Hikvision Darkfighter series DS-2DF8223I-AEL(W)/DS-2DF8236I-AEL(W)(B) smart PTZ dome cameras are able to capture high quality colored images in dim light environment with its cutting-edge low illumination level down to 0.002Lux (color). Embedded with 1/1.9” progressive scan CMOS chip makes true WDR (120dB) and 2MP real-time resolution possible. With the 23X/36X optical zoom Day/Night lens, the camera offers more details over expansive areas.

The Darkfighter PTZ camera also features a wide range of smart functions, including face detection, intrusion detection, line crossing detection and audio exception, benefitting users with great improvement on security efficiency, more importantly, with key events / objects being recorded for further forensic needs. These features, combined with smart tracking, which enables the camera to detect any progressively moving object and follow it within the camera’s area of coverage without fault. Smart Defog and EIS (Electronic Image Stabilization) are further supported to improve image quality in challenging conditions.

The Darkfighter smart PTZ opens up new opportunities for 24-hour CCTV surveillance, the overall excellence of the camera has been recognized by the IFSEC Security & Fire Excellence Awards as a finalist for “CCTV Camera Equipment of the Year”.

Key Features

- 1/1.9” HD CMOS sensor
- 2MP(1920*1080) Full HD
- 23X/36X Optical Zoom
- Ultra-low illumination
- 120db True WDR
- Smart Tracking
- Smart Detection
- EIS (Electronic Image Stabilization)
- Defog
- 200m IR distance
- Hi-PoE / 24VAC power supply

www.hikvision.com
DS-2DF8223I-AEL(W)
DS-2DF8236I-AEL(W)(B)
2MP Ultra-low Light Smart PTZ

Function Description

Basic function:
• High performance CMOS, up to 1920x1080 resolution
• ±0.1° Preset Accuracy
• ONVIF(Open Network Video Interface Forum), CGI(Common Gateway Interface), PSIA(Physical Security Interoperability Alliance), to ensure greater interoperability between different platforms and compatibility
• 3D intelligent positioning function
• 3D DNR
• IP66 standard
• 7 alarm inputs and 2 alarm outputs
• Scheduled PTZ movement

Smart function:
• Smart tracking modes: support manual/panorama/intrusion trigger/line crossing trigger, support smart tracking when patrol between multiple scenarios
• Smart detection: support face detection, intrusion detection, line crossing detection, audio exception detection
• Smart recording: support edge recording, support dual-VCA for smart search in smart NVR
• Smart image processing: support defog, HLC, smart IR, EIS
• Smart codec: low bit rate, ROI

Camera function:
• Auto iris, auto focus, auto white balance, backlight compensation and auto day & night switch
• Min. Illumination: 0.002Lux@(F1.5,AGC ON)(Color), 0.0002Lux@(F1.5,AGC ON)(B/W)
• Support privacy mask with multiple colors and mosaics on polygonal areas

PTZ function:
• 360° endless pan range and -20° ~ 90° tilt range
• 240° /s Pan Preset Speed and 200° /s Tilt Preset Speed
• 0.1° ~ 160° /s Manual Pan Speed and 0.1° ~ 120° /s Manual Tilt Speed
• 256 presets programmable; preset image freezing capability

8 patrols, up to 32 presets per patrol
4 patterns, with the recording time not less than 10 minutes per pattern
Proportional zoom function
Park action: auto call up of PTZ movement, after a defined time of inactivity
Power-off memory: restore PTZ & Lens status after reboot

Network function:
• H.264/MJPEG/MPEG4 video compression
• H.264 encoding with Baseline/Main/High profile
• ROI(Region of Interest) encoding(support 24 areas with adjustable levels)
• Built-in Web server
• Onboard storage, up to 64GB
• Support up to 8 NAS storage; Edge recording(transmit the videos from SD card to the NAS after network resumed)
• HTTPS encryption and IEEE 802.1X port-based network access control
• Support trip-streams
• Multiple network protocols supported: IPv4/IPv6, HTTP, HTTPS, 802.1X, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE
• 1 audio input and 1 audio output

IR function:
• 0 Lux minimum illumination
• Up to 200m IR distance
• IR light MTBF reaching up to 30,000 hours
**DS-2DF8223I-AEL(W)**
**DS-2DF8236I-AEL(W)(B)**
2MP Ultra-low Light Smart PTZ

