Milesight

4G Solar-powered Security Camera Kit

SP111/S90B36/41

| AI | 4G | Solar-Powered | 1TB Storage |

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)	
Model	**SP111** **/41**	
Image	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
Lens	Lens	2.8mm/6mm
	Mount	M12
	Field of View	2.8mm: H111°/D128°/V61° 6mm: H52.8°/D60.4°/V29.7°
DORI	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
Video	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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Interface	Alarm I/O	Input *1, Output *1
	Audio I/O	Input *1, Output *1
	RS485	1
Wireless Network	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
Intelligent Analytics	Object Classes	Human, Vehicle (Bicycle/Car/Motorcycle/Bus/Truck)
	Video Analysis	Intrusion Detection, Line Crossing, Object Left, Advanced Motion Detection, Tamper Detection
System	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
General	Working Temperature	Charging: -20 °C to 45 °C Discharging: -20 °C to 60 °C
	Working Humidity	0~95% (Non-condensing)
	Power Supply	DC 12V±10%
	Power Consumption	**Sleep Mode:** 0.19 W **Basic:** 1.71 W (Event + 4G Module OFF) 1.65 W (Event + 4G Module OFF + Dynamic FPS On) **Max:** 3.89 W (Illuminator + Event + 4G streaming ON) Performance Mode: 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

General	Surge Protection	4KV
	Weather Proof	Up to IP67-rated for Weather-resistant Performance
	Camera Dimensions	120*120*260 mm
	Camera Weight	2.3962kg
	Kit Dimensions	1050*1150*592 mm
	Kit Weight	27.8kg 31.6kg (With packaging)

Controller	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, Max. 25.2 W

4G Solar-powered Security Camera Kit

Name	Modular Battery
Model	**B90**
Appearance	
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	<150mΩ
Charging Time	5H/0.2C
Battery Life	More than 500 cycles
Operating Temperature	Charge: -20~45℃ Discharge: -20~60℃
Operating Humidity	30% ~ 90%
Storage Temperature	0~45℃
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

Note: the "Battery" label spans the rows from Battery Type through Dimensions.

4G Solar-powered Security Camera Kit

| Name	Solar Panel Modules		
Model	**S90**		
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 -ηm (%)	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	

