

## DS-2DF9C435IHS-DLW(T2)

#### 4 MP 35 × Network IR PTZ Camera





















Hikvision DS-2DF9C435IHS-DLW (T2) 4 MP 35  $\times$  Network IR PTZ Camera belongs to the DarkFighterX camera family. With the patented dual-sensor design, it is able to process color and brightness independently and outputs one FULL-COLOR image. This series of cameras can be widely used for wide ranges of high-definition, such as the river, forest, road, railway, airport, port, square, park, scenic spot, station and large venue, etc.

### **Key Feature**

- Dual-sensor, 1/1.8" progressive scan CMOS
- Full-color image output
- Up to 2688 × 1512 resolution
- Min. illumination:

Color: 0.0005 Lux @ (F1.6, AGC ON) B/W: 0.0001 Lux @ (F1.6, AGC ON) 0 Lux with IR

- 35 × optical zoom, 16 × digital zoom
- 140 dB WDR, 3D DNR, HLC, BLC, EIS, Optical Defog
- Support H.265+/H.265 video compression
- Support rapid focus
- Deep-learning-based target classification algorithm for autotracking 2.0 and perimeter protection
- Up to 500 m IR distance. Smart IR
- Rain-sensing auto wiper





# - Specification

| Image Sensor  Min. Illumination  color: 0.0005 Lux @ (F1.6, AGC ON), B/W: 0.0001 Lux @ (F1.6, AGC ON), 0 Lux Shutter Speed  1/1 to 1/30,000s Slow Shutter  yes  Focus  Day & Night  electronic  Day/Night Switch  BLC  WDR  140 dB WDR  HLC  3D DNR  Defog  EIS  Regional Exposure  Regional Focus  Image Settings  Image Parameters Switch  White Balance  Digital Zoom  Optical Zoom  Optical Zoom  Picture Overlay  1/1.8" progressive scan CMOS, dual-sensor structure  (F1.6, AGC ON), B/W: 0.0001 Lux @ (F1.6, AGC ON), 0 Lux  (F1.6, AGC ON), B/W: 0.0001 Lux @ (F1.6, AGC ON), 0 Lux  (F1.6, AGC ON), B/W: 0.0001 Lux @ (F1.6, AGC ON), 0 Lux  (F1.6, AGC ON), B/W: 0.0001 Lux @ (F1.6, AGC ON), 0 Lux  (F1.6, AGC ON), B/W: 0.0001 Lux @ (F1.6, AGC ON), 0 Lux  (F1.6, AGC ON), B/W: 0.0001 Lux @ (F1.6, AGC ON), 0 Lux  (F1.6, AGC ON), B/W: 0.0001 Lux @ (F1.6, AGC ON), 0 Lux  (F1.6, AGC ON), B/W: 0.0001 Lux @ (F1.6, AGC ON), 0 Lux  (F1.6, AGC ON), B/W: 0.0001 Lux @ (F1.6, AGC ON), 0 Lux  Shutter Speed  1/1 to 1/30,0005  Semi-auto, manual, auto  Day Night Switch  But Optical Soon Saturation, brightness, contrast, sharpness  Image Parameters Switch  yes  Privacy Mask  up to 24 masks, polygon region, mosaic mask, mask color configurable  Picture Overlay  Privacy Mask  Privac | with IR   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| Shutter Speed 1/1 to 1/30,000s  Slow Shutter yes  Focus semi-auto, manual, auto Day & Night electronic Day/Night Switch day, night, auto, scheduled-switch BLC yes WDR 140 dB WDR HLC yes 3D DNR yes Defog yes EIS yes Regional Exposure yes Regional Focus yes Image Settings saturation, brightness, contrast, sharpness Image Parameters Switch yes White Balance auto, ATW, sodium lamp, fluorescent lamp, indoor, outdoor, MWB Digital Zoom 16 × Optical Zoom 35 × Privacy Mask up to 24 masks, polygon region, mosaic mask, mask color configurable Picture Overlay yes  | with IR   |  |  |  |  |  |
| Slow Shutter  Focus semi-auto, manual, auto  Day & Night electronic  Day/Night Switch day, night, auto, scheduled-switch  BLC yes  WDR 140 dB WDR  HLC yes  3D DNR yes  Defog yes  EIS yes  Regional Exposure yes  Regional Focus yes  Image Settings saturation, brightness, contrast, sharpness  Image Parameters Switch yes  White Balance auto, ATW, sodium lamp, fluorescent lamp, indoor, outdoor, MWB  Digital Zoom 16 ×  Optical Zoom 35 ×  Privacy Mask up to 24 masks, polygon region, mosaic mask, mask color configurable  Picture Overlay yes   |   |  |  |  |  |  |
