



# 4G Solar-powered Security Camera Kit

SP111/S90B36/41



Battery pack is available

## KEY FEATURES

### All-in-One Wireless Solution

Address off-grid security challenges effortlessly with Milesight's innovative all-in-one kit, using 4G connectivity and solar energy for a fully wireless, cost-effective solution.

### 9 Days Battery Life Guaranteed

Even on rainy days, it can achieve up to 9 days of extended standby time, providing long-term uninterrupted reliability to safeguard every moment that matters.

### Intelligent Energy-saving Operation Mode

Efficient and energy-saving, it focuses on the events you care about most. It also allows for scheduled sleep to conserve energy. Various modes (**Performance Mode / Sleep Mode / Eco Mode**) ensure the stable and secure operation of the Kit system.

### Advanced AI algorithms enable precise detection and alerting of abnormal situations.

Various intelligent analyses can be applied in multiple scenarios for hazard prevention, making it possible to monitor challenging areas such as mountainous regions and construction sites with its versatile adaptability. (**Intrusion Detection, Line Crossing, Object Left, Advanced Motion Detection, Tamper Detection**)

**Rugged and sturdy waterproof design** with an **IP67** rating, capable of withstanding up to level **12** winds.

# 4G Solar-powered Security Camera Kit



Name		4G Solar-powered Security Camera (4MP)
<b>Model</b>		<b>SP111 /41</b>
<b>Image</b>	Image Sensor	1/2.8" Progressive Scan CMOS
	Min. Illumination	Color: 0.005Lux @F1.6 B/W: 0Lux with IR on
	WDR	120dB Super WDR
	Shutter Time	1/100000s~1s
	Day/Night Mode	Day/Night/Auto/Customize/Schedule
	IR Wave Length	850nm
	IR Distance	Up to 20 m (65.62 ft)
	S/N	>55dB
<b>Lens</b>	Lens	2.8mm/6mm
	Mount	M12
	Field of View	2.8mm: H111°/D128°/V61° 6mm: H52.8°/D60.4°/V29.7°
<b>DORI</b>	DORI	2.8mm: D: 64.7 m, O: 25.4 m, R: 12.7 m, I: 6.4 m
		6mm: D: 128 m, O: 50.4 m, R: 25.2 m, I: 12.6 m
<b>Video</b>	Max. Image Resolution	4MP (2688*1520)
	Primary Stream	60Hz: 15fps@(2688*1520, 2304*1296, 1920*1080, 1280*720) 50Hz: 12fps@(2688*1520, 2304*1296, 1920*1080, 1280*720)
	Secondary Stream	60Hz: 15fps@(1280*720, 704*576, 640*480) 50Hz: 12fps@(1280*720, 704*576, 640*480)
	Video Compression	H.265+/H.265(HEVC)/H.264+/H.264
	Video Bit Rate	16Kbps~16Mbps(CBR/VBR Adjustable)
	Privacy Masking	Up to 4 areas (Mask)
	ROI	Up to 8 areas
	Image Setting	Brightness/Contrast/Saturation/Sharpness
	Web Access	WIFI/VPN/Milesight VMS

