

## DS-2DF7C445IXG-EL 4 MP 45 × IR Network Speed Dome



Hikvision DS-2DF7C445IXG-EL 4 MP 45 × IR Network Speed Dome adopts 1/1.8" progressive scan CMOS chip. With the 45 × optical zoom lens, the camera offers more details over expansive areas. This series of cameras can be widely used for wide ranges of high-definition, such as rivers, forests, roads, railways, airports, ports, squares, parks, scenic spots, stations and large venues, etc.

- 1/1.8" Progressive Scan CMOS
- High quality imaging with 4 MP resolution
- Excellent low-light performance with DarkFighter technology
- 45 × optical zoom and 16 × digital zoom provide close up views over expansive areas
- 120 dB WDR, 3D DNR, HLC, Smart IR
- Expansive night view with up to 300 m IR distance
- Supports rapid focus
- Water and dust resistant (IP66)

## ▪ Specification

| Camera                 |                                                                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor           | 1/1.8" progressive scan CMOS                                                                                                                                                  |
| Min. Illumination      | Color: 0.005 Lux @ (F1.5, AGC ON), B/W: 0.0005 Lux @ (F1.5, AGC ON), 0 Lux with IR                                                                                            |
| Slow Shutter           | Yes                                                                                                                                                                           |
| Shutter Speed          | 1/1 s to 1/30,000 s                                                                                                                                                           |
| Day & Night            | IR cut filter                                                                                                                                                                 |
| HLC                    | Yes                                                                                                                                                                           |
| Zoom                   | 45 × optical, 16 × digital                                                                                                                                                    |
| Max. Resolution        | 2560 × 1440                                                                                                                                                                   |
| Lens                   |                                                                                                                                                                               |
| FOV                    | Horizontal field of view: 60.2° to 1.7°<br>Vertical field of view: 35.2° to 1°<br>Diagonal field of view: 67.4° to 1.8 °                                                      |
| Zoom Speed             | Approx. 8.5 s                                                                                                                                                                 |
| Focus                  | Auto, semi-auto, manual, rapid focus                                                                                                                                          |
| Focal Length           | 5.9 to 265.5 mm                                                                                                                                                               |
| Aperture               | Max. F1.5                                                                                                                                                                     |
| Illuminator            |                                                                                                                                                                               |
| Supplement Light Type  | IR                                                                                                                                                                            |
| Supplement Light Range | Up to 300 m                                                                                                                                                                   |
| PTZ                    |                                                                                                                                                                               |
| Movement Range (Pan)   | 360°                                                                                                                                                                          |
| Movement Range (Tilt)  | -15° to 90° (auto flip)                                                                                                                                                       |
| Pan Speed              | Pan speed: configurable from 0.1° to 160°/s; preset speed: 240°/s                                                                                                             |
| Tilt Speed             | Tilt speed: configurable from 0.1° to 120°/s, preset speed 200°/s                                                                                                             |
| Proportional Pan       | 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, frame scan, panorama scan, dome reboot, dome adjust, aux output                                         |
| Video                  |                                                                                                                                                                               |
| Main Stream            | 50 Hz: 25 fps (2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720),<br>60 Hz: 30 fps (2560 × 1440, 1920 × 1080, 1280 × 960, 1280 × 720)                                         |
| Sub-Stream             | 50 Hz: 25 fps (704 × 576, 640 × 480, 352 × 288);<br>60 Hz: 30 fps (704 × 480, 640 × 480, 352 × 240)                                                                           |
| Third Stream           | 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) |