| Focus semi-auto, manual, auto Day & Night electronic Day/Night Switch day, night, auto, scheduled-switch BLC yes WDR 140 dB WDR HLC yes 3D DNR yes Defog yes EIS yes Regional Exposure yes Regional Focus yes Image Settings saturation, brightness, contrast, sharpness Image Parameters Switch yes White Balance auto, ATW, sodium lamp, fluorescent lamp, indoor, outdoor, MWB Digital Zoom 16 × Optical Zoom 35 × Privacy Mask up to 24 masks, polygon region, mosaic mask, mask color configurable Picture Overlay yes  |   |  |  |  |  |  |
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| Day/Night Switch BLC yes WDR 140 dB WDR HLC yes 3D DNR Defog EIS Regional Exposure Regional Focus Image Settings Image Parameters Switch White Balance Digital Zoom Optical Zoom Privacy Mask Privacy Mask Picture Overlay  de yes  140 dB WDR yes 140 dB WDR yes yes yes yes Seturation, brightness, contrast, sharpness Image Settings Image Parameters Switch yes Untraction, brightness, contrast, sharpness Image Parameters Switch yes Untraction, brightness, contrast, sharpness Image Parameters Switch yes Ves Image Parameters Switch yes Ves Image Parameters Switch yes Ves Ves Ves Ves Ves Ves Ves Ves Ves V   |   |  |  |  |  |  |
| BLC yes WDR 140 dB WDR  HLC yes 3D DNR yes Defog yes EIS yes Regional Exposure yes Image Settings saturation, brightness, contrast, sharpness Image Parameters Switch yes White Balance auto, ATW, sodium lamp, fluorescent lamp, indoor, outdoor, MWB Digital Zoom 16 × Optical Zoom 35 × Privacy Mask up to 24 masks, polygon region, mosaic mask, mask color configurable Picture Overlay yes   |   |  |  |  |  |  |
| WDR HLC yes 3D DNR yes Defog yes EIS Regional Exposure Regional Focus Image Settings Image Parameters Switch White Balance Digital Zoom Optical Zoom Optical Zoom Privacy Mask Picture Overlay  140 dB WDR yes yes Image Settings yes yes Image Contract, sharpness yes Image Parameters Switch yes up to 24 masks, polygon region, mosaic mask, mask color configurable yes   |   |  |  |  |  |  |
| HLC 3D DNR yes Defog yes EIS Regional Exposure Regional Focus Image Settings Image Parameters Switch White Balance Digital Zoom Optical Zoom Privacy Mask Picture Overlay  yes yes Image Settings Saturation, brightness, contrast, sharpness Image Parameters Switch yes Underscent lamp, indoor, outdoor, MWB Digital Zoom SS × Privacy Mask Up to 24 masks, polygon region, mosaic mask, mask color configurable yes  |   |  |  |  |  |  |
| 3D DNR yes Defog yes EIS yes Regional Exposure yes Image Settings saturation, brightness, contrast, sharpness Image Parameters Switch yes White Balance auto, ATW, sodium lamp, fluorescent lamp, indoor, outdoor, MWB Digital Zoom 16 × Optical Zoom 35 × Privacy Mask up to 24 masks, polygon region, mosaic mask, mask color configurable Picture Overlay yes   |   |  |  |  |  |  |
| Defog yes  EIS yes  Regional Exposure yes  Regional Focus yes  Image Settings saturation, brightness, contrast, sharpness  Image Parameters Switch yes  White Balance auto, ATW, sodium lamp, fluorescent lamp, indoor, outdoor, MWB  Digital Zoom 16 ×  Optical Zoom 35 ×  Privacy Mask up to 24 masks, polygon region, mosaic mask, mask color configurable  Picture Overlay yes   |   |  |  |  |  |  |
| Regional Exposure yes Regional Focus yes Image Settings saturation, brightness, contrast, sharpness Image Parameters Switch yes White Balance auto, ATW, sodium lamp, fluorescent lamp, indoor, outdoor, MWB Digital Zoom 16 × Optical Zoom 35 × Privacy Mask up to 24 masks, polygon region, mosaic mask, mask color configurable Picture Overlay yes   |   |  |  |  |  |  |
| Regional Exposure Regional Focus Image Settings Image Parameters Switch White Balance Digital Zoom Optical Zoom Privacy Mask Picture Overlay  yes  yes yes yes saturation, brightness, contrast, sharpness yes yes saturation, brightness, contrast, sharpness yes yes saturation, brightness, contrast, sharpness yes saturation, brightness, contrast, sharpness yes   |   |  |  |  |  |  |
