

## **DS-2SR8C432I5XG2-LFW/SP/R12/28(C5F2) 4MP 32x PTZ With Perimeter Millimeter Wave Radar**



Hikvision Radar PTZ Camera combines security radar with network speed dome. The radar adopts phased array technology for intrusion detection, which is able to detect the distance, speed and location of targets. The device supports multi-target positioning, pattern tracking, and linked camera tracking in multiple directions. It can filter out false alarms in various event detections via intelligent algorithm analysis. The radar PTZ camera can effectively work day and night in all weather conditions, including rain and fog. This product is suitable for many types of video security sites, such as borderline, prison, power station, railway, museum, airport, and other locations that need perimeter protection. The key features are as follows:

- Adopt integrated triple cameras + radar design and support long-range, flexible and multi-dimensional adjustment.  
All-weather radar video multi-dimensional perception and long-distance perimeter detection
- Environmental adaptability to work normally in various weather environments such as day, night, rain, fog, etc., and have flexible and rich configuration functions, which can realize one-click configuration of various scenarios
- Support radar and video for perimeter intrusion detection of multiple targets at the same time
- Support the detection of the target's distance, direction, speed information, and support target positioning, trajectory following
- Support smart event, panoramic camera to arm the configured area, when the target is detected, the linkage of the detail camera to follow the target and alarm
- Support radar and video to detect the target, capture the target's face, human body or vehicle pictures during the following process and output related information
- Support display panoramic pictures, detailed pictures, radar sector maps, event alarm maps, face, human body and vehicle snapshots and target structured information through IE
- Support automatic and manual calibration
- Suitable for perimeter security scenarios such as industrial plants, enterprise parks, and regional control
- Support 4 Zones and 4 Trigger Lines