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

Structure Diagrams

Mounting Interface

Lens

IR LEDs

Reset

WiFi

SIM Card

SD Card

ON/OFF

Audio In *1 & Audio Out *1

Alarm In *1 & Alarm Out *1
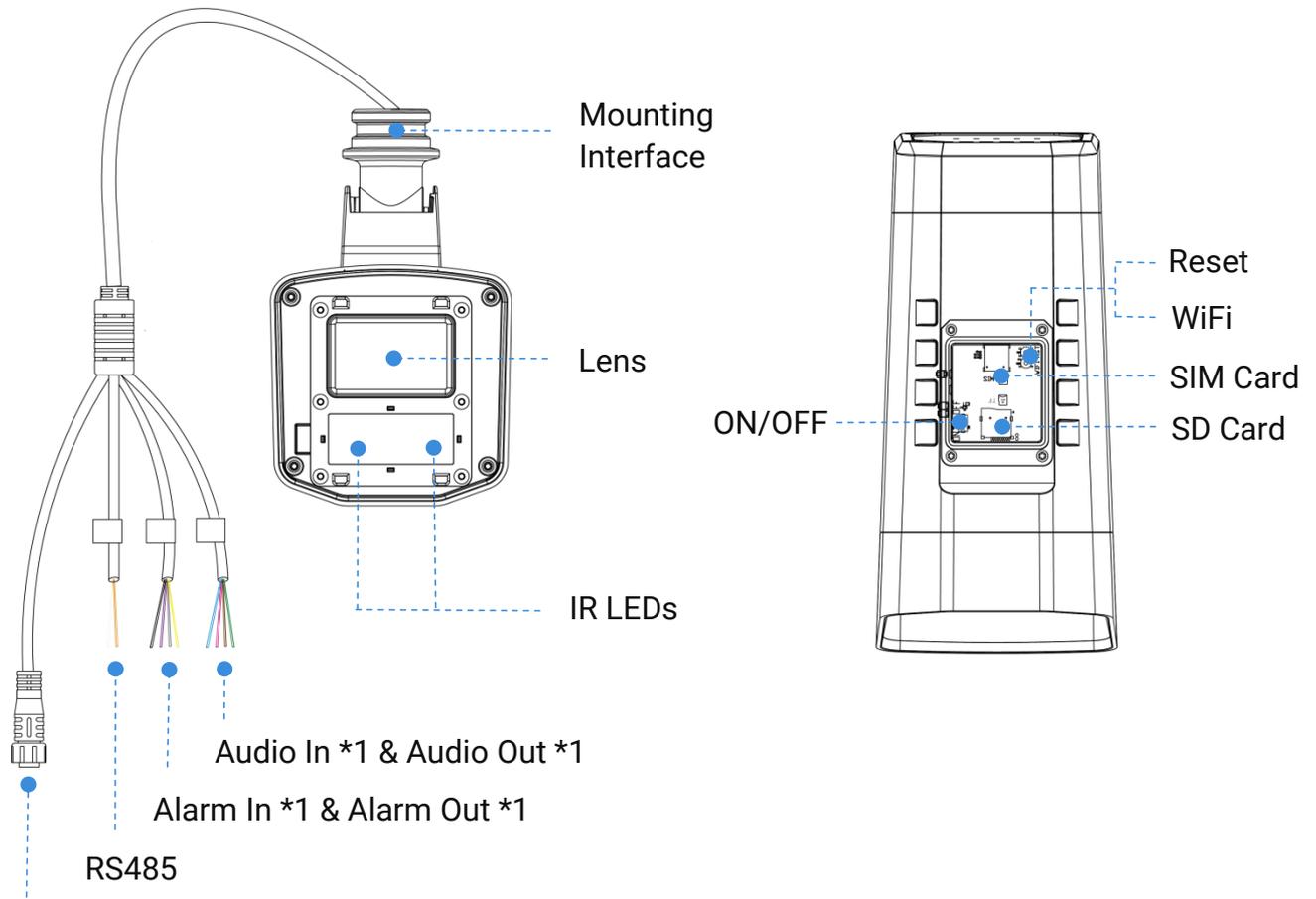
RS485

Power Supply
(used for power supply and RS485 battery information communication with the battery system)
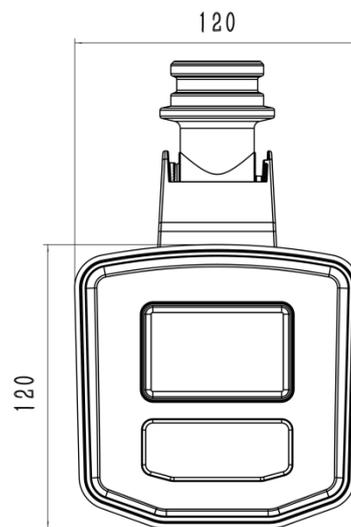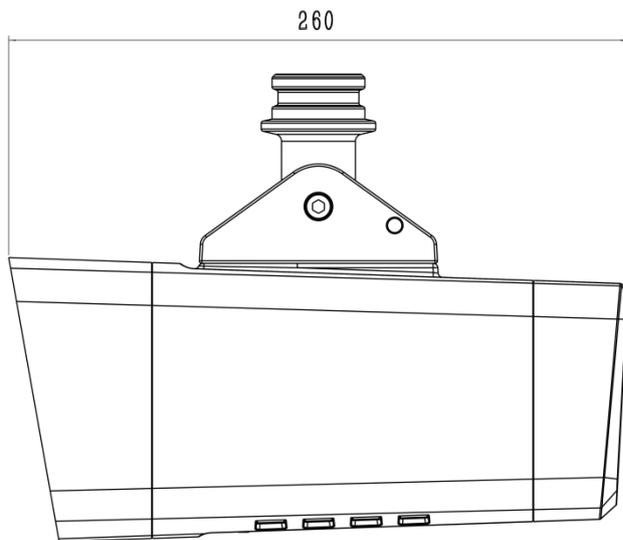
260