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<b>Interface</b>	Alarm I/O	Input *1, Output *1
	Audio I/O	Input *1, Output *1
	Ethernet	1*RJ45 10M/100M Ethernet Port
	RS485	1
<b>Wireless Network</b>	WLAN	802.11n/802.11g
	Cellular	4G LTE NA: LTE-FDD(B2/4/5/12/13/14/66/71) AU: LTE-FDD(B1/2/3/4/5/7/8/28) ; LTE-TDD(B40) JP: LTE-FDD(B1/3/8/18/19/26); LTE-TDD(B41) EU: LTE-FDD(B1/3/7/8/20/28A); LTE-TDD(B38/40/41)
	SIM Card	Nano SIM
<b>Intelligent Analytics</b>	Object Classes	Human, Vehicle (Bicycle/Car/Motorcycle/Bus/Truck)
	Video Analysis	Intrusion Detection, Line Crossing, Object Left, Advanced Motion Detection, Tamper Detection
<b>System</b>	GPS	Built-in High-accuracy GPS Module
	Storage	Support microSD/SDHC/SDXC Card Local Storage, up to 1TB
	Advanced Function	BLC, HLC, 2D DNR, 3D DNR, Defog, AWB, IP Address Filtering, AGC, Anti-flicker, Corridor Mode, Deblur
	Event Trigger	Intelligent Analytics, External Input, etc.
	Event Action	HTTP Post, FTP Upload, SMTP Upload, SD Card Record, External Output, etc.
	System Compatibility	ONVIF Profile G & M & S & T, API
<b>General</b>	Working Temperature	Charging: -20 °C to 45 °C (-4 °F to 113 °F) Discharging: -20 °C to 60 °C (-4 °F to 140 °F)
	Working Humidity	0~95% (Non-condensing)
	Power Supply	DC 12V±10%
	Power Consumption	<b>Sleep Mode:</b> 0.19 W <b>Basic:</b> 1.71 W (Event + 4G Module OFF) 1.65 W (Event + 4G Module OFF + Dynamic FPS On) <b>Max:</b> 3.89 W (Illuminator + Event + 4G streaming ON)  <b>Basic:</b> Up to 9 days of battery life in cloudy/rainy conditions (Optional up to 6 batteries. 4 batteries provide 6 days of continuous use, and 6 batteries provide 9 days of continuous use).

# 4G Solar-powered Security Camera Kit




<b>General</b>	Surge Protection	4KV
	Weather Proof	Up to IP67-rated for Weather-resistant Performance
	Camera Dimensions	120*120*260 mm
	Camera Weight	2.2kg
	Kit Dimensions	1048*1150*592 mm
	Kit Weight	30.8kg 34.6kg (With package)
<b>Certification</b>	EMC	CE-EMC (EN 55032,EN 55035) FCC (PART 15B) RCM (AS/NZS CISPR 32)
	Safety	CE-LVD (EN IEC 62368-1) RCM (AS/NZS 62368.1)
	FR	CE-RED (EN 300 328,EN301489-1,EN301489-17,EN 62133) FCC (Part 15.247) RCM (AS/NZS 4268,AS/CA S042.1,AS/CA S042.4,AS/NZS 2772.2) Telec (MIC Item 19 of Article 2 Paragraph 1)
	Environment	CE-ROHS (Directive (EU) 2015/863 amending 2011/65/EU)
	Protection	IP67 Wind Resistance: Level 12 (Hurricane-force)

<b>Controller</b>	Safety Features	Over-temperature, over-discharge, over-voltage and low-temperature protection of battery; overload and short circuit protection of load.
	Interface	M12 (8-pin) * 6: Battery Connection M12 (6-pin): Solar Panel Input M12 (4-pin): DC Input
		M12 (5-pin): Output (including RS485) M12 (2-pin): Output
Power Output	9 to 12.6 VDC, Min. 18W, Max. 25.2 W	


# 4G Solar-powered Security Camera Kit



Name		Modular Battery
<b>Model</b>		<b>B90</b>
<b>Appearance</b>		
<b>Battery</b>	Battery Type	Ternary lithium battery
	Battery Modules in Kit	Default: 4 units of B90; Optional: 5/6 units of B90
	Battery Capacity (Energy Capacity)	90 Wh 360 Wh (4 units of B90)
	Battery Capacity (Charge Capacity)	8400mAh 33.6 Ah (4 units of B90)
	Rated Voltage	10.8V
	Maximum Charging Voltage	12.6V
	Rated Charging Current	1680mA
	Rated discharge current	1680mA
	Max. Charging Current	3000mA
	Max. Discharge Current	3000mA
	Internal Resistance	<150m Ω
	Charging Time	5H/0.2C
	Battery Life	More than 500 cycles
	Operating Temperature	Charge: -20~45°C Discharge: -20~60°C
	Operating Humidity	30% ~ 90%
	Storage Temperature	0~45°C
	Storage Humidity	40% ~ 70%
	Port Type	M12 8-core waterproof connector
Weight	640g (Single cell battery) 730g (Single cell battery with packaging)	
Dimensions	125*48*95 mm	