## ▪ Specification

| Radar Detection               |                                                                                                                                                                                                                                               |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Working Frequency             | 24.05 GHz to 24.25 GHz, 24.00 GHz to 24.25 GHz                                                                                                                                                                                                |
| Detection Distance            | Human: 500 m, vehicle: 500 m                                                                                                                                                                                                                  |
| Horizontal Detection Angle    | Double beam: Narrow beam: 15° (0 m to 500 m) Wide beam: 50° (0 m to 100 m)                                                                                                                                                                    |
| Vertical Detection Angle      | 30°                                                                                                                                                                                                                                           |
| Max. Detectable Targets       | 128                                                                                                                                                                                                                                           |
| Distance Measurement Accuracy | 1m                                                                                                                                                                                                                                            |
| Speed Measurement Accuracy    | 0.06 m/s                                                                                                                                                                                                                                      |
| Angle Measurement Accuracy    | 0.8°                                                                                                                                                                                                                                          |
| Radar Event                   | Radar events including line crossing detection and intrusion detection. Detected target is tracked and captured by PTZ camera channel. Video double checks radar detected targets to improve detection accuracy.                              |
| Data Fresh Rate               | 10 Hz                                                                                                                                                                                                                                         |
| Camera                        |                                                                                                                                                                                                                                               |
| Image Sensor                  | [Panorama 1] 1/1.8" progressive scan CMOS [Panorama 2] 1/1.8" progressive scan CMOS [Detail] 1/1.8" progressive scan CMOS                                                                                                                     |
| Max. Resolution               | 2688 × 1520                                                                                                                                                                                                                                   |
| Min. Illumination             | [Panorama 1] Color: 0.0005 Lux @ (F1.6, AGC ON) [Panorama 2] Color: 0.0005 Lux @ (F1.4, AGC ON), B/W: 0.0001 Lux @ (F1.4, AGC ON), 0 Lux with IR [Detail] Color: 0.0005 Lux @ (F1.2, AGC ON), B/W: 0.0001 Lux @ (F1.2, AGC ON), 0 Lux with IR |
| Shutter Speed                 | 1/25 s to 1/30,000 s                                                                                                                                                                                                                          |
| Zoom                          | 32 × optical, 16 × digital                                                                                                                                                                                                                    |
| Slow Shutter                  | yes                                                                                                                                                                                                                                           |
| Lens                          |                                                                                                                                                                                                                                               |
| Focal Length                  | [Panoramic channel] 5 to 50 mm, [PTZ channel] 6 to 192 mm                                                                                                                                                                                     |
| FOV                           | [Panorama 1] 58° [Panorama 2] 40° to 9° [Detail] 60.2° to 2.3°                                                                                                                                                                                |
| Focus                         | Auto, semi-auto, manual                                                                                                                                                                                                                       |
| Aperture                      | [Panorama 1] F1.6 [Panorama 2] F1.4 [Detail] F1.2                                                                                                                                                                                             |
| Zoom Speed                    | [Panorama 1] No [Panorama 2] Approx. 1.8 s [Detail] Approx. 5.6 s                                                                                                                                                                             |
| Illuminator                   |                                                                                                                                                                                                                                               |
| Supplement Light Type         | Laser                                                                                                                                                                                                                                         |
| Supplement Light Range        | [Panorama] 200 m [Detail] 200 m                                                                                                                                                                                                               |
| Smart Supplement Light        | Yes                                                                                                                                                                                                                                           |
| PTZ                           |                                                                                                                                                                                                                                               |
| Movement Range (Pan)          | [Panorama] 0° to 270° [Detail] 0° to 360°                                                                                                                                                                                                     |
| Movement Range (Tilt)         | [Panorama] -11° to 11° [Detail] -20° to 90°                                                                                                                                                                                                   |
| Pan Speed                     | [Panorama] Configurable from 0.1° to 10°/s [Detail] Configurable from 0.1° to 210°/s, preset speed: 250°/s                                                                                                                                    |
| Tilt Speed                    | [Panorama] Configurable from 0.1° to 20°/s [Detail] Configurable from 0.1° to 150°/s, preset speed: 90°/s                                                                                                                                     |
| Proportional Pan              | [Panorama] No [Detail] Yes                                                                                                                                                                                                                    |
| Presets                       | 300                                                                                                                                                                                                                                           |
| Patrol Scan                   | 8 patrols                                                                                                                                                                                                                                     |
| Pattern Scan                  | 4 pattern scans, record time over 10 minutes for each scan                                                                                                                                                                                    |

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Park Action                 | Preset, pattern scan, patrol scan, auto scan, tilt scan, random scan, frame scan, panorama scan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 3D Positioning              | yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| PTZ Status Display          | yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Scheduled Task              | Preset, pattern scan, patrol scan, auto scan, tilt scan, random scan, frame scan, panorama scan, dome reboot, dome adjust, aux output                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Power-off Memory            | yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Video</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Main Stream                 | <p>Panorama 1:<br/>50 Hz: 25 fps(2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720)<br/>60 Hz: 30 fps(2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720)</p> <p>Panorama 2:<br/>50 Hz: 25 fps(2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720)<br/>60 Hz: 30 fps(2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720)</p> <p>Detail:<br/>50 Hz: 25 fps(2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720)<br/>60 Hz: 30 fps(2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720)</p>                                           |
| Sub-Stream                  | <p>Panorama 1:<br/>50 Hz: 25 fps(704 × 576, 640 × 480, 352 × 288)<br/>60 Hz: 30 fps(704 × 480, 640 × 480, 352 × 240)</p> <p>Panorama 2:<br/>50 Hz: 25 fps(704 × 576, 640 × 480, 352 × 288)<br/>60 Hz: 30 fps(704 × 480, 640 × 480, 352 × 240)</p> <p>Detail:<br/>50 Hz: 25 fps(704 × 576, 640 × 480, 352 × 288)<br/>60 Hz: 30 fps(704 × 480, 640 × 480, 352 × 240)</p>                                                                                                                                                                                                                               |
| Third Stream                | <p>Panorama 1:<br/>50 Hz: 25 fps(1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288)<br/>60 Hz: 30 fps(1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240)</p> <p>Panorama 2:<br/>50 Hz: 25 fps(1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288)<br/>60 Hz: 30 fps(1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240)</p> <p>Detail:<br/>50 Hz: 25 fps(1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288)<br/>60 Hz: 30 fps(1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240)</p> |
| Video Compression           | <p>Main stream: H.264+/H.265+/H.264/H.265,</p> <p>Sub-stream: H.265/H.264/MJPEG,</p> <p>Third stream: H.265/H.264/MJPEG</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Video Bit Rate              | 32 Kbps to 16 Mbps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Scalable Video Coding (SVC) | yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Region of Interest (ROI)    | [Detail] Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

