

# DHI-ITC431-RW1F-IRL8

4 MP AI Enforcement Camera



• 1/1.8" 4 MP starlight CMOS sensor.

· Video compression standards: H.265, H.264M, H.264H and MJPEG.

Maximum resolution: 2688 × 1520@30 fps.
Motorized vari-focal lens: 10 mm-50 mm.

Max ANPR IR distance: 30 m.Protection: IP67, IK10 rated.

The DHI-ITC431-RW1F-IRL8 is a powerful series that features license plate recognition, and has a recording resolution of 4 MP at 25 frames per second with a 1/1.8" starlight CMOS sensor.

#### **System Overview**

Highly intuitive, the 4 MP AI Enforcement Camera employs its 10 mm to 50 mm motorized vari-focal lens to perform long-range video monitoring. Coming in a rugged, IP67 rated housing, the camera offers IR illumination, which makes it suitable for most harsh environments, and for locations with poor lighting. To reduce light pollution, it uses IR mode at night.

#### **Functions**

#### Intelligent traffic monitoring

Captures traffic violations, records passing vehicles, collects data on traffic flow, and performs event detection.

## **High-level protection**

Built to be reliable and durable, this camera is IP67 and IK10 rated.

#### Multiple types of power supplies

Supports PoE and 12–36 VDC power supplies, meeting the various power supply needs of today's customers.

#### Scene

This camera is ideal for detecting traffic violations (line crossing, speeding), recording vehicles that pass, traffic data collection, and event detection (congestion, road parking).

### **Technical Specification**

#### Camera

1/1.8" CMOS	
2688 (H) $\times$ 1520 (V) (OSD black background is not calculated in the pixels)	
Single shutter	
Auto/Manual 1/50 s–1/100,000 s	
3D NR	
> 56 dB	
140 dB	
0.0001lux	
Supports ICR auto switch: IR cut-off filter (IRCF) with the polarizing filter is used during the daytime, and switches to the IR transmitting filter at night	

#### Illuminator

Illuminator Number	4 illuminators (850 nm LED illuminators, adjustable brightness)
IR Light	Yes
Illumination Distance	23 m-30 m (75.46 ft-98.43 ft) (adjustable brightness)
Lane Coverage	1–2 lanes

