DH-SD8A440-HNT-WA

4MP 40x Starlight WizMind Traffic Parking Network Camera

- 1/1.8" 8Megapixel STARVIS™ CMOS
- Powerful 40x optical zoom
- Starlight technology
- Max. 2560 × 1440@30 fps
- Automatically captures pictures of illegal parking events in the specified area
- Built-in ANPR engine, equipped with deep learning algorithm application
- Supports multiple tour modes to improve capture efficiency
- Supports connecting the speaker to use reminder functions such as voice broadcast of license plate number, and voice talk
- Continuous 360° horizontal rotation, –30° to 90° vertical rotation, and auto flip 180°; no blind zone
- IP67
- IR distance up to 500 m
- Auto-iris

Launched by Dahua Technology, Dahua WizMind 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 industry verticals.

System Overview

The 4MP 40x Starlight WizMind Traffic Parking Network Camera has a built-in neural network processor, and adopts advanced WizMind deep learning technology. With illegal parking evidence extraction, picture synthesis and law enforcement information collection functions, the device is suitable for various road scenes. With PTZ control, the cost of device deployment and scene adjustment can be greatly reduced. Multiple presets can be set at the same time to effectively increase coverage, and intelligent multi-scenario tour can be used to improve capture efficiency.

Scenes

The device can be widely used in industrial parks, urban roads, elevated roads and some expressways which need wide monitoring and illegal parking evidence collection.

Functions

Illegal Parking Capture

Deep learning algorithm is adopted to automatically detect illegal parking targets and identify vehicle attributes in the designated area. The camera supports zooming, capturing, and recognizing license plate number, vehicle type, vehicle color, license plate color and other motor vehicle attributes. And the combination of long shots, close shots and detailed license plate snapshots form a complete chain of illegal behavior evidence.

Multi-scenario Tour

The camera supports continuous 360° horizontal rotation, –30° to 90° vertical rotation, and auto flip 180°. Multiple presets can be set to expand the coverage, and the capturing radius is up to 150 m. It has the adaptive Detection Priority tour mode to effectively improve capture efficiency.

Audio Linkage

The camera has 1 audio input port and 1 audio output port. After the external speaker is connected, reminder functions such as voice broadcast of license plate number and voice talk based on illegal behavior are supported.

All-day Detection

The camera has a built-in smart rain sensor, and adopts advanced deep learning algorithm to effectively reduce the interference of the weather, so it can realize uninterrupted illegal parking capture and video monitoring in sunny, cloudy, rainy, and light snowy day.

Protection

IP67: The camera has passed rigorous dust and immersion testing. The casing can protect the camera from dust inhalation, and it can be soaked in 1-meter-deep water for 30 minutes without causing harmful effects.
Wide voltage: ±25% input voltage range is allowed, so that the camera can be widely used in outdoor environments with unstable voltage.

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.

Technical Specification

Camera

Image Sensor	1/1.8" CMOS
Pixel	4MP
Max. Resolution	2560 (H) × 1440 (V)
ROM	32 GB
RAM	4 GB
Electronic Shutter Speed	1/1–1/30,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.001 Lux@F1.4 B/W: 0.0001 Lux@F1.4 0 Lux (IR light/laser on)
Illumination Distance	500 m (1640.42 ft)
Illuminator On/Off Control	Zoom Prio; Manual
Illuminator Number	10 IR lights
Wiper	Smart wiper

Lens

Focal Length	5.5 mm–220 mm			
Max. Aperture	F1.4–F4.5			
Field of View	H: 63.9°–2.0°; V: 37.3°–1.1°; D: 71.2°–2.3°			
Optical Zoom	40x			
Focus Control	Auto; Semi-Auto; Manual			
Close Focus Distance	0.5 m–2 m (1.64 ft–6.56 ft)			
Iris Control	Auto			
DORI Distance	Detect	Observe	Recognize	Identify
	3034.5 m (9955.71 ft)	1204.2 m (3950.79 ft)	606.9 m (1991.14 ft)	303.4 m (995.41 ft)

PTZ

Pan/Tilt Range	Pan: 0°–360° endless Tilt: -30°–+90°, auto flip 180°
Manual Control Speed	Pan: 0.1°–240°/s Tilt: 0.1°–100°/s
Preset Speed	Pan: 240°/s Tilt: 120°/s
Preset	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Power-off Memory	Yes
Idle Motion	Preset; Tour; Pattern; Scanning
Protocol	DH-SD Pelco-P/D (auto recognition)

Artificial Intelligence

Illegal Parking Capture	Radius of the capture range: 150 m (multi-scenarios), 60 m (single scenario); support configuring up to 8 illegal parking capture areas in the same scenario; support adaptive multi-scenario tour and detection to expand coverage; support recognizing motor vehicle attributes, such as vehicle type, vehicle color, license plate number, and license plate color.

