

IP-3WP-F28-EA

3MP AI Dual-Lens Network Camera



Empower AI is a full portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

Series Overview

Equipped with advanced HiSilicon chip and fast lens, Empower AI Dual-Lens series network camera provides excellent image effects. With advanced deep learning algorithm, the camera supports various intelligent functions, such as people counting, queue management, stereo analysis, perimeter protection and face detection, which provides better intelligent application solutions based on scenes.

Functions

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Empower smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

Starlight

Empower Starlight technology mainly applies to the environment of low illuminance, and it can provide clear colorful video. Even in the environment of ultra-low illuminance, the technology can guarantee the good image effect.

ePoE

Empower ePoE technology provides a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.

Face Detection

Empower Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, tracking, capturing and selecting the best face image, and then outputs face snapshot.

- 3MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- Outputs max. 3MP (2048 × 1536) @30 fps
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- People counting: Queue management, people counting in area, entry/exit number counting, and it can output daily/monthly/yearly report
- Alarm: 2 in, 2 out; audio: 2 in, 1 out; 485; BNC; supports max. 256 G
- Micro SD card, built-in Mic and speaker. Siren active deterrence, built-in 8 voices, and user can import custom voices.
- 12V DC/PoE power supply
- IP67, IK10 protection



Perimeter Protection

With deep learning algorithm, Empower Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

People Counting

With deep learning algorithm, Empower People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs yearly/monthly/weekly/daily reports to meet your requirements.

In Area No.

With advanced stereo image technology and deep learning algorithm, Empower In Area No. technology recognizes human targets accurately to count people in area in real-time. You can set people quantity threshold, when the number larger or smaller than the threshold, it triggers linkage. It is applicable in the scene that has limit on people quantity.

Queue Management

With advanced image processing technology and deep learning algorithm, Empower Queue Management technology counts people quantity in selected area in real time to realize queue management. It supports multiple polygon areas. When No. in area/strand time is not smaller or not larger than the threshold, it triggers alarm.

Protection (IP67, IK10, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can work normal after soaking in 1 m deep water for 30 minutes.

IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J).

Wide voltage: The camera allows ±30% input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.



Technical Specification

Camera

Image Sensor	1/2.8" 3Megapixel progressive CMOS
Max. Resolution	2048 (H) × 1536 (V)
ROM	4 GB
RAM	2 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.005 Lux @F1.6
S/N Ratio	>56 dB
Illumination Distance	20 m (IR) (65.6 ft) (IR LED)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	1 (IR LED)
Pan/Tilt/Rotation Range	Tilt: 0°–70°

Lens

Lens Type	Fixed-focal				
Mount Type	M12				
Focal Length	2.8 mm; 3.6 mm				
Max. Aperture	2.8 mm: F1.6 3.6 mm: F1.6				
Field of View	2.8 mm: Horizontal 96° × Vertical 70° × Diagonal 128° 3.6 mm: Horizontal 79° × Vertical 57° × Diagonal 104°				
Iris Type	Fixed				
Close Focus Distance	2.8 mm: 0.7 m (2.3 ft) 3.6 mm: 1.3 m (4.3 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	44.8 m (147 ft)	17.9 m (58.7 ft)	9.0 m (29.5 ft)	4.5 m (14.8 ft)
	3.6mm	64.0 m (210.0 ft)	25.6 m (84.0 ft)	12.8 m (42.0 ft)	6.4 m (21.0 ft)

Smart Event

IVS	Abandoned object; missing object
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Professional, intelligent

IVS (Perimeter Protection)	Tripwire, intrusion, fast moving (the three functions support the classification and accurate detection of vehicle and human), loitering detection, people gathering, parking detection
Face Detection	Face detection; track; optimization; snapshot; report high quality picture; face enhancement; face exposure; face attribute extract, 6 attributes and 5 expressions: Gender, age, glasses, expressions (anger, calm, happiness, sadness, surprise), mask, beard; face matting setting: face, single inch photo; three snapshot methods: real-time snapshot, optimization snapshot, quality priority; face angle filter; optimization time setting
People Counting	Support tripwire number counting; people counting in area, and displaying and outputting yearly/monthly/weekly/daily reports. Support queue management, and displaying and outputting yearly/monthly/weekly/daily reports. Support 4 tripwire rule configuration, people counting in 4 areas, and 4 queue managements.

Intelligent Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos.
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Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Smart H.264+ Smart H.265+
Video Frame Rate	Main stream: 3MP (1–25/30 fps) Sub stream: D1 (1–25/30 fps) Third stream: 2MP (1–25/30 fps) Fourth stream: 2MP (1–25/30 fps) Fifth stream: D1 (1–25/30 fps)
Stream Capability	5 streams
Resolution	3M (2048 × 1536); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240); 640 × 480 (VGA)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 3 kbps–17664 kbps H.265: 3 kbps–17664 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	DWDR
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Smart Illumination	Yes
Defog	Yes
Privacy Masking	4 areas

Audio

Built-in MIC	Yes
Audio Compression	G.711a; G.711Mu; G.726; AAC; G.723
Built-in Speaker	Yes

Alarm

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; voltage detection; external alarm; face detection; people counting in area; stay alarm; people counting; people counting exception detection; safety exception
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Network

Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; 802.1x; SNMP

Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P; RTMP
User/Host	20
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE9; IE11; FireFox; Chrome
Management Software	WEB, CMS, UNISIGHT VMS
Mobile Phone	IOS; Android

Certification

Certification	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07
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Port

RS-485	1 (baud rate range: 1200 bps–115200 bps)
Audio Input	2 channels (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	2 channels in: 5mA 3V–5V DC
Alarm Output	2 channels out: 1,000mA 30V DC/500mA 50V DC

Power

Power Supply	12V DC/PoE
Power Consumption	Basic power consumption: 3.5W (12V DC); 4.4W (PoE) Max. power consumption (ICR switch + IR full intensity + WDR + Intelligent functions enabled): 9.1W (12V DC); 10.6W (PoE)

Environment

Operating Conditions	-40°C to +60°C/Less than 95% RH
Storage Temperature	-40°C to +60°C (-40°F to +140°F)
Ingress Protection	IP67; IK10

Structure

Casing	Metal
Dimensions	204.0 mm × 78.0 mm × 61.5 mm (8.0" × 3.1" × 2.4") (L × W × H)
Net Weight	0.81 kg (1.8 lb)
Gross Weight	1.19 kg (2.6 lb)

Ordering Information

Type	Part Number	Description
3MP Camera	IP-3WP-F28-EA(PAL)	3MP AI Dual-Lens Network Camera, PAL
	IP-3WP-F28-EA(NTSC)	3MP AI Dual-Lens Network Camera, NTSC

Accessories (Optional)	PFB110W	Ceiling Mount/Wall Mount
	PFA152-E	Pole Mount

Accessories

Optional



PFB110W
Ceiling Mount/Wall Mount



PFA152-E
Pole Mount

Ceiling Mount	Pole Mount	Ceiling Mount
PFB110W	PFA152-E	

Dimensions (mm[inch])