<table>
<thead>
<tr>
<th><strong>Model</strong></th>
<th>DS-2DF8223I-AEL(W)/DS-2DF8236I-AEL(W)(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Camera Module</strong></td>
<td></td>
</tr>
<tr>
<td>Image Sensor</td>
<td>1/3.2” Progressive Scan CMOS</td>
</tr>
<tr>
<td>Min. Illumination</td>
<td>F1.5, 1/1.6 sec, 58 IRE, AGC On: Color: 0.002 lux, B/W: 0.0002 lux, 0 lux with IR</td>
</tr>
<tr>
<td>F1.5, 1/8 sec, 58 IRE, AGC On: Color: 0.02 lux, B/W: 0.002 lux, 0 lux with IR</td>
<td></td>
</tr>
<tr>
<td>Max. Image Resolution</td>
<td>1920x1080</td>
</tr>
<tr>
<td>Focal Length</td>
<td>5.9-135.7mm, 23x</td>
</tr>
<tr>
<td>Digital Zoom</td>
<td>16X</td>
</tr>
<tr>
<td>Zoom Speed</td>
<td>Approx. 4.4s (Optical Wide-Tele)</td>
</tr>
<tr>
<td>Angle of View</td>
<td>59.8-3.0 degree (Wide-Tele)</td>
</tr>
<tr>
<td>Min. Working Distance</td>
<td>10-1500mm (Wide-Tele)</td>
</tr>
<tr>
<td>Aperture</td>
<td>F1.5-3.4</td>
</tr>
<tr>
<td>S/N Ratio</td>
<td>≥ 55dB</td>
</tr>
<tr>
<td>Shutter Time</td>
<td>50Hz: 1<del>1/30,000s; 60Hz: 1</del>1/30,000s</td>
</tr>
<tr>
<td>AGC</td>
<td>Auto / Manual</td>
</tr>
<tr>
<td>White Balance</td>
<td>Auto / Manual / ATW/Indoor/Outdoor/Daylight lamp/Sodium lamp</td>
</tr>
<tr>
<td>Day &amp; Night</td>
<td>IR Cut Filter</td>
</tr>
<tr>
<td>Privacy Mask</td>
<td>24 privacy masks programmable; optional multiple colors and mosaics</td>
</tr>
<tr>
<td>Enhancement</td>
<td>3D DNR, EIS, Defog, HLC/BLC, SVC</td>
</tr>
<tr>
<td><strong>Pan and Tilt</strong></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>Pan: 360° endless; Tilt: -20°~90° (Auto Flip)</td>
</tr>
<tr>
<td>Speed</td>
<td>Pan Manual Speed: 0.1°~160°/s, Pan Preset Speed: 240°/s</td>
</tr>
<tr>
<td></td>
<td>Tilt Manual Speed: 0.1°~120°/s, Tilt Preset Speed: 200°/s</td>
</tr>
<tr>
<td>Number of Preset</td>
<td>300</td>
</tr>
<tr>
<td>Patrol</td>
<td>8 patrols, up to 32 presets per patrol</td>
</tr>
<tr>
<td>Pattern</td>
<td>4 patterns, with the recording time not less than 10 minutes per pattern</td>
</tr>
<tr>
<td>Park Action</td>
<td>Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan</td>
</tr>
<tr>
<td>Scheduled Task</td>
<td>Preset / Patrol / Pattern / Auto scan / Tilt scan / Random scan / Frame scan / Panorama scan/Dome reboot/Dome adjust/Aux output</td>
</tr>
<tr>
<td><strong>Smart Features</strong></td>
<td></td>
</tr>
<tr>
<td>Smart tracking</td>
<td>Manual / Panorama / Intrusion trigger / Line crossing trigger / Region entrance trigger / Region exiting trigger</td>
</tr>
<tr>
<td>Smart detection</td>
<td>Smart tracking when patrol between multiple scenarios</td>
</tr>
<tr>
<td>Smart motion detection</td>
<td>Face detection, intrusion detection, line crossing detection, audio exception detection, region entrance, region exiting</td>
</tr>
<tr>
<td>ROI encoding</td>
<td>Support 24 areas with adjustable levels</td>
</tr>
<tr>
<td><strong>Infrared</strong></td>
<td></td>
</tr>
<tr>
<td>IR Distance</td>
<td>Up to 200m</td>
</tr>
<tr>
<td>IR Intensity</td>
<td>Automatically adjusted, depending on the zoom ratio</td>
</tr>
<tr>
<td><strong>Alarm</strong></td>
<td></td>
</tr>
<tr>
<td>Alarm I/O</td>
<td>7/2</td>
</tr>
<tr>
<td>Alarm Trigger</td>
<td>Face detection, Intrusion detection, Line crossing detection, Region entrance, Region exiting, Audio exception detection, Motion detection, Audio Exception Detection, Dynamic analysis, Tampering alarm, Network disconnect, IP address conflict, Storage exception</td>
</tr>
<tr>
<td>Alarm Action</td>
<td>Preset, Patrol, Pattern, Micro SD/SDHC card recording, Relay output, Notification on Client</td>
</tr>
<tr>
<td><strong>Input/Output</strong></td>
<td></td>
</tr>
<tr>
<td>Monitor Output</td>
<td>1.0V[p-p] / 750, NTSC (or PAL) composite, BNC</td>
</tr>
<tr>
<td>Audio Input</td>
<td>1 Mic in/Line in interface, line input: 2-2.4V[p-p]; output impedance: 1KΩ, ±10%</td>
</tr>
<tr>
<td>Audio Output</td>
<td>1 Audio output interface, line level, impedance: 600Ω</td>
</tr>
<tr>
<td><strong>Network</strong></td>
<td></td>
</tr>
<tr>
<td>Ethernet</td>
<td>10Base-T / 100Base-TX, RJ45 connector</td>
</tr>
<tr>
<td>Main Stream</td>
<td>50Hz: 25fps(1920×1080), 1280×960, 1280×720); 60Hz: 30fps(1920×1080), 1280×960, 1280×720)</td>
</tr>
<tr>
<td>Sub Stream</td>
<td>50Hz: 25fps(704×576, 352×288, 176×144); 60Hz: 30fps(704×480, 352×240, 176×120)</td>
</tr>
<tr>
<td>Third Stream</td>
<td>50Hz: 25fps(1920×1080), 1280×960, 1280×720, 704×576, 352×288, 176×144)</td>
</tr>
<tr>
<td></td>
<td>60Hz: 30fps(1920×1080), 1280×960, 1280×720, 704×480, 352×240, 176×120)</td>
</tr>
<tr>
<td>Image Compression</td>
<td>H.264/MJPEG/MPEG4, H.264 encoding with Baseline/Main/High profile</td>
</tr>
</tbody>
</table>
DS-2DF8223I-AEL(W)
DS-2DF8236I-AEL(W)(B)
2MP Ultra-low Light Smart PTZ

