

## GO SOLO LPR

Commercial Solar Power Camera KIT with License Plate Recognition



### Outstanding Features

- Innovative 3-in-1 solar panel design, with built-in battery and foldable bracket, super easy to install
- 444WH battery capacity, about 72 hours operation in rainy days
- 4 Megapixels Quad HD
- Local ANPR (Automated Number Plate Recognition) without cloud subscription
- 24x7 video recording for the past 30 days (vary by the recording settings)
- 4G LTE Cellular wireless connection ( Verizon, AT&T and T-Mobile)
- Water and dust-resistant (IP67)
- Onboard 256GB storage for one month continuous recording
- Free mobile App for both Android & iOS (App name: Guarding Vision)
- Optional API document for 3rd party system integration

### What is included in this camera:

- 80W Solar panel and pole mount bracket
- 444Wh lithium battery with built-in charge controller
- One 4K dual-lens panoramic camera (IPC7A47-ANPR)
- Built-in 4G LTE cellular router (SIM card needs to purchase separately)
- 256GB SD Card

## Camera Specification

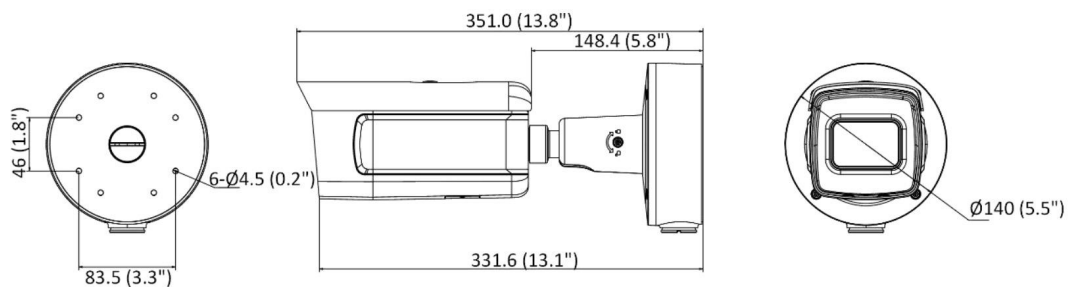
Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Max. Resolution	2688 × 1520
Min. Illumination	Color: 0.0005 Lux @ (F1.2, AGC ON); B/W: 0.0001 Lux @ (F1.2, AGC ON), 0 Lux with IR
Shutter Time	1 s to 1/100,000 s
Day & Night	IR cut filter Blue glass module to reduce ghost phenomenon
Lens	
Lens Type	2.8 to 12 mm, horizontal FOV: 114.5° to 41.8°, vertical FOV: 59.3° to 23.6°, diagonal FOV: 141.1° to 48° 8 to 32 mm, horizontal FOV: 42.5° to 15.1°, vertical FOV: 23.3° to 8.64°, diagonal FOV: 49.6° to 17.3°
Focus	Auto,Semi-auto,Manual
Iris Type	P-iris
Aperture	2.8 to 12 mm: F1.2 to F2.5 8 to 32 mm: F1.7 to F1.73
DORI	
DORI	Wide: 2.8 to 12 mm: D (Detect): 60 m, O (Observe): 23.8 m, R (Recognize): 12 m, I (Identify): 6 m 8 to 32 mm: D (Detect): 150.3 m, O (Observe): 59.7 m, R (Recognize): 30.1 m, I (Identify): 15 m Tele: 2.8 to 12 mm: D (Detect): 149 m, O (Observe): 59.1 m, R (Recognize): 29.8 m, I (Identify): 14.9 m 8 to 32 mm: D (Detect): 400 m, O (Observe): 158.7 m, R (Recognize): 80 m, I (Identify): 40 m
Illuminator	
Supplement Light Type	IR
Supplement Light Range	2.8 to 12 mm: 50 m 8 to 32 mm: 100 m
Smart Supplement Light	Yes
IR Wavelength	850 nm
Video	
Main Stream	50 Hz: 25 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720) 50 fps (2560 × 1440, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (2688 × 1520, 2560 × 1440, 1920 × 1080, 1280 × 720) 60 fps (2560 × 1440, 1920 × 1080, 1280 × 720)
Sub-Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Third Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Fourth Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Fifth Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Video Compression	Main stream: H.265+/H.265/H.264+/H.264, Sub-stream: H.265/H.264/MJPEG, Third stream: H.265/H.264, Fourth stream: H.265/H.264/MJPEG, Fifth stream: H.265/H.264/MJPEG
Video Bit Rate	32 Kbps to 8 Mbps
H.264 Type	Baseline Profile,Main Profile,High Profile
H.265 Type	Main Profile
Bit Rate Control	CBR,VBR
Scalable Video Coding (SVC)	H.264 and H.265 encoding
Region of Interest (ROI)	4 fixed regions for each stream
Target Cropping	Yes
e-PTZ	Support Patrol and Auto Tracking settings
Audio	
Audio Type	Mono sound
Audio Compression	G.711/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC
Audio Bit Rate	64 Kbps (G.711ulaw/G.711alaw)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps (MP2L2)/8 to 320 Kbps (MP3)/16 to 64 Kbps (AAC-LC)
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
Environment Noise Filtering	Yes

