

KIT/DH-PFM364L-D1/DH-IPC-HFW4230MP-4G-AS-I2/DH-PFB121W

Integrated Solar Monitoring System(without Lithium Battery)



System Overview

Integrated solar monitoring system (without lithium battery), all in one desion, using 4G to transfer monitoring data and solar to power, which is easy/quick to install and can save wiring to the greatest extent, includes three parts: 4G network camera, integrated solar power system and camera's mounting bracket, which is more convenient for sale, order and transportation.

The integrated solar power system, integrating solar panels, maximum power point tracking (MPPT) charging controller and mounting brackets, provides stable power supply for the front-end data acquisition system—4G network camera through high conversion charging device. It is compact, portable, easy to install, disassemble and maintain compared with conventional system.

The 4G supported IR bullet camera delivers 2MP resolution with a 3.6 mm or 6 mm fixed lens. The camera can be connected to mobile internet as long as you have a SIM card, provides an excellent choice for a variety of small to mid-size applications such as off-grid system, farms, forest,border. Wall mount bracket of camera, support multi-angle flexible adjustment.

Functions

Integrated Aluminum Die Casting Casing

Compact structure integrated with solar panel, lithium battery pack and charging controller to improve the appearance, installation, and maintenance of the System.

Monocrystalline Solar Panel

Adopts monocrystalline solar panel to greatly improve optical absorbance efficiency and power generation performance with dusky light.

Remote Monitoring with APP

With Dahua cameras, it supports real-time remote monitoring of the system operation status and alarm prompts of battery with APP.

Solar Power System

- · Integrated die casting casing
- · Monocrystalline solar panel
- · Aluminum alloy frame
- · Remote monitoring with APP
- · Maximum Power Point Tracking (MPPT) charging controller
- RS-485 communication function
- Electronic protection

4G Network Camera

- 1/2.9" 2Megapixel progressive CMOS
- · H.265 & H.264 dual-stream encoding
- · 25/30 fps@2M (1920×1080)
- · Day/Night (ICR), 3DNR, AWB, AGC, BLC
- · Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- · Micro SD card slot, up to 256 GB
- · 3.6 mm, 6 mm fixed lens
- · Max. IR LEDs length 40 m
- 4G supported
- IP67















Maximum Power Point Tracking Charging Controller (MPPT)

MPPT controller helps significantly improve the energy utilization efficiency of the System, and raise the charging efficiency by 10%–30% compared with conventional PWM controller.

RS-485 Port

RS-485 port and standard Modbus protocol, meeting communication requirements in various scenarios.

Electronic Protection

Comprehensive electronic protection: Current limiting, short circuit, and reverse current protection of solar panel; reverse connection, overvoltage, over-discharge, and over-temperature protection of lithium battery; overload and short circuit protection of load.

4G

The camera can be connected to Mobile Internet as long as you have a SIM card, then you can place it anywhere and no need to worry about the wiring hassles.

Intelligent Video Analysis (IVS)

Dahua camera is equipped with a built-in intelligent analytic algorithm based on video, which can realize intelligent functions like Tripwire and Intrusion, to quickly and accurately respond to monitoring events in specific area, It can enhance monitoring efficiency. In addition, the



Power Series | KIT/DH-PFM364L-D1/DH-IPC-HFW4230MP-4G-AS-I2/DH-PFB121W

camera supports intelligent tamper detection, which is to generate warning message via detecting dramatic scene change and to guarantee effective video surveillance.

Smart IR Technology

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 80 m (262.5 ft).

Protection (IP67, Wide Voltage)

The camera allows for ±25% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 2KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67), the camera is the choice for installation in even the most unforgiving environments.

Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from-30° C to +60° C (-22° F to +140° F) with 95% humidity.

Smart Codec (H.265+ & H.264+)

Smart Codec is the optimized implementation of standard video compression (H.265 & H.264) that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart Codec technology reduces bit rate and storage requirements by up to 70% when compared to the standard video compression.

