

#### DS-2CD3786G2H-LIZSU(Y)(PTRZ)

8 MP Smart Hybrid Light Motorized Varifocal Dome Network Camera



















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.

- Motorized Pan, Tilt, Rotate, Zoom for easy installation and monitoring
- 24/7 colorful imaging via ColorVu technology
- IR light & White light & Smart Hybrid Light modes
- Clear imaging against strong back light due to 130 dB WDR technology
- Supports Hikvision Embedded Open Platform (HEOP) and importing third party applications
- Supports 1.5 Tops computing power, 40 MB system memory, 350 MB smart RAM, and 2 GB eMMC storage for sharing resources
- Clear two-way audio with dual-array mic
- Water and dust resistant (IP66) and vandal resistant (IK10)
- Audio and alarm interface available



## Specification

Camera					
Image Sensor	1/1.8" Progressive Scan CMOS				
Max. Resolution	3840 × 2160				
Min. Illumination	Color: 0.0028 Lux @ (F1.2, AGC ON), 0 Lux with light				
Shutter Time	1/3 s to 1/100,000 s				
Day & Night	IR cut filter				
Angle Adjustment	Remote adjustment (Max. 1000 cycles)				
Aligie Aujustilielit	Pan: -175° to 175°, tilt: 0° to 85°, rotate: 0° to 350°				
Lens					
Lens Type	Varifocal lens, motorized lens, 2.7 to 13.5 mm				
Focal Length & FOV	2.7 to 13.5 mm, horizontal FOV 112.3° to 41.2°, vertical FOV 58.1° to 23.1°, diagonal FOV 137.4° to 47.3°				
Lens Mount	Integrated				
Focus	Auto, Semi-auto, Manual				
Iris Type	DC iris				
Aperture	Max. F1.2				
Depth of Field	1 m to ∞				
DORI					
	Wide: D: 89 m, O: 35 m, R: 18 m, I: 9 m				
DORI	Tele: D: 220 m, O: 87 m, R: 44 m, I: 22 m				
Illuminator					
Supplement Light Type	IR, White Light				
Supplement Light Range	Up to 40 m				
Smart Supplement Light	Yes				
IR Wavelength	850 nm				
HEOP					
Open Resources	Memory: 40 MB, Smart RAM: 350 MB, eMMC: 2 GB				
Computing Power	1.5 TOPS				
Open Capability	HEOP 2.0 OpendevSDK				
Deep Learning Structure	Caffe, PyTorch, TensorFlow, PaddlePaddle, ONNX				
Programming Language	C, C++				
Video					
50 Hz: 25 fps (3840 × 2160, 3200 × 1800, 2688 × 1520, 1920 × 1080, 1280 × 720)  Main Stream 60 Hz: 24 fps (3840 × 2160)					
Sub-Stream	30 fps (3200 × 1800, 2688 × 1520, 1920 × 1080, 1280 × 720) 50 Hz: 25 fps (1280 × 720, 640 × 480, 640 × 360) 60 Hz: 30 fps (1280 × 720, 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) *Third stream is supported under certain settings.				



