

DS-2ST5C412MWG-EW/4G/14(PA) Polymer 4MP 12x 4G Anti-corrosion TandemVu



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 defense capability and protect your devices as well as your data from malicious cyber attacks.

- Supports deep learning functions: Acusense(human&vehicle classification), face capture, license plate recognition
- High quality imaging with 4 MP resolution for bullet channel, 4MP for PTZ channel
- 24/7 colorful imaging and excellent low-light performance with DarkFighter technology
- Smart linkage between Bullet and PTZ channels by event triggering
- Secures an expansive area with 12 × optical zoom and 16 × digital zoom
- Expansive night view with up to 30 m white light distance and 150 m IR distance
- Built-in Gyroscope for better EIS performance in PTZ channel
- Audio visual alarm: The white flashing light and audible warning can be triggered by certain events

▪ Specification

Camera	
Image Sensor	[Bullet channel] 1/1.8" Progressive Scan CMOS, [PTZ channel] 1/2.8" Progressive Scan CMOS
Min. Illumination	[Bullet channel] Color: 0.0005 Lux @ (F1.0, AGC ON), B/W: 0.0001 Lux @ (F1.0, AGC ON), 0 Lux with light, [PTZ channel] Color: 0.005 Lux @ (F1.0, AGC ON), B/W: 0.001 Lux @ (F1.0, AGC ON), 0 lux with light
Shutter Speed	1 s to 1/30000 s
Slow Shutter	Yes
Day & Night	[Panoramic channel] Color, [PTZ channel] IR cut filter
Zoom	[PTZ channel] 12 × optical, 16 × digital
Max. Resolution	[Panoramic channel] 2688 × 1520, [PTZ channel] 2688 × 1520
Lens	
FOV	[Panoramic channel] horizontal field of view: 88.7°, vertical field of view: 44.7°, diagonal field of view: 107.5°, [PTZ channel] horizontal field of view: 27.2° to 3°, vertical field of view: 15.4° to 1.7°, diagonal field of view: 31° to 3.4°
Focus	Auto, semi-auto, manual
Zoom Speed	[Panoramic channel] No, [PTZ channel] approx. 2.2 s
Focal Length	[Panoramic channel] 4 mm, [PTZ channel] 10 to 120 mm
Aperture	[Panoramic channel] F1.0, [PTZ channel] F1.0
Illuminator	
Supplement Light Type	Hybrid (IR + White Light)
Supplement Light Range	[Panoramic channel] White Light Distance: up to 30 m, [PTZ channel] IR Distance: up to 150 m
Smart Supplement Light	Yes
PTZ	
Movement Range (Pan)	360° endless
Movement Range (Tilt)	[Panoramic channel] 6° to 18°, [PTZ channel] -10° to 90°
Pan Speed	[PTZ channel] pan speed: configurable from 0.1° to 80°/s, preset speed: 80°/s
Tilt Speed	[PTZ channel] tilt speed: configurable from 0.1° to 80°/s, preset speed 80°/s, [Panoramic channel] tilt speed configurable
Proportional Pan	[Panoramic channel] No, [PTZ channel] Yes
Presets	300
Patrol Scan	8 patrols, up to 32 presets for each patrol
Pattern Scan	4 pattern scans, record time over 10 minutes for each scan
Power-off Memory	Yes
Park Action	Preset, pattern scan, patrol scan, auto scan, tilt scan, random scan, frame scan, panorama scan
3D Positioning	Yes
PTZ Status Display	Yes
Preset Freezing	Yes