## Specification

Network	
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, SFTP, SRTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, WebSocket, WebSockets
Simultaneous Live View	Up to 20 channels
API	Open Network Video Interface (Profile S, Profile G, Profile T, Profile M), ISAPI, SDK, JSUP
User/Host	Up to 32 users 3 user levels: administrator, operator, and user
Security	Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for Open Network Video Interface, RTP/RTSP OVER HTTPS, Control Timeout Settings, Security Audit Log, TLS 1.2, TLS 1.3, TPM 2.0 (FIPS 140-2 level 2), AES128/256
Network Storage	NAS (NFS, SMB/CIFS), Auto Network Replenishment (ANR), Together with memory card encryption and health detection are supported
Client	Guarding Vision
Web Browser	Plug-in required live view: IE 10, IE 11, Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Edge 89+, Safari 11+, Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+
Image	
Image Parameters Switch	Yes
Image Settings	Rotate mode, saturation, brightness, contrast, sharpness, gain, white balance, adjustable by client software or web browser
Day/Night Switch	Day, Night, Auto, Schedule, Alarm Trigger, Video Trigger
Wide Dynamic Range (WDR)	140 dB
SNR	≥ 52 dB
Image Enhancement	BLC, HLC, 3D DNR, Distortion Correction, Defog
Picture Overlay	LOGO picture can be overlaid on video with 128 × 128 24 bit bmp format
Image Stabilization	EIS
Privacy Mask	8 programmable polygon privacy masks
Interface	
Video Output	1 Vp-p Composite Output (75 Ω/CVBS) (Only for debugging)
Ethernet Interface	1 RJ45 10 M/100 M/1000 M self-adaptive Ethernet port
On-Board Storage	Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 1 TB
Audio	With -Y: 1 input (line in), 1 output (line out), 3.5 mm connector
Alarm	2 inputs, 2 outputs (max. 24 VDC, 1 A)
Power Output	With -Y: 12 VDC, max. 100 mA
Reset Key	Yes
Basic Event	Motion detection (support alarm triggering by specified target types (human and vehicle)), video tampering alarm, exception (network disconnected, IP address conflict, illegal login, abnormal restart, HDD full, HDD error), video quality diagnosis, vibration detection
Smart Event	scene change detection, audio exception detection, defocus detection
Linkage	Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture, audible warning
Perimeter Protection	Line crossing, intrusion, region entrance, region exiting Support alarm triggering by specified target types (human and vehicle) Support combined event alarm triggering
Road Traffic and Vehicle Detection	Smart Function: Support license plate recognition of vehicles and motorcycles (only in checkpoint scenario) Support vehicle attribute detection, including vehicle type, color, brand, driving direction, etc. Support vehicle and non-vehicle counting Blocklist and allowlist: up to 10,000 records LPR Countries/Regions: 4 areas (Europe, Middle East, Asia-Pacific, Africa) and more than 124 countries/regions Accuracy (Under recommended installation and lighting conditions): License plate recognition rate ≥98% Capture rate ≥99% Driving direction accuracy rate ≥98% Vehicle Capture Speed: Front installation in checkpoint scenario: up to 120 km/h Side installation: up to 80 km/h Capture Mode: License Plate and Vehicle Mode, Vehicle Priority Mode
Metadata	Intrusion detection, line crossing detection, region entrance detection, region exiting detection, road traffic
Parking Management	Support distant view mode and close view mode Distant view mode: support status detection on up to 40 parking spaces, parking duration detection, and vacant parking space alarm Close view mode: support status detection on up to 4 parking spaces, license plate recognition, parking timeout alarm, and vacant parking space alarm
Power	12 VDC ± 20%, 1.19 A, max. 14.28 W, three-core terminal block PoE: IEEE 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.396 A to 0.295 A, max. 16.8 W