| Regional Focus Image Settings Image Parameters Switch White Balance Digital Zoom Optical Zoom Privacy Mask Picture Overlay  yes  yes  yes  saturation, brightness, contrast, sharpness yes  auto, ATW, sodium lamp, fluorescent lamp, indoor, outdoor, MWB  16 ×  0ptical Zoom 35 ×  Privacy Mask up to 24 masks, polygon region, mosaic mask, mask color configurable yes   |   |  |  |  |  |  |
| Image Settingssaturation, brightness, contrast, sharpnessImage Parameters SwitchyesWhite Balanceauto, ATW, sodium lamp, fluorescent lamp, indoor, outdoor, MWBDigital Zoom16 ×Optical Zoom35 ×Privacy Maskup to 24 masks, polygon region, mosaic mask, mask color configurablePicture Overlayyes   |   |  |  |  |  |  |
| Image Parameters Switch       yes         White Balance       auto, ATW, sodium lamp, fluorescent lamp, indoor, outdoor, MWB         Digital Zoom       16 ×         Optical Zoom       35 ×         Privacy Mask       up to 24 masks, polygon region, mosaic mask, mask color configurable         Picture Overlay       yes   |   |  |  |  |  |  |
| White Balance auto, ATW, sodium lamp, fluorescent lamp, indoor, outdoor, MWB  Digital Zoom 16 ×  Optical Zoom 35 ×  Privacy Mask up to 24 masks, polygon region, mosaic mask, mask color configurable yes  |   |  |  |  |  |  |
| Digital Zoom 16 × Optical Zoom 35 × Privacy Mask up to 24 masks, polygon region, mosaic mask, mask color configurable Picture Overlay yes  |   |  |  |  |  |  |
| Optical Zoom 35 × Privacy Mask up to 24 masks, polygon region, mosaic mask, mask color configurable Picture Overlay yes  |   |  |  |  |  |  |
| Privacy Mask up to 24 masks, polygon region, mosaic mask, mask color configurable Picture Overlay yes  |   |  |  |  |  |  |
| Picture Overlay yes  |   |  |  |  |  |  |
| ·  |   |  |  |  |  |  |
| SNR ≥ 55 dB  |   |  |  |  |  |  |
|  |   |  |  |  |  |  |
| ,  |   |  |  |  |  |  |
| Lens   |   |  |  |  |  |  |
| Focal Length 5.9 mm to 206.5 mm  |   |  |  |  |  |  |
| Zoom Speed approx. 4.4 s   |   |  |  |  |  |  |
| Horizontal field of view: 58.9° to 2.2°(wide-tele)   |   |  |  |  |  |  |
| FOV Vertical field of view: 35.3° to 1.2°(wide-tele)   |   |  |  |  |  |  |
| Diagonal field of view: 65.9° to 2.5° (wide-tele)  |   |  |  |  |  |  |
| Min. Working Distance 100 mm to 1500 mm (wide-tele)  |   |  |  |  |  |  |
| Aperture F1.6  |   |  |  |  |  |  |
| Aperture Range F1.6 to F4.4  |   |  |  |  |  |  |
| PTZ  |   |  |  |  |  |  |
| Movement Range (Pan) 360°  |   |  |  |  |  |  |
| Movement Range (Tilt) -25° to 90° (auto flip)  |   |  |  |  |  |  |
| Pan Speed pan speed: configurable from 0.1° to 210°/s; preset speed: 280°/s  |   |  |  |  |  |  |
| Tilt Speed tilt speed: configurable from 0.1° to 150°/s; preset speed 250°/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 scar   | Ι,  |  |  |  |  |  |
| panorama scan  |   |  |  |  |  |  |
| 3D Positioning yes   |   |  |  |  |  |  |
| PTZ Status Display yes   |   |  |  |  |  |  |
| Preset Freezing yes  |   |  |  |  |  |  |
| preset, pattern scan, patrol scan, auto scan, tilt scan, random scan, frame scan   | l,  |  |  |  |  |  |
| Scheduled Task panorama scan, dome reboot, dome adjust, aux output   | panorama scan, dome reboot, dome adjust, aux output |  |  |  |  |  |
| Vandal-proof alarm yes   |   |  |  |  |  |  |
| Video  |   |  |  |  |  |  |
| Max. Resolution 2688 × 1512  |   |  |  |  |  |  |
| Stream Type main stream, sub-stream, third stream  |   |  |  |  |  |  |
| 50Hz: 25fps (2688 x 1512, 1920 x 1080, 1280 x 960, 1280 x 720)   |   |  |  |  |  |  |
| Main Stream 60Hz: 30fps (2688 × 1512, 1920 × 1080, 1280 × 960, 1280 × 720)   |   |  |  |  |  |  |
| 50Hz: 25fps (704 x 576, 640 x 480, 352 x 288)  |   |  |  |  |  |  |
| Sub-Stream 60Hz: 30fps (704 × 480, 640 × 480, 352 × 240)   |   |  |  |  |  |  |



