

Ninehundred  
Communications  
Group

# 900ECO 4G SOLAR BULLET CAM



TWO WAY  
RADIOS



PPE  
SOLUTIONS



ECO FRIENDLY  
SOLUTIONS



SITE  
SOLUTIONS



SECURITY  
SOLUTIONS



TRACKING  
SOLUTIONS



PHONES  
& DATA



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# 900ECO 4G SOLAR BULLET CAM

Ensure all equipment  
is safe, secure and fully  
functional at all times...

This integrated solar power system consists of solar panels, Maximum Power Point Tracking (MPPT) charging controller, and mounting brackets. It provides stable power supply for devices such as IP cameras with high conversion charging controller.

## FEATURES & BENEFITS

### INTEGRATED DIE CASTING CASING

Compact structure integrated with solar panel and charging to improve the appearance, installation, and maintenance of the system.

### MONOCRYSTALLINE SILICON SOLAR PANEL

Adopt efficient monocrystalline solar panel to greatly improve light absorbency efficiency and power generation performance with dusky light.

### REMOTE MONITORING WITH APP

With these cameras, you can remotely monitor the system operation status and receive alarm notifications for low battery in real time.

### SPECIAL APPLICATION

Temporary monitoring of mobile toilets, mobile garbage stations, outdoor small-scale competitions, and more.

### MAXIMUM POWER POINT TRACKING (MPPT) CHARGING CONTROLLER

MPPT controller helps significantly improve the energy utilisation efficiency by 10% - 30% compared with conventional PWM controller.

### RS-485 COMMUNICATION

RS-485 port and standard Modbus protocol can satisfy communication requirements in various scenarios.

### ELECTRONIC PROTECTION

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

### SMALL BUSINESS APPLICATION

Applicable to scenarios where power is difficult to obtain, such as mining areas, oil/power transmission lines, forest fire prevention, and water conservancy.



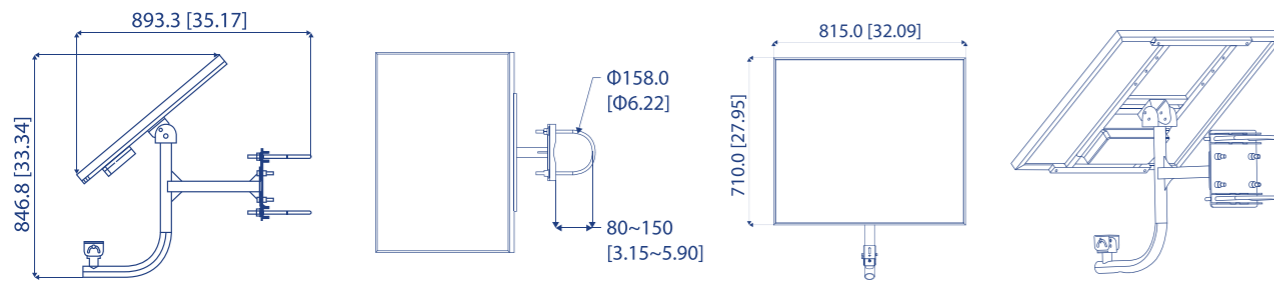


# APPLICATION & DIMENSIONS

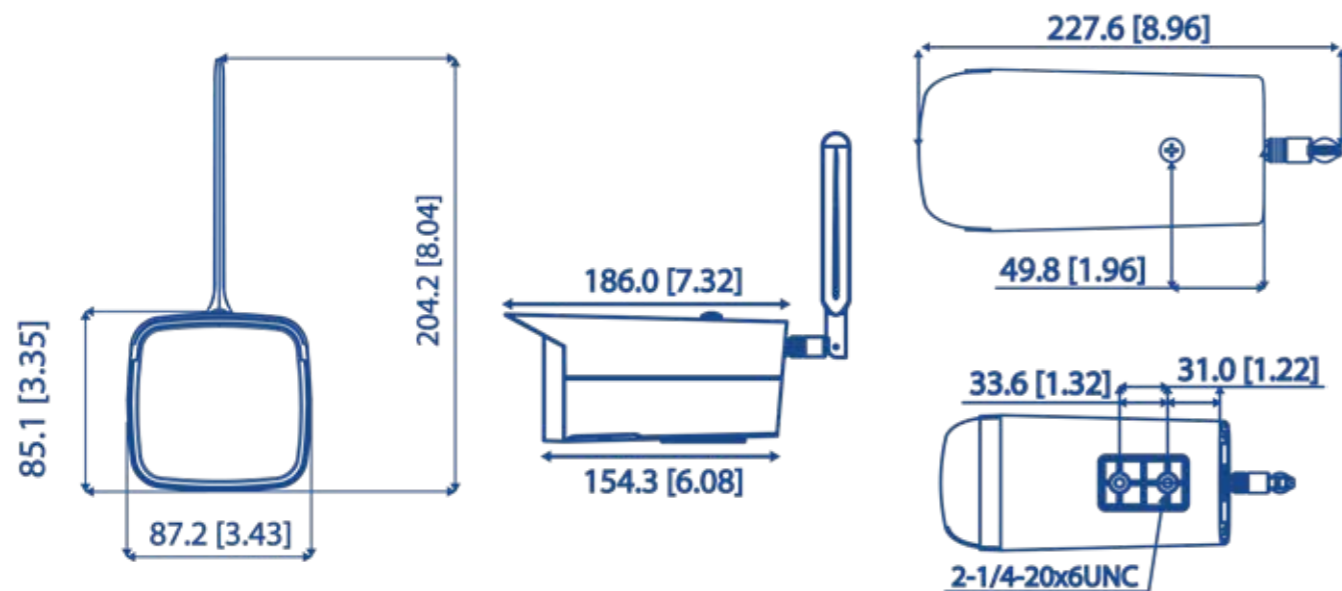
Flexible,  
Sturdy,  
Eco-Friendly.

