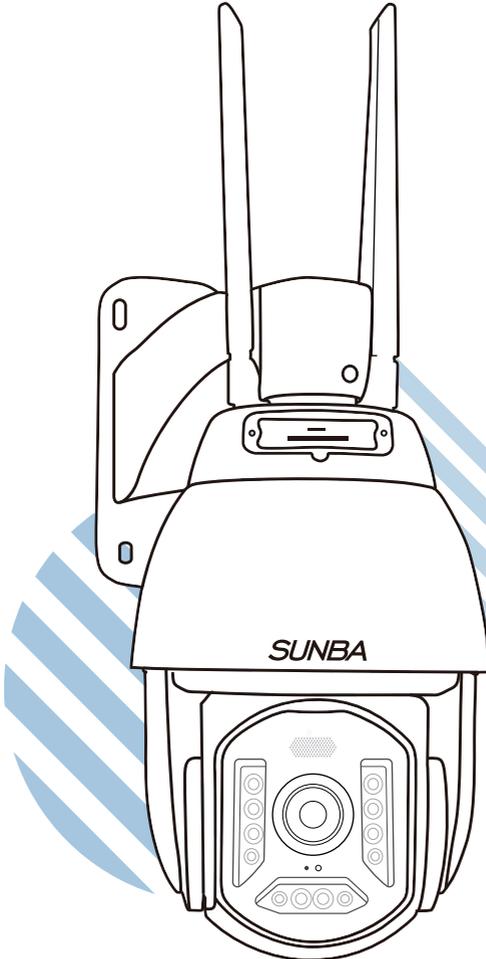


4G/LTE Wireless PTZ Camera

Built-in 4G Wifi Router
Dual LAN port



/// 2022/03
User Manual
V3.0



Visit <http://4g.sunba.net> to access the step by step YouTube video tutorials for setting up Sunba IP PTZ camera.

1. Product Overview

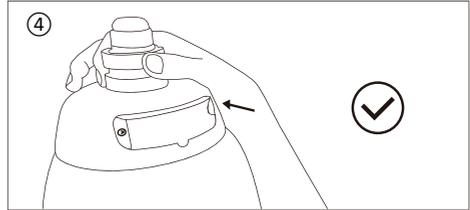
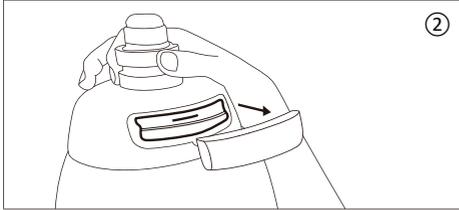
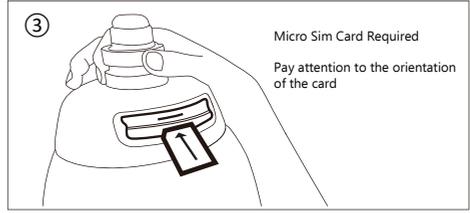
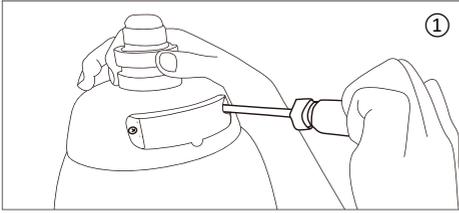
Model	603-D25X 4G (Builtin 4G Wifi Router/Dual LAN port)
Image Sensor	1/2.8" Progressive Scan CMOS
Resolution	1080P@60FPS, 3D Noise Reduction
Memory Card Slot	Support Micro SD storage, up to 256GB (Class 10 or above)
Focal Length	25x Optical Zoom, 5.2mm-130mm
Viewing Angle	59.5°-2.6°
Aperture Range	F1.5-F3.8
Min. Illumination	Color: 0.05Lux @ (F1.6, AGC ON) B/W: 0.01Lux @ (F1.6, AGC ON)
Focus	Automatic/Semi-Automatic/Manual
Pan & Tilt	Pan: 0-360° Tilt: -10-90°
Zoom	Optical: 25x
PTZ Speed	0~80°/s
Day/Night Mode	BW/Color/Auto
Night Vision	Up to 1000ft
Network Mode	WiFi/4G LTE
WiFi Standard	2.4 Ghz (5Ghz is currently NOT supported)
4G Frequency Range	North America: LTE-FDD: B2/B4/B5/B12/B13/B14/B66/B71; WCDMA: B2/B4/B5 Europe: LTE-FDD: B1/B3/B7/B8/B20/B28; LTE-TDD: B38/B40/B41 WCDMA: B1/B8; GSM: B3/B8 Japan: LTE-FDD: B1/B3/B8/B18/B19/B26; LTE-TDD: B41; WCDMA: B1/B6/B8/B19
ONVIF	Supported
Power Gauge	DC12V 4A

Regarding the issue of operator frequency bands, there is an index of recommended tables at the end of the manual for inquiries and references.

