

DH-IPC-PTS2649C-3E3Z-4GB20

3+3MP WizColor Hybrid-zoom PT 4G Solar Power Network Camera



System Overview

Driven by industry-leading technology, Dahua Wireless Series network cameras are highly precise and easy to install, producing high-quality images. They have strong wireless connection capabilities and do not require network cables, eliminating the need for a professional construction team. This series of cost-effective cameras supports local storage and is dustproof and waterproof. It is ideal for small and medium-sized scenes such as retail stores, homes, and other small and medium-sized enterprises.

Functions

AOV (Always-On Video) Mode

AOV (Always-On Video) technology offers a low power consumption solution that enables 24/7 video recording. Equipped with advanced AI algorithms, the camera can be woken up to perform detection even at long distances. During inactive periods, it records at a low frame rate and seamlessly escalates to a high frame rate when an event is detected, ensuring smooth and continuous video recordings.

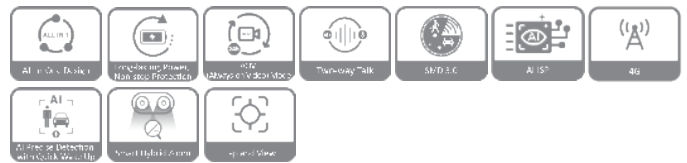
Two-way Talk

With its built-in high-sensitivity microphone and high-power speaker, the camera realizes two-way talk through the mobile app.

SMD 3.0

Empowered by deep-learning algorithms, Dahua SMD filters out motion detection alarms triggered by targets that are not a concern. It quickly recognizes humans and vehicles, triggering alarms when an intrusion occurs.

- Displays videos in two channels at the same time
- 1/2.8" 3Megapixel CMOS
- WizColor technology
- 6x hybrid zoom
- Two-way talk
- SMD3.0
- Siren and Light Active Deterrence
- Auto Tracking Lite
- Supports AOV mode
- 4G Connection
- Built-in 65Wh high-capacity ternary lithium battery
- Supports Type-C power supply
- Supports manual adjustment of fixed lens (Vertical:-7° to 20°)
- IP66



AI-ISP

With AI ISP technology, the camera is able to easily adapt to scenes, producing high quality images that reveal the fine details of targets.

4G

With a built-in high-performance 4G mobile network module, the camera can be directly registered to cloud platforms after a 4G SIM card has been inserted into it. It can be installed anywhere without the hassle of network cables. Users can perform real-time monitoring and remote control of the camera from a mobile client through 4G network.

Smart Hybrid Zoom

By integrating multiple sensors with various fixed lenses, this camera delivers exceptional zoom performance. When the built-in AI algorithm detects a human, the lens automatically zooms in, tracks the target's movement, and effortlessly captures both close-up and distant scenes for precise monitoring.

Tap and View

Easy to use, you can tap on any spot in the live video feed from the fixed lens, allowing the PT lens to instantly rotate and focus on your selected area, delivering a clear close-up view of the target.

