4 MP Ultra-StarLight 40× Laser PTZ Network Camera with Wiper

IPC-E6824-IRL@X40-W-VH1-MA



Key Features

- Supports up to 2688 × 1520 at 60 fps for smoother motion video
- Built-in wiper keeps live images clear in rainy weather
- Advanced AI functions: face detection, face matching, perimeter protection, mixed-traffic detection, people counting, and auto-tracking
- Face detection: captures faces and human bodies, extracts their attributes, and associates faces with bodies. Offers three capture-priority modes—image quality, speed, and periodic optimization—and supports face-angle filtering
- Face matching: supports on-device face matching, with 16 face libraries and a total capacity of 100,000 face images
- Advanced perimeter protection: supports four rule types—line crossing, entering an area, leaving an area, and area intrusion—with classified detection and protection for motor vehicles, non-motor vehicles, and pedestrians
- Mixed-traffic detection: detects and captures motor vehicles, non-motor vehicles, pedestrians, and faces, and extracts attributes of vehicles, faces, and human bodies
- People counting: supports people-flow statistics and personnel-density detection for a wide range of scenarios
- Auto-tracking: tracks motor vehicles, non-motor vehicles, and pedestrians by category, then automatically returns to the initial position after the preset tracking time
- 40× optical zoom (6 – 240 mm) for a wider, longer-range view
- Built-in AI ISP algorithm delivers clear images in low-light conditions
- 150 dB optical WDR for high-contrast surveillance scenes
- Built-in zoomable laser illuminator provides illumination at distances up to 500 m
- Synchronized zooming of the laser illuminator and lens provides more uniform illumination

- Gyroscope-based image stabilization reduces camera shake for stable, clear images
- Heat-haze reduction technology minimizes heat distortion in high-temperature outdoor environments for stable, clear images
- Supports image overlays and customizable OSD, including adjustments to size, color, background, style, and other display options
- Supports scheduled, periodic, cruise-preset, and event-triggered snapshots
- Built-in electronic compass provides real-time camera orientation information
- Region of Interest (ROI) enhancement improves image quality in key areas over low-bandwidth networks
- IP67-rated protection

Specifications

Model	IPC-E6824-IRL
Configuration	X40-W-VH1-MA
Image Sensor	
Maximum Resolution	4 MP
Sensor Type	1/1.8"
Maximum Image Size	2688*1520
Lens	
Focal Length	6.0 mm ~ 240.0 mm
Optical Zoom	40X
Zoom Type	Motorized Zoom
Aperture	F1.2 - F4.6
Illumination	Laser 850nm
Illumination Distance	500m
Image	
Minimum Illumination	0.0003 lux (F1.2, AGC ON, color), 0.0001 lux (F1.2, AGC ON, monochrome)
Shutter	Auto/Manual; shutter speed: 1 – 1/100,000 s
Signal-to-Noise Ratio	>56dB
Wide Dynamic Range	150 dB optical WDR
Day/Night Mode	Auto, Day, Night
Highlight Compensation	Supported

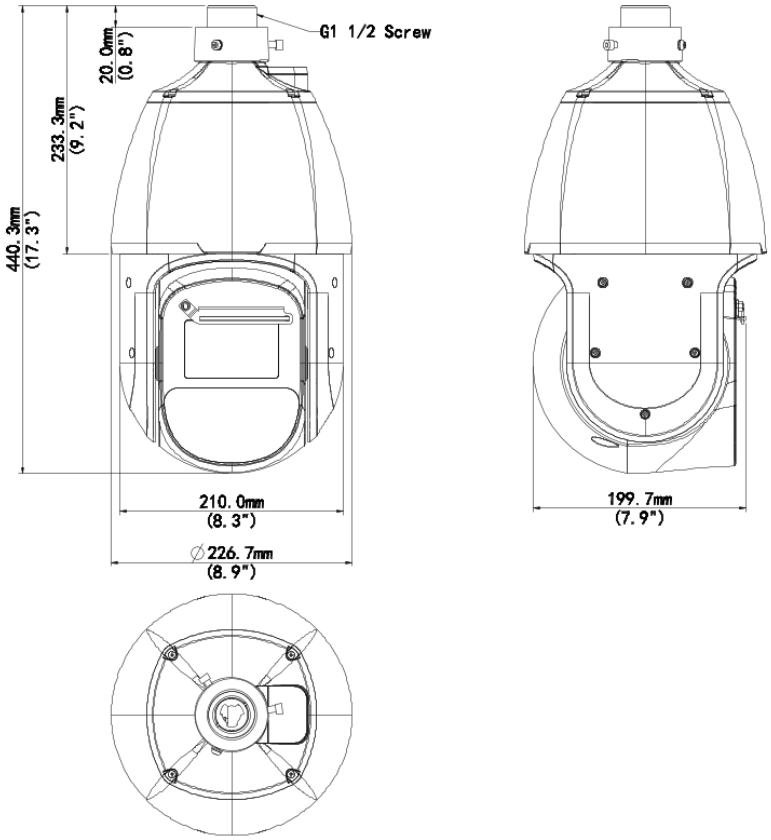
Image Stabilization	Supported (gyroscope-based stabilization)
Defog	Optical defog
Heat-Haze Reduction	Supported
Video	
OSD Types	Custom, time, PTZ coordinates, zoom, preset, serial-port OSD, orientation, people counting, UltraSense information, image OSD, ambient sound level, network-port OSD, device latitude/longitude, scrolling OSD, and motor-vehicle/non-motor-vehicle/pedestrian flow statistics
Maximum Frame Rate	60 fps
Number of Privacy Masking Areas	8 per scene; 24 across multiple scenes
Video Compression	Ultra 265,H.265, H.264, MJPEG
Video Parameters	Main stream: 2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720, 720 × 576 (D1), 640 × 360, 704 × 288 (2CIF), 352 × 288 (CIF); Sub stream: 1920 × 1080, 1280 × 720, 720 × 576 (D1), 640 × 360, 704 × 288 (2CIF), 352 × 288 (CIF); Third stream: 720 × 576 (D1), 640 × 360, 704 × 288 (2CIF), 352 × 288 (CIF)
Video Bit Rate	128Kbps~16384Kbps
Privacy Masking Style	Black, Mosaic
ROI Enhancement	8 areas
Snapshot	Scheduled, periodic, cruise-preset, and manual snapshots
Video Streams	Triple-stream
Privacy Masking Rules	3D rules
Number of OSD Lines	10 lines, up to 60 characters per line
Audio	
Audio Compression	G.711A、G.711U
Audio Sampling Rate	G.711A/G.711U：8kHz , G.711A/G.711U：16kHz
UltraSense	
Electronic Compass	Supported
Intelligent Analytics	
Mixed-Traffic Detection	Supports detection, snapshot capture, and rule configuration for motor vehicles, non-motor vehicles, pedestrians, and faces; Supports attribute extraction for motor vehicles, non-motor vehicles, pedestrians, and faces; Motor vehicle attributes: license plate number, vehicle type, body color,