General	
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Material	Aluminum alloy body
Dimension	Ø5.7" × 13.7" (Ø 144 mm × 347 mm)
Package Dimension	15.9" × 7.5" × 7.1" (405 mm × 190 mm × 180 mm)
Weight	Approx. 4.2 lb.(1950 g)
With Package Weight	Approx. 6.7 lb.(3070 g)
Storage Conditions	-22 °F to 140 °F(-30 °C to 60 °C). Humidity 95% or less (non-condensing)
Startup and Operating Conditions	-40 °F to 140 °F (-40 °C to 60 °C). Humidity 95% or less (non-condensing)
Language	33 languages: English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil), Ukrainian
General Function	Anti-banding, heartbeat, mirror, flash log, password reset via email, pixel counter
Heater	Yes
Device Management	Supports adding alarm box (DS-FM2466) in the LAN to expand 6 additional input and 6 output alarm interfaces
Approval	
EMC	FCC: 47 CFR Part 15, Subpart B, CE-EMC: EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN 50130-4: 2011 +A1: 2014, RCM: AS/NZS CISPR 32: 2015, IC: ICES-003: Issue 7, KC: KN32: 2015, KN35: 2015
Safety	UL: UL 62368-1, CB: IEC 62368-1: 2014+A11, CE-LVD: EN 62368-1: 2014/A11: 2017, BIS: IS 13252 (Part 1): 2010/IEC 60950-1: 2005, LOA: IEC/EN 60950-1
Environment	CE-RoHS: 2011/65/EU, WEEE: 2012/19/EU, Reach: Regulation (EC) No 1907/2006
Protection	IP67: IEC 60529-2013,IK10: IEC 62262:2002
Automotive and Railway	EN50121-4
Other	PVC FREE

## Dimension



Unit: mm (inch)

## 4G LTE Router Specification

4G LTE Bands	<p>US Version: B2/B4/B5/B12/B13/B14/B66/B71@FDD LTE (For North America, AT&amp;T, T-Mobile, Verizon)</p> <p>EU Version: B1/B3/B5/B7/B8/B20/B28A@FDD LTE (For European Countries)</p> <p>AU Version: B1/B2/B3/B4/B5/B7/B8/B28@FDD LTE, B40@TDD LTE (For Australia)</p>
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## Solar system Specification

SKU	Solar-S1240P80
Battery Type	Lithium Solar Battery (Li-ion Battery) with built-in charge controller
Nominal Voltage	11.1V
Rated Capacity	40Ah
Energy	444Wh
Charge Voltage Cut-off	12.6V
Maximum Continuous Charge Current	10A
Discharge Under-Voltage Protection	9V
Solar Panel Type	Monocrystalline solar panels, 36 cells
Maximum Power at STC	80W
Optimum Operating Voltage (Vmp)	16.36V
Open-Circuit Voltage (Voc)	19.03V
Optimum Operating Current (Imp)	4.89A
Short-Circuit Current (Isc)	5.16A
Operating Temperature	-4°F to 149°F(-20°C to 65°C)
Panel Leads (Pair)	14 AWG (1.96 ft)
Weight	23.36lbs(10.6kg)
Dimension	20.86 × 32.08 × 3.74 "(530*815*95mm)
IP Rating	IP66