

DS-2CD6944G1-IHS(U)Y 16 MP 180° PanoVu Network Camera

DarkFighter ✦



- 180° splicing image: the image presented includes the full panoramic view covered by the camera
- High resolution 16 MP: capturing clear images, and allowing for more details to be displayed on a video wall
- Remote motorized Pan and Tilt for easy angle adjustment
- Built-in heater, ultra-low temperature start up to -40 °C (-40 °F)
- Water and dust resistant (IP67) and vandal proof (IK10)
- DarkFighter technology captures high quality color images even in dimly light environments

▪ Specification

Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Max. Resolution	4800 × 2688
Min. Illumination	Color: 0.002 Lux @ (F1.0, AGC ON), B/W: 0.0005 Lux @ (F1.0, AGC ON)
Shutter Time	1/25 s to 1/100,000 s
Day & Night	IR cut filter
Angle Adjustment	Pan: 0° to 340°, tilt: 0° to 90°
Lens	
Lens Type	Fixed focal lens, 2.8 mm, four lenses
Focal Length & FOV	2.8 mm, Single lens image: horizontal FOV 111.1°, vertical FOV 57.6°, diagonal FOV 138.5°, Panorama Image: horizontal FOV 185°, vertical FOV 110°
Lens Mount	M16
Aperture	F1.0
O2DCPVS	
DORI	2.8 mm: D: 61.5 m, O: 24.4 m, R: 12.3 m, I: 6.2 m
Illuminator	
Supplement Light Type	IR, four IR LEDs
Supplement Light Range	Up to 20 m
IR Wavelength	850 nm
Video	
Main Stream	Panorama mode: 50 Hz: 50 fps (4800 × 2688) 60 Hz: 60 fps (4800 × 2688) Original mode: 50 Hz: 50 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720) 60 Hz: 60 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720)
Sub-Stream	Panorama mode: 50 Hz: 25 fps (1920 × 1080) 60 Hz: 30 fps (1920 × 1080) Original mode: 50 Hz: 25 fps (1280 × 720) 60 Hz: 30 fps (1280 × 720)
Video Compression	Main stream: H.265+/H.265/H.264+/H.264, Sub-stream: H.265/H.264/MJPEG
Video Bit Rate	32 Kbps to 64 Mbps
H.264 Type	Baseline Profile, Main Profile, High Profile
H.265 Type	Main Profile
Scalable Video Coding (SVC)	H.264 and H.265 encoding
Region of Interest (ROI)	4 fixed regions for each stream
Audio	
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)/32 to 192 Kbps (MP2L2)/PCM/8 to 320 Kbps (MP3)/16 to 64 Kbps (AAC-LC)
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/48 kHz

Environment Noise Filtering	Yes
Network	
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour
Simultaneous Live View	Up to 4 channels
API	ONVIF (Profile S, Profile G), ISAPI, SDK, ISUP
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 Open Network Video Interface, RTP/RTSP OVER HTTPS, Control Timeout Settings, Security Audit Log, TLS 1.2, TLS 1.3, TPM 2.0 (FIPS 140-2 level 2), AES128/256
Network Storage	NAS (NFS, SMB/CIFS), Auto Network Replenishment (ANR)
Client	iVMS-4200
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 13+, Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+
Image	
Image Settings	Rotate mode, saturation, brightness, contrast, sharpness, gain, white balance, AGC, 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, Distortion Correction, Defog
Privacy Mask	8 programmable polygon privacy masks
Picture Overlay	LOGO picture can be overlaid on video with 128 × 128 24 bit bmp format.
Interface	
Ethernet Interface	1 RJ45 10 M/100 M/1000 M self-adaptive Ethernet port
On-Board Storage	Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 1024 GB
Built-in Microphone	2 built-in microphones
Audio	1 input (line in), two-core terminal block, max. input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium, 1 output (line out), two-core terminal block, max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium
Alarm	2 inputs, 2 outputs (max. 12 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. 150 mA
Event	
Basic Event	Motion detection, alarm input and output, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error, abnormal restart), audio exception detection
Smart Event	Line crossing detection, intrusion detection, region entrance detection, region exiting detection