| Third Stream                      | 50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288)<br>60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240)                           |  |  |  |  |
|-----------------------------------|--|--|--|--|--|
| Video Compression                 | 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   |  |  |  |  |
| H.264+                            | yes  |  |  |  |  |
| H.265+                            | yes  |  |  |  |  |
| SVC                               | yes  |  |  |  |  |
| ROI                               | yes  |  |  |  |  |
| Audio                             | , 100  |  |  |  |  |
| Audio Compression                 | G.711alaw, G.711ulaw, G.722.1, G.726, MP2L2, PCM   |  |  |  |  |
| Audio Compression  Audio Bit rate | 64 Kbps (G.711)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 Kbps to 192 Kbps(MP2L2)   |  |  |  |  |
|                                   | 04 Kbps (0.711)/10 Kbps (0.722.1)/10 Kbps (0.720)/32 Kbps to 192 Kbps(WF2L2)   |  |  |  |  |
| Smart Features                    |  |  |  |  |  |
| Face Capture                      | Support detecting up to 30 faces at the same time. Support detecting, tracking, capturing, grading, selecting of face in motion, and output the best face picture of the face.                     |  |  |  |  |
| Road Traffic                      | Support vehicle detection (license plate number, vehicle model, and vehicle color recognition)   |  |  |  |  |
| Basic Event                       | motion detection, video tampering alarm, alarm input and output, exception   |  |  |  |  |
| Smart Event                       | intrusion detection, fast moving detection, object removal detection, intrusion detection, line crossing detection, region entrance detection, region exiting detection, audio exception detection |  |  |  |  |
| Smart Tracking                    | manual tracking, event tracking, auto-tracking   |  |  |  |  |
| Smart Record                      | ANR, Dual-VCA  |  |  |  |  |
| Alarm Linkage                     | preset, patrol scan, pattern scan, memory card video recording, alarm output, sending email, notify surveillance center, upload to FTP, smart tracking, NAS video recording                        |  |  |  |  |
| Smart Encoding                    | H.265+, H.264+, ROI, SVC   |  |  |  |  |
| Network                           |  |  |  |  |  |
| 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   |  |  |  |  |
| API                               | ISAPI, Hikvision SDK, ONVIF (Profile S, Profile G, Profile T)  |  |  |  |  |
| Simultaneous Live View            | 20   |  |  |  |  |
| User/Host                         | 32   |  |  |  |  |
| Security Measures                 | Authenticated username and password, MAC address binding, HTTPS encryption, 802.1X authenticated access, IP address filter   |  |  |  |  |
| Web Browser                       | IE 8 to 11, Chrome 57+, Firefox 52+, Safari 12+  |  |  |  |  |
| Interface                         |  |  |  |  |  |
| Communication Interface           | 1 RJ45 10 M/100 M Ethernet Interface   |  |  |  |  |
| On-board Storage                  | Built-in microSD slot, support microSD/microSDHC/microSDXC cards, up to 256 GB   |  |  |  |  |
| Alarm Input                       | 7 alarm inputs   |  |  |  |  |
| Alarm Output                      | 2 alarm output   |  |  |  |  |
| Audio Input                       | 1 audio input, 2.0 to 2.4Vp-p, 1k Ohm±10%  |  |  |  |  |
| Audio Output                      | 1 audio output, line level, impedance: $600 \Omega$  |  |  |  |  |
| Video Output                      | 1.0V[p-p]/75Ω,PAL, NTSC, BNC connector   |  |  |  |  |
| RS-485                            | Half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive  |  |  |  |  |
| Supplement Light                  |  |  |  |  |  |
| IR Distance                       | 500 meters   |  |  |  |  |
| Smart IR                          | yes  |  |  |  |  |
|                                   | yes  |  |  |  |  |
| General                           | 36 VDC   |  |  |  |  |
| Power Consumption and             | 36 VDC   |  |  |  |  |
| Power Consumption and Current     | max. 90 W, including max. 18 W for IR  |  |  |  |  |
| Operating Conditions              | Temperature: -40°C to 70°C (-40°F to 158°F) , Humidity: $\leq$ 95%   |  |  |  |  |
| 147                               | Yes. Rain-sensing auto control   |  |  |  |  |
| Wiper                             | res. Name-sensing auto control   |  |  |  |  |
| Material                          | ADC12  |  |  |  |  |
| •                                 | -  |  |  |  |  |



