

## Specification

| Camera Module         |   |  |  |
|-----------------------|---|--|--|
| Image Sensor          | 1/2.8" progressive scan CMOS  |  |  |
| Min. Illumination     | Color: 0.002 Lux @(F1.2, AGC ON)  |  |  |
|                       | B/W: 0.0002 Lux @(F1.2, AGC ON)   |  |  |
| Shutter Time          | 1/1 s to 1/30,000 s   |  |  |
| White Balance         | Auto/Manual/ATW (Auto-tracking White Balance)/Indoor/Outdoor/Fluorescent<br>Lamp/Sodium Lamp                                |  |  |
| AGC                   | Auto/Manual   |  |  |
| Day & Night           | IR cut filter   |  |  |
| Digital Zoom          | 16×   |  |  |
| Privacy Mask          | 24 programmable polygon privacy masks   |  |  |
| Focus Mode            | Auto/Semi-automatic/Manual  |  |  |
| 3D DNR                | Yes   |  |  |
| BLC                   | Yes   |  |  |
| HLC                   | Yes   |  |  |
| WDR                   | 120 dB  |  |  |
| Defog                 | Yes   |  |  |
| EIS                   | Yes   |  |  |
| Regional Exposure     | Yes   |  |  |
| Regional Focus        | Yes   |  |  |
| Lens                  |   |  |  |
| Focal Length          | 4.8 mm to 153 mm, 32× Optical   |  |  |
| Zoom Speed            | Approx. 5.6 s (optical lens, wide-tele)   |  |  |
| Field of View         | Horizontal field of view: 58.4° to 2.14° (wide-tele)<br>Vertical field of view: 33.8° to 1.2° (wide-tele)                   |  |  |
|                       | Diagonal field of view: 65.6° to 2.46° (wide-tele)  |  |  |
| Working Distance      | 10 mm to 1500 mm (wide-tele)  |  |  |
| Aperture Range        | F1.2 to F4.4  |  |  |
| PTZ                   |   |  |  |
| Movement Range (Pan)  | 360° endless  |  |  |
| Pan Speed             | Configurable, from 0.1°/s to 300°/s, Preset Speed: 540°/s   |  |  |
| Movement Range (Tilt) | From -5° to 90°   |  |  |
| Tilt Speed            | Configurable, from 0.1°/s to 240°/s, Preset Speed: 400°/s   |  |  |
| Proportional Zoom     | 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/Panorame<br>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 |  |  |
| Smart Features        |   |  |  |



|                        | Intrusion, Line Crossing, Region Entrance, Region Exiting  |  |  |
|------------------------|--|--|--|
| Perimeter Protection   | Support alarm triggering by specified target types (human and vehicle)   |  |  |
|                        | Filtering out mistaken alarm caused by target types such as leaf, light, animal, and flag, etc.  |  |  |
| Event Detection        | Unattended Baggage Detection, Object Removal Detection, Face Detection, Audio Exception Detection  |  |  |
| Smart Tracking         | Manual Tracking, Auto Tracking (support tracking specified target types such as human an vehicle), Event Tracking  |  |  |
| Smart Record           | ANR (Automatic Network Replenishment), Dual-VCA  |  |  |
| ROI                    | Eight fixed regions for each stream  |  |  |
| Network                |  |  |  |
| Max. Resolution        | 1920 × 1080  |  |  |
| Main Stream            | 50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720)<br>50fps (1920 × 1080, 1280 × 960, 1280 × 720)<br>60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720)<br>60fps (1920 × 1080, 1280 × 960, 1280 × 720) |  |  |
| Sub-Stream             | 50Hz: 25fps (704 × 576, 640 × 480, 352 × 288)<br>60Hz: 30fps (704 × 480, 640 × 480, 352 × 240)   |  |  |
| Third Stream           | 50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288)   60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240)                              |  |  |
| SVC                    | Yes  |  |  |
| 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<br>H.264 with Baseline/Main/High Profile  |  |  |
| Audio compression      | G.711alaw/G.711ulaw/G.722.1/G.726/MP2L2/PCM  |  |  |
| Protocols              | IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP/IP, DHCP, PPPoE, UDP, IGMP, ICMP, Bonjour   |  |  |
| Simultaneous Live View | Up to 20 channels  |  |  |
| User/Host              | Up to 32 users<br>3 levels: Administrator, Operator and User   |  |  |
| Security Measures      | User authentication (ID and PW), Host authentication (MAC address); HTTPS encryption;<br>IEEE 802.1x port-based network access control; IP address filtering   |  |  |
| System Integration     |  |  |  |
| Alarm Interface        | 7-ch alarm input/2-ch alarm output   |  |  |
| Audio Interface        | 1-ch audio input, 2 to 2.4 V[p-p], 1 K $\Omega$ $\pm$ 10% 1-ch audio output, line level, impedance: 600 $\Omega$   |  |  |
| Alarm Linkage          | Alarm actions, such as Preset, Patrol Scan, Pattern Scan, Memory Card Video Record,<br>Trigger Recording, Notify Surveillance Center, Upload to FTP/Memory Card/NAS, Send<br>Email, etc.             |  |  |
| Network Interface      | 1 RJ45 10 M/100 M Ethernet Interface; Hi-PoE   |  |  |
| BNC                    | 1.0V [p-p]/75 Ω, NTSC (or PAL) composite   |  |  |
| RS-485                 | HIKVISION, Pelco-P, Pelco-D, self-adaptive   |  |  |
| Storage                | Built-in memory card slot, support Micro SD/SDHC/SDXC, up to 256 GB; NAS (NFS, SMB/<br>CIFS), ANR  |  |  |
| API                    | Open-ended, support ONVIF, and CGI, support HIKVISION SDK and Third-Party<br>Management Platform   |  |  |
| Client                 | iVMS-4200, iVMS-4500, iVMS-5200, Hik-Connect   |  |  |
| Web Browser            | IE 8 to 11, Chrome 31.0 to 44, Firefox 30.0 to 51  |  |  |
| General                |  |  |  |



| Power               | Indoor model: 24 VAC (max. 25 W), Hi-PoE (max. 25 W)  |  |
|---------------------|---|--|
|                     | Outdoor model: 24 VAC (max. 60 W, including max. 40 W for heater), Hi-PoE (max. 50 W, including max. 20 W for heater) |  |
| Working Temperature | -40°C to 70°C (-40°F to 158°F) (Outdoor)  |  |
|                     | -10°C to 50°C (14°F to 122°F) (Indoor)  |  |
| Working Humidity    | ≤ 90%   |  |
| Protection Level    | IP66 Standard (Outdoor), IK10, 6000V Lightning Protection, Surge Protection and Voltage<br>Transient Protection       |  |
| Dimensions          | Φ 220 mm × 302 mm (Φ 8.66" × 11.89") (Outdoor)  |  |
|                     | Φ 245.1 mm × 239 mm (Φ 9.65" × 9.41") (Indoor)  |  |
| Weight              | Approx. 4 kg (8.82 lb) (Outdoor)  |  |
|                     | Approx. 3.4 kg (7.50 lb) (Indoor)   |  |

## 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) | 2046.9 m (6715.5 ft) | 812.3 m (2664.9 ft) | 409.4 m (1343.1 ft) | 204.7 m (671.6 ft) |

## Order Model

| DS-2DF5232X-AEL | (D), 24 VAC & Hi-PoE (Outdoor) |
|-----------------|--------------------------------|
| DS-2DF5232X-AE3 | (D), 24 VAC & Hi-PoE (Indoor)  |

## Dimensions