alhua
TECHNOLOGY

DHI-ITC439-PW1H-Z

4MP Outdoor Parking Space Detector

· Adopts high-performance CMOS image sensor and processor for in-depth extraction and analysis of vehicle information 24/7.
· Adopts deep learning algorithms and supports multiple monitoring modes including area monitoring, parking space monitoring, and plate recognition.
· Monitors up to 50 parking spaces.
· Offers a variety of ports, such as signal, data and communication, and can connect to external devices.
· Built-in LED illuminator that makes installation easy.
· Motorized vari-focal lens that is easy to install and commission.
· A camera, illuminator and more were combined into one powerful detector that has low power consumption and is IP67 rated.
· Supports 12 VDC, 24 VAC and PoE+.

System Overview

With its high-performance CMOS image sensor and processor, 4MP Outdoor Parking Space Detector generates highly accurate and reliable statistics 24/7 in all-weather conditions. Through its deep learning algorithms, it is capable of monitoring up to 50 parking spaces and offers multiple monitoring modes including area monitoring, parking space monitoring, and plate recognition.

Functions

High Performance
Leveraging its deep learning algorithms, it can monitor up to 50 parking spaces and offers multiple monitoring modes including area monitoring, parking space monitoring, and plate recognition.

High-level Protection
A camera, illuminator and more were brought together into one powerful detector that has low power consumption. It is also IP67 rated, making it highly suitable for a variety of harsh environments.
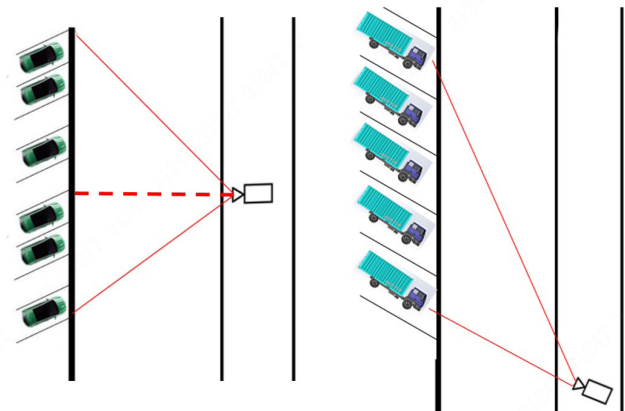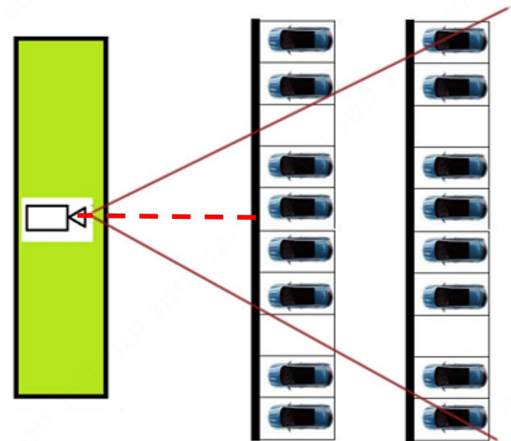
Wide Dynamic Range
The camera produces vivid images, even in high-contrast lighting conditions, by using industry-leading wide dynamic range (WDR) technology.

Easy Installation
Designed with a built-in LED illuminator and motorized vari-focal lens, the camera is easy to install and commission.

Scene

It is suitable for expressway service areas, scenic spots, large outdoor parking lots, large buildings in compounds, high-speed railway stations, and more.