|                             |                                                                                                                                                                                                                                                                                                              |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                                                                                                                   |
| Video Bit Rate              | 32 Kbps to 16384 Kbps                                                                                                                                                                                                                                                                                        |
| 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                                                                                                                                                                                                                                                                              |
| <b>Audio</b>                |                                                                                                                                                                                                                                                                                                              |
| Audio Compression           | G.711alaw, G.711ulaw, G.722.1, G.726, MP2L2, PCM, AAC-LC                                                                                                                                                                                                                                                     |
| Audio Bit Rate              | MP2L2: 32 kbps, 40 kbps, 48 kbps, 56 kbps, 64 kbps, 80 kbps, 96 kbps, 112 kbps, 128 kbps, 144 kbps, 160 kbps, 192 kbps, AAC-LC: 16 Kbps 32 kbps, 64 Kbps                                                                                                                                                     |
| <b>Network</b>              |                                                                                                                                                                                                                                                                                                              |
| Network Storage             | NAS (NFS, SMB/CIFS), ANR                                                                                                                                                                                                                                                                                     |
| Protocols                   | IPv4/IPv6, HTTP, HTTPS, 802.1x, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP/IP, UDP, IGMP, ICMP, DHCP, PPPoE, Bonjour, WebSocket, WebSockets                                                                                                                                            |
| API                         | Open Network Video Interface (Profile S, Profile G, Profile T), ISAPI, SDK, OTAP                                                                                                                                                                                                                             |
| 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, RTP/RTSP over HTTPS, control timeout settings, security audit log, TLS 1.3, host authentication (MAC address) |
| Client                      | iVMS-4200, HikCentral, Hik-Connect                                                                                                                                                                                                                                                                           |
| Web Browser                 | IE11, Chrome 57.0+, Firefox 52.0+, Safari 11+                                                                                                                                                                                                                                                                |
| <b>Image</b>                |                                                                                                                                                                                                                                                                                                              |
| Image Enhancement           | BLC, HLC, 3D DNR                                                                                                                                                                                                                                                                                             |
| Wide Dynamic Range (WDR)    | 120 dB                                                                                                                                                                                                                                                                                                       |
| Defog                       | Digital defog                                                                                                                                                                                                                                                                                                |
| Image Stabilization         | EIS (Built-in gyroscope to improve EIS performance)                                                                                                                                                                                                                                                          |
| Regional Exposure           | Yes                                                                                                                                                                                                                                                                                                          |
| Regional Focus              | Yes                                                                                                                                                                                                                                                                                                          |
| Image Settings              | Saturation, brightness, contrast, sharpness, gain, and white balance adjustable by client software or web browser                                                                                                                                                                                            |
| Image Parameters Switch     | Yes                                                                                                                                                                                                                                                                                                          |
| Privacy Mask                | 24 programmable polygon privacy masks, mask color or mosaic configurable                                                                                                                                                                                                                                     |
| SNR                         | ≥ 52 dB                                                                                                                                                                                                                                                                                                      |
| <b>Interface</b>            |                                                                                                                                                                                                                                                                                                              |
| 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 256 GB                                                                                                                                                                                                                            |
| Alarm                       | 7 inputs, 2 outputs                                                                                                                                                                                                                                                                                          |
| 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)                                                                                                                                                                                                                                           |
| <b>Event</b>                |                                                                                                                                                                                                                                                                                                              |
| Basic Event                 | Motion detection, video tampering alarm, exception, alarm input and output                                                                                                                                                                                                                                   |

|                               |                                                                                                                                                                                                                                             |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Smart Event                   | Line crossing detection, intrusion detection, region entrance detection, region exiting detection, unattended baggage detection, object removal detection, audio exception detection, vandal-proof alarm                                    |
| Smart Tracking                | Manual tracking, auto-tracking                                                                                                                                                                                                              |
| Alarm Linkage                 | 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), Audible Warning                                                |
| <b>Deep Learning Function</b> |                                                                                                                                                                                                                                             |
| Face Capture                  | Detects up to 15 faces simultaneously.<br>Supports detecting, capturing, grading, selecting of face in motion, and outputs the best face picture                                                                                            |
| <b>General</b>                |                                                                                                                                                                                                                                             |
| Power                         | 24 VAC, 3.0 A, 50/60 Hz & Hi-PoE, 42.5 to 57 VDC, 1.41 A<br>(Max. 40 W, includes max. 16 W for IR and max. 10 W for heater)                                                                                                                 |
| General Function              | Mirror, password protection                                                                                                                                                                                                                 |
| Dimension                     | Ø 226 mm × 354 mm (Ø 8.90" × 13.94")                                                                                                                                                                                                        |
| Weight                        | Approx. 5.0 kg (11.02 lb.)                                                                                                                                                                                                                  |
| <b>Approval</b>               |                                                                                                                                                                                                                                             |
| EMC                           | FCC SDoC (47 CFR Part 15, Subpart B);<br>CE-EMC (EN 55032: 2015, EN 61000-3-2: 2019, EN 61000-3-3: 2013, EN 50130-4: 2011 +A1: 2014);<br>RCM (AS/NZS CISPR 32: 2015);<br>IC VoC (ICES-003: Issue 6, 2019);<br>KC (KN 32: 2015, KN 35: 2015) |
| Safety                        | UL (UL 62368-1)<br>CB (IEC 60950-1:2005 + Am 1:2009 + Am 2:2013, IEC 62368-1:2014);<br>CE-LVD (EN 62368-1:2014+A11:2017),<br>BIS (IS 13252(Part 1):2010+A1:2013+A2:2015);<br>LOA (SANS IEC60950-1)                                          |
| Environment                   | CE-RoHS (2011/65/EU); WEEE (2012/19/EU);<br>Reach (Regulation (EC) No 1907/2006)                                                                                                                                                            |
| Protection                    | IP66 (IEC 60529-2013), Lightning Protection, Surge Protection and Voltage Transient Protection, ±6kV Line to Gnd, ±3kV Line to Line, IEC61000-4-5                                                                                           |