#### Lens

Lens	Motorized vari-focal
Focal Length	10 mm-50 mm
Max. Aperture	Max. F1.33

Field of View	Horizontal: 9.4°–40.8° Vertical: 5.4°–22.9°	Bit Rate Control	CBR; VBR
	Diagonal: 10.7°–46.9°  Auto; Manual (Select from shutter values or customize	White Balance	Auto; Manual; Outdoor; Natural; Street Lamp; Partial white balance
Exposure Mode	shutter range)	Edge Enhancement	Yes
Function		HLC	Yes
Trigger Mode	Video trigger/Radar trigger	BLC	Yes
Speed Detection Range	0 km/h–180 km/h	Bad Pixel Correction	Yes
	Time, address, device SN, lane No., plate number, plate color, vehicle logo, vehicle type, vehicle color, vehicle	Gain Range	0–100
OSD Overlay	size, vehicle speed, country/region, event (violation name), and motorcycle attributes (type, number of people, and helmet)	Image	
Alarm Event	Storage full; storage error; external alarm; no storage card; license plate blocklist; illegal access; network disconnection; IP conflict	Composite Image	Supports combining up to 3 source images, and 1 close- up image into a composite image
Automatic Network Replenishment (ANR)	Platform and FTP (TF card is required)	Image Resolution	2688 (H) × 1520 (V) (OSD black background is not calculated in the pixels)
Auto Registration	Yes	Image Encoding Format	JPEG
Intelligence		Image Tampering Prevention	Verifies watermarks in videos and images
Target Detection	Motor vehicle; motorcycle	Network	
ANPR	Adopts developed algorithms to recognize license plate numbers and letters	Network Port	$1 \times \text{RJ-45}$ Ethernet port, $10/100/1000 \text{ M}$ network transmission
	Vehicle head: SUV, Large bus, sedan, light truck, pickup,	SDK and API	Yes
Vehicle Type Recognition	heavy truck, medium truck, van, medium bus, MPV Vehicle tail: SUV, large bus, sedan, light truck, pickup, heavy truck, medium truck, van	Security	Authorized username and password, MAC address binding, HTTPS, and network access control
	White, pink, black, red, yellow, gray, blue, green, dark	Protocol	IPv4; IPv6; HTTP; TCP; IP; UDP; NTP; DHCP
Vehicle Color Recognition	orange, purple, brown, and silver gray (color recognition is not supported during nighttime)	Interoperability	ONVIF (Profile S/Profile G/Profile T)
Accuracy (Under recommended installation and lighting conditions)	Capture rate > 99%; LPR accuracy > 98%	Browser	Microsoft Edge IE: IE9–IE11 Chrome: Chrome 41 and earlier Firefox: Firefox 49 and earlier For Win 10 users, run the browser as administrator
	Acura; Alfaromeo; Ashokleyland; Astonmartin; Audi; Baic; Bently; Benz; BMW; Buick; BYD; Cadillac; Chery;	Positioning	GPS
	Chevrolet; Chrysler; Citroen; Dacia; Daihatsu; Datsun; Dodge; DS; Ferrari, Fiat; Force; Ford; Foton; Geely; GMC; Greatwall; Hino; Honda; Hyundai; Infinit; Isuzu; Iveco; Jac; Jaguar; Jeep; Kia; Kinglong; Land; Lexus; Lifan; Lincoln; Mahindra; MAN; Maserati; Mazda; Mercury; MG; Mini; Mitsubishi; Nissan; Opel; Peugeot; Porsche; Renault; Rollsroyce; Saab; Scania; Seat; Skoda; Smart;	Time Synchronization	NTP; GPS
Vehicle Brand/Logo Recognition		Port	
Ü		Storage	1, supports maximum 512 GB TF card local storage
	Subaru; Suzuki; Tata; Tesla; Toyota; UD; Volkswagen; Volvo	RS-485	2, connects to devices such as radars
Motor Vehicle Violation Capture	Speeding; driving slow; wrong-way driving; illegal lane change	RS-232	2, con is used for serial debugging and R T G is for connecting to radars
Motorcycle Violation	Captures traffic violations including carrying passenger,	Audio Input	1 channel
Capture	not wearing helmet, and wrong-way driving  Statistics on vehicle flow, average speed, vehicle type,	Audio output	1 channel
Traffic Flow Detection	lane occupancy, average time headway, average queue length, and road status	Alarm Input	3 channel
Traffic Event	Motor vehicle illegal stopping on the roadway; traffic congestion	Alarm Output	2 channels. 2 for relay
Video	congestion.	General	
Video Compression	H.265; H.264M; H.264H; MJPEG	Power Supply	12–36 VDC, PoE
·	4M (2688 × 1520); 1080p (1920 × 1080); UXGA (1600	Power Consumption	≤ 13 W
Video Resolution	$\times$ 1200); 720p (1280 $\times$ 720); D1 (704 $\times$ 576); CIF (352 $\times$ 288)	Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
Video Frame Rate	Max. 30 fps; main stream (2688 × 1520@25 fps), sub stream (1600 × 1200@25 fps)	Storage Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
	H.264: 32 kbps–32767 kbps H.265: 32 kbps–32767 kbps MJPEG: 512 kbps–32767 kbps	Operating Humidity	10%-90% (RH)
Video Bit Rate		Storage Humidity	0%-90% (RH)
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# DHI-ITC431-RW1F-IRL8

Protection	IP67, IK10, defog
Certifications	CE EMC: EN55032; EN55035; IEC61000-3-2; IEC61000- 3-3 CE LVD: EN62368-1; IEC62471 CE RED: EN301511; EN301489-1/7; EN62311; EN50360
Product Dimensions	466.4 mm × 135.8 mm × 134.1 mm (18.36" × 5.35" × 5.28") (L × W × H)
Net Weight	3.9 kg (8.59 lb)
Gross Weight	4.8 kg (10.58 lb)
Installation	Installs with universal mounting brackets, or as a side-mount with mounting brackets

Ordering Information					
Туре	Model	Description			
4 MP Camera	DHI-ITC431-RW1F-IRL8	4 MP AI enforcement camera			
Accessories (Optional)	8018	3-dimensional universal mounting bracket (purchase separately)			
	PFA150	Mounting bracket (purchase separately)			

## Accessories

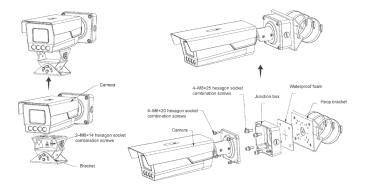
## Optional:



8018
3-dimensional universal mounting bracket (purchase separately)



PFA150 Mounting bracket (purchase separately)



# Dimensions (mm[inch])



