

IPPTZ-ELS2IR45X-AI

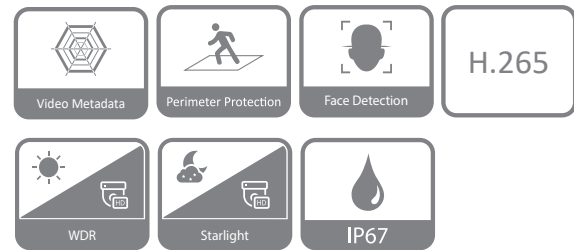
IP Motorized 2MP PTZ AI Camera



- 1/2.8" 2Megapixel STARVIS™ CMOS
- Max. 50/60 fps@1080P
- Perimeter protection
- SMD Plus
- 45x Optical Zoom
- IR distance up to 820 FT

System Overview

The IPPTZ-ELS2IR45X-AI marries the best of our current AI lineup with gargantuan 45x zoom lens in a tidy, durable 2MP package. This Auto-Tracking PTZ brings deep-learning algorithms to auto-tracking and perimeter protection along with facial detection. Other AI advancements include perimeter protection that filters false alarms from foliage and small animals and can also trigger alarms for people and vehicles.



Features

Perimeter Protection

Perimeter Protection functions significantly improve accuracy. Perimeter Protection reduces false alarms and decreases pixel count requirements for object detection. Perimeter Protection features custom tripwires based on object type for automation in limited access areas such as pedestrian or vehicle-only zones. This combination of advanced AI analytics and real-time alerts to a desktop or a mobile client reduces system requirements as well as resources, resulting in greater surveillance system efficiency.

Starlight Technology

The starlight standard sensor is just like the retina of your eyes which is sensitive to its ambient light, and the image quality is determined by how much light the sensor could use, together with the camera lens. The starlight camera technology uses larger and highly sensitive sensors, wider aperture and reduces the shutter speed to collect enough light for sharp monochrome/color images, even when human eyes couldn't identify a thing. So the starlight camera can see right through the darkness, even when it is challenging for your eyes.

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.

WDR (Wide Dynamic Range)

When part of an image is extremely dark but another part is so bright you can't see any details, that's dynamic range—the difference in lighting. Cameras with wide dynamic range (WDR) have special software that allows them to balance that lighting for one clear image. This makes them ideal for recording areas like store entrances where the contrast between the sunshine outside and the dim lighting inside can be extremely difficult to record.

Auto-tracking

Auto-tracking is a PTZ function that enables a single PTZ camera to cover a large area and to automatically detect, follow and record video of moving objects such as humans or vehicles.

SMART H.265+

Smart H.265+ technology is a collection of intelligent encoding algorithms based on H.265. To meet the characteristics of video surveillance, Smart H.265+ adopts some key video encoding techniques can be flexibly added/deleted or combined according to different applications and products. Smart H.265+ codec can effectively enhance video encoding efficiency according to the characteristics of different surveillance environments; furthermore, it can greatly reduce transmission bit rate, storage capacity to improve the overall system.

Environmental

This camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with an IP67 ranking, making it suitable for indoor or outdoor environments

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Pixel	2MP
Max. Resolution	1920 (H) x 1080 (V)
ROM	4 GB
RAM	1 GB
Electronic Shutter Speed	1/1 s–1/30000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005 Lux@F1.6 B/W: 0.0005 Lux@F1.6 0 Lux (IR on)
Illumination Distance	250 m (820 ft)
Illuminator On/Off Control	Zoom Prio/Manual/SmartIR
Illuminator Number	6

Lens

Focal Length	3.95 mm–177.7 mm			
Max. Aperture	F1.6–F4.95			
Field of View	H: 65.7°–1.9°; V: 39.4°–1.1°; D: 73.1°–2.1°			
Optical Zoom	45x			
Focus Control	Auto/Semi-Auto/Manual			
Close Focus Distance	0.01 m–3 m (0.03 ft–9.84 ft)			
Iris Control	Auto/Manual			
DORI Distance	Detect	Observe	Recognize	Identify
	2451.7 m (8043.64 ft)	972.9 m (3191.93 ft)	490.3 m (1608.60 ft)	245.2 m (804.46 ft)

PTZ

Pan/Tilt Range	Pan: 0°–360°; Tilt: -20°–+90°
Manual Control Speed	Pan: 0.1°/s–260°/s; Tilt: 0.1°/s–120°/s
Preset Speed	Pan: 300°/s; Tilt: 200°/s
Preset	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Speed Adjustment	Support
Power-off Memory	Support
Idle Motion	Preset/Tour/Pattern/Scanning
Protocol	DH-SD Pelco-P/D (auto recognition)