# 4G Solar-powered Security Camera Kit



Name		S90 Solar Panel Modules
Model		ZM90M10-24S1
Appearance		
Solar Panel Modules in Kit		Default: 1 units of S90; Optional: 2 units of S90
Electrical Characteristics	Maximum Power- Pmax (W)	90
	Open Circuit Voltage - Voc (V)	21.8
	Short- Circuit Current - Isc (A)	5.03
	Voltage at Pmax -Vmp (V)	18.79
	Current at Pmax - Imp (A)	5.03
	Module Efficiency - $\eta$ m (%)	18.24
	Power Tolerance (W)	0, +4.99W
	Maximum System Voltage (V)	700Vdc (IEC / UL)
	Maximum Series Fuse Rating (A)	10A
Mechanical Specifications	External Dimensions	585*830*30mm
	Weight	5.25kg
	Solar Cells	Mono crystalline 182X72.8mm (4X8pcs)
	Front Glass	3.2 mm tempered glass
	Frame	Aluminum
	Junction Box	IP67
	Output Cables	150cm
	Connector	M12-4P
	Mechanical Load	Front Side Max. 5400Pa, Rear Side Max. 2400Pa

# 4G Solar-powered Security Camera Kit

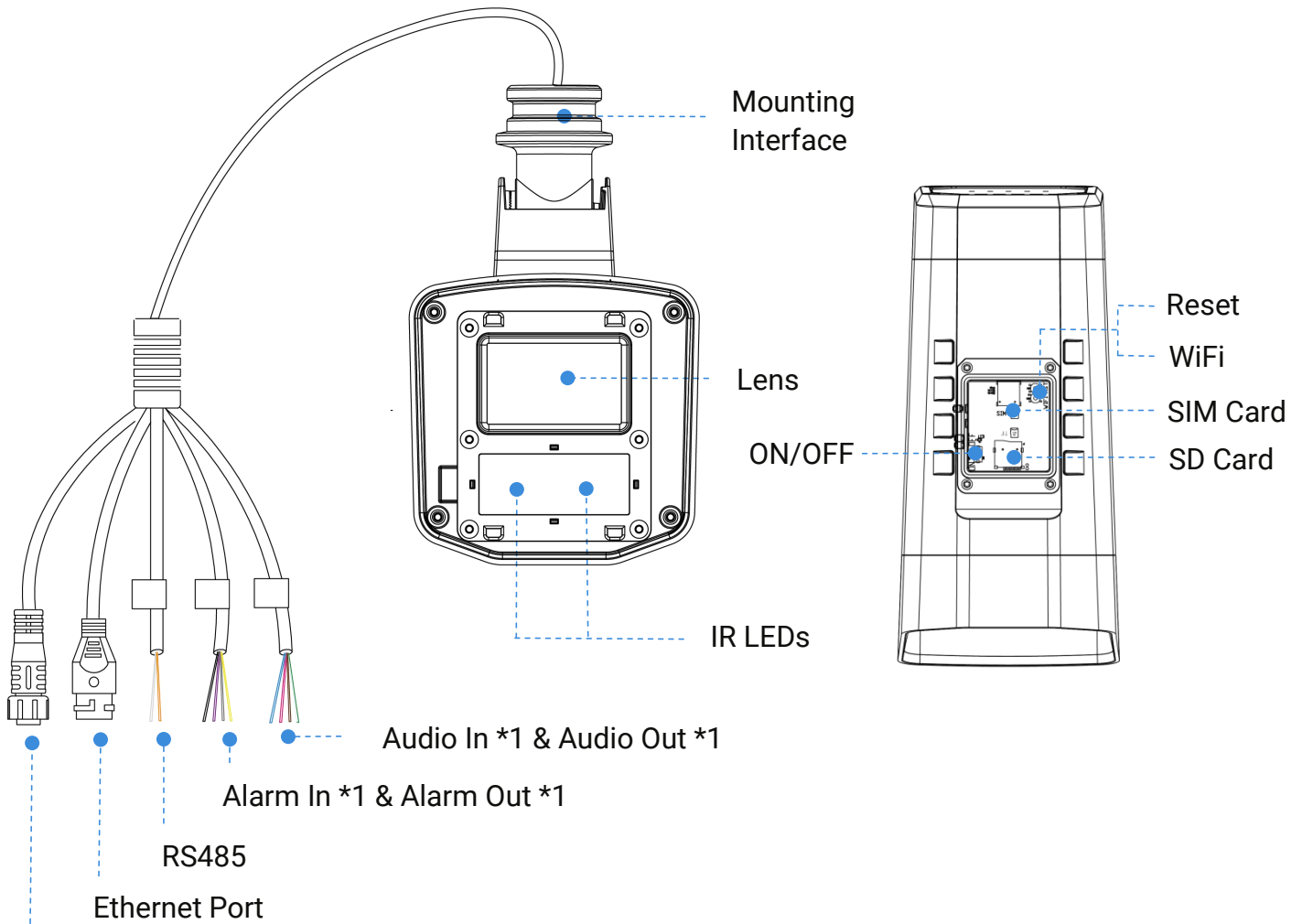


<b>Temperature Characteristics</b>	Pmax Temperature Coefficient	-0.350%/°C
	Voc Temperature Coefficient	-0.270%/°C
	Isc Temperature Coefficient	+0.048%/°C
	Operating Temperature	-40~+85°C
	Nominal Operating Cell Temperature(NOCT)	45±2°C