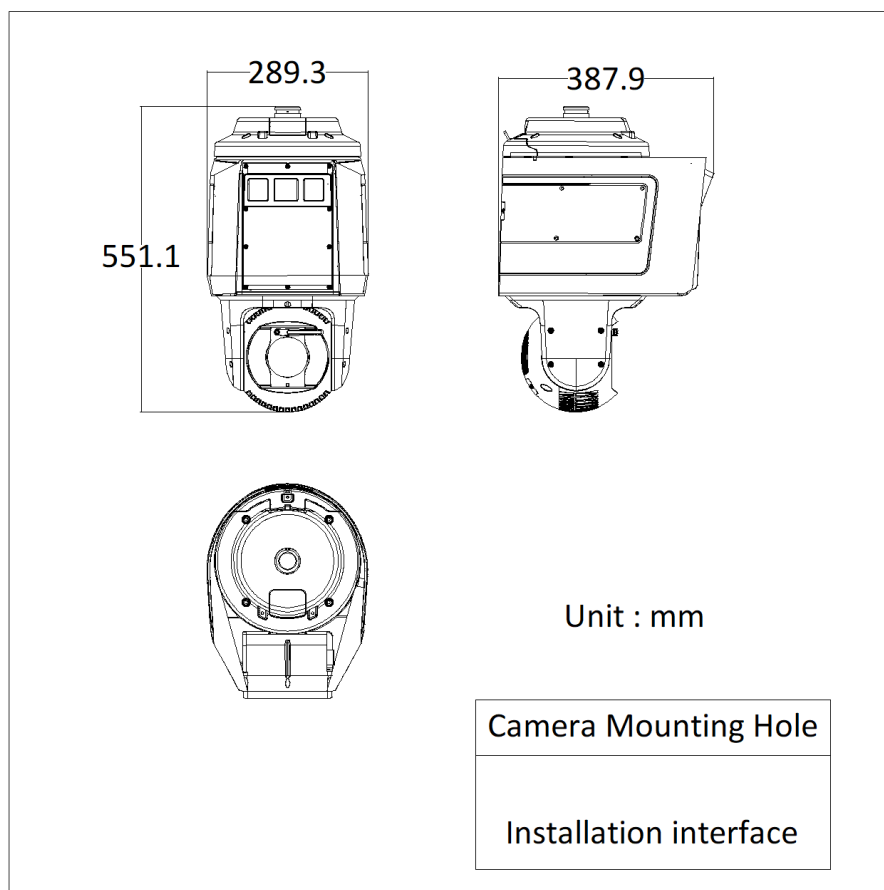
| Audio                       |                                                                                                                                                                                                |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Audio Compression           | G.711A, G.711U, G.722.1, G.726, MP2L2, PCM, AAC-LC, MP3                                                                                                                                        |
| Audio Bit Rate              | 16 to 64Kbps (AAC-LC), 32 to 192 Kbps (MP2L2), 8 to 320 Kbps (MP3)                                                                                                                             |
| Audio Sampling Rate         | MP2L2: 16 KHz, 32 KHz, 48 KHz; AAC-LC: 16 KHz, 32 KHz, 48 KHz; PCM: 8 KHz, 16 KHz, 32 KHz, 48 KHz                                                                                              |
| Environment Noise Filtering | Yes                                                                                                                                                                                            |
| Network                     |                                                                                                                                                                                                |
| Protocols                   | SSL/TLS, HTTPS, QoS, IGMP, SMTP, ICMP, WebSocket, WebSockets, HTTP, RTSP, SFTP, RTP, DNS, UDP, UPnP, SNMP, FTP, DHCP, NTP, DDNS, PPPoE, 802.1X, RTP, TCP/IP, IPv6, IPv4                        |
| Simultaneous Live View      | Up to 20 channels                                                                                                                                                                              |
| API                         | API, ISAPI, SDK, ISUP, Hik-Connect                                                                                                                                                             |
| User/Host                   | Up to 32 users. 3 levels: Administrator, Operator and User                                                                                                                                     |
| Security                    | Authenticated username and password, MAC address binding, HTTPS encryption, 802.1X authenticated access, IP address filter                                                                     |
| Network Storage             | NAS (NFS, SMB/CIFS)                                                                                                                                                                            |
| Client                      | iVMS-4200, Hik-Connect, HikCentral Pro                                                                                                                                                         |
| Web Browser                 | Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Safari 11+<br>Local service: Chrome 41.0+, Firefox 30.0+                                                                                  |
| Image                       |                                                                                                                                                                                                |
| Day/Night Switch            | Day, night, auto, schedule                                                                                                                                                                     |
| Supplement Detection        |                                                                                                                                                                                                |
| Satellite Positioning       | Yes                                                                                                                                                                                            |
| Gyroscope                   | Yes                                                                                                                                                                                            |
