Spectrum S-P8-Z60

9-inch 8MP 60x Starlight IR Network PTZ Camera



Key Features

- 1/1.8” STARVIS™ CMOS, up to 8MP (3840 × 2160) @ 25/30 fps
- 60x optical zoom, 16x digital zoom
- Supports face, human, and vehicle detection with snapshot capture
- Supports human and vehicle attribute analysis
- Intelligent analytics: Intrusion, smart motion detection, line crossing, loitering, wrong-way detection, area people limit, perimeter detection, illegal parking, running detection, fall detection, fight detection, smoke and flame detection, and people counting.
- Supports alarm-linked tracking and intelligent human/vehicle tracking
- True WDR (120 dB), 3D DNR, ICR, Defog and EIS
- Smart IR illumination up to 500 m
- Hardware Root of Trust with FIPS 140-3 Level 3 Certified Secure Element
- IP67, IK10, NEMA 4X rated

NDAA Compliant | 5 YEAR WARRANTY | ONVIF | GMST

Description

The Spectrum S-P8-Z60 is an enterprise-grade, high-performance Network PTZ Camera featuring an 8MP (4K) Ultra Starlight CMOS sensor paired with a 60x optical zoom lens for extreme long-range surveillance. It utilizes deep learning AI for advanced perimeter protection, including face, human, vehicle, and smoke/flame detection, while providing rugged weatherproof engineering (IP66/IK10) and long-distance smart IR night vision.

Optional Accessory



S-PTZ-PM-HD
Pole Mount

- Compatible with S-P8-Z60 PTZ camera brackets
- Fits poles from Φ100–178 mm (3.94–7.01 in)

Specifications

Spectrum S-P8-Z60

Camera

Image Sensor	1/1.8" Progressive Scan CMOS
Max Resolution	8MP, 3840 (H) x 2160 (V)
Shutter speed	1/5 ~1/20,000 sec
Minimum illumination	Color: 0.005 Lux @ (F1.6, AGC ON), B/W: 0.001 Lux @ (F1.6, AGC ON), 0 Lux with IR ON
Day and Night	Auto (ICR)
S/N Ratio	55 dB

Lens

Focus Control	Auto / Manual / Semi-automatic
Focal Length	5.5 to 330 mm
Max. Aperture	F 1.4 to F4.8
Field of View (FOV)	H: 65.3° to 1.7° - V: 38.4° to 1.0°
Optical Zoom	60x
Digital Zoom	16x
Iris	Auto / Manual

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless, Tilt: -25° to +90° (auto-flip)
Pan Speed	Pan speed: 0.1° to 300°/s, preset speed: 300°/s
Tilt Speed	Tilt speed: 0.1° to 300°/s, preset speed: 300°/s
Preset Accuracy)	≤ 0.1°
Preset	400
Track	6 Track
Scan	12 Scan
Tour	12 Tour (up to 32 presets each tour)
Intelligent Tracking	Human/Vehicle auto tracking
Power-Off Memory	Supported
3D Positioning	Supported
PTZ Status Display	Supported
Idle Motion	The time can be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run.

IR Illuminator

Type	IR
IR Wave Length	850 nm
Distance	Up to 500m (1640.4 ft)
Control	Auto / Manual

Video & Audio

Number of Streams	3 Streams
Resolution	Stream 1: 3840 × 2160, 2592 × 1520, 2304 × 1296, 1920 × 1080, 1280 × 720 Stream 2: D1, VGA, CIF Stream 3: VGA, CIF, QVGA
Frame Rate (Max)	Up to 25/30 fps
Bit Rate Control	CBR/VBR
Bit Rate	Stream1: 200 Kbps to 16 Mbps Stream2: 100 Kbps to 6 Mbps Stream3: 100 Kbps to 3 Mbps
Smart Encoding	Supported
Region of Interest (ROI)	Supported
Audio Compression	G.711 A-law, G.711 μ-law, RAW_PCM
Audio Bit Rate	64 Kbps (G.711), 128 Kbps (RAW_PCM)