| Web Client Language | 32 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) |  |
|---------------------|--|--|
| Approval            |  |  |
| EMC                 | Lightning Protection, Surge Protection and Voltage Transient Protection, ±6kV Line to Gnd, ±3kV Line to Line, IEC61000-4-5   |  |
| Protection          | IP67   |  |

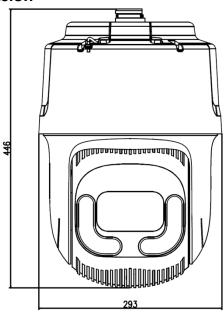
#### **DORI**

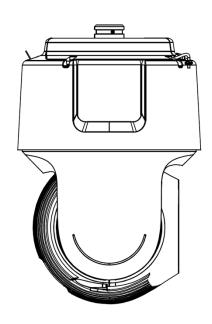
The DORI (detect, observe, recognize, identify) distance gives the general idea of the camera ability to distinguish persons or objects within its field of view.

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) | 2606.9 m (8552.8 ft) | 1034.5 m (3394.0 ft) | 521.4 m (1710.6 ft) | 260.7 m (854.3 ft) |

#### Dimension





## Accessory

## Included:



EUV-150S036ST-KW02 Power adapter



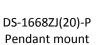
**Installation Adapter** 

#### **Optional:**











DS-1668ZJ-P Pendant mount



DS-1603ZJ-P Wall mount

DS-1603ZJ-Pole-P Vertical pole mount

DS-1619ZJ-HP2 Gooseneck Mount



Available Model

DS-2DF9C435IHS-DLW (T2)

Distributed by

**HIKVISION**°

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