

iDS-2CD5146G2/V-XZ(H)S(Y) 4MP DeepinViewX Moto Varifocal Dome Camera

DarkFighter 2.0

DeepinView X



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 4MP resolution
- Excellent low-light performance via Darkfighter 2.0 technology
- Efficient H.265+ compression technology to save bandwidth and storage
- Water and dust resistant (IP67) and vandal proof (IK10)
- Powered by Guanlan large-scale model, camera supports AI Encoding to reduce storage usage by 50% while keeping image quality of key targets like human and vehicles.
- Dedicated large-scale AI model for perimeter protection, reduce false alarms by 90% compared to conventional AI cameras

▪ Function

Perimeter Protection

With embedded deep learning based target detection and classification algorithms, the camera carries out the duty of perimeter protection, monitoring the actions of line crossing, intrusion, region entrance, and region exiting. The algorithms greatly filter out the mistaken alarm caused by the interference of leaves, lights, animal, flag, etc.

▪ Specification

Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Max. Resolution	2688 × 1520
Min. Illumination	Color: 0.0005 Lux @ (F1.2, AGC ON), B/W: 0.0002 Lux @ (F1.2, AGC ON), B/W: 0 Lux with IR
Shutter Time	1 s to 1/100,000 s
Day & Night	IR cut filter, Blue glass module (less ghost phenomenon)
Angle Adjustment	Pan: 0° to 355°, tilt: 0° to 75°, rotate: 0° to 355°
Lens	
Focal Length & FOV	2.8 to 12 mm, horizontal FOV 114.6° to 41.8°, vertical FOV 59.3° to 23.6°, diagonal FOV 141.3° to 48.1° 8 to 32 mm, horizontal FOV 42.5° to 15.2°, vertical FOV 23.4° to 8.7°, diagonal FOV 49.7° to 17.3°
Lens Type	Varifocal lens, motorized lens, 2.8 to 12 mm and 8 to 32 mm optional
Iris Type	P-iris
Aperture	2.8 to 12 mm: F1.4 to F2.1 8 to 32 mm: F1.7 to F1.7
DORI	
OODPCVS	Wide: 2.8 to 12 mm: Overview: 75.9 m, Outline: 37.9 m, Discern: 19 m, Perceive: 12.1 m, Characterize: 6.1 m, Validate: 3 m, Scrutinize: 1 m 8 to 32 mm: Overview: 110 m, Outline: 55 m, Discern: 27.5 m, Perceive: 17.6 m, Characterize: 8.8 m, Validate: 4.4 m, Scrutinize: 1.5 m Tele: 2.8 to 12 mm: Overview: 187.9 m, Outline: 94 m, Discern: 47 m, Perceive: 30.1 m, Characterize: 15 m, Validate: 7.5 m, Scrutinize: 2.5 8 to 32 mm: Overview: 500 m, Outline: 250 m, Discern: 125 m, Perceive: 80 m, Characterize: 40 m, Validate: 20 m, Scrutinize: 6.7 m The OODPCVS values are calculated using pixel densities for different use cases as recommended by the IEC/EN 62676-4:2025 standard. IEC 62676-4:2025 describes the planning, design, installation, testing, commissioning, and maintaining of video surveillance systems (VSS) comprising image capture device(s), interconnection(s) and image handling device(s), for use in security applications within private or public spaces.
Illuminator	
Supplement Light Type	IR, White Light
Supplement Light Range	2.8 to 12 mm: Monitoring: 40 m; 8 to 32 mm: Monitoring: 60 m
Smart Supplement Light	Yes
IR Wavelength	850 nm

AI Open Platform	
Model Specification	Model type for AI Open Platform trained algorithm loading: high-performance model (small model). Supports 4 model packages, each capable of detecting 16 target types and classifying 4 targets. The targets can be classified as 64 types. The device runs only 1 model at the same time.
Video	
Main Stream	50 Hz: 25 fps (2688 × 1520 , 2560 × 1440, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (2688 × 1520 , 2560 × 1440, 1920 × 1080, 1280 × 720)
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)
Video Compression	Main stream: H.265+/H.265/H.264+/H.264, Sub-stream: H.265/H.264/MJPEG, Third stream: H.265/H.264, Fourth stream: H.265/H.264/MJPEG
Fourth Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Video Bit Rate	32 Kbps to 8 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)	8 fixed regions for each stream
Target Cropping	NO
AI Encoding	Yes
Audio	
Audio Type	Mono sound
Audio Compression	G.711/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC
Audio Bit Rate	64 Kbps (G.711ulaw/G.711alaw)/16 Kbps(G.722.1)/16 Kbps(G.726)/8~320 Kbps(MP3)/32~192 Kbps(MP2L2)/16~64 Kbps(AAC-LC)
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/48 kHz
Environment Noise Filtering	Yes
Network	
Protocols	IPv4, HTTP, SSL/TLS, ICMP, SFTP, SMTP, RTSP, HTTPS, NTP, QoS, WebSocket, FTP, RTP, WebSockets, UDP, DHCP, IGMP, TCP/IP, DNS, RTCP, IPv6, Bonjour
Simultaneous Live View	Up to 20 channels
API	ISAPI, EZVIZ, Open Network Video Interface, ISUP, OTAP, SDK
User/Host	Up to 32 users 3 user levels: administrator, operator, and user