# 4G Solar-powered Security Camera Kit

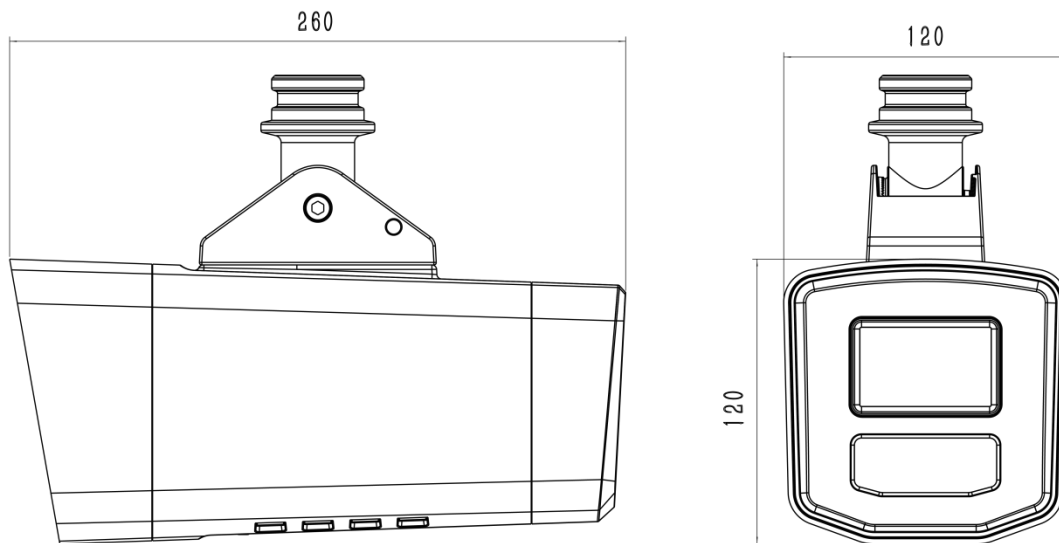


## Structure Diagrams



## Power Supply

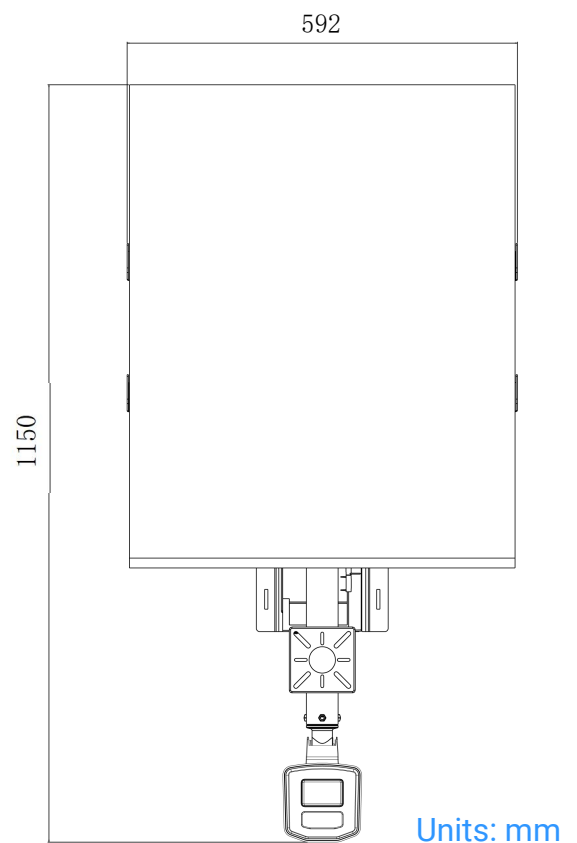