Technical Specification

Basic

Illuminator Number	6 × white light (adjustable brightness)
Image Sensor	1/1.8'' CMOS
Image Resolution	2688 (H) × 1520 (V) (OSD black background is not calculated in the pixels)
Video Resolution	Main stream: 4M (2688 × 1520); UXGA (1600 x 1200); 1080p (1920 × 1080); 720p (1280 × 720) Sub stream: 720p (1280 × 720); D1 (704 × 576, 704 × 480); CIF (352 × 288, 352 × 240)
Video Frame Rate	PAL: Main stream (2688 × 1520@25 fps, 1600 × 1200@25 fps, 1920 × 1080@25 fps, 1280 × 720@25 fps); sub stream: (1280 × 720@25 fps, 704 × 576@25 fps, 352 × 288@25 fps) NTSC:Main stream (2688 × 1520@30 fps, 1600 × 1200@30 fps, 1920 × 1080@30 fps, 1280 × 720@30 fps); sub stream: (1280 × 720@30 fps, 704 × 576@30 fps, 352 × 288@30 fps)
Bit Rate	H.264M: 32 kbps–32768 kbps H.264H: 32 kbps–32768 kbps H.265: 32 kbps–32768 kbps MJPEG: 512 kbps–65536 kbps
Video Compression	H.264M; H.264H; H.265; MJPEG
Picture Encoding Format	JPEG
Noise Reduction	3D NR
White Balance	Auto; Natural; Street lamp; Outdoor; Manual; Regional custom
Electronic Shutter Speed	1/25–1/10000, auto or manual
WDR	96 db
Edge Enhancement	Yes
Exposure Mode	Auto; Manual (select from shutter values or customize shutter range)
Iris Control	Auto iris (W: 1.4–T: 2.15)

Performance

Shutter	Single shutter
Storage	1 × built-in TF card slot. The following cards are supported: Kingston 16 GB, 32 GB, 64 GB, and 128 GB; Dahua 16 GB, 32 GB, 64 GB, and 128 GB; SanDisk 16 GB, 32 GB, 64 GB, and 128 GB.
Image Tampering Prevention	Yes. Verifies watermarks in videos and images
Field of View	H: 114.6° (W)–48.3° (T) V: 59.0° (W)–27.1° (T) D: 141.6° (W)–55.5° (T)
Illumination Distance	12 m (39.37 ft)
Min. Illumination	0.002 lx (built-in illuminator on)
Alarm Event	Storage full, storage error, no storage card, network disconnection, IP conflict, and illegal access.
Security	Authorized username and password, MAC address binding, HTTPS encryption, IEEE 802.1x, and network access control
OSD Overlay	Time, address, device SN, week, space statistics, anti-counterfeiting code, and custom information.
Auto Registration	Yes

Intelligence

Vehicle Detection	Vehicle capture rate ≥95%
Vehicle Recognition	Supports licensed and unlicensed vehicle recognition.
Smart TrackFrame	Displays the trajectory of the license plate and vehicle.
Illegal Parking Detection	Yes
Available Space Detection	Yes
Number of Available Spaces	Max. 50 spaces
Counting Mode	Area monitoring, parking space monitoring, and plate recognition mode.
Parking Space Attributes	The attributes of large and small spaces can be configured.

Port

Lens Mount	Φ16
Analog Output	1
Network	1 × RJ-45 Ethernet port, 100/1000 M network transmission
RS-485	2
RS-232	1
Alarm Input	3, optocoupler input (on-off input)
Alarm Output	3 (1 for relay, and 2 for optocoupler), used to link the barrier.
Audio Input	1-channel RCA port
Audio Output	1-channel RCA port

General

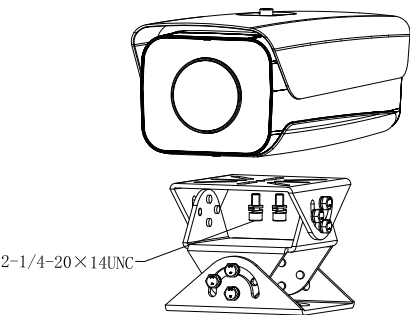|	
Power Supply	12 VDC, 24 VAC, POE+
Power Consumption	<20 W
Operating Temperature	−30 °C to +65 °C (−22 °F to +149 °F)
Operating Humidity	10% (RH)–90% (RH) (no condensation)
Casing	Metal + plastic
Protection Grade	IP67
Dimensions	296.5 mm × 124.3 mm × 107.7 mm (11.67" × 4.89" × 4.24") (L × W × H)
Net Weight	1.7 kg (3.75 lb)
Installation	Universal mounting bracket
Lens	Included, 4.38 mm–9.33 mm

Ordering Information

Type	Part Number	Description
4MP Camera	DHI-ITC439-PW1H-Z	4MP Outdoor Parking Space Detector
Accessories	8018	3-dimensional universal mounting bracket

Accessories

Optional:

8018
3-dimensional universal
mounting bracket

2–1/4–20×14UNC

Dimensions (mm[inch])

296.5 [11.67]

124.3 [4.89]

107.7 [4.24]