

SN-IPS8643WDR-Z40

7-inch 4MP 40x Starlight IR Network PTZ Camera



Key Features

- 1/2.8" STARVIS™ CMOS
- Max. 4MP (2592×1520)@25/30 fps resolution, 40x optical zoom, 16x digital zoom
- Supports face, human, and vehicle detection & capture.
- Supports human and vehicle attribute detection.
- Intelligent analytics: Intrusion, 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, smoke and flame detection, and people counting.
- Supports alarm-linked tracking and intelligent tracking based on person/vehicle targets.
- True WDR(120dB), 3D DNR, ICR, Defog and EIS
- Smart IR distance up to 300 m
- IP66

Specifications

Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Max Resolution	2592(H) × 1520(V)
Shutter Speed	1/5 to 1/20,000s
Min Illumination	Color: 0.005 Lux @ (F1.6, AGC ON), B/W: 0.001 Lux @ (F1.6, AGC ON), 0 Lux with illuminator on
Day & Night	Auto (ICR)
S/N Ratio	55 dB
Lens	
Focal Length	5.0 to 200 mm
Max. Aperture	F1.68 to F5
Field of View (FOV)	H: 64.9° to 1.8°, V: 40.6° to 1.1°
Optical Zoom	40x
Digital Zoom	16x
Iris	Auto/Manual
Focus Control	Auto/Manual/Semi-automatic
Illuminator	
Type	IR
IR wavelength	850 nm
Distance	Up to 300 m (984.3 ft)
Control	Auto / Manual
Intelligent Analytics	
Multi-Object Detection	- Supports face, human, and vehicle detection & capture; - Supports human and vehicle attribute detection; - Supports multiple frame modes: Full Frame, Four-Corner Frame, Mosaic.
Attribute Extraction	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 accurate target classification (human/vehicle)
Smoke and Flame Detection	Supported
People Counting	Supported
Video & Audio	

Number of Streams	3 Streams
Resolution	Stream1: 2592×1520, 2560×1440, 2304×1296, 1920×1080, 1280×720 Stream2: D1, VGA, CIF Stream3: VGA, CIF, QVGA
Frame Rate	Up to 25/30fps
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, Night, Timer
Noise Reduction	2D/3D DNR
Image Enhancement	HLC, BLC, Defog, WDR, Anti-shake
Wide Dynamic Range	True WDR (120dB)
Privacy Masking	Support 40 zones, mask color configurable

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless, Tilt: -10° 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	$\leq 0.2^\circ$
Preset	400
Track	6 Track
Scan	12 Scan
Tour	12 Tour (up to 32 presets each tour)
Intelligent Tracking	Supported Object auto tracking (Person/Vehicle)
Power-Off Memory	Supported
3D Positioning	Supported
PTZ Status Display	Supported

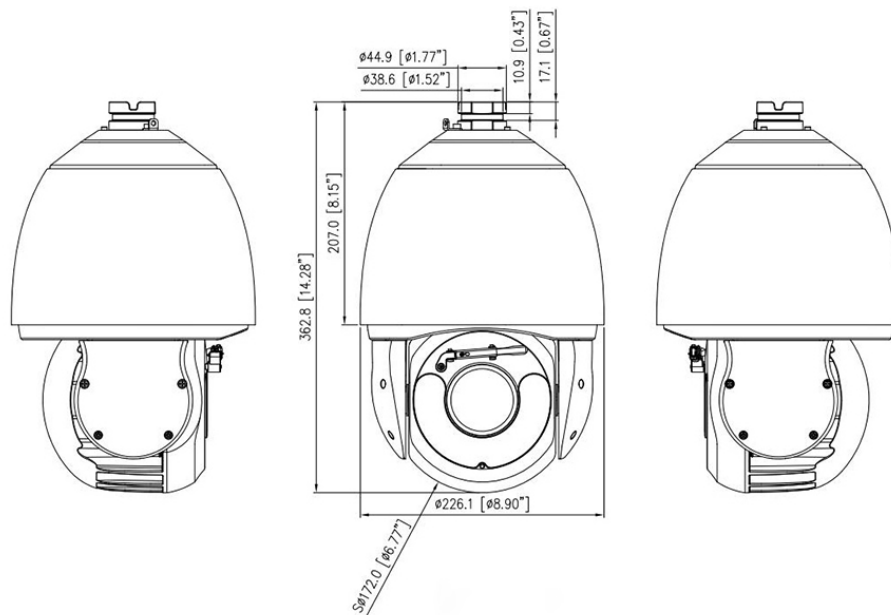
Idle Motion	The time can be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run.
Event	
Alarm Triggers	IVS, Motion detection, Alarm input, Network alarm, Disk alarm, Day/Night switch alarm, Abnormal sound detection
Event Actions	Alarm record, Alarm output, FTP upload, SMTP upload, Snapshot, Audible alarm output
Network	
Protocols	IPv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPoE, RTSP/ RTPC/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 levels: Administrator, Operator, Media user
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge
Security	
OS / Firmware Protect	Encrypted firmware, Signed firmware
User Authentication	Digest authentication, Prevent brute-force attack
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 / Event Log management
Secure Storage	SDcard partition encrypt(AES-256), Secure element
Supply Chain Security	SBOM
Interface	
Network Interface	1 × Ethernet (10/100 Base-T), RJ-45 connector
Audio Interface	1ch input, 1ch output
Alarm Interface	7ch input, 2ch output
RS-485	Supported
CVBS Output	1ch BNC
SD Card Slot	Built-in microSD card slot, up to 1 TB
General	
Language	English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English
Power Supply	24 VAC / 36 VDC / PoE++ (802.3bt), Standard Equipped: 36 VDC
Power Consumption	Max. 45 W
Operating Temperature	-40°C to 60°C (-40°F to 140 °F)

Operating Humidity	Less than 95% RH
Ingress Protection	IP66, NEMA 4X (optional)
Wiper	Supported
Certifications	CE-EMC - EN 55032, EN IEC 61000-6-3, 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
Material	Metal
Dimensions	$\phi 226.1 \times 362.8$ mm ($\phi 8.9 \times 14.28$ inch)
Net Weight	5.5 kg (12.13 lb)

DORI Distance (EN62676-4 standard)

Detect	82 to 3,280 m (269.03 to 10,761.15 ft)
Observe	32.8 to 1,312 m (107.61 to 4,304.46 ft)
Recognize	16.4 to 656 m (53.81 to 2,152.23 ft)
Identify	8.2 to 328 m (26.9 to 1,076.12 ft)

Dimensions (mm)



Accessories

Optional:



SN-CBK506B
Wall Mount



SN-BK348A
Ceiling Mount



SN-BK605
Corner Mount



SN-BK604B
Pole Mount



SN-BK367
Junction Box



SN-BK358
Corner Mount



SN-BK359
Pole Mount