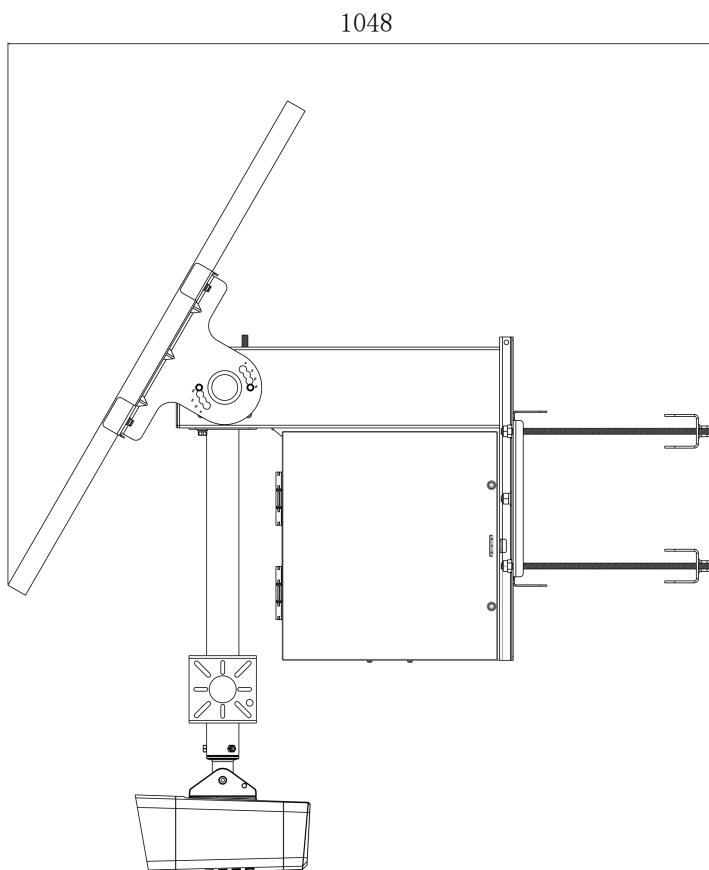
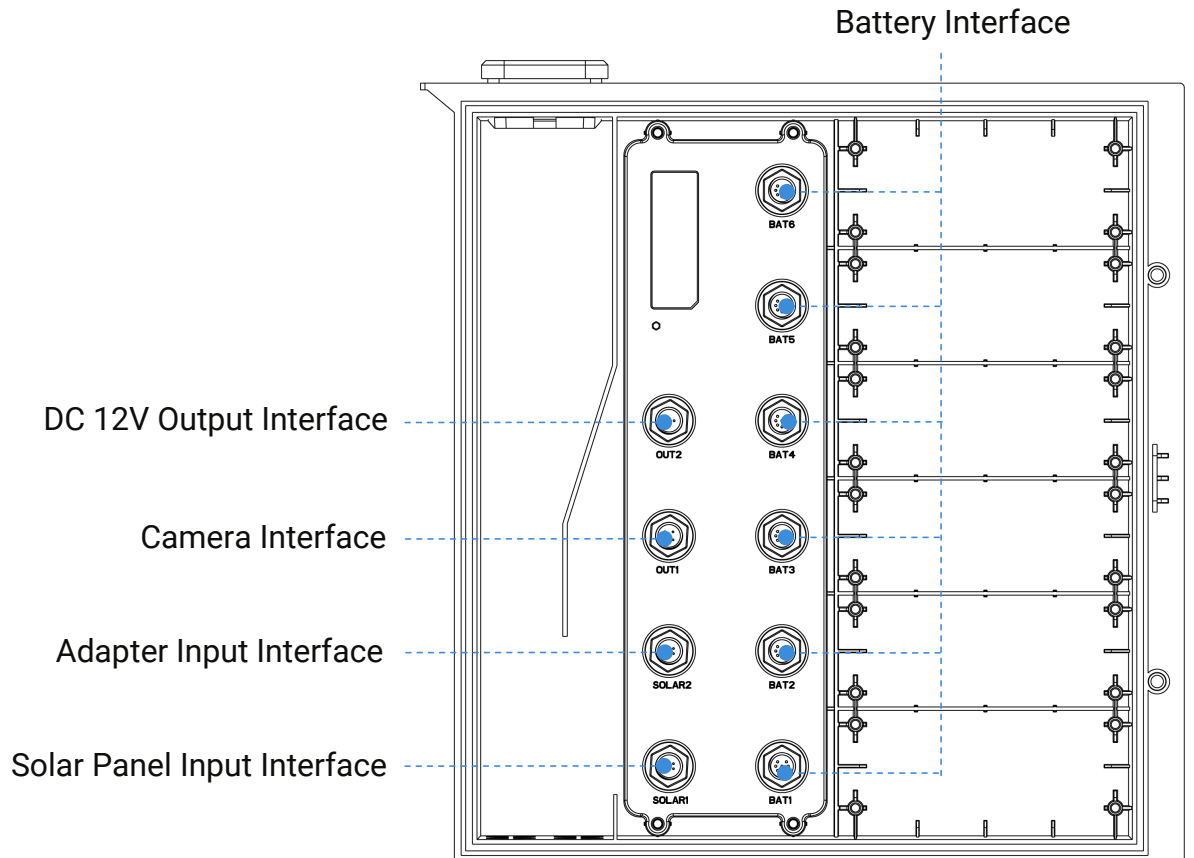
(used for power supply and RS485 battery information communication with the battery system)