	50 Hz: 10 fps (1280 × 720, 640 × 480, 640 × 360)				
Fourth Stream	60 Hz: 10 fps (1280 × 720, 640 × 480, 640 × 360)				
	*Fourth stream is supported under certain settings.				
	Main stream: H.265/H.264/H.264+/H.265+,				
	Sub-stream: H.265/H.264/MJPEG,				
Video Compression	Third stream: H.265/H.264,				
	Fourth stream: H.265/H.264/MJPEG,				
	*Third stream and fourth stream are 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				
Bit Rate Control	CBR, VBR				
Scalable Video Coding (SVC)	H.264 and H.265 encoding				
Region of Interest (ROI)	5 fixed regions for main stream and sub-stream				
Target Cropping	Yes				
Audio					
Audio Compression	G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC				
, , , , , , , , , , , , , , , , , , ,	64 Kbps (G.711ulaw/G.711alaw)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps				
Audio Bit Rate	(MP2L2)/8 to 320 Kbps (MP3)/16 to 64 Kbps (AAC-LC)				
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz				
Environment Noise Filtering	Yes				
Network	163				
Network	TOD/ID ICAD LITTO LITTOS ETD DUCD DNS DDNS DTD DTSD NTD LIDAD SMTD				
Dratacals	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, UPnP, SMTP,				
Protocols	IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, PPPoE, SFTP, ARP, SNMP,				
Circultura - Livra Mirror	WebSocket, WebSockets, SRTP				
Simultaneous Live View	Up to 6 channels				
API	ONVIF (Profile S, Profile G, Profile T), ISAPI, SDK, ISUP				
User/Host	Up to 32 users				
	3 user levels: administrator, operator, and user				
	Password protection, complicated password, HTTPS encryption, 802.1X authentication				
	(EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest				
Security	authentication for HTTP/HTTPS, WSSE and digest authentication for Open Network				
	Video Interface, RTP/RTSP over HTTPS, control timeout settings, security audit log, TLS				
	1.1/1.2/1.3, host authentication (MAC address)				
	NAS (NFS, SMB/CIFS), Auto Network Replenishment (ANR),				
Network Storage	Together with high-end Hikvision memory card, memory card encryption and health				
	detection are supported.				
Client	iVMS-4200, Hik-Connect, Hik-Central				
	Plug-in required live view: IE 10, IE 11,				
Web Browser	Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Edge 89+,				
	Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+				
Image					
Image Parameters Switch	Yes				
	Rotate mode, saturation, brightness, contrast, sharpness, gain, white balance,				
Image Settings	adjustable by client software or web browser				
Day/Night Switch	Day, Night, Auto, Schedule				
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Wide Dynamic Range (WDR)	130 dB				
Image Enhancement	BLC, HLC, 3D DNR, Defog				
SNR	≥ 52 dB				
Privacy Mask	4 programmable polygon privacy masks				
Interface					
Ethernet Interface	1 RJ45 10 M/100 M self-adaptive Ethernet port				
On-Board Storage	Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 512 GE				
Built-in Microphone	Yes, 2 built-in microphones				
Analis	1 input (line in), two-core terminal block, max. input amplitude: 3.3 Vpp, input				
	impedance: 4.7 KΩ, interface type: non-equilibrium,				
Audio	1 output (line out), two-core terminal block, max. output amplitude: 3.3 Vpp, output				
	impedance: 100 $\Omega$ , interface type: non-equilibrium				
Alarm	1 input, 1 output (max. 24 VDC/24 VAC, 1 A)				
Reset Key	Yes				
Event					
D : 5 .	Motion detection (support alarm triggering by specified target types (human and				
Basic Event	vehicle)), video tampering alarm, exception				
	unattended baggage detection, object removal detection, scene change detection,				
Smart Event	audio exception detection, defocus detection				
	Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger				
Linkage	recording, trigger capture, trigger alarm output, audible warning				
Deep Learning Function					
Face Capture	Yes				
People Counting	Yes				
D : 1 D : 1:	Line crossing, intrusion, region entrance, region exiting				
Perimeter Protection	Support alarm triggering by specified target types (human and vehicle)				
General					
<b>D</b>	12 VDC ± 25%, 1.35 A, max. 16 W, two-core terminal block, reverse polarity protection,				
Power	PoE: IEEE 802.3at, Class 4, max. 18 W				
Dimension	Ø155 mm × 140.4 mm (Ø6.10" × 5.53")				
Package Dimension	244 mm × 174 mm × 173 mm (9.6" × 6.9" × 6.8")				
Weight	Approx. 820 g (1.8 lb.)				
With Package Weight	Approx. 1200 g (2.6 lb.)				
Storage Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)				
General Function	Heartbeat, anti-banding, mirror, flash log, password reset via email, pixel counter				
Startup and Operating					
Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)				
	33 languages: English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian,				
Language	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				
Approval					
	CE-EMC: EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN				
5146	50130-4: 2011 +A1: 2014,				
EMC	RCM: AS/NZS CISPR 32: 2015,				
	IC: ICES-003: Issue 7				



	UL: UL 62368-1,		
Safety	CB: IEC 62368-1: 2014+A11,		
	CE-LVD: EN 62368-1: 2014/A11: 2017		
	CE-RoHS: 2011/65/EU,		
Environment	WEEE: 2012/19/EU,		
	Reach: Regulation (EC) No 1907/2006		
Protection	IK10: IEC 62262:2002, IP66: IEC 60529-2013		

### 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.

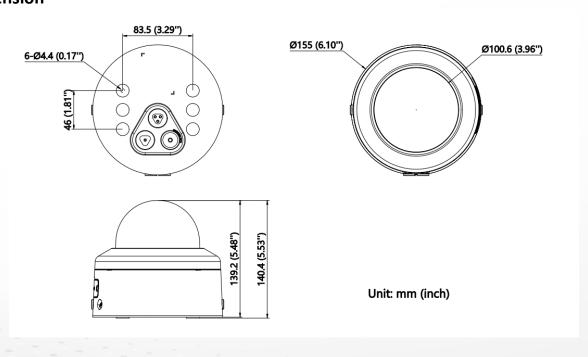
This model has NO SPECIFIC PROTECTION.

Level	Description		
	Hikvision products at this level are equipped for use in areas where professional		
Top-level protection	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		
No specific protection	anti-corrosion protection is needed.		

#### Available Model

DS-2CD3786G2H-LIZSU(PTRZ)(2.7-13.5mm)

#### Dimension





## Accessory

## Optional

DS-1473ZJ-155	DS-1471ZJ-155	DS-1475ZJ-SUS	DS-1476ZJ-SUS	DS-1250ZJ
Wall mount	Pendant Mount	Vertical pole mount	Corner mount	Water-proof
	I	Ann		

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