

CCTV IP / Professional IP cameras

SF-IPT180CW-8U-AI2-PAN

Artificial Intelligence IP Camera Panor

Panoramic Cameras

In very large environments where you need to see as much area as possible with one camera, they are ideal for panoramic cameras. Their combination of several lenses generates a detailed panoramic image or displays the information of the lenses separately with the support of a PTZ with fast positioning for sharper focus on details. Maximum coverage up to 360° and resolution up to 32Mpx.

- 8 Megapixels Resolution
- 2x 1/1.8" Progressive Scan CMOS
- 4 mm Lens, Panoramic view 180°
- H.265+ High Efficiency Video Codec
- Built-in Mic and WDR Wide dynamic range
- TRUESENSE2 filter for human and vehicle classification



Technical Specification

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| Image Sensor | 2 × 1/1.8" Progressive Scan CMOS |
| Max. Resolution | 5120 × 1440 |
| Min. Illumination | Color: 0.0005 Lux @ (F1.0, AGC ON), 0 Lux with light |
| Shutter Time | 1/3 s to 1/100,000 s |
| Angle Adjustment | Pan: -30° to 30°, tilt: -75° to 75° |
| Lens Type | Fixed focal lens, Dual lens: 4 mm |
| Focal Length & FOV | 4 mm, horizontal FOV: 180°, vertical FOV: 44° |
| Lens Mount | M16 |
| Iris Type | Fixed |
| Aperture | F1.0 |
| Depth of Field | 3.6 m to ∞ |
| DORI | 4 mm, D: 77 m, O: 30 m, R: 15 m, I: 7 m |
| Supplement Light Type | White Light |
| Supplement Light Range | Up to 30 m |
| Smart Supplement Light | Yes |
| Main Stream | When WDR is On: 50 Hz: 12.5 fps (5120 × 1440) 60 Hz: 15 fps (5120 × 1440) When WDR is Off: 50 Hz: 20 fps (5120 × 1440) 60 Hz: 20 fps (5120 × 1440) |
| Sub-Stream | When WDR is On: 50 Hz: 12.5 fps (1920 × 536, 960 × 272) 60 Hz: 15 fps (1920 × 536, 960 × 272) When WDR is Off: 50 Hz: 20 fps (1920 × 536, 960 × 272) 60 Hz: 20 fps (1920 × 536, 960 × 272) |
| Video Compression | Main stream: H.265+/H.265/H.264+/H.264 Sub-stream: H.265/H.264/MJPEG |
| Video Bit Rate | 32 Kbps to 16 Mbps |
| H.264 Type | Baseline Profile, Main Profile, High Profile |
| H.265 Type | Main Profile |
| Bit Rate Control | CBR, VBR |
| Scalable Video Coding (SVC) | H.264 and H.265 encoding |
| Region of Interest (ROI) | 1 fixed region(s) for main stream |
| Audio Type | Mono sound |
| Audio Compression | G.711/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC |
| Audio Bit Rate | 64 Kbps (G.711ulaw/G.711alaw)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps (MP2L2)/8 to 320 Kbps (MP3)/16 to 64 Kbps (AAC-LC) |
| Audio Sampling Rate | 8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz |
| Environment Noise Filtering | Yes |

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| Protocols | TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour, SSL/TLS, PPPoE, SNMP, WebSocket, WebSockets |
| Simultaneous Live View | Up to 6 channels |
| API | Open Network Video Interface (Profile S, Profile G, Profile T), ISAPI, SDK, ISUP |
| User/Host | Up to 32 users 3 user levels: administrator, operator, and user |
| Security | Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-MD5), watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for Open Network Video Interface, RTP/RTSP over HTTPS, control timeout settings, security audit log, TLS 1.2, host authentication (MAC address) |
| Network Storage | NAS (NFS, SMB/CIFS), Auto Network Replenishment (ANR), NVR, Together with high-end Safire memory card, memory card encryption and health detection are supported. |
| Client | Safire Control Center, Safire Connect, Safire Central |
| Web Browser | Plug-in required live view: IE 10, IE 11, Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Local service: Chrome 57.0+, Firefox 52.0+ |
| Image Parameters Switch | Yes |
| Image Settings | saturation, brightness, contrast, sharpness, gain, white balance, adjustable by client software or web browser |
| Day/Night Switch | Day, Night, Auto, Schedule |
| Wide Dynamic Range (WDR) | 130 dB |
| SNR | ≥ 52 dB |
| Image Enhancement | BLC, HLC, 3D DNR |
| Ethernet Interface | 1 RJ45 10 M/100 M self-adaptive Ethernet port |
| On-Board Storage | Built-in memory card slot, support microSD/microSDHC/microSDXC/TF card, up to 256 GB |
| Built-in Microphone | Yes |
| Built-in Speaker | Max. power consumption: 1.2 W, max. sound pressure: 10 cm: 95 dB |
| Audio | 1 input (line in), terminal block, max. input amplitude: 3.3 Vpp, input impedance: 4.7 kΩ, interface type: non-equilibrium, 1 output (line out), terminal block, max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium |
| Alarm | 1 input, 1 output (max. 24 VDC, 1 A) |
| Reset Key | Yes |
| Basic Event | Motion detection (support alarm triggering by specified target types (human and vehicle)), alarm input and output, flashing alarm light output, audible alarm output, exception |
| Smart Event | Line crossing detection, intrusion detection, region entrance detection, region exiting detection (support alarm triggered by specified target types (human and vehicle)), scene change detection |
| Linkage | Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture, audible warning, white light flashing |
| Perimeter Protection | Line crossing, intrusion, region entrance, region exiting (support alarm triggering by specified target types (human and vehicle)) |
| Power | 12 VDC ± 25%, 0.79 A, max. 9.5 W, Ø5.5 mm coaxial power plug, PoE: 802.3af, Class 3, 36 V to 57 V, 0.29 A to 0.18 A, max. 10.5 W |
| Material | Base: metal, cover: metal |

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| Dimension | Ø155 mm × 155.3 mm (Ø6.1" × 6.1") |
| Package Dimension | 230 mm × 230 mm × 230 mm (9" × 9" × 9") |
| Weight | Approx. 1110 g (2.4 lb.) |
| With Package Weight | Approx. 1900 g (4.2 lb.) |
| Storage Conditions | -30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing) |
| Startup and Operating Conditions | -30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing) |
| 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, password reset via email, password protection, one-key reset |
| Flashing Light | Yes |
| EMC | FCC: 47 CFR Part 15, Subpart B, 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 | UL: UL 62368-1, CB: IEC 62368-1: 2014+A11, CE-LVD: EN 62368-1: 2014/A11: 2017 |
| Environment | CE-RoHS: 2011/65/EU, WEEE: 2012/19/EU, Reach: Regulation (EC) No 1907/2006 |
| Protection | IP67: IEC 60529-2013 |