Scheduled Task	Preset,pattern scan,patrol scan,auto scan,tilt scan,random scan,framescan,panorama scan,dome reboot,dome adjust,aux output
Video	
Main Stream	[Panoramic channel] 50 Hz : 25 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720) 60 Hz : 30 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720) [PTZ channel] 50 Hz : 25 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720) 60 Hz : 30 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720)
Sub-Stream	[PTZ channel] 50 Hz: 25 fps (704 × 576, 640 × 480, 352 × 288), 60 Hz: 30 fps (704 × 480, 640 × 480, 352 × 240), [Panoramic channel] 50 Hz: 25 fps (1200 × 536, 960 × 432), 60 Hz: 30 fps (1200 × 536, 960 × 432)
Third Stream	[PTZ channel] 50 Hz: 25 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288), 60 Hz: 30 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240), [Panoramic channel] No
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/MJPEG
Video Bit Rate	32 Kbps to 16 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)	8 fixed regions for each stream
Audio	
Audio Compression	G.711,G.722.1,G.726,MP2L2,PCM,AAC-LC,MP3
Audio Bit Rate	32 to 192 Kbps (MP2L2),16 to 64Kbps (AAC-LC),16 Kbps (G.722.1),64 Kbps (G.711),16 Kbps (G.726)
Audio Sampling Rate	8 kHz,16 kHz,32 kHz,48 kHz
Environment Noise Filtering	Yes
Network	
API	ONVIF (ProfileS, ProfileG, ProfileT, ProfileM),ISUP,ISAPI,SDK,OTAP
Network Storage	NAS (NFS, SMB/CIFS),auto network replenishment (ANR)
Protocols	IPv4/IPv6,HTTP,HTTPS,802.1X,QoS,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTCP,RTP,TCP/IP,UDP,IGMP,ICMP,DHCP,PPPoE,Bonjour,FTP
Simultaneous Live View	Up to 20 channels
User/Host	Up to 32 users. 3 user levels: administrator, operator, and user
Security	Password protection,complicated password,IP address filter,HTTPS encryption,802.1X authentication (EAP-TLS, EAP-LEAP, EAP-MD5),host authentication (MAC address),watermark, TPM 2.0 (FIPS 140-2 level 2)
Client	iVMS-4200,HikCentral Pro,Hik-Connect

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+
Wireless (Mobile Communication)	
Mobile Communication Type	4G
Frequency	(LA) models: TDD-LTE: Band38/40, FDD-LTE: Band1/2/3/4/5/7/8/12/17/28/66, WCDMA/HSPA+:Band1/2/3/4/5/8 Other models: TDD-LTE: Band38/40/41, FDD-LTE: Band 1/3/5/7/8/20/28, WCDMA/HSPA+:Band1/5/8
Standard	TDD-LTE/FDD-LTE/WCDMA/HSPA+
Image	
Wide Dynamic Range (WDR)	[Bullet channel] 120 dB, [PTZ channel] 140 dB
Day/Night Switch	Day,night,auto,schedule
Image Enhancement	HLC,3D DNR
Privacy Mask	[Panoramic channel] 8 programmable polygon privacy masks, [PTZ channel] 24 programmable polygon privacy masks; mask color or mosaic configurable
Defog	Digital defog
Image Stabilization	EIS (Built-in gyroscope to improve EIS performance)
Regional Exposure	Yes
Regional Focus	[Panoramic channel] No, [PTZ channel] Yes
Image Settings	Saturation, brightness, contrast, sharpness, gain, and white balance adjustable by client software or web browser
Image Parameters Switch	Yes
SNR	≥ 52 dB
Supplement Detection	
Satellite Positioning	No
Gyroscope	Yes
Compass	No
Interface	
On-board Storage	Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 512GB
Built-in Microphone	1 built-in microphone
Built-in Speaker	1 built-in speaker
Ethernet Interface	1 RJ45 10M/100M self-adaptive Ethernet port
Alarm	2 input(s), 1 output(s)
Audio	1 input (line in), max. input amplitude: 2-2.4 vpp, input impedance: 1 KΩ ± 10%, 1 output (line out), line level, output impedance: 600 Ω
RS-485	1 RS-485 (Half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)
Reset	Yes
Event	
Basic Event	exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error), audio exception detection, vandal-proof alarm, alarm input, [PTZ channel] motion detection, video tampering alarm

