

DHI-ITC352-AU3F-IRL8ZF1640

3MP All-in-one IR AI Enforcement Camera



- GS-CMOS image sensor.
- 2048 × 1536@50 fps.
- Video compression standards: H.265, H.264M, H.264H and MJPEG.
- Integrated design, IP66 and IK10 rated.
- 850 nm IR illumination.

System Overview

With its high-performance AI processor, 3MP All-in-one IR AI Enforcement Camera delivers excellent quality images even in the toughest weather conditions. For monitoring, it uses deep learning algorithms and traffic-specific, GS-CMOS image sensors with a wide dynamic range and high frame rate. The IR illuminators supplement light when the camera captures license plates without using the external flashing light or strobe, significantly reducing light pollution.

Functions

Reduced light pollution

The IR illuminators supplement light when the camera captures license plates without using the external flashing light or strobe, significantly reducing light pollution.

Ultra-high frame rate

Uses traffic-specific, high-performance GS-CMOS image sensors with a wide dynamic range, high frame rate, and high signal-to-noise ratio, displaying realistic video images in the day and night.

Video metadata

Deep learning algorithms and a high-performance AI processor allow the camera to detect and extract detailed information on motor vehicles, providing a reliable data source that can be used in making effective decisions.

Applicable to various road scenes

Ideal for scenarios where license plate recognition is needed, the camera is capable of capturing more than ten different types of traffic violations, and supports traffic information collection and event detection.

Multi-dimensional data sensing

Using GPS positioning, the camera realizes multi-dimensional data sensing.

Safe and reliable performance

Built to withstand the toughest conditions, this camera functions in a wide temperature and voltage range. It has a built-in lightning protection module, is IP66 and IK10 rated. Feel safe using it in all-weather types.

Scene

The camera is ideal for use in intelligent traffic management and for smart city businesses. It is capable of detecting traffic violations, capturing license plates, generating passing vehicle records, collecting traffic data, and detecting events.

Technical Specification

Camera

Image Sensor	2/3" GS-CMOS
Shutter Mode	Single shutter; Double shutter; Three shutters
Electronic Shutter Speed	Auto/Manual 1/50 s–1/100,000 s
Noise Reduction	3D NR
S/N	48 dB
WDR	120 dB
Minimum intensity	0.001 lux
Day/Night	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	8
IR	850 nm
Illumination Distance	23 m–30 m (75.46 ft–98.43 ft) (adjustable brightness)
IR Covered lane	2 lanes

Lens			
Lens Type	Motorized vari-focal	Video Resolution	3M (2048 × 1536); UXGA (1600 × 1200); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576); CIF (352 × 288)
Focal Length	16 mm–40 mm	Video Frame Rate	50 Hz: Maximum 50 fps; default main stream (1536 × 2048@25 fps), sub stream (1600 × 1200@25 fps) 60 Hz: Maximum 60 fps; default main stream (1536 × 2048@30 fps), sub stream (1600 × 1200@30 fps)
Max. Aperture	F1.5	Video Bit Rate	H.264: 32 kbps–32767 kbps H.265: 32 kbps–32767 kbps MJPEG: 512 kbps–32767 kbps
Aperture Type	P iris	Bit Rate Control	CBR; VBR
Field of View	Horizontal: 12.8°–30.28° Vertical: 7.2°–16.96° Diagonal: 13.2°–30.9°	White Balance	Auto; night; custom color temperature
Function		Edge Enhancement	Yes
Trigger Mode	Video detection; radar	HLC	Yes
Speed Detection Range	0 km/h–300 km/h	BLC	Yes
OSD Overlay	Time, address, lane No., plate, plate color, and more	Bad Pixel Correction	Yes
Alarm Event	Storage full, storage error, external alarm, no storage card, license plate blacklist, illegal access, network disconnection, and IP conflict	Gain Scope	0–100
Automatic Network Replenishment (ANR)	Platform and FTP (TF card is required)	image	
Auto Registration	Yes	Composite Image	Supports combining up to 4 images into a composite image
Intelligence		Image Resolution	2048 (H) × 1536 (V) (OSD black background is not calculated in the pixels)
Target Detection	Motor vehicle; motorcycle	Image Encoding Format	JPEG
Face Detection	Detects the driver and front-seat passenger of motor vehicles, and motorcycle drivers; extracts face images	Image Tampering Prevention	Watermark and verification are available for videos and images
ANPR	Adopts developed algorithms to recognize license plate numbers and letters	Network	
Vehicle Type Recognition	Vehicle head: SUV, large bus, sedan, light truck, pickup, heavy truck, medium truck, van, medium bus, MPV Vehicle tail: SUV, large bus, sedan, light truck, pickup, heavy truck, medium truck, van	Network Port	2 RJ-45 Ethernet ports, 10/100/1000 M network transmission
Vehicle Color Recognition	White, pink, black, red, yellow, gray, blue, green, orange, purple, brown, and silver gray (color recognition is not supported during the nighttime)	SDK and API	Yes
Vehicle logo	Vehicle head mode: Acura, Alfaromeo, Ashokleyland, Astonmartin, Audi, Baic, Bently, Benz, BMW, Buick, BYD, Cadillac, Chery, Chevrolet, Chrysler, Citroen, Dacia, Daihatsu, Datsun, Dodge, DS, Ferrari, Fiat, Force, Ford, Foton, Geely, GMC, Greatwall, Hino, Honda, Hyundai, Infiniti, 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, Subaru, Suzuki, Tata, Tesla, Toyota, UD, Volkswagen, Volvo	Security	Authorized username and password, MAC address binding, HTTPS encryption, and network access control
Motor Vehicle Violation Snapshot	ANPR mode: Wrong-way driving, speeding, driving slow, crossing the solid white line, crossing the solid yellow line, illegal lane change, unfasten seat belt, calling while driving, smoking while driving	Protocol	IPv4; IPv6; HTTP; TCP; IP; UDP; NTP; DHCP
Motorcycle vehicle Violation Capture	Captures traffic violations including carrying passenger, not wearing helmet, and wrong-way driving	Interoperability	ONVIF (Profile S/Profile G/Profile T)
Traffic Flow Detection	Generates statistics on vehicle flow, queue length, average speed, lane occupancy, and more	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
Traffic Event	Motor vehicle illegal stopping on the roadway, traffic congestion	Positioning	GPS
Video		Time Synchronization	NTP; GPS
Video Compression	H.265; H.264M; H.264H; MJPEG	Port	
		Storage	1, supports maximum 256 GB TF card local storage
		Iris Control	1, connects to DC iris or P iris
		Focus Control	1, connects to motorized vari-focal lens
		Frequency Source Sync	1, supports synchronizing the camera with the mains electricity
		Peripheral Light	7, optocoupler signal output (can be configured as flashing light or LED strobe sync output port, frequency adjustable)
		USB	2 USB 2.0 ports
		RS-485	2, connects to devices such as signal detector, radar, and more