2. Sim Card Installation

For users in the US, it is recommended to use **T-Mobile** ordinary phone card as a 4G data card, and you must **activate the card first** on your mobile phone before installation.

You can check whether there is 4G signal coverage in the installation area by entering your zip code: <https://www.t-mobile.com/coverage/coverage-map>



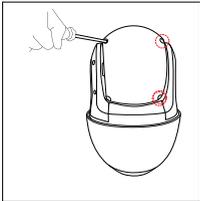
The sim card module would display blue signal light if the card has been installed correctly.

3.TF Card Installation

Compatible Size: Micro SD Card

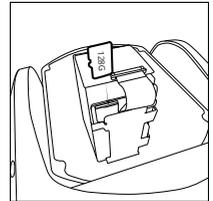
Compatible Standard: At least Class 10 high speed and up to 256GB (128GB recommended)

TF card is an option for storing recorded videos from the camera.

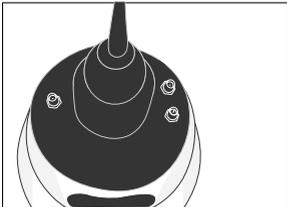


① Remove the 4 screws to take off the camera back cover.

② Insert the TF card as directed by the arrow.



4.Antenna Installation

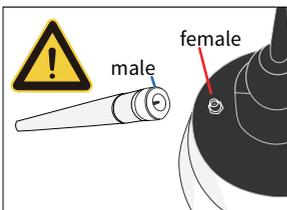


The camera comes with 3 antennas.

Two of the antennas (male) are 4G antennas, one main and one auxiliary. The other antenna (female) is used as a wifi antenna.

It is important to examine the male/female end between the antenna and the receptive port on the camera before installation.

If your antenna is damaged out of box, please contact support@sunba.net for replacement.

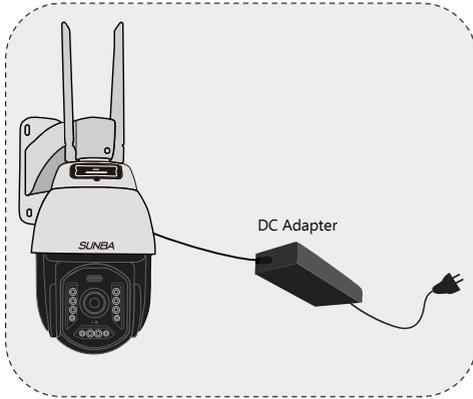


NOTE:Be careful with the female and male ends of the port and the antennas.

5. Power Standard

The camera requires DC12V 4A for operation, and please be aware that using higher voltage would immediately damage the camera and void the warranty.

Power Option A: DC12V adapter



Power Option B: Battery + Solar Panel

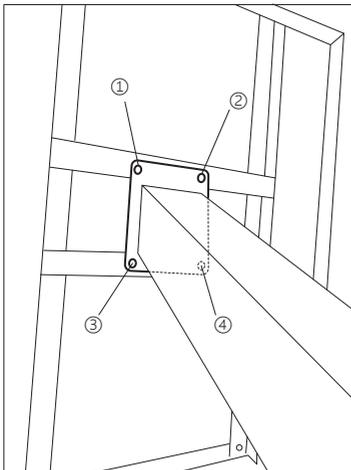


Warning: The load end for MANY battery charge controllers doesn't regulate voltages and is for wide voltage equipments. Sunba cameras require, however, fixed voltage. In this case, you need to get a voltage regulator for the load end if the battery doesn't have built-in regulators.

Solar Panel Requirement: Not less than 60W Monocrystalline, DC12V output.
All connectors must be waterproof or needs waterproof measures.
The power can be over 60W but the voltage must NOT exceed 12V.