Image

Image Adjustment	Brightness, Sharpness, Contrast, Saturation adjustable
Scene Mode	Indoor, Outdoor, Mirror
Exposure Mode	Auto, Manual, Shutter priority, Iris Priority
White Balance	Auto, Tungsten, Fluorescent, Daylight, Shadow, Manual
Day/Night Setting	Auto, Day mode, Night mode, Timer
Noise Reduction	2D/3D DNR
Image Enhancement	HLC, BLC, Defog, WDR, Anti-shake
Wide Dynamic Range	True WDR (120dB)
Privacy Masking	Up to 40 Privacy Zones

Event

Alarm Triggers	IVS, Motion detection, Alarm input, Network alarm, Disk alarm, Day/Night switch alarm, Abnormal sound detection
Event Actions	Alarm record, FTP upload, Email notification, Snapshot, Alarm output, Alarm-linked tracking, Audible alarm output

Intelligent Analytics

AI Multi-Target Detection	- Supports face, human, and vehicle detection with snapshot capture - Supports human and vehicle attribute analysis - Supports tracking display modes: Full Frame, Four-Corner Frame, and Mosaic
Attribute Analysis	Human Attributes: Gender, age, glasses, hat, bag, upper clothing color & style, lower clothing color & style, reflective vest. Vehicle Attributes: Type, color, brand, orientation.
Intelligent Analysis	Intrusion detection, smart motion detection, single line crossing, double line crossing, loitering, wrong-way detection, area people limit, perimeter detection, illegal parking, running detection, fall detection, fight detection - Supports alarm triggering based on specified target types (human/vehicle)
Smoke and Flame Detection	Supported
People Counting	Supported

Network

Protocols	IPv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPoE, RTSP/ RTCP/RTP, TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, QoS, ICMP, IGMP, SMTP, 802.1x, SNMP, Multicast
Application Programming Interface	ONVIF (Profile S/T/G/M), SDK, CGI
Max Concurrent Streams	10 channels
User/Host Level	32+ users, 3 user levels: Administrator, Operator, Media user
Web Viewer	Chrome, Firefox, Microsoft Edge. IE11 or earlier

Interface

Network Interface	1 × RJ45 10/100 Mbps Ethernet port
Built-in Speaker	Supported
Audio Interface	1 input (RCA), 1 output (RCA)
Alarm Interface	7 inputs, 2 outputs
RS485	1 × RS-485
CVBS Output	1 × BNC
SD Card Slot	Built-in microSD card slot (up to 1 TB)
Reset Button	Supported

DORI Distance (EN 62676-4 standard)	
Detect	84 to 185 m (275.6 to 607.0 ft)
Observe	33.6 to 74 m (110.2 to 242.8 ft)
Recognize	16.8 to 37.0 m (55.1 to 121.4 ft)
Identify	8.4 to 18.5 m (27.6 to 60.7 ft)

Security	
OS / Firmware Protect	Encrypted firmware, Secure boot, Signed firmware
User Authentication	Digest authentication, Brute-force attack protection
Network Authentication	IEEE 802.1X (EAP-TLS)
Secure Communication	HTTPS, WSS (WebSocket Secure), SRTP
Access Control	IP-based access control, Auto logout
Data Protect	Encryption credentials
Audit	Access, system, and event logs
Secure Storage	AES-256 encrypted SD card storage
Supply Chain Security	SBOM
Hardware Security	FIPS 140-3 Level 3 Certified Secure Element

General	
Materials	Aluminum alloy
Weight	
Power Supply	24 VAC / 36 VDC / PoE++ (802.3bt), Standard Equipped: 36 VDC
Power Consumption	Max. 45 W
Operating Conditions	-40°C to 70°C (-40°F to 158°F) Humidity ≤ 95% RH (non-condensing)
IP Rating	IP67, IK10, NEMA 4X
Wiper	Supported
Language	English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English
Warranty	5-year warranty - with registration
Certifications	CE-EMC: EN 55032, EN IEC 61000-6-4, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 CE-LVD: EN IEC 62368-1 FCC: 47 CFR Part 15, Subpart B
Dimensions	Φ275× 403 mm (Φ10.83× 15.87 in)