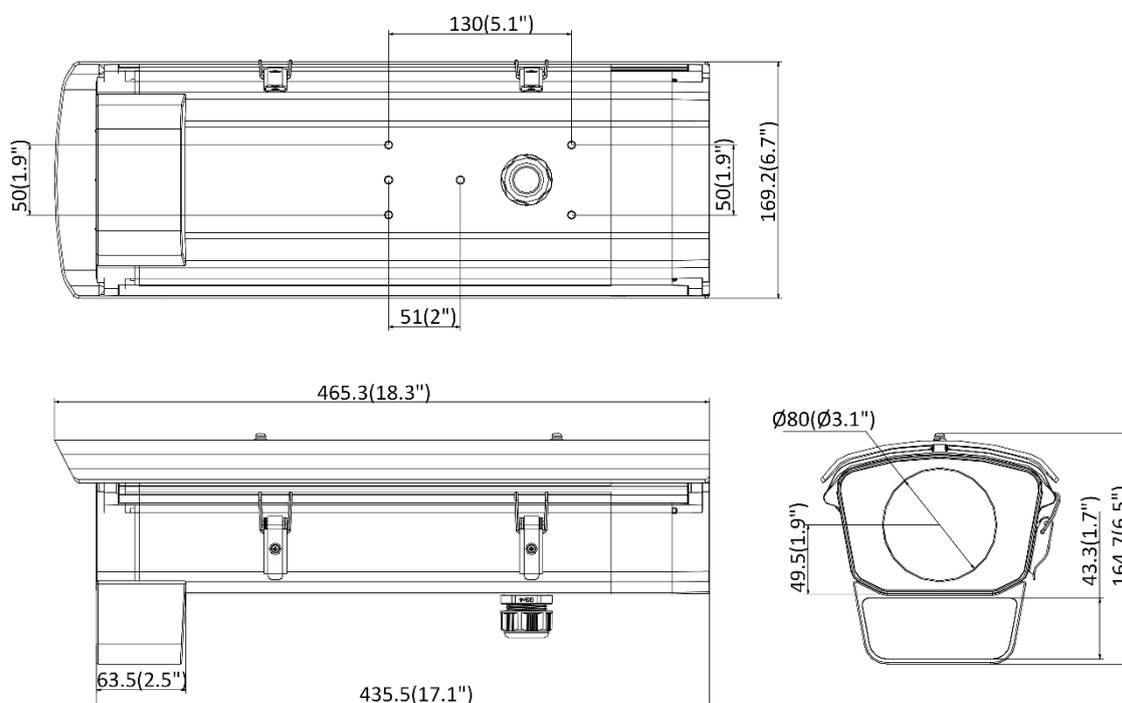
Level	Description
Top-level protection	Hikvision products at this level are equipped for use in areas where professional anti-corrosion protection is a must. Typical application scenarios include coastlines, docks, chemical plants, and more.
Moderate protection	Hikvision products at this level are equipped 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.

▪ **Available Model**

- iDS-2CD70C5G0/E-IHSY(11-40mm)
- iDS-2CD70C5G0/E-IHSY(3.8-16mm)
- iDS-2CD70C5G0/E-IHSYR(11-40mm)
- iDS-2CD70C5G0/E-IHSYR(3.8-16mm)

▪ **Dimension**



Unit: mm(inch)

▪ **Accessory**

▪ **Optional**

DS-1293ZJ-Y Wall mount	DS-1275ZJ-Y Vertical pole mount	DS-1214ZJ-L-Y2 Horizontal pole mount	DS-1214ZJ-T-Y Horizontal pole mount
			

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