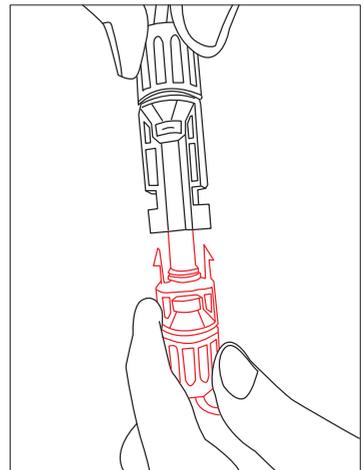
Battery Requirement: DC12V/36Ah or larger capacity.

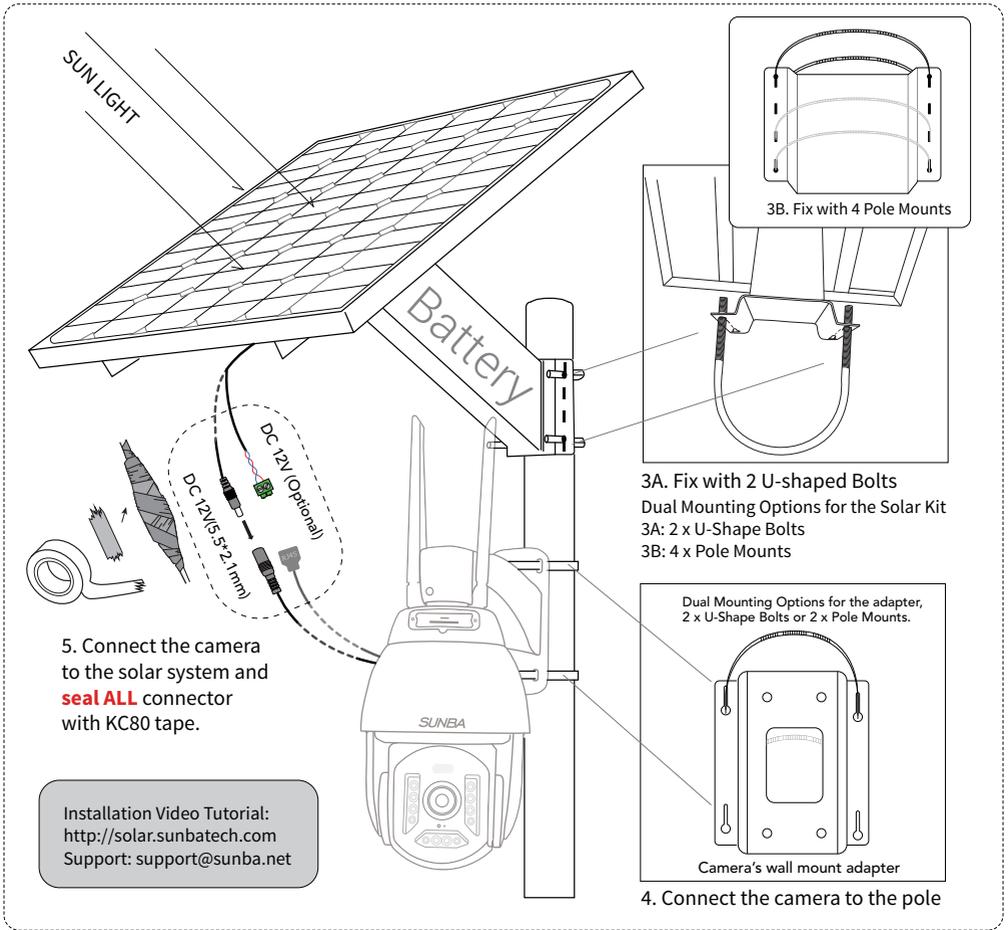
6. Solar Battery Kit Installation



1. Secure the battery to the solar panel by installing 4 screws.

2. Connect the battery to the solar panel via MC4 male and female connector.





Packing List:

- Monocrystalline Solar Panel x 1;
- Sunba MBB12V Lithium Battery x1;
- U-Bolt x 4 (2 for solar panel; 2 for camera);
- Pole Mount x 6 (4 for solar panel; 2 for camera);
- PTZ Mount Adapter x 1;
- KC80 Waterseal Rubber Mastic Tape x 1;
- Screws kits x 1set.

NOTE: RJ45 network cable from the camera can provide Internet to another device, and you can connect to other network cameras or other network devices.

SUNBA currently provides solar lithium battery kit system, It is recommended to be used as a set with a 4G PTZ camera, and it can be used without a wired network and wired power supply.

