# IPEL-P2045X-IRW1

2MP 45x Starlight Laser PTZ Network Camera





## System Overview

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, this camera provides an all-in-one solution for capturing long distance video surveillance for outdoor applications. Together with infrared illumination and Starlight Technology, the camera is the perfect solution for dark, low light applications. The series combines a day/night mechanical IR cut filter for the highest image quality in variable lighting conditions during the day, and True WDR for applications with direct sunlight or glare.

### Functions

#### **Starlight Technology**

For challenging low-light applications, Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

#### Intelligent Video Analysis (IVS)

With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as Tripwire analytics, allowing the camera to detect when a predetermined line has been crossed, ideal for business intelligence, workforce optimization, and actionable intelligence.

#### Auto-tracking

This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically

- 1/2.8" 2 Megapixel STARVIS™ CMOS
- Powerful 45x optical zoom
- Max. 50/60fps@1080P
- Auto tracking and IVS support
- Supports Hi-PoE
- IR distance up to 1804ft
- IP67

#### Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

#### **PFA Technology**

PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

#### Environmental

With a temperature range of -40 °C to +60 °C (-40 °F to +140 °F), the camera is designed for extreme temperature environments. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications. For environments with rain, sleet, snow and fog, an integrated wiper provides users with clear visibility at all times.

#### Protection

The camera allows for  $\pm 25\%$  input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 8KV lightning rating provides effective protection for both the camera and its structure against lightning.

#### Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.



## **Technical Specification**

### Camera

Camera				
Image Sensor	1/2.8" STARVIS™ CMOS			
Effective Pixels	1920(H) x 1080(V), 2 Megapixels			
RAM/ROM	1024M/128M			
Scanning System	Progressive			
Electronic Shutter Speed	1/1s~1/30,000s			
Minimum Illumination	Color: 0.005Lux@F1.6; B/W: 0.0005Lux@F1.6; 0Lux@F1.6 (IR on)			
S/N Ratio	More than 56dB			
IR Distance	Distance up to 550m (1804ft)			
IR On/Off Control	Auto / Manual			
IR LEDs	Laser module			
Wiper	Support			
Lens				
Lens Type	3.95mm~177.7mm			
Max. Aperture	F1.6~ F4.95			
Angle of View	H: 70.3° ~ 1.8°			
Optical Zoom	45x			
Focus Control	Auto/Manual			
Close Focus Distance	100mm~ 1000mm			
	Detect	Observe	Recognize	Identify
DORI Distance	2345m	938m	469m	234m
	7694ft	3077ft	1539ft	768ft
PTZ				
Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -20° ~ 90°,auto flip 180°			
Manual Control Speed	Pan: 0.1° ~200° /s; Tilt: 0.1° ~120° /s			
Preset Speed	Pan: 240° /s; Tilt: 200° /s			
Presets	300			
PTZ Mode	5 Pattern, 8 Tour, Auto Pan ,Auto Scan			
Speed Setup	Human-oriented focal Length/ speed adaptation			
Power up Action	Auto restore to previous PTZ and lens status after power failure			
Idle Motion	Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period			
Protocol	ICR-SD, Pelco-P/D (Auto recognition)			
Intelligence				
Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly			
Auto Tracking	Support			
IVS	Tripwire, Intrusion, Object Abandoned/Missing			
Advanced Intelligent Functions	Face Detection, Heat Map			
Video				
Compression	H.265+/H.265/H.264+/H.264			
Streaming Capability	3 Streams			
Resolution	1080P(1920×1080)/1.3M(1280×960)/720P(1280× 720)/D1(704×576/704×480)/CIF(352×288/352×240)			
	Main stream: 2	1080P/1.3M/72	0P(1~50/60fps)	
Frame Rate	Sub stream1:	D1/CIF(1 ~ 25/3	0fps)	
	Sub stream2:	1080P/1.3M/72	0P/D1/CIF (1~2	5/30fps)

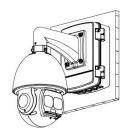
Bit Rate Control	CBR/VBR	
Bit Rate	H.265/H.264: 448K ~ 8192Kbps	
Day/Night	Auto(ICR) / Color / B/W	
Backlight Compensation	BLC / HLC / WDR(120dB)	
White Balance	Auto, ATW, Indoor, Outdoor, Manual	
Gain Control	Auto / Manual	
Noise Reduction	Ultra DNR (2D/3D)	
Motion Detection	Support	
Region of Interest	Support	
Electronic Image Stabilization (EIS)	Support	
Defog	Support	
Digital Zoom	16x	
Flip	180°	
Privacy Masking	Up to 24 areas	
Audio		
Compression	G.711a/G.711Mu/AAC/G.722/G.726/G.729/ MPEG2-L2	
Network		
Ethernet	RJ-45 (10Base-T/100Base-TX)	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x	
Interoperability	ONVIF Profile S&G, CGI	
Streaming Method	Unicast / Multicast	
Max. User Access	20 users	
Edge Storage	NAS (Network Attached Storage),Local PC for instant recording, Micro SD card 256GB	
Web Viewer	IE, Chrome, Firefox, Safari	
Management Software	SmartICRSS, DSS	
Smart Phone	IOS, Android	
Certifications		
Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB,ANSI C63.4- 2014	
Interface		
Video Interface	1 port(BNC, 1.0V[p-p], 75Ω)	
Audio Interface	1/1 channel In/Out	
RS485	1	
Alarm I/O	7/2	
Electrical		
Power Supply	AC24V/3A(±25%), Hi-PoE	
Power Consumption	20W, 43W (IR on, Heater on)	
Environmental		
Operating Conditions	-40° C ~ +60° C (-40° F ~ +140° F) / Less than 95% RH	
Storage Conditions	-40° C ~ +60° C (-40° F ~ +140° F) / Less than 95% RH	
Ingress Protection	IP67	
Vandal Resistance	IK10	
Construction		
Casing	Metal	
Dimensions	Ø240mm x 357mm (9.45" x 14.06")	
Net Weight	6.75kg(14.88lb)	
Gross Weight	10.5kg(23.15lb)	



## Accessories

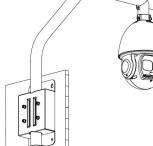












## Dimensions (mm/in)

