

DHI-ITC831-RW4F-ZF1050

Dahua 8MP All-in-One Enforcement Camera



- 1/1.8"8 MP starlight CMOS sensor.
- Maximum resolution: 3840 × 2160@30 fps.
- Video compression standards: H.265, H.264M, H.264H and MJPEG.
- With its advanced image technology, it can work in ultra-low lighting conditions and complete darkness.
- Protection: IP68, IK10 rated.
- The embedded dual-LED lights offer warm light and 850 nm IR light options that can be conveniently switched between.
- Built-in vari-focal lens that allows the device to seamlessly adapt to multiple scenes.

Series Overview

With its high-performance AI processor, the Spotter Nano camera delivers high-quality images even in the toughest weather conditions. It utilizes Dual Light technology and its built-in LED illuminators to supplement light, enabling you to freely switch between its warm light and IR light options. The tilted window design and glass heating capability together enable rapid image capture and fast data transmission for crisp and clear visuals. Additionally, the camera also leverages DCG technology to deliver high-quality images even in challenging lighting conditions. The camera has an IP68 and IK10 rating, making it ideal for outdoor use.



WDR

Featuring advanced Wide Dynamic Range (WDR) technology, the camera captures crisp and clear videos and snapshots, even in environments with extreme lighting contrasts.

Functions

Impressive Performance

The high-performance CPU processor extracts and analyzes information on motor and non-motor vehicles in real time, providing valuable information on their features. This information is useful for effective decision making.

Intelligent Defogging

Suitable for use in all weather conditions, the camera can automatically control the ITO glass to defog based on the temperature and humidity inside the cover, effectively preventing the glass from icing and fogging.

Protection

IP68: The camera passes a series of strict test on dust and soak. With the water-proof enclosure, the camera can work normally after soaking in 1 m deep water for 2 hours.

Dual Light

Through Dahua Dual Light technology, the camera offers flexible illumination modes, featuring both warm light and 850 nm infrared light options.

Scene

Dahua's new generation of urban road surveillance cameras can be widely used in urban roads, rural streets, parks, and residential scenarios, which significantly improves the efficiency of urban safety management and makes roads safer, smoother, and smarter.

Technical Specification

Camera

Image Sensor	1/1.8" CMOS
Pixel	8MP
Shutter Mode	Single shutter
Electronic Shutter Speed	Auto/Manual 1/50 s–1/100,000 s
Noise Reduction	3D NR
S/N Ratio	>56 dB
WDR	140 dB
Min. Illumination	0.0001 lux

Illuminator

Illuminator Number	3 illuminators (850 nm LED illuminator or 3500 K LED illuminator)
Illuminator Brightness Adjustment	brightness adjustable
Illumination Distance	23 m–30 m (75.46 ft–98.43 ft) (adjustable brightness)
Lane Coverage	1–3 lanes

Lens

Lens	Included				
Lens Type	Motorized vari-focal				
Focal Length	10 mm–50 mm				
Max. Aperture	Max. F1.38				
Field of View	H: 41.12°–9.29°; V: 22.92°–5.33°; D: 47.48°–10.57°				
Exposure Mode	Auto; Manual (Select from shutter values or customize shutter range)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	218 m (715.22 ft)	87.2 m (286.09 ft)	43.6 m (143.04 ft)	21.8 m (71.52 ft)
	T	918 m (3011.81 ft)	367.2 m (1204.72 ft)	183.6 m (602.36 ft)	91.8 m (301.18 ft)
	*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.				

Function

Trigger Mode	Video trigger/Radar trigger
OSD Overlay	Time, address, device SN, lane No., plate number, plate color, vehicle logo, vehicle type, vehicle color, vehicle size, vehicle speed, country/region, event (violation name), and motorcycle attributes (type, number of people, and helmet)
Alarm Event	Storage full; storage error; external alarm; no storage card; license plate blacklist; illegal access; network disconnection; IP conflict; intrusion; unlicensed vehicle
Automatic Network Replenishment (ANR)	Platform and FTP (TF card is required)
Auto Registration	Yes

Intelligence

Target Detection	Motor vehicle; motorcycle
ANPR	Adopts deep-learning algorithms to recognize license plate numbers and letters
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
Vehicle Color Recognition	White, pink, black, red, yellow, gray, blue, green, dark orange, purple, brown, and silver gray
Vehicle Brand/Logo Recognition	Acura; Alfaromeo; Ashokleyland; Astonmartin; Audi; Baic; Bentley; 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
Motor Vehicle Violation Capture	Speeding; driving slow; wrong-way driving; illegal lane change
Motorcycle Violation Capture	Captures traffic violations including carrying passenger, not wearing helmet, and wrong-way driving
Traffic Flow Detection	Supports data classification and generating statistics on lanes, vehicle type, speed, and the date. The results can be exported to the CSV file format.
Traffic Event	Motor vehicle illegal stopping on the roadway; traffic congestion
Capture Speed	Up to 180 km/h
Traffic Monitoring Lane	4lanes

Video

Video Compression	H.265; H.264M; H.264H; MJPEG
Video Resolution	8MP (3840×2160); 1080p (1920×1080); 720p (1280×720);
Video Frame Rate	50 Hz: Max. 25fps; default main stream(3840×2160@25 fps) , sub stream(1280×720@25 fps) 60 Hz: Max. 30fps; default main stream(3840×2160@30 fps) , sub stream(1280×720@30 fps)
Video Bit Rate	H.264: 32 kbps–32768 kbps H.265: 32 kbps–32768 kbps MJPEG: 512 kbps–32768 kbps
Bit Rate Control	VBR; CBR
White Balance	Auto; Manual; Natural; Street Lamp; Outdoor; Partial white balance
Edge Enhancement	Yes
HLC	Yes
BLC	Yes
Bad Pixel Correction	Yes
Gain Range	0-100

Image

Composite Image	Supports combining up to 3 source images, and 1 closeup image into a composite image
Image Resolution	3840 (H) × 2160 (V) (OSD black background is not calculated in the pixels)