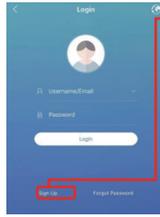


Scan to buy solar kit

6. Smartphone Control

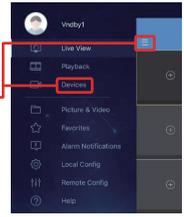
Method A: Scan the barcode to add the camera (4G Application)

① Download Guard Viewer App



② Sign up a cloud account. Select “international” service zone if asked.

③ Tap  to show the sidebar, and go to the Devices option to add device:

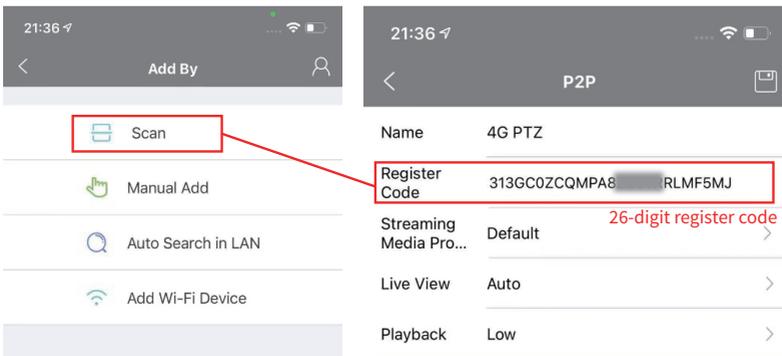


Note: You must create a cloud account to add the device.

Select “Scan” to add the device. Scan the barcode on the camera body or the box.

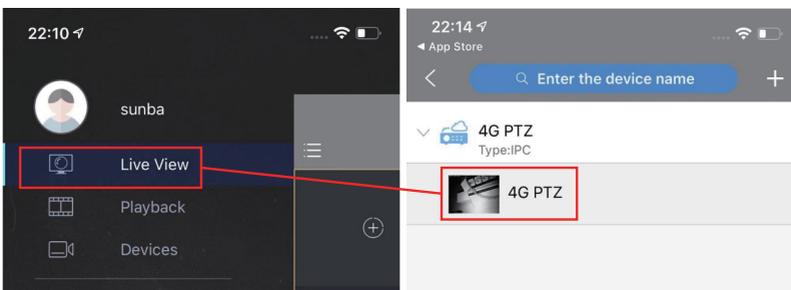
Enter the name of the device and click ‘Start to Live View’.

If you have difficulty scanning the QR code, you can also manually add the 26-digit register code (the registration code is printed on the silver label on the package or camera)

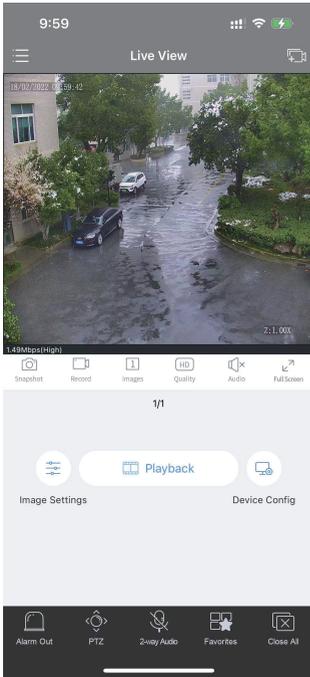


Alternatively, you can go to Live View and click “+” to select the device for live viewing.

After the 4G camera added, the device is online but the live view option does not appear, this situation is normal (due to network factors). You need to wait patiently for 30 seconds or more. After the P2P function is completely normal, you can got the live viewing.



The live view page will load as follows.



Quality = Switch the live view quality. It's recommended to set low in sites with limited cellular coverage.
 Snapshot = Take snapshots.
 Record = Record to smartphone.
 Image = Set live view windows such as 4/9/16.
 Audio = Turn on audio for live viewing.
 Image Settings = Set live view brightness/saturation/contrast/sharpness and 2D NR.
 Remote Config = Configure advanced setting of the camera (see picture below).
 Playback = Check video playback (recorded footage in SD card).
 PTZ = Control pan, tilt and zoom action of the camera.
 Alarm Out = Not supported in the device.
 2-way Audio = Press to enable communication with the camera's end.
 Close All = Close all

Method B: Connect to the same LAN as the camera (WiFi Application)

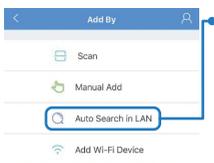
Note: this method is only suitable for the use of close-range (wifi) test camera.