Security	AES128/256, complicated password, control timeout settings, TLS 1.2, host authentication (MAC address), Password protection, WSSE and digest authentication for Open Network Video Interface, security audit log, 802.1X authentication (EAP-LEAP, EAP-TLS, EAP-MD5), RTP/RTSP over HTTPS, basic and digest authentication for HTTP/HTTPS, TLS 1.3, HTTPS encryption, watermark, IP address filter
Network Storage	NAS (NFS, SMB/CIFS)
Client	iVMS-4200, Hik-Connect
Web Browser	Plug-in required live view: IE 10, IE 11, Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Edge 89+, Safari 11+, Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+
Image	
Image Parameters Switch	Yes
Image Settings	Rotate mode, 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)	140 dB
Image Enhancement	BLC, HLC, 3D DNR, Distortion Correction
Privacy Mask	8 programmable polygon privacy masks
Picture Overlay	LOGO picture can be overlaid on video with 128 × 128 24 bit bmp format.
Image Stabilization	EIS
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 1 TB
Built-in Microphone	2 built-in microphones
Alarm	1 inputs, 1 outputs (max. 12 VDC/24 VAC, 1 A)
Built-in Speaker	1 built-in speaker
Audio	1 input (line in), input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium, 1 output (line out), output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium, mono sound
Reset Key	Yes
Power Output	12 VDC, max. 100 mA External extension cord less than 10 meters.
RS-485	1 RS-485 (Half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)
Event	
Basic Event	Motion detection (support alarm triggering by specified target types (human and vehicle)), video tampering alarm, exception (HDD full, HDD error, network disconnected, IP address conflict, illegal login, abnormal restart), alarm input and output, video quality diagnosis
Smart Event	parking detection, people gathering detection, object removal detection, loitering detection, audio exception detection, defocus detection, region exiting detection, unattended baggage detection, intrusion detection, scene change detection, Line crossing detection, fast moving detection, region entrance detection
Linkage	send email, trigger recording, notify surveillance center, trigger alarm output, Upload to FTP/NAS/memory card, audible warning

Deep Learning Function	
Multi-target-type Detection	Supports simultaneous detection and capture of human body, face, and vehicle, Gets face features, Gets human body features, Gets vehicle features, Supports counting the number of line crossing targets by type, including human body, non-motor vehicle, motor vehicle
Face Capture	Detects up to 60 faces simultaneously, Supports swing left and right from -60° to 60°, tilt up and down from -30° to 30°, Uploads face with background and closed-up face pictures
Perimeter Protection	Line crossing, intrusion, region entrance, region exiting Support alarm triggering by specified target types (human and vehicle) Support combined event alarm triggering Dedicated large scale AI model for perimeter protection, reduce false alarms by 90% compared to conventional AI cameras VCA range: up to 40 m (nighttime)
Heat Map	A graphic description of visits (by calculating amount of people or amount of dwell time) in a configured area., Two report types are available, space heat map and time heat map line chart.
Metadata	Intrusion detection, line crossing detection, region entrance detection, region exiting detection
Regional People Counting	Supports up to 8 detection regions, and independent arming schedule and linkage method Supports 3 detection modes: people density detection, number of people exception detection, waiting time exception detection Supports parameter settings: alarm times per exception, alarm interval, first alarm delay Supports searching real-time number of people People density detection: supports scheduled uploading, number of people change uploading, congestion level uploading Number of people exception detection: supports 6 alarm trigger conditions, including greater than threshold A, less than threshold A, equal to threshold A, not equal to threshold A, greater than threshold A and less than threshold B, less than threshold A or greater than threshold B (threshold A should be less than threshold B) Waiting time exception detection: supports 3 alarm trigger conditions, including greater than threshold A, less than threshold A, greater than threshold A and less than threshold B (threshold A should be less than threshold B)
On/Off Duty Detection	Supports up to 8 detection regions, and independent arming schedule and linkage method, Supports 2 detection modes: absence detection, on/off duty detection, Supports parameter settings: person on duty, absence duration
AcuSeek	Support search for humans, vehicles, This function requires use with AcuSeek NVR/Servers.
General	
Power	12 VDC $\pm$ 20%, 1.37 A, max. 16.4 W, PoE: IEEE 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.38A to 0.29 A, max. 16W, 24 VAC $\pm$ 20%, 1.07 A, max. 16.1 W