| Compass                     | Yes                                                                                                                                                                                            |
| Interface                   |                                                                                                                                                                                                |
| Ethernet Interface          | RJ45 1000 M Ethernet Interface, self-adaptive                                                                                                                                                  |
| Audio                       | 1 audio input, 2.0 to 2.4 Vp-p, input impedance: 1 kΩ ± 10%; 1 audio output, line level, impedance: 600 Ω                                                                                      |
| Alarm                       | 7 alarm inputs, 2 alarm outputs                                                                                                                                                                |
| RS-485                      | Half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive                                                                                                                                        |
| On-board Storage            | Built-in memory card slot, support Micro SD/Micro SDHC/Micro SDXC, up to 256 GB                                                                                                                |
| Reset                       | Yes                                                                                                                                                                                            |
| Fiber Optical               | 1 fiber optical interface, SFP module, single mode, 20 km transmission distance, 1310 nm (TX) and 1550 nm (RX), 155 Mbps transmission rate                                                     |
| Event                       |                                                                                                                                                                                                |
| Basic Event                 | Motion detection, video tampering alarm, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error), audio exception detection, vandal-proof alarm, alarm input |
| Smart Event                 | Intrusion detection, line crossing detection, region entrance detection, region exiting detection                                                                                              |
| General                     |                                                                                                                                                                                                |
| Power                       | 36 VDC, 4.17 A, max. 90 W [Panorama] heating 6 W, supplement light 6 W [Detail] heating 6 W, supplement light 12 W                                                                             |
| Dimension                   | Ø391 mm × 530 mm (15.39" × 20.87")                                                                                                                                                             |
| Weight                      | Approx. 17 kg (37.48 lb.)                                                                                                                                                                      |
| Operating Condition         | Temperature: -40 °C to 70 °C (-40 °F to 158 °F), humidity: &lt; 95%                                                                                                                            |

|                 |      |
|-----------------|------|
| Wiper           | Yes  |
| Demist          | Yes  |
| <b>Approval</b> |      |
| Protection      | IP67 |

## ▪ Available Model

DS-2SR8C432I5XG2-LFW/SP/R12/28(C5F2)OSTD

## ▪ Dimension



## ▪ Accessory

### ▪ Optional



# See Far, Go Further



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