Turn on the wifi function of your phone and search for the available wifi and find the one starting with **IM-LINK**. And then connect to it with password **1234567890**

When you successfully connect to the wifi hotspot (IM-LINK****) of the 4G camera, your phone and camera are actually under the same LAN.

At this time, you can add the camera by searching under the LAN (note: this method is only suitable for the situation where the camera is very close, once you lose the connection with the 4G camera's wifi, you will not be able to control the camera).

After connected to the wifi hotspot of the 4G camera, the camera's LAN IP is 192.168.8.100 (or 192.168.8.**), and your mobile phone is also under the same subnet (192.168.8.1).



You can add device by Auto Search in LAN if your smartphone is connected to the same network as the camera. Select the device that you want to add.



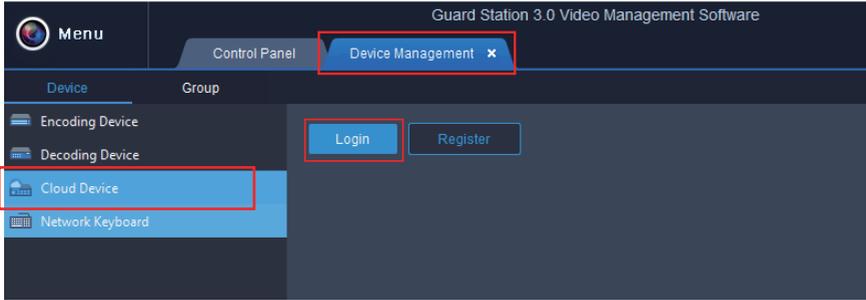
Note: Auto LAN search only works if the http port of the camera remains unchanged (default 80). If the http port has been changed, the camera can only be added manually with its corresponding new port.

7.Desktop Setup

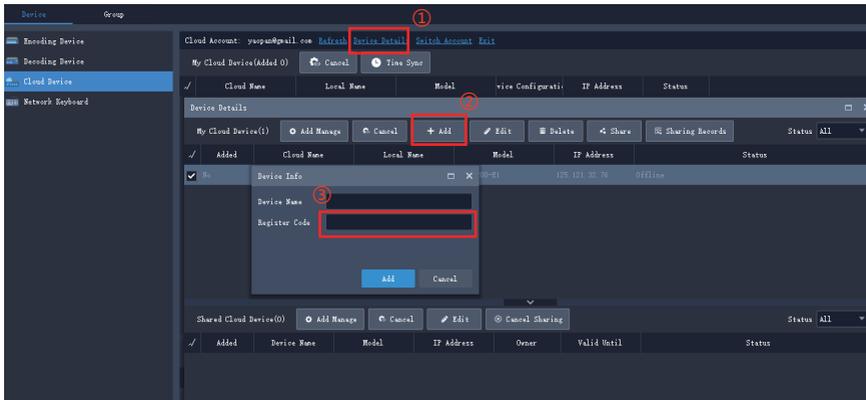
Download the Guard Station Tool from <https://sunbatech.com/download/>

The default username and password is admin/123456.

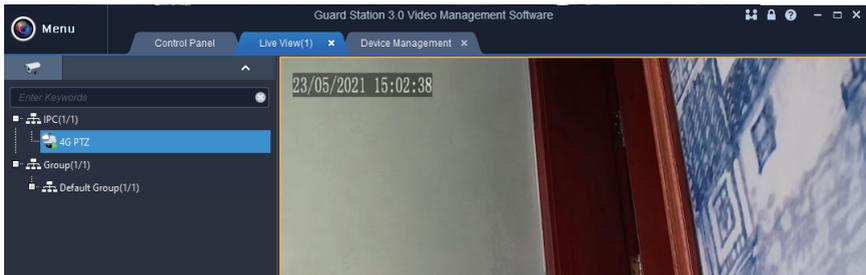
Go to **Device Management - Cloud Device**. Register the account if you haven't or simply login if you've completed registration from other devices or through Guard Viewer.



Click **"Device Details"** to add/delete the cloud devices.



After that, please navigate to Live View section and double click the cloud device to enable live view.



Click the PTZ icon to open the PTZ control panel.