Compared with conventional solar power systems, it is compact, portable and easy to install, disassemble and maintain. This solar power structure can be installed in a range of places, such as farms, courtyards, scenic spots, roads, communities and small construction sites.

## DIMENSIONS (MM) [INCH]



- Flexible angle adjustment of the solar panel and the camera.
- 100W Monocrystalline solar panel
- Built sturdy to resist storms with sustained winds up to 117 km/h.



# TECHNICAL SPECS: 4G SOLAR BULLET CAM



## CAMERA

Image Sensor **1/2.8" CMOS**

## EFFECTIVE PIXELS

ROM **128 MB**

RAM **512 MB**

Scanning System **Progressive**

Electronic Shutter Speed **Auto/Manual 1/3 s-1/100,000 s**

Min. Illumination **0.002 Lux@F1.6(Colour,30IRE)  
0.0002 Lux@F1.6(B/W,30IRE)  
0 Lux (Illuminator on)**

S/N Ratio **> 56 dB**

Illumination Distance **50 m (273 ft) (IR)**

Illumination On/Off Control **Auto; Manual**

Illumination Number **2 (IR LED)**

Pan/Tilt/Rotation Range **Pan: 0°-360°    Rotation: 0°-360°  
Tilt: -60° - 0°**

## LENS

Lens Type **Fixed-Focal**

Mount Type **M12**

Focal Length **2.8mm; 3.6mm; 6mm**

Max. Aperture **2.8mm: F1.6    6mm: F1.6  
3.6mm: F1.6**

## Field of View

**2.8mm:** Horizontal 107° x Vertical 56° x Diagonal 127°

**3.6mm:** Horizontal 88° x Vertical 44° x Diagonal 105°

**6mm:** Horizontal 54° x Vertical 29° x Diagonal 63°

## Iris Type

**Fixed**

## Close Focus Distance

**2.8mm:** 0.7m (2.5ft)  
**3.6mm:** 1.3m (4.25ft)  
**6mm:** 2.8m (9.15ft)

## DORI Distance

Lens	Detect		Observe	
	Recognise	Identify	Recognise	Identify
2.8mm	43.9m (144ft)		17.5m (57.4ft)	
	8.8m (28.8ft)	4.4m (14.4ft)		
3.6mm	58.9m (193ft)		23.6m (77.4ft)	
	11.8m (38.4ft)	5.9m (19.4ft)		
6mm	88.3m (289.6ft)		35.3m (115.8ft)	
	17.7m (58ft)	8.8m (28.8ft)		

## PROFESSIONAL, INTELLIGENT

### Image Sensor

Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos.

### SMD 3.0

Less false alarm, longer detection distance

### IVS (Perimeter Protection)

Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)

### Smart Search

Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos.

## VIDEO

### Video Compression

**H.265; H.264H; H.264B; MJPEG (Only supported by the sub stream)**

### Smart Codec

**Smart H.265+; Smart H.264+**

### AI Coding

**AI Coding AI H.265; AI H.264**

### Video Frame Rate

**Main Stream: 1920x1080 @ (1fps-30 fps)  
Sub Stream: 704x576@ (1fps-25fps)/704x480@ (1fps-30fps)  
Third Stream: 1920x1080@ (1fps-30fps)**

\*The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity.

### Stream Capability

**3 Streams**

### Resolution

**1080p (1920x1080); 1.3M (1280x960); 720P (1280x720); D1 (704x576/704x480); VGA (640x480); CIF (352x288)**

### Bit Rate Control

**CBR;VBR**

### Video Bit Rate

**H.264:512kbps- 8192kbps  
H.265:256kbps - 7424kbps**

### Day/Night

**Auto (ICR) /Colour/B/W**

### BLC

**Yes**

### HLC

**Yes**

### WDR

**120 dB**

### White Balance

**Auto;natural; street lamp; outdoor>manual; regional custom**



# TECHNICAL SPECS: CAM & SOLAR PANEL



## CAMERA

Gain Control	Auto;manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 1920x1080 resolution and lower)
Mirror	Yes
Privacy Masking	8 areas

## AUDIO

Audio Compression	PCM; G.711a; G.711Mu; G.726; G.723
Built-in MIC	Yes

## ALARM

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; scene changing; audio detection; voltage detection; external alarm; SMD; security exception
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## NETWORK

Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
Cyber Security	Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade

## SOLAR PANEL

Type	Monocrystalline Silicon
Max. Power	100 W
Output Voltage	18.8Vdc
Output Interface	CSA standard M15 2-pin water-proof plug (female)

## STRUCTURE

Bracket Material	Q235 steel / aluminium
Surface Treatment	Hot dip galvanising / plastic spraying / welding
Bracket Colour	White
Adjustable angle of bracket	20°/40°/60° (horizontal)

## ENVIRONMENT

Operating Altitude	<3000m
Operating Area	Areas with daily solar radiation >4 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 140°F)
Installation	Pole mount, installed on 80mm to 150mm poles
Product Dimensions	815 x 846.8 x 893.3mm (32.1"x 33.3" x 35.2")
Net Weight	21.5kg (47.40 lb)

# COMMUNICATE ANYTIME, ANYWHERE



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