Technical Specification						Power-off Memory		Yes
Camera						Smart Event		
Image Sensor		Fixed Lens: 1/2.8" CMOS PT Lens: 1/2.8" CMOS				Human Detection		Yes
Pixel		Fixed Lens: 3 MP PT Lens: 3 MP				Vehicle Detection		Yes
Max. Resolution		Fixed Lens: 2304 (H) × 1296 (V) PT Lens: 2304 (H) × 1296 (V)				Intelligence		
ROM		256 MB				Smart Tracking		Auto tracking lite Linkage tracking
RAM		256 MB				SMD		SMD 3.0
Scanning System		Progressive				Active Deterrence		
Min. Illumination		Fixed Lens: 0.0005 lux@F1.0 (Color, 30 IRE); 0 lux (Illuminator on) PT Lens: 0.0005 lux@F1.0(Color, 30 IRE); 0 lux (Illuminator on)				Light Warning		White light warning
Illumination Distance		Fixed Lens: 30 m (98.43 ft) (Warm light) PT Lens: 50 m (164.04 ft) (Warm light)				Sound Warning		Offers 3 sound alarm. Sound can be set from 1-100. Play times can be set from 1-10.
Illuminator On/Off Control		Fixed Lens: Manual; Auto; Off PT Lens: Manual; Auto; Off				Video		
Illuminator Number		Fixed Lens: 4 (Warm light) PT Lens: 4 (Warm light)				Video Compression		Smart H.265+
Lens						Streaming Capability		1 stream
Focal Length		Fixed Lens: 2.8 mm PT Lens: 3.6 mm; 8.4 mm				Resolution		Fixed Lens: 3M (2304 × 1296); 1080p (1920 × 1080); 720p (1280 × 720); 640 × 360 (640 × 360) PT Lens: 3M (2304 × 1296); 1080p (1920 × 1080); 720p (1280 × 720); 640 × 360 (640 × 360)
Max. Aperture		Fixed Lens: F1.0 PT Lens: 3.6 mm: F1.0; 8.4 mm: F1.0				Video Frame Rate		Fixed lens:Main stream: 3M/1080p/720p/640 × 360@ (15 fps) PT lens:Main stream: 3M/1080p/720p/640 × 360@ (15 fps)
Field of View		Fixed Lens: H: 93.5°; V: 51.9°; D: 110.1° PT Lens: H: 81.5°-15.1°; V: 44.3°-8.4°; D: 96.3°-17.8°				Bit Rate Control		VBR
Close Focus Distance		Fixed Lens: 1.1 m (3.61 ft) PT Lens: 3.6 mm: 1.7 m (5.58 ft); 8.4 mm: 6 m (19.69 ft)				Video Bit Rate		H265: 54 kbps–1280 kbps
DORI Distance	Lens	Detect	Observe	Recognize	Identify	WDR		Fixed Lens: DWDR PT Lens: DWDR
	2.8 mm	40 m (131.23 ft)	15.8 m (51.84 ft)	8 m (26.25 ft)	4 m (13.12 ft)	White Balance		Auto
	3.6 mm	51.43 m (168.73 ft)	20.31 m (66.65 ft)	10.29 m (33.75 ft)	5.14 m (16.87 ft)	Gain Control		Auto
	8.4 mm	120 m (393.7 ft)	47.4 m (155.51 ft)	24 m (78.74 ft)	12 m (39.37 ft)	Noise Reduction		3D NR
	*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.					Motion Detection		Yes
PTZ						Image Rotation		180°
Pan/Tilt Range		Fixed Lens: Pan: 0° to 210°; Tilt: -7° to +20° (manual) PT Lens: Pan: 0° to 350°; Tilt: 0° to +90° (Electric)				S/N Ratio		≥55 dB
Manual Control Speed		Pan: 40°/s; Tilt: 40°/s				Audio		
Preset Speed		Pan: 40°/s; Tilt: 40°/s				Built-in MIC		Yes
Preset		50				Built-in Speaker		Yes
Tour		8 (up to 32 presets per tour)				Network		
						Carrier Network System		4G
						Wireless Carrier Frequency Band		EAU/EUR: LTE-FDD: B1/B3/B5/B7/B8/B20/B28 LTE-TDD: B38/B40/B41 LA: LTE-FDD: B2/B3/B4/B5/B7/B8/B28/B66 LTE-TDD: B38/B40/B41

Max. Transmission Power	4G: Power class3: 23 dBm ± 2.7 dB
Storage	Micro SD card (512 GB)
Management Software	DMSS
Mobile Client	Android;iOS

Certification

Certifications	CE: EN 55032/EN 55035/EN 50130-4/EN 61000-3/EN 62368-1/EN 301489
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Port

Audio Input	1 channel (built-in mic)
Audio Output	1 channel (built-in speaker)
Alarm Linkage	warning light; audio
Alarm Event	Motion detection; human detection; vehicle detection

Power

Power Supply	Power supply: Built in 65Wh lithium battery Comes with 8 W solar panel Charging: USB Type-C (Supports QC2.0)
Power Consumption	Super Power Saving Mode: 40 mW (4G keep-alive) AOV Mode: 170 mW (1 frame every 2 seconds, SD card recording, 4G keep-alive) Performance Mode 1: 2.4 W (4G streaming, SD card recording, PTZ static, illuminator off) Performance Mode 2: 3.7 W (4G streaming, SD card recording, PTZ static, illuminator on) Maximum Power Consumption: 8.0W (4G streaming, SD card recording, PTZ moving, illuminator on, speaker on)
Power Adapter	Optional
Battery Capacity	65 Wh

Environment

Operating Temperature	The unit device: Operating Temperature: -20 °C to +60 °C (-4 °F to +140 °F) Battery: Charging Temperature: -10 °C to +50 °C (+14°F to +122 °F) (The solar panel heating the battery first, and charging begins once the battery is heated to 0 °C) Discharging Temperature: -20 °C to +60 °C (-4 °F to +140 °F)
Operating Humidity	≤95%
Protection	IP66; TVS 2000 V lightning proof; surge protection; voltage transient protection

Structure

Product Dimensions	223.2 mm × 130.0 mm × 215.0 mm (8.79" × 5.12" × 8.46") (L × W × H)
Net Weight	1.8 kg (3.97 lb)
Gross Weight	2.5 kg (5.51 lb)

Filter

Remarks	The precision of the presets for PTZ cameras might vary depending on different series. For scenes with high requirements on the precision, contact your local sales representative for assistance with selecting the model.
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Ordering Information		
Type	Model	Description
Network PTZ Camera	DH-IPC-PTS2649C-3E3Z-4GB20	3+3MP WizColor Hybrid-zoom PT 4G Solar Power Network Camera
Accessories	PFA2590	Pole Mount Bracket

Accessories

Optional:



PFA2590
Pole Mount
Bracket

Wall Mount	Ceiling Mount	Pole Mount (Vertical)
/	/	DH-PFA2590

Dimensions (mm[inch])