8. 4G/LTE Router Panel Management

Please search for the available wifi hotspot in your network and find the one starting with **IM-LINK**. And then connect to it with password **1234567890**

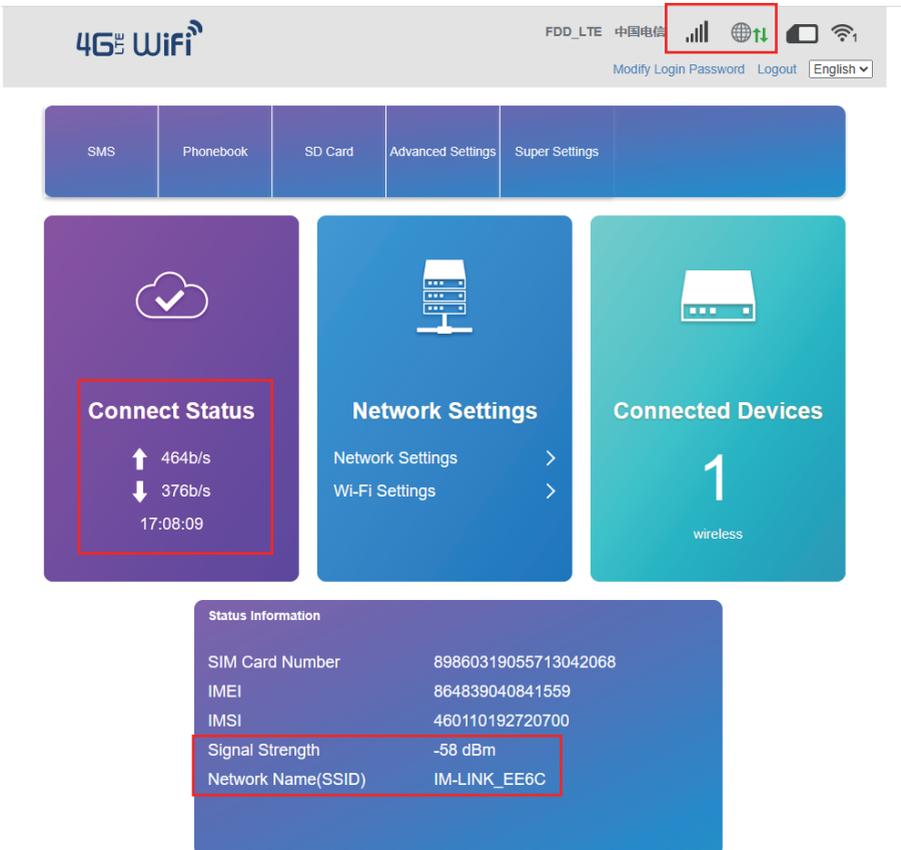
Once connected, please login to the 4G/LTE management panel via its IP address.

The default IP of the 4G module is **http://192.168.8.1** but it is always recommended to check via Network and Sharing Center->Change Adapter Setting for verification.

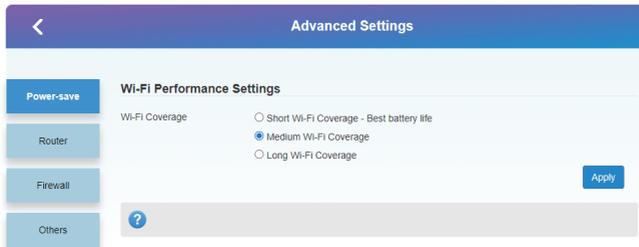
Select "English" as the language and enter "admin" as password.



The LTE/4G management panel will display the current network signal type as well as the carrier, the number of connected device as well as the connect status.



To adjust the WiFi coverage, please go to Advanced Settings-Power-save to set the level. The larger the Wi-Fi coverage, the more battery the camera consumes.



9.Frequent Asked Questions

Frequently Asked Questions (read me before placing an order)

How can I power my Sunba 4G PTZ?

The camera has only a DC12V port and accepts any input power of DC12V 4A. You can use regulated battery with solar panel or with DC12V cable running and plugged to AC outlet.

How can I control the camera remotely?

The camera can be controlled by Guard Viewer APP or Guard Station software though P2P, If your 4G ISP provider can assign a fixed WAN IP, you can also use a browser to remotely control the device. A good 4G signal coverage can bring you high quality and smoother video.

How can I store videos to the camera?