	make, travel direction, speed, plate color, and plate type; Non-motor vehicle attributes: gender, age group, upper-body clothing color and style, travel direction, speed, riding type, license plate number, plate color, and plate type; Pedestrian attributes: gender, age group, mask, upper- and lower-body clothing colors and styles, upper-body clothing texture, bag, posture, shoes, hairstyle, and movement direction; Face attributes: gender, age group, and glasses;
Face Detection	Supports three face-capture priority modes—image quality, speed, and periodic optimization—and face-angle filtering; Supports face/body capture and association, as well as face/body attribute extraction; Face attributes: gender, age group, glasses, mask, hat style, and hat color; Human-body attributes: gender, age group, mask, upper- and lower-body clothing colors and styles, upper-body clothing texture, bag, posture, shoes, hairstyle, and movement direction;
Perimeter Protection	Supports line-crossing, area-intrusion, entering-area, and leaving-area detection; Supports classified detection, snapshot capture, and rule configuration for motor vehicles, non-motor vehicles, and pedestrians
Face Matching	Supports 16 face libraries; Supports a total capacity of 100,000 face images; Supports adding, deleting, and editing face libraries, as well as batch importing face-library data from templates;
People Counting	People-flow statistics: counts total, entering, and exiting people; supports alerts for people remaining in an area and resetting the count; Personnel-density detection: supports three-level density alerts
Auto-Tracking	Classifies and tracks motor vehicles, non-motor vehicles, and pedestrians in the image, then automatically returns to the initial position after the preset tracking time;
Behavior Analysis	Crowd gathering, parking detection, loitering detection, rapid movement
Scene Detection	Object removal, object left behind
PTZ	
Pan Range	360° continuous rotation
Minimum Pan Speed	0.1° /s
Tilt Range	-15° to 90° (auto-flip)
Maximum Pan Speed	180° /s
Pan Speed at Preset	300° /s
Minimum Tilt Speed	0.1° /s
Maximum Tilt Speed	180° /s

Tilt Speed at Preset	240° /s
Number of Patrols	16
Patrol Modes	Preset patrol, pattern patrol, recorded patrol
PTZ Guard Position	Supported
Smart Functions	
Basic Events	Motion detection, tampering detection, audio detection, alarm input, alarm output
General Features	
3D Positioning	Supported
Wiper	Supported
Network	
Network Protocols	TLS1.3, IPv6, L2TP, IPv4, ARP, TCP, UDP, PPPoE, DHCP, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, 802.1X, SIP, HTTPS, RTCP, RTMP, IGMP, ICMP
Integration	ONVIF, GB/T 28181, GA/T 1400, API
Back-End Storage	Dual-channel direct iSCSI block storage
Buffering and Recovery	Supports SD-card buffering and recovery during network outages
Interfaces	
SD Card Expansion	1 × Micro SD slot; supports up to 512 GB
Audio Input	1 input
Audio Output	1 output
Alarm Inputs	7 inputs
Alarm Outputs	2 outputs
Network Interface	RJ45 10/100 Mbps adaptive Ethernet port，1×100M/1000M SFP Port
Serial Port	1 × RS485 serial port (6,000 V protection)
BNC Video Output	Supported
Mechanical and Environmental	
Power Supply	DC24V±25%, AC24V±25%
Power Protection	Reverse-polarity, overvoltage, overcurrent, and input short-circuit protection; 6 kV lightning protection
Power Connector	Cold-pressed terminal block (with base)
Maximum Power Consumption	64W
Dimensions	Φ227mm*441mm

Weight	6.9kg
Operating Temperature	-40℃~70℃
Humidity	5% – 95% RH (non-condensing)
Protection	IK10，IP67

Dimensions



Ordering Information

Model	Configuration	Product Description
IPC-E6824-IRL	X40-W-VH1-MA	4 MP Ultra-StarLight 40× laser PTZ network camera; mounting bracket sold separately

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