Linkage	Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture, audible warning
Deep Learning Function	
Perimeter Protection	Line crossing, intrusion, region entrance, region exiting Support alarm triggering by specified target types (human and vehicle)
People Density	Yes (only panorama mode supports)
General	
Power	12 VDC $\pm$ 20%, 2.2 A, max. 26.4 W, 24 VAC $\pm$ 20%, 1.5 A, max. 24 W, three-core terminal block, PoE: IEEE 802.3at, Class 4, max. 25 W
Material	Aluminum alloy & plastic
Dimension	$\varnothing$ 214.6 mm $\times$ 213 mm ($\varnothing$ 8.45" $\times$ 8.39")
Package Dimension	336 mm $\times$ 261 mm $\times$ 293 mm (13.2" $\times$ 10.3" $\times$ 11.5")
Weight	Approx. 4.2 kg (9.25 lb.)
With Package Weight	Approx. 6.2 kg (13.67 lb.)
Storage Conditions	-40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing)
Startup and Operating Conditions	-40 °C to 60 °C (-40 °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, mirror, password protection, flash log, password reset via email, pixel counter, one-key reset, anti-banding
Heater	Yes
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, IC: ICES-003: Issue 7, KC: KN32: 2015, KN35: 2015
Safety	CB: IEC 62368-1: 2014+A11, CE-LVD: EN 62368-1: 2014/A11: 2017, BIS: IS 13252 (Part 1): 2010/IEC 60950-1: 2005, LOA: IEC/EN 60950-1
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
Anti-Corrosion Protection	NEMA 4X (NEMA 250-2018)