Smart Event	Line crossing detection,intrusion detection,region entrance detection,region exiting detection,unattended baggage detection,object removal detection,loitering detection,people gathering detection,fast moving detection,parking detection
Linkage	[Panoramic channel] Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, audible warning, white light flashing, [PTZ channel] Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, and PTZ actions (such as preset, patrol scan, pattern scan)
Deep Learning Function	
Multi-Target-Type Detection	[Panoramic channel]: no,[PTZ channel] Supports simultaneous detection and capture of human body, face and vehicle
Road Traffic and Vehicle Detection	[PTZ channel]: Smart functions: Support license plate recognition of vehicles and motorcycles (only in checkpoint scenario) Support vehicle attribute detection, including vehicle type, color, brand, driving direction, etc. Support vehicle and non-vehicle counting Blocklist and allowlist: up to 10,000 records LPR Countries/Regions: 4 areas (Europe, Middle East, Asia-Pacific, Africa) and more than 124 countries/regions Accuracy (Under recommended installation and lighting conditions): License plate recognition rate $\geq 98\%$ Capture rate $\geq 99\%$ Driving direction accuracy rate $\geq 98\%$ Vehicle Capture Speed: Front installation in checkpoint scenario: up to 120 km/h Side installation: up to 80 km/h Capture Mode: License Plate and Vehicle Mode, Vehicle Priority Mode [Panoramic channel]: no
Perimeter Protection	Line crossing detection, region entrance detection, intrusion detection, region exiting detection
Linkage and Tracking	
Smart Tracking	[PTZ channel] Manual tracking, auto-tracking 3.0
Smart Linkage	tracking takeover, linked tracking capture
General	
Power	12VDC$\pm$ 15%, max. 60 W (Max. 40 W, including max. 7.2 W for light and max. 16 W for heater) PoE 802.3bt, type3, class6, max. 60W (Max. 40 W, including max. 7.2 W for light and max. 16 W for heater)
Material	PA*+50% glass fiber
Wiper	Yes
General Function	mirror,password protection
Operating Condition	-30 °C to 65 °C (-22 °F to 149 °F). Humidity 95% or less (non-condensing),For speaker: -30 °C to 55°C (-22°F to 131°F)
Demist	Yes
Dimension	Ø218 mm × 389 mm (Ø8.58" × 15.31")

Weight	Approx. 5.4 kg (11.9 lb.)
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
Approval	
RF	CE-RED: EN 301489-1 V2.2.3, EN 301489-17 V3.2.4, EN 301489-52 V1.2.1, EN 300 328 V2.2.2, EN IEC 62311:2020
EMC	CE-EMC (EN 55032:2015, EN 61000-3-2:2019, EN 61000-3-3: 2013 + A1: 2019, EN 50130-4:2011 + A1: 2014),RCM (AS/NZS CISPR 32: 2015),IC (ICES-003: Issue 7)
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)
Environment	CE-RoHS (2011/65/EU),WEEE (2012/19/EU),Reach (Regulation (EC) No 1907/2006)
Protection	IP67 (IEC 60529-2013),TVS 6000 V lightning protection, surge protection and voltage transient protection
Anti-Corrosion Protection	NEMA 4X (NEMA 250-2018),C5M

▪ DORI

The DORI (detect, observe, recognize, identify) distance gives the general idea of the camera ability to distinguish persons or objects within its field of view. It is calculated based on the camera sensor specification and the criteria given by EN 62676-4: 2015.