General Intelligence

Event Trigger	Motion detection, video tampering, scene changing, network disconnection, IP address conflict, illegal access, and storage anomaly.
IVS	Object Abandoned/Missing

Artificial Intelligence

Smart Capture	Support human, motor vehicle and non-motor vehicle image capture.
Perimeter Protection	Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc.
SMD Plus	Support
Auto Tracking	Support

Video

Compression	H.265; H.265+; H.264+; H.264; MJPEG (Sub Stream)
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)
Frame Rate	Main stream: 1080P/1.3M/720P (1–50/60 fps) Sub stream 1: D1/CIF (1–25/30 fps) Sub stream 2: 1080P/1.3M/720P (1–25/30 fps)
Bit Rate Control	Variable/Constant
Bit Rate	H.264: 3 Kbps–8192 Kbps H.265: 3 Kbps–8192 Kbps
Day/Night	Support
BLC	Support
WDR	120 dB
HLC	Support
White Balance	Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural/Street lamp
Gain Control	Auto/Manual
Noise Reduction	2D/3D
Motion Detection	Support
Region of Interest (RoI)	Support
Image Stabilization	Electronic
Defog	Electronic
Digital Zoom	16x
Flip	0°/180°
Privacy Masking	Up to 24 areas, and up to 8 areas in the same view
S/N Ratio	≥ 55 dB
Audio	
Compression	G.711A; G.711Mu; G.726; AAC; G.722.1; G.723; G.729; PCM; MPEG2-Layer2

Technical Specification

Network

Ethernet	1 RJ-45 Port (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; 802.1x; QoS; FTP; SMTP; UPnP; SNMP v1/v2c/v3 (MIB-2); DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; RTCP
Interoperability	ONVIF Profile S&G&T; CGI
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth 64 MB)
Storage	FTP; Micro SD card (256 GB); P2P
Browser	IE7 and later versions Chrome 42 and earlier versions Firefox 52 and earlier versions Safari
Management Software	Smart PSS; DSS; DMSS; Easy4ip; IVSS
Mobile Phone	iOS; Android

Certification

Certification	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014
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Port

RS-485	1 (baud rate range:1200 bps–9600 bps)
Audio Input	1 (LINE IN; bare wire)
Audio Output	1 (LINE OUT; bare wire)
Two-way Audio	Support
Alarm I/O	7/2

Power

Power Supply	DC 24V/2.5A $\pm$ 25%; PoE+ (802.3at)
Power Consumption	13W 26W (IR light on)

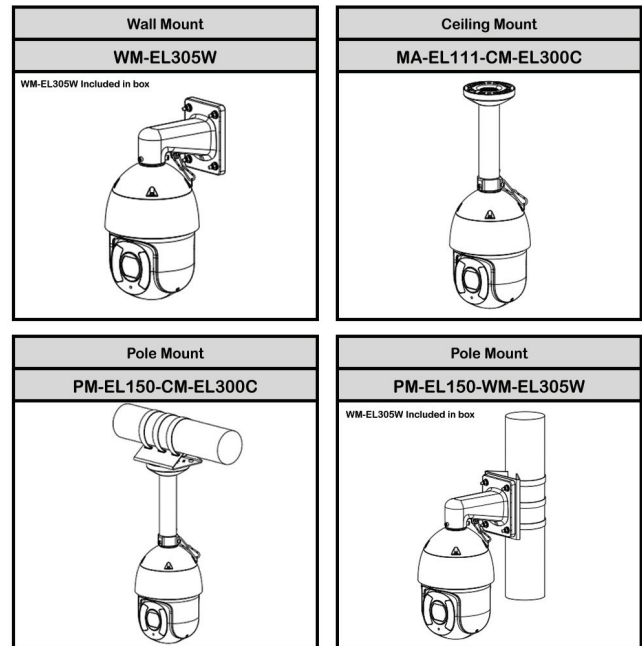
Environment

Operating Temperature	-40°C to +70°C (-40°F to +158°F)
Operating Humidity	$\leq$ 95%RH
Protection	IP67; IK10; TVS 8000V lightning protection; surge protection; voltage transient protection

Structure

Casing	Metal
Dimensions	337.4 mm $\times$ Φ 209.1 mm (13.28" $\times$ Φ 8.23")
Net Weight	6.5 kg (14.33 lb)
Gross Weight	9.6 kg (21.16 lb)

Accessories



Dimensions

