

**DS-2DY9C840LXG-LWY/14**  
**8MP 40X DarkFighter Laser Network Positioning System**



- 1/1.2" progressive scan CMOS for PTZ channel
- Up to 3840 × 2160 resolution
- Captures a large area and great details at the same time
- 40× optical zoom, 16×digital zoom
- Excellent low-light performance via DarkFighter 2.0 technology
- Clear imaging against strong back light due to 140 dB AWDR technology
- Built-in gyroscope to ensure stable image output
- Support VR Panorama: VR-Assisted Live View significantly simplifies PTZ operations by generating a 360° panorama as a virtual reality map.
- Smart Pan-Tilt Correction
- Support up to 1000 m IR distance

## ▪ Specification

| Camera                      |                                                                                                                                                                                                                                                                      |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor                | [Bullet channel] 1/1.8" Progressive Scan CMOS, [PTZ channel] 1/1.2" Progressive Scan CMOS                                                                                                                                                                            |
| Shutter Speed               | 1/1 ~ 1/30,000 s                                                                                                                                                                                                                                                     |
| Min. Illumination           | [Bullet channel] Color: 0.0005 Lux @ (F1.0, AGC ON),<br>[PTZ channel] Color: 0.0005 Lux @ (F1.6, AGC ON), B/W: 0.0001 Lux @ (F1.6, AGC ON),<br>0 lux with IR                                                                                                         |
| Day & Night                 | [Bullet channel] no, [PTZ channel] IR cut filter                                                                                                                                                                                                                     |
| Zoom                        | 40 × optical, 16 × digital                                                                                                                                                                                                                                           |
| Max. Resolution             | [Panoramic channel] 2560 × 1440, [PTZ channel] 3840 × 2160                                                                                                                                                                                                           |
| Lens                        |                                                                                                                                                                                                                                                                      |
| Focus                       | Auto, semi-auto, manual                                                                                                                                                                                                                                              |
| Aperture                    | [Bullet channel] F1.0, [PTZ channel] F1.6                                                                                                                                                                                                                            |
| Focal Length                | [panoramic channel]: 6 mm<br>[PTZ channel]: 6 to 240 mm: 40× optical                                                                                                                                                                                                 |
| FOV                         | [Panoramic channel] horizontal field of view: 55.2°, vertical field of view: 29.3°,<br>diagonal field of view: 64.8°<br>[PTZ channel] horizontal field of view: 61.1° to 2.1°, vertical field of view: 35.9° to 1.2°,<br>diagonal field of view: 68.5° to 2.4° (W-T) |
| Illuminator                 |                                                                                                                                                                                                                                                                      |
| Supplement Light Type       | IR Laser (default: off)                                                                                                                                                                                                                                              |
| Supplement Light Range      | IR laser distance: up to 1000 m                                                                                                                                                                                                                                      |
| Smart Supplement Light      | Yes                                                                                                                                                                                                                                                                  |
| PTZ                         |                                                                                                                                                                                                                                                                      |
| Movement Range (Tilt)       | -90° to 90°                                                                                                                                                                                                                                                          |
| Pan Speed                   | Pan speed: configurable from 0.1° to 100°/s, preset speed: 100°/s, Pan speed:<br>configurable up to °/s, preset speed: °/s                                                                                                                                           |
| Tilt Speed                  | Tilt speed: configurable from 0.1° to 50°/s, preset speed 50°/s                                                                                                                                                                                                      |
| 3D Positioning              | Yes                                                                                                                                                                                                                                                                  |
| Scheduled Task              | Preset, pattern scan, patrol scan, auto scan, tilt scan, random scan, frame scan, panorama<br>scan, dome reboot, dome adjust, aux output                                                                                                                             |
| Movement Range (Pan)        | 360°                                                                                                                                                                                                                                                                 |
| Proportional Zoom           | [panoramic channel]: no; [PTZ channel]: yes                                                                                                                                                                                                                          |
| Presets                     | 300                                                                                                                                                                                                                                                                  |
| Patrol Scan                 | 8 patrols                                                                                                                                                                                                                                                            |
| Pattern Scan                | 4 pattern scans                                                                                                                                                                                                                                                      |
| Power-off Memory            | [panoramic channel]: no; [PTZ channel]: yes                                                                                                                                                                                                                          |
| Park Action                 | Preset/Pattern Scan/Patrol Scan/Auto Scan/Tilt Scan/Random Scan/Frame<br>Scan/Panorama Scan                                                                                                                                                                          |
| Preset Freezing             | [panoramic channel]: no; [PTZ channel]: yes                                                                                                                                                                                                                          |
| Video                       |                                                                                                                                                                                                                                                                      |
| Video Compression           | Main stream: H.265+/H.265/H.264+/H.264,<br>Sub-stream: H.265/H.264/MJPEG,<br>Third stream: H.265/H.264/MJPEG                                                                                                                                                         |
| Scalable Video Coding (SVC) | H.264 and H.265 encoding                                                                                                                                                                                                                                             |

