

DHI-ITC1652-SU2F-GQE-C2R1-IRL8ZF1640-P

Dahua 16MP Radar-Assisted Traffic Camera



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

Basic

Image Sensor	1.1" GS-CMOS
Shutter Mode	Single shutter; Double shutters; Three shutters
Electronic Shutter Speed	50 Hz: 1/50 s–1/100,000 s (auto; manual)
Exposure Mode	Full auto; semi-auto; manual
Iris Control	P-Iris
Image Resolution	5320 (H) × 3032 (V) (OSD black strip excluded)
Pixel	16 MP
Video Resolution	16M (5320 × 3032) ; 9M (4096 × 2160) ; 7M (3392 × 2008) ; UXGA (1600 × 1200) ; 1080P (1920 × 1080)
Video Frame Rate	PAL: Maximum 25 fps; default main stream (4096 × 2160@12.5fps), sub stream (1600 × 1200@12.5 fps) NTSC: Maximum 30 fps; default main stream (4096 × 2160@15 fps), sub stream (1600 × 1200@15 fps)
Video Bit Rate	H.264: 32 kbps–32767 kbps; H.265: 32 kbps–32767 kbps; MJPEG: 512 kbps–32767 kbps;
Video Compression	H.265; H.264B; H.264M; H.264H; MJPEG
Field of View	H: 21.4°–50.6°; V: 12.3°–28.9°; D: 24.4°–58°
Image Encoding Format	JPEG

- 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. This makes it ideal for traffic scenarios.
- Video Metadata
- Deep learning algorithms and a high-performance AI processor allow the camera to detect and extract metadata on motor vehicles and non-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
- GPS positioning is supported, and used in time synchronization. A radar is also built into the device, allowing it to measure vehicle speed and sense data from a wide range of perspectives.
- Safe and Reliable Performance
- Built to withstand the toughest conditions, this camera functions in a wide temperature and voltage range. It is designed with an IP66 case, which protects the camera and its internal components, such as the radar and illuminators, from receiving damage. Feel safe using it in all-weather types.

Min. Illumination	0.001 lux
WDR	120 dB
White Balance	Auto; Customized Color Temperature; Home; Office; Night

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Noise Reduction	3D NR
Day/Night	ICR auto switch: Use the IR transmitting filter during the daytime and nighttime.
HLC	Yes
Bad Pixel Correction	Yes
Edge Enhancement	Yes
Illuminator Brightness Adjustment	Adjustable brightness
Illumination Distance	23 m–50 m (75.46 ft–164.04 ft)
Expansion Module	Built-in 24 GHz millimeter wave radar; Supports long-distance speed measurement
Radar Transmission Frequency	24.05 GHz–24.25 GHz
Speed Measurement Range	5 km/h–300 km/h
Speed Measurement Accuracy	±2 km/h
4G Frequency Range	LTE FDD: Band 1,3,5,7,8,20,28 LTE TDD: Band 38,40,41 WCDMA/HSPA+: Band 1,5,8 GSM/GPRS/EDGE: 850/900/1800MHz
4G Power Transmission	CE: 4G: Power class3: 23dBm ±2dB

General

Illuminator Number	16 (IR LED)
Power Consumption	≤ 45 W
Operating Temperature	–40 °C to +65 °C (–40 °F to +149 °F)
Storage Temperature	–40 °C to +70 °C (–40 °F to +158 °F)
Operating Humidity	10%–90% (RH), non-condensing
Storage Humidity	10%–90% (RH), non-condensing
Protection	IP66
Anti-corrosion Level	Basic Protection *The products are designed for general use and are applicable even in areas with no specific requirements for anti-corrosion protection.
Product Dimensions	435.4 mm × 416.0 mm × 173.8 mm (17.14" × 16.38" × 6.84") (L × W × H)
Packaging Dimensions	564 mm × 515 mm × 299 mm (22.2" × 21.69" × 11.77") (L × W × H)
Net Weight	9.2 kg (20.28 lb)
Gross Weight	14.2 kg (31.31 lb)
Certifications	CE:KSCR2309001610AT\KSCR2309001611AT
Installation	Center mount; Side mount
Lens	Included
Focal Length	16 mm–40 mm
Lens Type	Vari-focal