## ▪ DORI

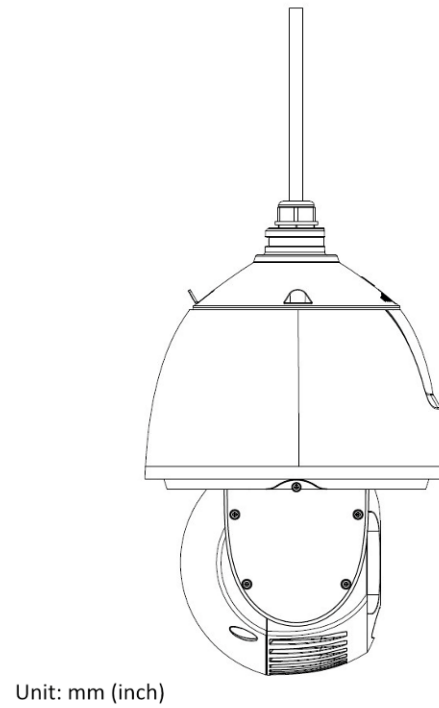
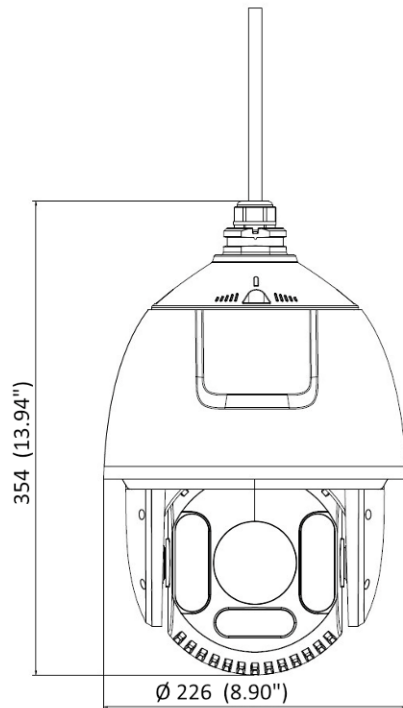
The DORI (detect, observe, recognize, identify) distance gives the general idea of the camera ability to distinguish persons or objects within its field of view. It is calculated based on the camera sensor specification and the criteria given by EN 62676-4: 2015.

| DORI            | Detect  | Observe | Recognize | Identify |
|-----------------|---------|---------|-----------|----------|
| Definition      | 25 px/m | 63 px/m | 125 px/m  | 250 px/m |
| Distance (Tele) | 4020m   | 1595.2m | 804m      | 402m     |

## ▪ Available Model

DS-2DF7C445IXG-EL

## ▪ Dimension



Unit: mm (inch)

▪ **Accessory**

▪ **Optional**

| DS-1602ZJ-corner                                                                    | DS-1602ZJ                                                                           | DS-1602ZJ-pole                                                                       | DS-1602ZJ-K                                                                           |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |

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