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RS-232	4 (1 is used for serial debugging and 3 for connecting to radars)
I/O	4, same functions as ALARM IN port
Audio Input	1, 3.5 mm (0.14") jack
Audio output	1, 3.5 mm (0.14") jack
Alarm Input	4, same functions as I/O port
Alarm Output	2 (AO1 is for relay output and AO2 for optocoupler output)
Power Output	12 VDC \pm 10% voltage output, \leq 1.5 A current output

General

Power Supply	100–240 VAC, 50 Hz/60 Hz
Power Consumption	\leq 20 W
Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
Storage Temperature	-40 °C to +70 °C (-40 °F to +154 °F)
Operating Humidity	10%-90% (RH)
Storage Humidity	0%-90% (RH)
Protection	IP66, IK10
Certifications	CE: 4789630630-1, FCC: 4789630630-2
Product Dimensions	554.0 mm \times 204.2 mm \times 209.6 mm (21.81" \times 8.04" \times 8.25") (L \times W \times H)
Net Weight	4.6 kg (10.14 lb)
Gross Weight	6.6 kg (14.55 lb)
Installation	Center mount; Side mount

Ordering Information

Type	Model	Description
AI Enforcement Camera	DHI-ITC352-AU3F-IRL8ZF1640	3MP all-in-one IR AI enforcement camera
Accessories (Optional)	8019	3-dimensional universal mounting bracket (purchase separately)
	3012	Side Mounting Bracket (purchase separately)
	PFA150	Mounting Bracket (purchase separately)

Accessories

Optional:



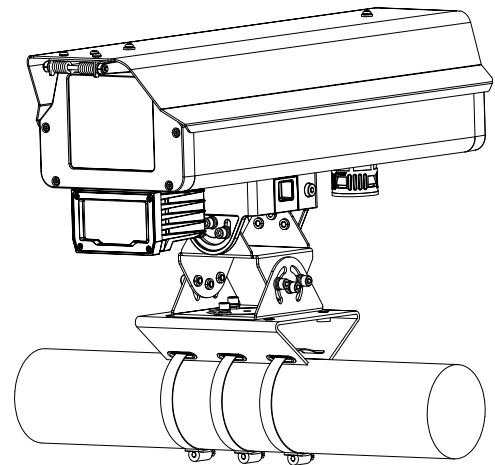
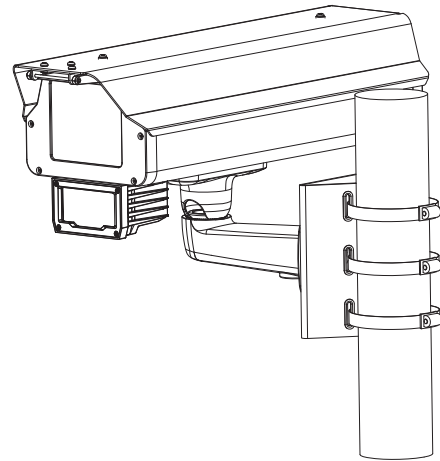
8019
3-dimensional universal mounting bracket (purchase separately)



3012
Side Mounting Bracket (purchase separately)



PFA150
Mounting Bracket (purchase separately)



Dimensions (mm [inch])

