

# 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						Human Detection	Yes
Pixel						Vehicle Detection	Yes
Max. Resolution						Intelligence	
ROM						Smart Tracking	Auto tracking lite Linkage tracking
RAM						SMD	SMD 3.0
Scanning System						Active Deterrence	
Min. Illumination						Light Warning	White light warning
Illumination Distance						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						Video	
Illuminator Number						Video Compression	Smart H.265+
Lens						Streaming Capability	1 stream
Focal Length						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						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						Bit Rate Control	VBR
Close Focus Distance						Video Bit Rate	H265: 54 kbps–1280 kbps
DORI Distance	Lens		Detect	Observe	Recognize	Identify	WDR
	2.8 mm		40 m (131.23 ft)	15.8 m (51.84 ft)	8 m (26.25 ft)	4 m (13.12 ft)	Fixed Lens: DWDR PT Lens: DWDR
	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)	White Balance
	8.4 mm		120 m (393.7 ft)	47.4 m (155.51 ft)	24 m (78.74 ft)	12 m (39.37 ft)	Gain Control
	*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.						Noise Reduction
PTZ						Motion Detection	3D NR
Pan/Tilt Range						Image Rotation	Yes
Manual Control Speed						S/N Ratio	180°
Preset Speed						Audio	>55 dB
Preset						Built-in MIC	Yes
Tour						Built-in Speaker	Yes
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])