The camera has built-in TF card slot that can support up to 256GB of TF card and can be set to record 24/7 or simply motion clips.

Could you please provide a reference for picking the right battery?

We have a 38Ah/456Wh battery and when fully charged under cloudy weather (with minimal solar charging), it could last for 5 days and 4 nights before the battery went out.

Why don't you provide a 2G GSM/EDGE standard?

2G GSM/EDGE signals are unable to carry live stream videos.

How do I know if the camera's frequency range would work for my point of installation?

It is recommended to check map

Why does my camera receive no or minimal 4G signal?

Please first check if your SIM card carrier supports any of the above frequency supported by the camera. Next, each band station supports different frequency range and it is possible that your closet band station doesn't provide a frequency signal that is supported by the camera. Therefore, it is always recommended to test the 4G stability before mounting outside.

10. ISP Frequency Band Comparison Table

American version: LTE-FDD: B2/B4/B5/B12/B13/B14/B66/B71; WCDMA: B2/B4/B5

Japanese version: LTE-FDD: B1/B3/B8/B18/B19/B26; LTE-TDD: B41; WCDMA: B1/B6/B8/B19

European version: LTE-FDD: B1/B3/B7/B8/B20/B28; LTE-TDD: B38/B40/B41; WCDMA: B1/B8; GSM: B3/B8

Area	Country	Carrier(ISP)	LTE FDD	Compatible version
North America	USA	Verizon	B4	American version LTE-FDD: B2/B4/B5/B12/B13/B14/B66/B71 WCDMA: B2/B4/B5
		T- Mobile	B2/B4	
		AT&T	B2/B4	
	Canada	Bell	B2/B4	
		Rogers	B4	
		Telus	B4	
	Guam	GTA	B4	
		iConnect	B2/B12	
	Mariana Islands	IT&E	B12	
	Puerto Rico	AT&T	B4	
		OpenMoblie	B13	
		T- Mobile	B4	
	Virgin Islands	AT&T	B4	
Mexico	Movistar	B2		
	Iusacell	B4		
	Telcel	B4		
Asia		Idea	B3	Japaneseverson LTE- FDD: B1/B3/B8/B18/B19/B26; LTE TDD: B41; WCDMA: B1/B6/B8/B19
		Vodafone	B3	
		Indosat Ooredoo	B3/B8	
	Indonesia	Telkomsel	B3/B8	
		XL Axiata	B3/B8	
		Japan	au	
	NTT		B1/B3/B19/B26	
	SofoBank		B1/B3/B8	
	Malaysia	Celcom	B3	
		Digi	B3	
		Maxis	B3	
	South Korea	KT	B3/B8	
		LG U+	B1	
SKTelecom		B1/B3		
Thailand	AIS	B3		
	DTAC	B1/B3		
	TrueMove	B1/B3/B8		

Europe	France	Bouygues	B3	European version LTE FDD: B1/B3/B7/B8/B20/B28; LTE TDD: B38/B40/B41; WCDMA: B1/B8
		Free	B7	
		Orange	B7/B20	
		SFR	B7/B20	
	Germany	O2	B3/B20	
		Telekom	B3/B7/B20	
		Vodafone	B7/B20	
	Ireland	Meteor	B3/B20	
		Vodafone	B3/B20	
	Italy	TIM	B3/B7/B20	
		Vodafone	B3/B7	
	Netherlands	KPN	B3/B7/B20	
		Tele2	B7/B20	
		T- Mobile	B3/B7/B8	
		Vodafone	B3/B7/B20	
	Poland	Aero2	B3/B20	
		Play / P4	B1/B3	
	Russia	Beeline	B3/B7/B20	
		MegaFon	B3/B7	
		MTS	B3/B7/B20	
		Tele2 Russia	B3/B7/B20	
Spain	Movistar	B3/B7		
	Orange	B3/B7		
	Vodafone	B3/B7/B20		
United Kingdom	EE	B3/B7		
	Vodafone	B20		

FCC Warning (U.S.A)

The device has been tested in compliance with limits set by Part 15 of Federal Communication Commission (Class B). The operation of the device is thus limited by the following two conditions: 1) it is not permitted to cause harmful interference to any authorized radio communications, and 2) it must accept any interference it receives.



WARNING: Please test the camera indoor before mounting it outside. Stay at least 24 hours to test both daytime and night vision IR LED.

For any questions, don't hesitate to reach support@sunba.net
SUNBA® Technology