Function

Composite Image	Supports composing 1, 2, 3, or 4 images
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Trigger Mode	Video detection; radar
OSD Overlay	Time, address, lane No., plate, plate color, and more.
Storage	FTP; TF(supports maximum 256 GB TF card local storage)
Alarm Event	Storage full, storage error, external alarm, no storage card, license plate blocklist, illegal access, network disconnection, and IP conflict
Automatic Network Replenishment (ANR)	Platform and FTP (TF card is required)
Image Tampering Prevention	Yes
Positioning	GPS
Timing	NTP; GPS
Security Mode	Authorized username and password, MAC address binding, HTTPS encryption, and network access control
Auto Registration	Yes
Network Protocol	IPv4; IPv6; HTTP; TCP; IP; UDP; NTP; DHCP

Intelligence

ANPR	Adopts Dahua developed 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
Motor Vehicle Violation Capture	ANPR mode: Wrong-way driving, overspeed, driving slow, crossing the solid white line, crossing the solid yellow line, illegal lane change, not wearing seatbelt, calling while driving, smoking while driving
Non-motor Vehicle Violation Capture	Captures traffic violations including carrying passenger, not wearing helmet, and wrong-way driving
Traffic Flow Detection	Generates statistics on vehicle flow, queue length, average speed, lane occupancy, and more
Traffic Event	Detects parking violations of motor vehicles, wrong-way driving, and traffic congestion
Lens Mount	C

Port

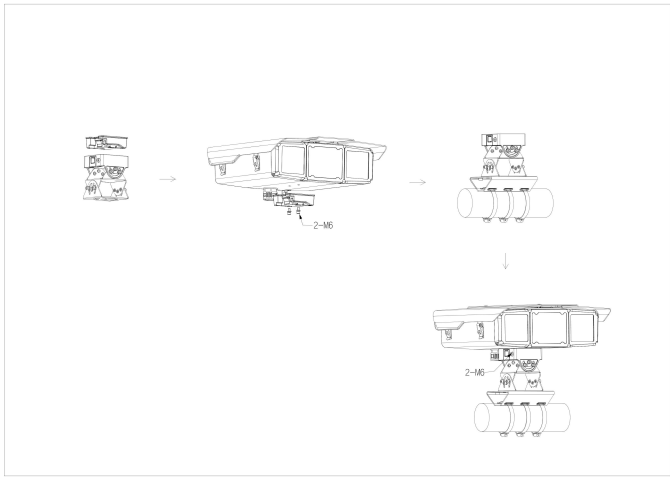
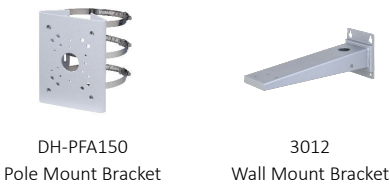
Frequency Source Sync	1, supports synchronizing the camera with the mains electricity
Peripheral Light	5, optocoupler signal output (can be configured as flashing light or LED strobe sync output port, frequency adjustable)
Network Port	1, RJ-45 Ethernet ports, 10/100/1000 M network transmission
RS-485	1, connects to devices such as signal detector, strobe, and more
Alarm Input	1
Alarm Output	1 (can be configured as an alarm output port)
Power Supply	100–240 VAC, 50 Hz/60 Hz

Ordering Information

Type	Model	Description
RadAR-Assisted Traffic Camera	DHI-ITC1652-SU2F-GQE-C2R1-IRL8ZF1640-P	Dahua 16MP Radar-Assisted Traffic Camera
Accessories (Optional)	DH-PFA150	Pole Mount Bracket
	DH-PFA150	Pole Mount Bracket
	3012	Wall Mount Bracket

Accessories

Optional:



Dimensions (mm[inch])

