Z-PE4EM5SW25-S/A
4MP AI Starlight IP PTZ

· 1/2.8" 4Megapixel CMOS
· Powerful 25x optical zoom
· Starlight technology
· Max.25/30fps@4M
· Deep-learning-based perimeter protection
· Support PoE+
· IR distance up to 100m
· SMD
· IP66

False Alarm Filter	WDR	100m IR
ICR D/N	IP66	PoE+

System Overview

This is a 4 megapixel PTZ camera which has motors that can allow it to Pan (left and right), Tilt (up and down) and Zoom (in and out). This camera has Artificial Intelligence which increases not only adapatability, but accuracy in differentiating between vehicles and people. With PFA technology, new methods of distance judgement ensures clarity while zooming while shortening focus time. Starlight™ and Wide Dynamic Range, creates a balanced image depending on the enviromaent where the footage is being taken.

Features

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.

Wide Dynamic Range (WDR)
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.

Perimeter Protection
Automatically filtering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improving alarm accuracy.

SMD
With Deep-Learning Algorithm, SMD filters the motion detection alarm triggered by non-concerned target and recognize human and vehicle effectively, sending alarms when human and vehicle intrudes.

Perimeter Protection
Automatically filtering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improving alarm accuracy.

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.

Enviromental
This camera can operate in extreme temperature environments, rated for use in temperatures from -40 °C to +70 °C (-40 °F to +158 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection rating makes it suitable for demanding outdoor applications.

Protection
The camera allows for 6KV lightning rating, which provides effective protection for both the camera and its structure against lightning.

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Technical Specification

Camera

Image Sensor	1/2.8" STARVIS™ CMOS
Effective Pixels	4MP
Max. Resolution	2560 (H) × 1440 (V)
ROM	4GB
RAM	1GB
Electronic Shutter Speed	1/1 s–1/30,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005Lux@F1.6 B/W: 0.0005Lux@F1.6 0Lux@F1.6 (IR light on)
IR Distance	100 m (328.08 ft)
IR On/Off Control	Zoom Prio/Manual/SmartIR
IR LEDs Number	4

Lens

Focal Length	4.8 mm–120 mm			
Max. Aperture	F1.6–F4.0			
Field of View	H: 60.0°–2.5°; V: 30.8°–2.2°; D: 66.7°–2.9°			
Optical Zoom	25x			
Focus Control	Auto/Semi-Auto/Manual			
Close Focus Distance	0.1 m–1.5 m (0.33 ft–4.92 ft)			
Iris Control	Auto/Manual			
DORI Distance	Detect	Observe	Recognize	Identify
	2540 m (8333.33 ft)	1016 m (3333.33 ft)	508 m (1666.67 ft)	254 m (833.33 ft)

PTZ

Pan/Tilt Range	Pan: 0°–360° (endless) Tilt: -15°–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
Tour	8 (up to 32 presets per tour)
Pattern Number	5
Scanning Number	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, Storage anomaly
General Intelligence	Object Abandoned/Missing

Artificial Intelligence

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	Support
Video Metadata	Support human, motor vehicle and non-motor vehicle image capture.

Video

Compression	H.265+/H.265/H.264+/H.264/MJPEG (sub stream)
Streaming Capability	3 streams
Resolution	4M (2560 x 1440); 3M (2048 x 1536); 1080P (1920 x 1080); 1.3M (1280 x 960); 720P (1280 x 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240)
Frame Rate	Main stream: 4MP/3MP/1080P/1.3MP/720P (1–25fps) Sub stream 1: D1/CIF (1–25fps) Sub stream 2: 1080P/1.3M/720P (1–25fps)
Bit Rate Control	Variable Bit Rate/Constant Bit Rate
Bit Rate	H.265/H.264: 3 kbps–20480 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Support
WDR	120 dB
HLC	Support
White Balance	Auto/Indoor/Outdoor/Track/Manual/Sodium lamp/Natural light/Street lamp
Gain Control	Auto/Manual
Noise Reduction	Ultra DNR (2D/3D)
Motion Detection	Support
Region of Interest	Support
Electronic Image Stabilization	Support
Electronic Defog	Support
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas, and up to 8 areas in the same view

Audio

Compression	G.711a; G.711Mu; AAC; G.722.1; G.726; MPEG2-Layer2; G.729

Network

Ethernet	RJ-45 (10/100Base-T)

Protocol	IPv4; IPv6; HTTP; HTTPS; SSL; TCP/IP; UDP; UPnP; ICMP; IGMP; SNMPv1/v2c/v3(MIB-2); ARP; RTCP; 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
User/Host	19
Edge Storage	NAS; Local PC; Micro SD card (256G)
Browser	IE7 and newer versions Chrome 45 and earlier versions Firefox 52 and earlier versions Safari (no version restrictions)
Management Software	Smart PSS; DSS; DMSS
Smart Phone	IOS/Android

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014 UL: UL60950-1+CAN/CSA C22.2, No. 60950-1

Port

Audio In	1
Audio Out	1
Alarm Port	2/1

Power

Power Supply	DC 12V/3A PoE+ (802.3at)
Power Consumption	13W 21W (IR on)

Environment

Operating Temperature	-40°C to +70°C (-40°F to +158°F)
Operating Humidity	≤95%
Ingress Protection	IP66; TVS 6000V lightning proof; Surge protection

Structure

Casing	Aluminium alloy ADC12
Dimensions	Φ160 mm × 295 mm (6.30" × 11.61")
Net Weight	3 kg (6.61 lb)
Gross Weight	4.8kg (10.58lb)

Dimensions (mm/inch)
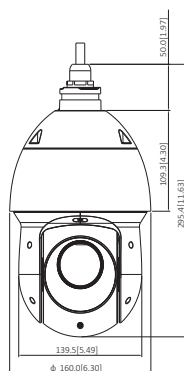
Accessories

Included:

WEW-305W
Wall Mount

Optional:

MEN-111
Mount Adapter

CEW-151
Corner Mount

AEW-303S
Parapet Mount

CEW-300C
Ceiling Mount

MEN-120
Junction Box

LEW-150
Pole Mount

Pole Mount	Wall Mount
WEW-305W + LEW-150	WEW-305W + MEN-120
Corner Mount	Parapet Mount
WEW-305W + CEW-151	MEN-111 + AEW-303S