Video

Compression	H.265; H.264BaselineProfile; H.264 Main Profile; H.264 High Profile; M-JPEG
Streaming Capability	3 streams
Resolution	4M (2560 × 1440); 3M (2048 × 1536); 1080P (1920 × 1080); 1.3M (1280 × 960); 720P (1280 × 720); D1 (704 × 576); CIF (352 × 288)
Frame Rate	Main stream: 4M/3M (1–25/30 fps), 1080P/1.3M/720P (1–25/30 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	Main stream with default resolution: H.264: 2816–8192 Kbps H.265: 1024–7936 Kbps
Day/Night	Auto (ICR); Color; B/W
BLC	Yes
WDR	94 dB
HLC	Yes
White Balance	Auto; Indoor; Outdoor; Tracking; Manual; Sodium Lamp; Natural Light; Street Lamp
Gain Control	Auto; Manual
Noise Reduction	2D/3D
Motion Detection	Yes
Region of Interest (RoI)	Yes
Image Stabilization	Electronic (EIS)
Defog	Optical
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas, and up to 8 areas in the same view
S/N Ratio	≥ 53.6 dB

Audio

Compression	G.711a; G.711mu; PCM; G.726; AAC; G722.1; G.729; MPEG2-Layer2

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SNMP; DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE
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)
Browser	IE7 and later versions Chrome 45 and later versions Firefox 52ESR and earlier versions Safari
Management Software	DSS-T9100-PRO
Mobile Phone	iPhone; iPad; Android; Windows Phone

Certification

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

Port

Analog Output	1 (BNC)
RS-485	1 (baud rate range: 1200 bps–115200 bps)
Audio Input	1 (LINE IN; bare wire)
Audio Output	1 (LINE OUT; bare wire)
Two-way Audio	Support
Alarm I/O	7/2
Alarm Linkage	Capture; preset; tour; pattern; SD card record; trigger digital output; client electronic map; send email
Alarm Event	Motion/tampering detection; audio detection; network disconnection detection; IP conflict detection; encoder state detection; memory card state detection; memory space detection; abnormal power supply detection

Power

Power Supply	DC 36V/2.23A (±25%) (standard) HI-PoE (optional)
Power Consumption	Basic: 30W Max: 48W (R light on)

Environment

Operating Temperature	–40°C to +70°C (–40°F to +158°F)
Operating Humidity	≤ 95%
Protection	IP67; TVS 6000V lightning proof; surge protection; voltage transient protection (comply with GB/T 17626.5 level 4)

Structure

Dimensions	415.6 mm × Φ 262 mm (16.36" × Φ 10.31")
Net Weight	8.5 kg (18.74 lb)
Gross Weight	10 kg (22.05 lb)

Ordering Information

Type	Model	Description
4MP WizMind Camera	DH-SD8A440-HNT-WA	4MP 40x Starlight WizMind Traffic Parking Network PTZ Camera
Accessories	PFB306W	Wall Mount Bracket
	DC 36V/2.23A	Power Adapter
Accessories	PFA118	Mount Adapter
	PFB710C	Ceiling Mount Bracket
	PFA150	Pole Mount Bracket

Accessories

Included:

PFB306W
Wall Mount Bracket

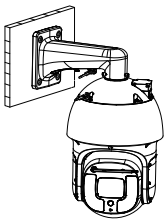
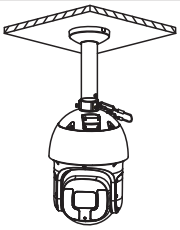
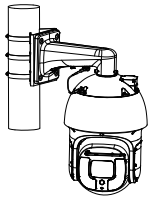
DC 36V/2.23A
Power Adapter

Optional:

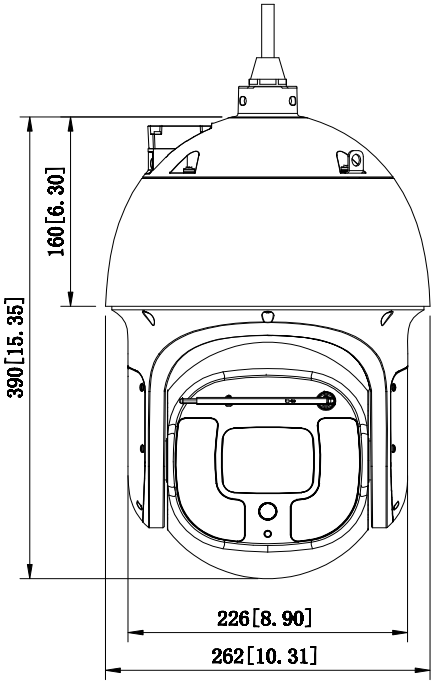
PFA118
Mount Adapter

PFB710C
Ceiling Mount Bracket

PFA150
Pole Mount Bracket

Wall Mount	Ceiling Mount	Pole Mount
PFB306W	PFB710C+PFA118	PFB306W+PFA150
		

Dimensions (mm[inch])



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