▪ Typical Application

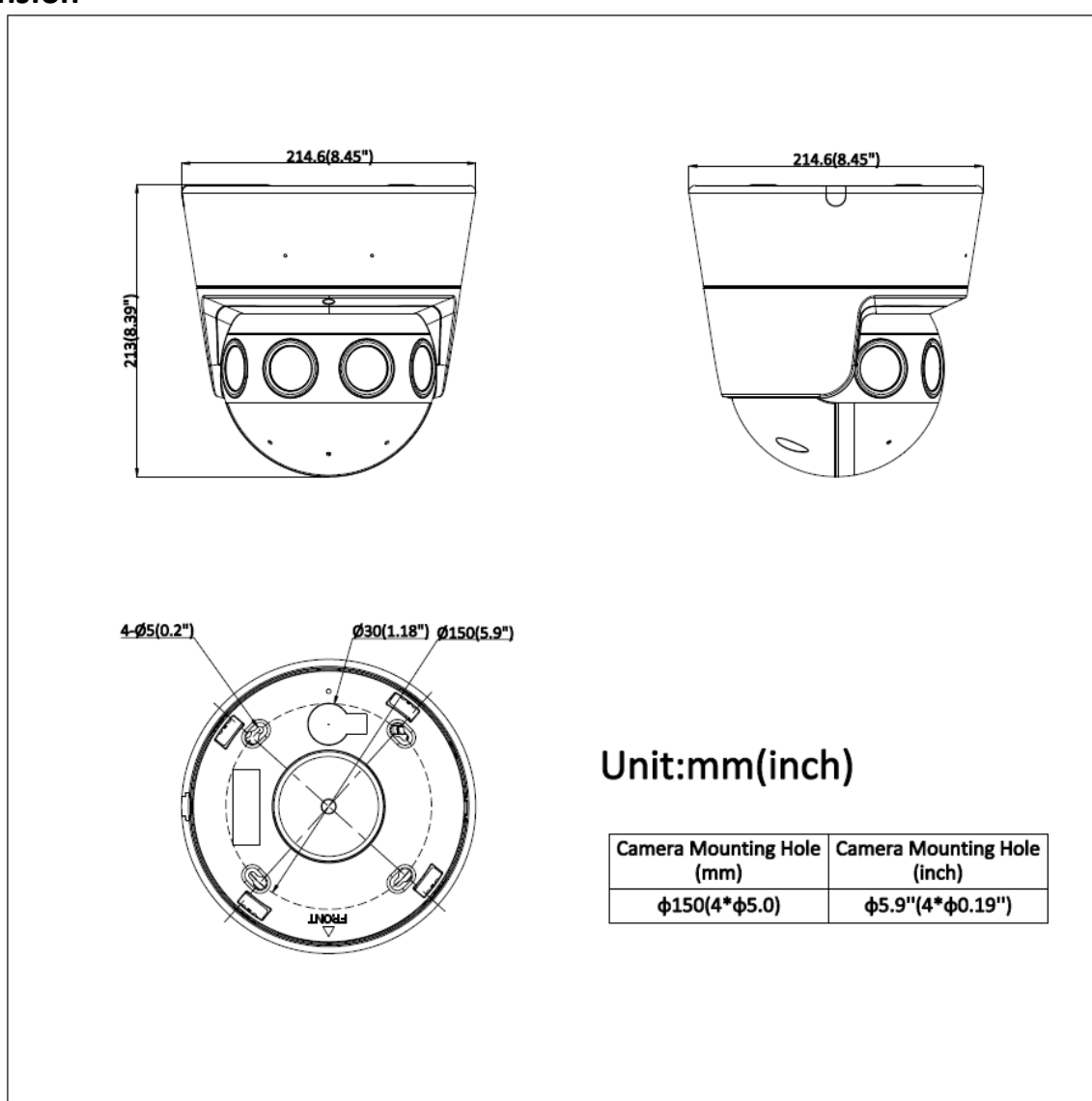
Hikvision products are classified into three levels according to their anti-corrosion performance. Refer to the following description to choose for your using environment.

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.

▪ Dimension



▪ Accessory

▪ Optional

DS-1602ZJ

DS-1661ZJ

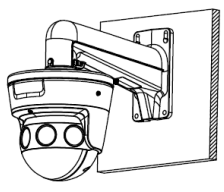
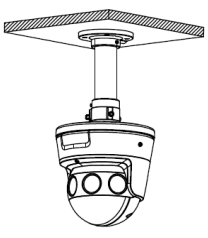
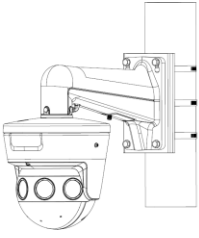
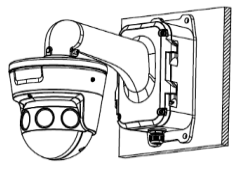
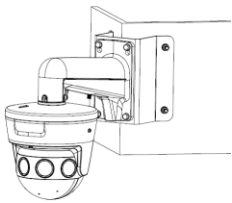
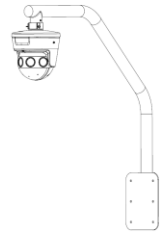
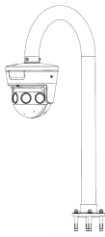
DS-1602ZJ-Pole

DS-1604ZJ-box

DS-1602ZJ-Corner

				
DS-1660ZJ	DS-1619ZJ			
				

▪ **Installation Methods**

Wall Mounting DS-1602ZJ	Pendant Mounting DS-1661ZJ	Vertical Pole Mounting DS-1602ZJ-Pole	Junction Box DS-1604ZJ-box	Corner Mounting DS-1602ZJ-Corner
				
Gooseneck Mounting DS-1660ZJ	Gooseneck Mounting DS-1619ZJ			
				

See Far, Go Further



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