|                          |                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Region of Interest (ROI) | 8 fixed regions for each stream                                                                                                                                                                                                                                                                                                                      |
| Main Stream              | [panoramic channel]<br>50Hz: 25fps (2560×1440, 1920×1080, 1280×960, 1280×720)<br>60Hz: 30fps (2560×1440, 1920×1080, 1280×960, 1280×720)<br>[PTZ channel]<br>50Hz: 25fps (3840×2160 , 2560×1440, 1920×1080, 1280×960, 1280×720)<br>60Hz: 30fps (3840×2160 , 2560×1440, 1920×1080, 1280×960, 1280×720)                                                 |
| Sub-Stream               | [panoramic channel]<br>50Hz: 25fps (704×576, 640×480, 352×288)<br>60Hz: 30fps (704×480, 640×480, 352×240)<br>[PTZ channel]<br>50Hz: 25fps (704×576, 640×480, 352×288)<br>60Hz: 30fps (704×480, 640×480, 352×240)                                                                                                                                     |
| Third Stream             | [panoramic channel]<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)<br>[PTZ channel]<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) |
| <b>Audio</b>             |                                                                                                                                                                                                                                                                                                                                                      |
| Audio Compression        | G.711,G.722.1,G.726,MP2L2,PCM,MP3,AAC-LC                                                                                                                                                                                                                                                                                                             |
| Audio Bit Rate           | 64 Kbps (G.711),16 Kbps (G.722.1),16 Kbps (G.726),32 to 192 Kbps (MP2L2),16 to 64Kbps (AAC-LC),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,MP3: 8 kHz, 16 kHz, 32 kHz, 48 kHz                                                                                                                                                                                                                   |
| <b>Network</b>           |                                                                                                                                                                                                                                                                                                                                                      |
| API                      | ONVIF (ProfileS, ProfileG, ProfileT, ProfileM),ISAPI,SDK,ISUP                                                                                                                                                                                                                                                                                        |
| Security                 | Password protection,complicated password,host authentication (MAC address),HTTPS encryption,802.1X authentication (EAP-TLS, EAP-LEAP, EAP-MD5),IP address filter                                                                                                                                                                                     |
| Web Browser              | IE11, Chrome 80+, Firefox 80+, Safari 13+, Edge 89+                                                                                                                                                                                                                                                                                                  |
| Network Storage          | NAS (NFS, SMB/ CIFS),null                                                                                                                                                                                                                                                                                                                            |
| Protocols                | HTTP,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTCP,RTP,TCP/IP,UDP,IGMP,ICMP,DHCP,PPPoE,Bonjour,WebSocket,WebSockets,null                                                                                                                                                                                                                             |
| User/Host                | Up to 32 users.3 levels: Administrator, Operator and User                                                                                                                                                                                                                                                                                            |
| Client                   | iVMS-4200                                                                                                                                                                                                                                                                                                                                            |
| <b>Image</b>             |                                                                                                                                                                                                                                                                                                                                                      |
| Wide Dynamic Range (WDR) | 140 dB                                                                                                                                                                                                                                                                                                                                               |
| Image Stabilization      | [Panoramic channel]: EIS,[PTZ channel]: OIS                                                                                                                                                                                                                                                                                                          |
| Image Enhancement        | BLC,HLC,3D DNR                                                                                                                                                                                                                                                                                                                                       |
| Regional Focus           | [Panoramic channel] No, [PTZ channel] Yes                                                                                                                                                                                                                                                                                                            |
| Defog                    | Optical defog                                                                                                                                                                                                                                                                                                                                        |
| Regional Exposure        | Yes                                                                                                                                                                                                                                                                                                                                                  |
| Image Settings           | Saturation, brightness, contrast, sharpness, gain, and white balance adjustable by client software or web browser                                                                                                                                                                                                                                    |
| Image Parameters Switch  | Yes                                                                                                                                                                                                                                                                                                                                                  |