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Integrated Solar Power System (without I	Lithium	Battery)
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Model	DH-PFM364L-D1
Solar Panel	
Туре	Monocrystalline silicon
Max. Power	60W
Solar Cell Efficiency	21%
Max. Mechanical Load	5400Pa
Protection	
Over-discharge Protection Voltage	11.1V DC
Low Temperature Charging	≤-10°C (14°F)
Low Temperature Discharging	≤-20°C (-4°F)
Grade	IP66
Others	Over temperature, overvoltage of the battery, overload, and short circuit

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Power Output	Φ 5.5 mm × Φ 2.1 mm × 12 mm(Φ 0.22" × Φ 0.08" × 0.47")
RS-485	1

General

Main Body Material	Die casting aluminum
Installation	Pole mount, installed on 76 mm to 96 mm (Φ3.0"–Φ3.78") poles
Adjustable Angle	Horizontal: 0°–360° Vertical: -75°–80°
Product Dimensions	1149.5 mm × 367.6 mm × 430.2 mm (45.26" × 14.47" × 16.94")
Packaging Dimensions	1353 mm × 548 mm × 364 mm (53.27" × 21.57" × 14.33")
Packaging Method	1 pc in each carton
Net Weight	16 kg (35.27 lb)
Gross Weight	22.5 kg (49.60 lb)

Environment

Operating Altitude	<3000 m (9842.5 ft)
Applicable Area	Areas with daily solar radiation>4.5 h
Operating Temperature	−20°C to 60°C (−4°F to 140°F)
Operating Humidity	<95% (RH)
Storage Temperature	0°C to 40°C (32°F to 104°F)
Storage Humidity	<95% (RH)

Certifications

Certifications	CE: EN61000-6-2, EN61000-6-4 FCC: FCC Part 15 Subpart B
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2MP 4G IR Bullet Network Camera

Model	DH-IPC-HFW4230M-4G-AS-I2
Camera	
Image Sensor	1/2.9" 2Megapixel progressive scan CMOS
Effective Pixels	1920(H) × 1080(V)
RAM/ROM	256 MB/32 MB
Scanning System	Progressive
Minimum Illumination	0.04 Lux/F2.0 (Color,1/3 s,30IRE) 0.22 Lux/F2.0 (Color,1/30 s,30IRE) 0 Lux/F2.0 (IR on)
S/N Ratio	More than 56 dB
IR Distance	Distance up tp 40 m (131.2 ft)
IR On/Off Control	Auto/ Manual
IR LEDs	2
Lens	
Lens Type	Fixed

M12

3.6 mm (6 mm optional)