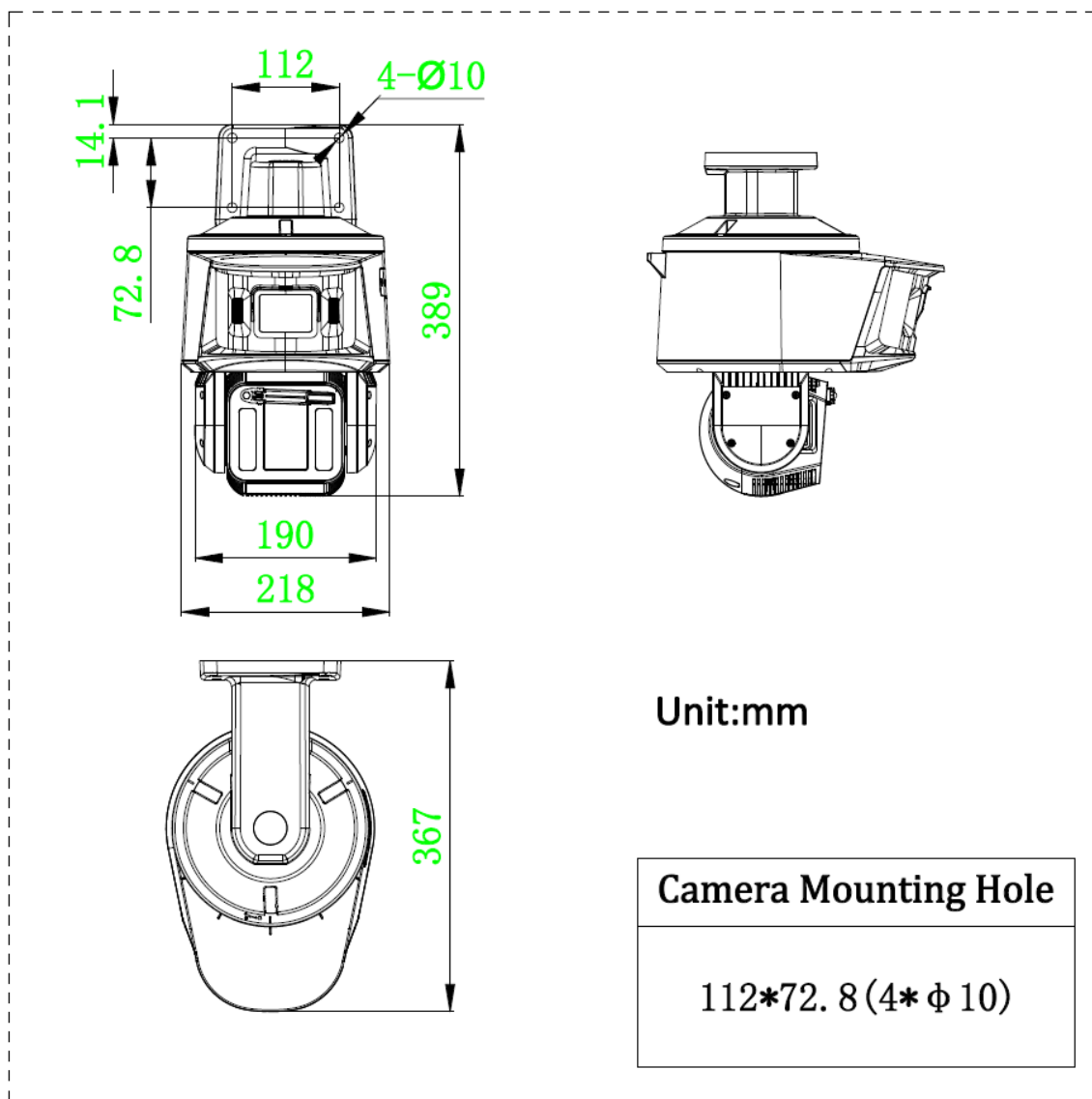
DORI	Detect	Observe	Recognize	Identify
Definition	25 px/m	63 px/m	125 px/m	250 px/m
[Bullet channel] Distance	77 m (252.62 ft.)	30.5 m (100 ft.)	15.4 m (50.52 ft.)	7.7 m (25.26 ft.)
[PTZ channel] Distance (Tele)	2400 m (7874 ft.)	952.4 m (3124.67 ft.)	480 m (1574.8 ft.)	240 m (787.4 ft.)

▪ Available Model

DS-2ST5C412MWG-EW/4G/14(PA)(F1)

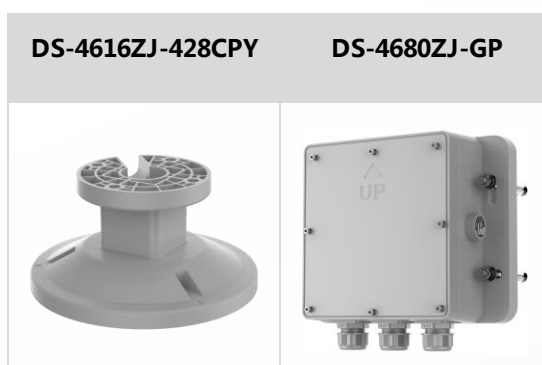
DS-2ST5C412MWG-EW/4G/14(PA)(F1)LA

▪ Dimension



▪ Accessory

▪ Optional



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