|                               |                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Privacy Mask                  | [Panoramic channel] No, [PTZ channel] 24 programmable polygon privacy masks; mask color or mosaic configurable                                                                                                                                                                                                                                        |
| SNR                           | ≥ 52 dB                                                                                                                                                                                                                                                                                                                                               |
| <b>Interface</b>              |                                                                                                                                                                                                                                                                                                                                                       |
| Communication Interface       | RJ45, self-adaptive 10M/100M Ethernet port                                                                                                                                                                                                                                                                                                            |
| On-board Storage              | Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 512 GB                                                                                                                                                                                                                                                                     |
| Alarm                         | 7 input(s), 2 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                                                                                                                                                                                                             |
| <b>Event</b>                  |                                                                                                                                                                                                                                                                                                                                                       |
| Basic Event                   | Motion detection, video tampering alarm, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error), vandal-proof alarm, audio exception detection, alarm input and output                                                                                                                                             |
| Smart Event                   | Line crossing detection, intrusion detection, region entrance detection, region exiting detection, object removal detection, unattended baggage detection, support alarm triggering by specified target types (human and vehicle)                                                                                                                     |
| <b>Deep Learning Function</b> |                                                                                                                                                                                                                                                                                                                                                       |
| Multi-Target-Type Detection   | Supports simultaneous detection and capture of human body, face and vehicle                                                                                                                                                                                                                                                                           |
| Face Capture                  | Detects up to 30 faces simultaneously                                                                                                                                                                                                                                                                                                                 |
| <b>General</b>                |                                                                                                                                                                                                                                                                                                                                                       |
| Power                         | 36 VDC ± 25%, max. 92 W                                                                                                                                                                                                                                                                                                                               |
| Operating Condition           | Temperature: -40°C to 70°C (-40°F to 158°F), Humidity: ≤ 95%                                                                                                                                                                                                                                                                                          |
| Wiper                         | Yes                                                                                                                                                                                                                                                                                                                                                   |
| 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              | Anti-flicker, heartbeat, mirror, flash log, password reset via e-mail, password protection, watermark                                                                                                                                                                                                                                                 |
| Dimensions                    | 491 mm × 338.1 mm × 354.3 mm (19.34" × 13.32" × 13.96")                                                                                                                                                                                                                                                                                               |
| Weight                        | Approx. 23.1 kg (50.82 lb.)                                                                                                                                                                                                                                                                                                                           |
| <b>Approval</b>               |                                                                                                                                                                                                                                                                                                                                                       |
| 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), 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), TVS 6000 V lightning protection, surge protection and voltage transient protection, IK10 (Excepts Lens) (IEC 62262:2002)                                                                                                                                                                                                       |
| Anti-Corrosion Protection     | NEMA 4X (NEMA 250-2018)                                                                                                                                                                                                                                                                                                                               |

## ▪ 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.

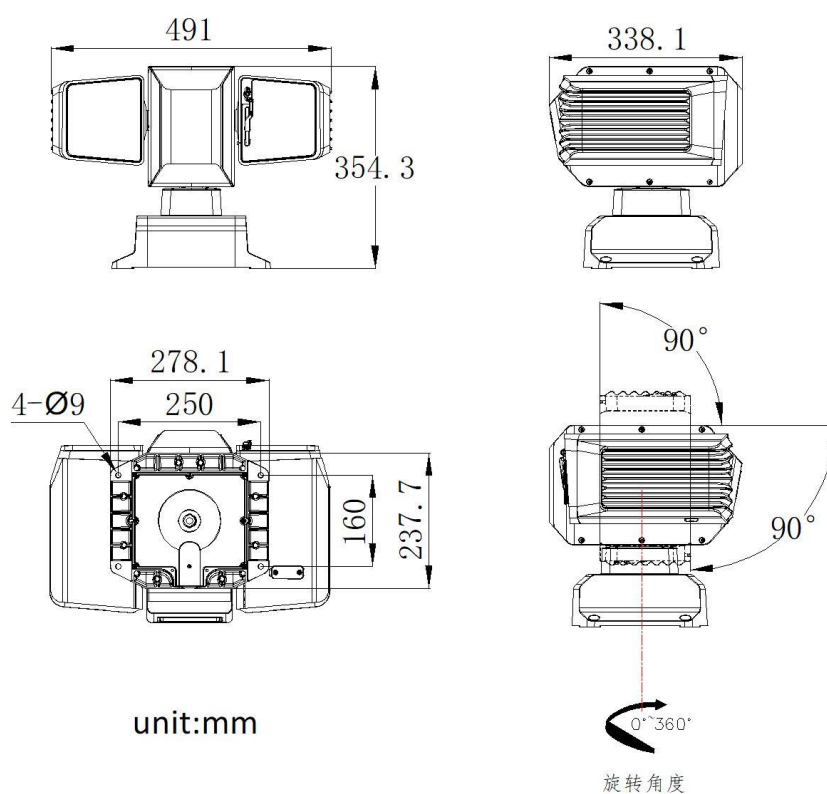
| DORI       | Detect  | Observe | Recognize | Identify |
|------------|---------|---------|-----------|----------|
| Definition | 25 px/m | 63 px/m | 125 px/m  | 250 px/m |

|                 |        |        |       |     |
|-----------------|--------|--------|-------|-----|
| Distance (Tele) | 3310.3 | 1313.6 | 662.1 | 331 |
|-----------------|--------|--------|-------|-----|

## ▪ Available Model

DS-2DY9C840LXG-LWY/14(F2)

## ▪ Dimension



## ▪ Accessory

### ▪ Optional

DS-1693ZJ(B)



# See Far, Go Further



[www.hikvision.com](http://www.hikvision.com)  
[support@hikvision.com](mailto:support@hikvision.com)