Lens Type

Mount Type

Focal Length

Power Series | KIT/DH-PFM364L-D1/DH-IPC-HFW4230MP-4G-AS-I2/DH-PFB121W

Max. Apertu	ıre	F2.0			Network		
Angle of Vie	w	H: 82.5° (51.5°), V: 44° (29.5°)			Ethernet	RJ-45 (10/100Base-T)	
Optical Zoor	m	N/A		Mobile Communication	4G		
Focus Contro	ol	Fixed			Model 1: TDD-LTE: Band38/39/40/41 FDD-LTE: Band1/3/5/8		
Close Focus	Distance	0.9 m (2 m) 29.5 ft (6.56 ft)					
	Lens	Detect	Observe	Recognize	Identify		WCDMA: Band1/8 TD-SCDMA: Band34/39
DORI Distance	3.6 mm	53 m (174 ft)	21 m (69 ft)	10 m (33 ft)	5 m (17 ft)	Operating band	EVDO/CDMA1X: BCO GSM: Band3/8 Model 2:
Distance	6 mm	80 m (262 ft)	32 m (105 ft)	16 m (52 ft)	8 m (26 ft)		FDD-LTE: Band1/2/3/4/5/7/8/20 UMTS: Band1/2/5/8
Pan/Tilt/F	Rotation						GSM: 850/900/1800/1900
Pan/Tilt/Rot	tation Range	N/A				Protocol	HTTP; HTTPS; TCP; ARP; RTSP; RTP; RTCP; UDP; SMTP; FTP; DHCP; DNS; DDNS; PPPOE; IPV4/V6; QoS; UPnP;
Intelligen	ce					FIOLOCOI	NTP; Bonjour; IEEE 802.1X; Multicast; ICMP; IGMP; TLS
Event Trigge	or.		ction, Video tan			Interoperability	ONVIF Profile S&G, API
Event mage	.1	Access,Stora		address comme	i, ilicgai	Streaming Method	Unicast/Multicast
IVS		Tripwire, Intr	usion			Max. User Access	10 Users/20 Users
Video Compression	n	H.265/H.264	H/MJPEG (Sub	Stream)		Edge Storage	NAS Local PC for instant recording Mirco SD card 256 GB
Smart Codeo	С	Support H.26	55/H.264			Web Viewer	IE, Chrome, Firefox, Safari
Streaming C	apability	2 Streams				Management Software	Smart PSS, DSS, DMSS
Resolution		1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576)/720P (1280 × 720)/D1 (704 × 576)/			Smart Phone	IOS, Android	
Resolution		VGA (640 × 480)/CIF (352 × 288)		Certifications			
Frame Rate		Main Stream	: 1080P@25 fp:	S			CE-LVD: EN60950-1
		Sub Stream:	D1@25 fps			Certifications	CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU
Bit Rate Con	itrol	CBR/VBR				Consent Dhama	FCC: 47 CFR FCC Part 15, Subpart B
Bit Rate		H.264: 32–10240 Kbps; H.265: 12–6400 Kbps		Smart Phone	IOS, Android		
Day/Night		Auto ICR		Interface			
BLC Mode		BLC / HLC / DWDR		Audio Interface	1/1 channel In/Out 2 channels In: 500mA 5VDC		
White Balan	ice	Auto/Natural/Street Lamp/Outdoor/Manual		Alarm	2 channels Out: 300mA 12VDC		
Gain Contro	I	Auto				Electrical	
Noise Reduc	ction	3D DNR				Power Supply	DC12V±30%
Motion Dete	ection	Off/On (4 Zoi	ne, Rectangle)			Power Consumption	3.6W, 9.5W (IR on);6W (4G on, IR off)
Region of Int		Off/On (4 Zone)		Environmental			
Electronic In Stabilization	•	N/A				Operating Conditions	-30°C to +60°C (-22°F to +140°F)/Less than 95% RH
Smart IR		Yes		Storage Conditions	-30°C to +60°C (-22°F to +140°F)/Less than 95% RH		
Defog		N/A		Ingress Protection	IP67		
Digital Zoom	า	N/A		Vandal Resistance	N/A		
Flip		0°/90°/180°/270°		Construction			
Mirror		Off/On		Casing	Metal+Plastic		
Privacy Masl	king	Off/On (4 Are	eas, Rectangle)			Dimensions	194.4 mm × 96.6 mm × 89.5 mm (7.65" × 3.8" × 3.52")
Audio						Net Weight	0.7 kg (1.54 lb)
Compression	n	G.711a/G.71	1Mu/AAC/G.72	6		Gross Weight	0.8 kg (1.76 lb)

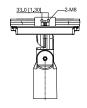
Power Series | KIT/DH-PFM364L-D1/DH-IPC-HFW4230MP-4G-AS-I2/DH-PFB121W

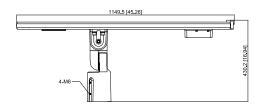
Wall Mount Bracket

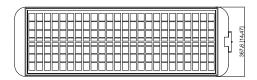
Model	DH-PFB121W
General	
Material	Aluminum
Dimension (W×H×D)	58 mm × 88 mm × 190.5 mm (2.28" × 3.46" × 7.50")
Weight	0.24 kg (0.53 lb)
Load Bearing	1 kg (2.2 lb)
Color	White
Operating Temperature	-40°C to +60°C (-40°F to +140°F)
Humidity	<90% RH
Applicable Model	Please check "Accessory Selector" on DAHUA website

Ordering Information				
Туре	Part Number	Description		
Power Series	KIT/DH- PFM364L-D1/DH- IPC-HFW4230MP- 4G-AS-I2/DH- PFB121W	KIT: 60W integrated solar power system((without Lithium Battery))/4G bullet camera/ PFB121W		
Optional	PFM372-L45-4S14P	Integrated solar lithium battery		

Dimensions (mm[inch])







Application



Rev 001.001