Units: mm

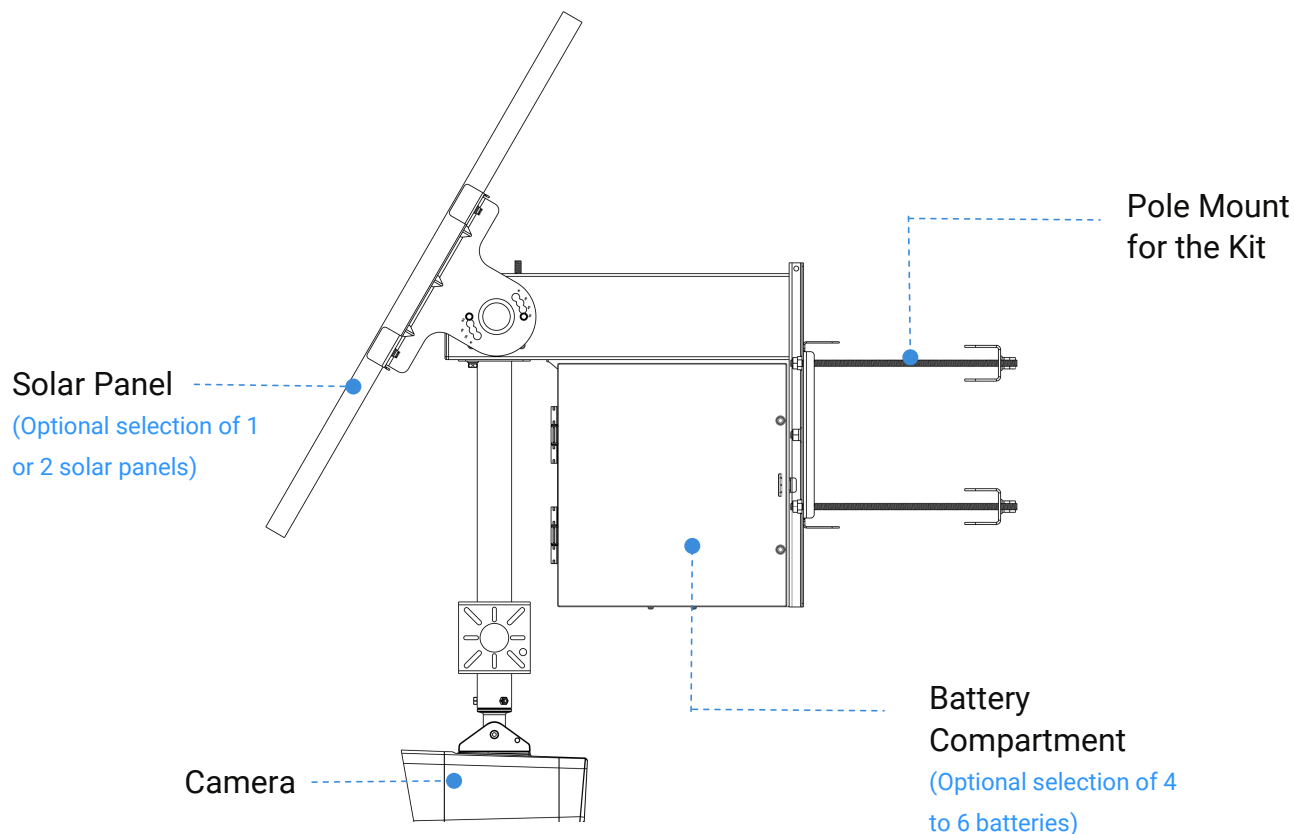


# 4G Solar-powered Security Camera Kit



Units: mm

# 4G Solar-powered ANPR Camera Kit



## Accessories Support

### B90 Modular Battery

Weight: 730g

Dimensions:

125\*48\*95 mm



### S90 Solar Panel

Weight: 5.25kg

Dimensions:

585\*830\*30 mm

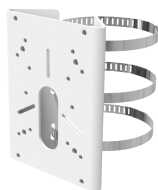


### A02 V2 Pole Mount

Weight: 1kg

Dimensions:

180\*136\*46 mm



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### SA02 Wall Mount

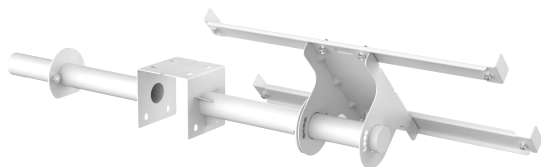
Weight: 2.2kg

Dimensions:

150\*260\*400 mm



### SA03 Expansion Bracket



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