**Accessories**

- DS-16022I Wall Mount
- DS-16022I-Conner Conner Mount
- DS-16022I-Pole Pole Mount
- DS-16022I-Box Box Mount
- DS-1663ZI Ceiling mount
- DS-1661ZI Pendant mount
- DS-1619ZI Swan-neck Mount
- DS-1662ZI Pendant mount
- DS-1100KI Network Keyboard
- DS-1005KI USB Joy-stick

**Audio Compression**
G.711ulaw/G.711law/G.726/MP2L2/G.722

**Protocols**
IPv4/IPv6, HTTP, HTTPS, 802.1X, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE

**Simultaneous Live View**
Up to 20 users

**Mini SD Memory Card**
Support up to 64GB Micro SD/SDHC/SDXC card. Support Edge recording

**User/Host Level**
Up to 32 users, 3 Levels: Administrator, Operator and User

**Security Measures**
User authentication (ID and PW); Host authentication (MAC address); IP address filtering

**System Integration**
- Application programming: Open-ended API, support ONVIF, PSIA and CGI, Genetec
- Web Browser: IE 7+, Chrome 18+, Firefox 5.0+, Safari 5.02+, support multi-language
- Power: High-PoE&24 VAC, Max.60W
- Working Temperature: -40°C ~ 65°C (-40°F ~ 149°F)
- Humidity: 90% or less
- Protection Level: IP66, IK10, TVS 6,000V lightning protection, surge protection and voltage transient protection
- Dimensions: Φ266.6(mm)×365.2(mm)
- Weight (approx.): 8kg (approx.)
- Mount Option: Long-arm wall mount: DS-16022Z; Corner mount: DS-16022Z-corner; Pole Mount: DS-16022Z-pole; Power box mount: DS-16022Z-box; Swan-neck mount: DS-1619ZI

**Dimensions**

- **Audio Compression**: G.711ulaw/G.711law/G.726/MP2L2/G.722
- **Protocols**: IPv4/IPv6, HTTP, HTTPS, 802.1X, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE
- **Simultaneous Live View**: Up to 20 users
- **Mini SD Memory Card**: Support up to 64GB Micro SD/SDHC/SDXC card. Support Edge recording
- **User/Host Level**: Up to 32 users, 3 Levels: Administrator, Operator and User
- **Security Measures**: User authentication (ID and PW); Host authentication (MAC address); IP address filtering
- **Application programming**: Open-ended API, support ONVIF, PSIA and CGI, Genetec
- **Web Browser**: IE 7+, Chrome 18+, Firefox 5.0+, Safari 5.02+, support multi-language
- **RS-485 Protocols**: HIKVISION, Pelco-P, Pelco-D, self-adaptive
- **Power**: High-PoE&24 VAC, Max.60W
- **Working Temperature**: -40°C ~ 65°C (-40°F ~ 149°F)
- **Humidity**: 90% or less
- **Protection Level**: IP66, IK10, TVS 6,000V lightning protection, surge protection and voltage transient protection
- **Certification**: FCC, CE, UL, RoHS, IEC/EN 61000, IEC/EN 55022, IEC/EN 55024, IEC/EN60950-1
- **Dimensions**: Φ266.6(mm)×365.2(mm)
- **Weight (approx.)**: 8kg (approx.)
- **Mount Option**: Long-arm wall mount: DS-16022Z; Corner mount: DS-16022Z-corner; Pole Mount: DS-16022Z-pole; Power box mount: DS-16022Z-box; Swan-neck mount: DS-1619ZI