Material	Aluminum alloy body
Dimension	Ø143 mm × 112 mm (Ø5.63" × 4.41")
Package Dimension	180 mm × 170 mm × 170 mm (7.09" × 6.69" × 6.69")
Weight	Approx. 900 g (1.98 lb.)
With Package Weight	Approx. 1264 g (2.79 lb.)
Storage Conditions	-30 °C to 60 °C (-30 °F to 140 °F). Humidity 95% or less (non-condensing)
Startup and Operating Conditions	With -H: -40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing), Without -H: -30 °C to 60 °C (-30 °F to 140 °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	Heartbeat, anti-banding, one-key reset, mirror, password protection, flash log
Integrated Connector Panel	No
Approval	
EMC	CE-EMC: EN 55032:2015+A1:2020, EN 50130-4:2011+A1:2014, EN IEC 61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A1:2019+A2:2021, RCM: AS/NZS CISPR 32: 2015
Safety	CB: IEC 62368-1: 2014+A11
Protection	IP67: IEC 60529-2013, IK10: IEC 62262:2002
Environment	CE-RoHS: 2011/65/EU, WEEE: 2012/19/EU, Reach: Regulation (EC) No 1907/2006
Anti-Corrosion Protection	-Y: NEMA 4X (NEMA 250-2018)
Transport Certification	IATA Dangerous Goods Regulations, Dangerous Goods List, International Maritime Dangerous Goods Code, Railway Dangerous Goods List

▪ Typical Application

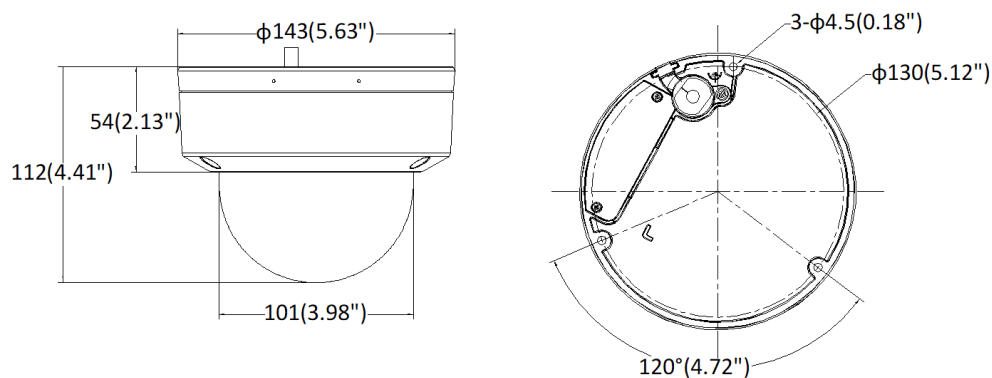
Hikvision products are classified into three levels according to their anti-corrosion performance. Refer to the following description to choose for your using environment.

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

Unit:mm(inch)



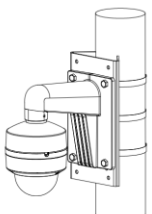
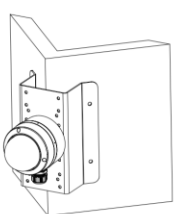
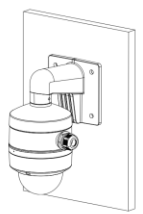
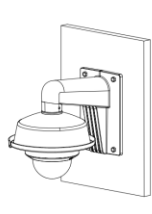
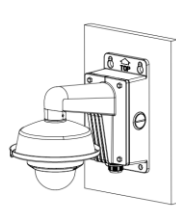
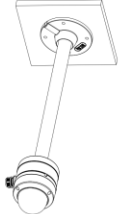
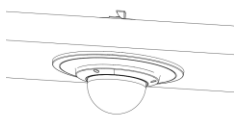
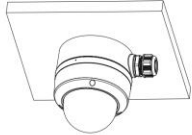
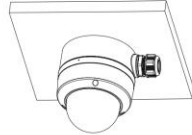
Camera Mounting Hole (mm)	Camera Mounting Hole (inch)
Ø130(3×Ø4.5)	Ø5.12"(3×Ø0.18")

▪ Accessory

▪ Optional

DS-1275ZJ-SUS	DS-1276ZJ-SUS	DS-1273ZJ-140-DM 45	DS-2200ZJ-WA-140	DS-1271ZJ-140-DM 45
DS-4220ZJ-WC	DS-2280ZJ-WA140	DS-2200ZJ-WAJ-14 0	DS-2210ZJ-WA-140	DS-1280ZJ-DM45

▪ Installation Methods

Vertical Pole Mounting DS-1275ZJ-SUS+DS-2200ZJ-WA-140	Corner Mounting DS-1276ZJ-SUS+DS-2280ZJ-WA140	Wall Mounting DS-1273ZJ-140-DM45+DS-1280ZJ-DM45	Wall Mounting DS-2200ZJ-WA-140+DS-1253ZJ-L	Wall Mounting DS-2200ZJ-WAJ-140+DS-1253ZJ-L
				
Pendant Mounting DS-1271ZJ-140-DM45	Pendant Mounting DS-2210ZJ-WA-140+DS-1280ZJ-DM45	In-Ceiling Mounting DS-4220ZJ-WC	Junction Box DS-2280ZJ-WA140	Junction Box DS-1280ZJ-DM45
				

See Far, Go Further



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