120

120

Units: mm

Battery Interface

DC 12V Output Interface

Camera Interface

Camera Adapter Input Interface

Solar Panel Input Interface

BAT6
BAT5
OUT2 BAT4
OUT1 BAT3
SOLAR2 BAT2
SOLAR1 BAT1

1048

592

1150

Units: mm

Pole Mount
for the Kit

Solar Panel
(Optional selection of 1
or 2 solar panels)

(The SA02 can be used here to add
an additional camera)

Battery
Compartment
(Optional selection of 4
to 6 batteries)
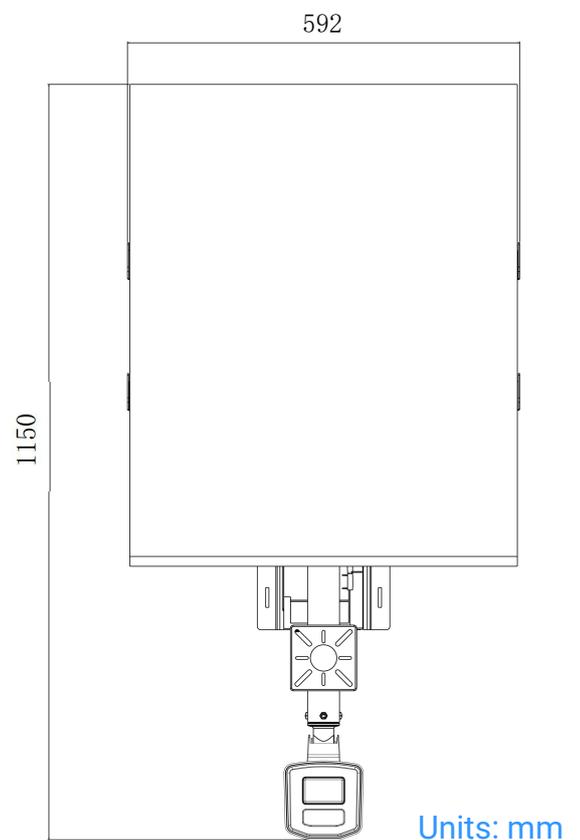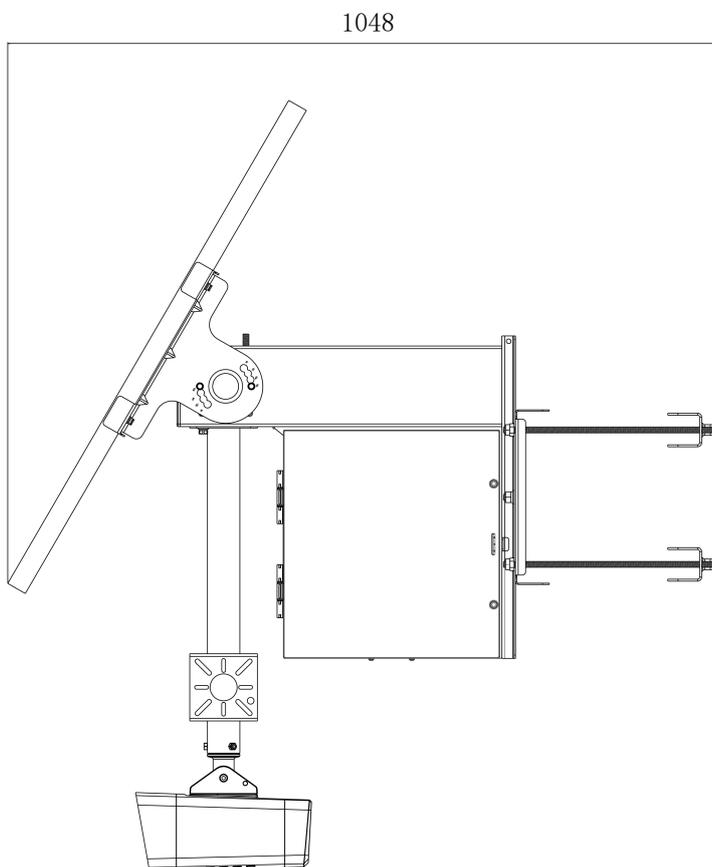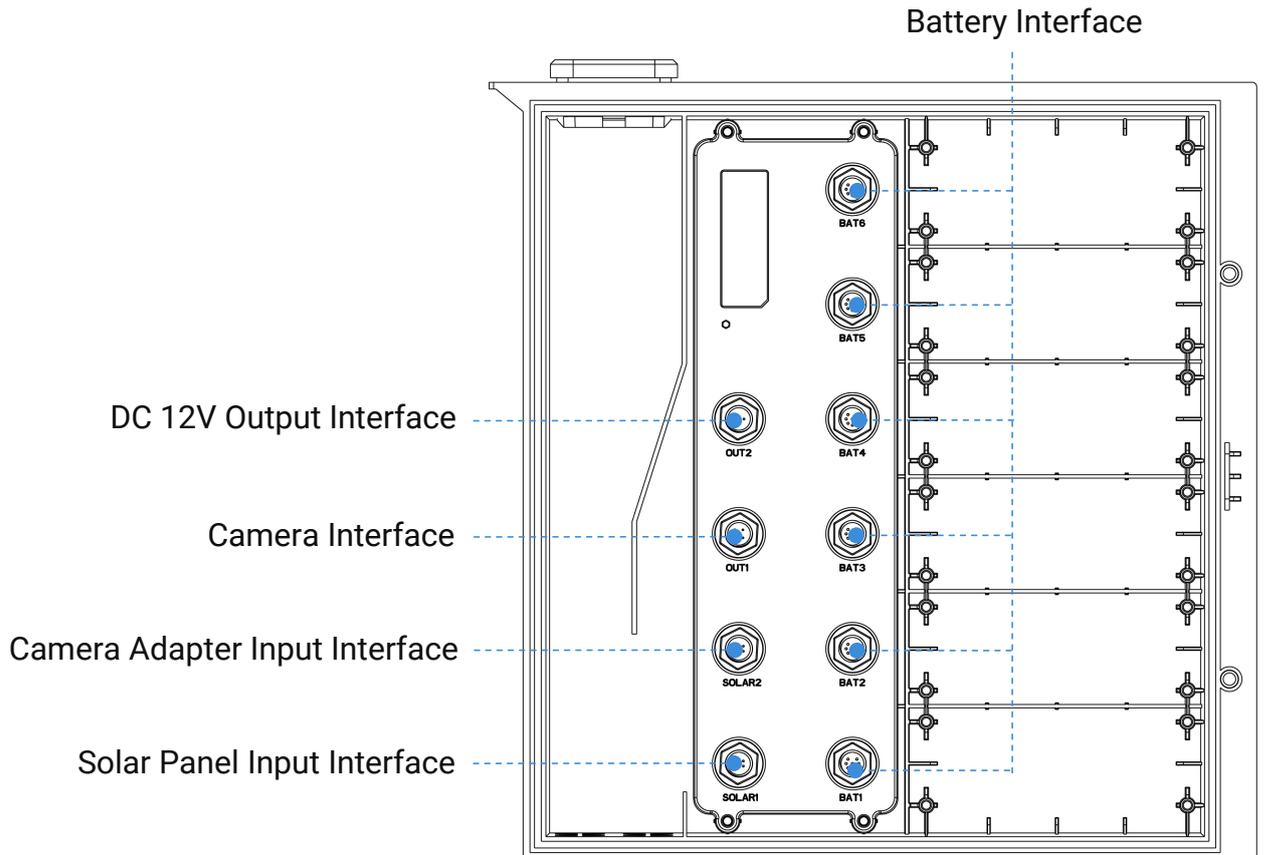
Camera
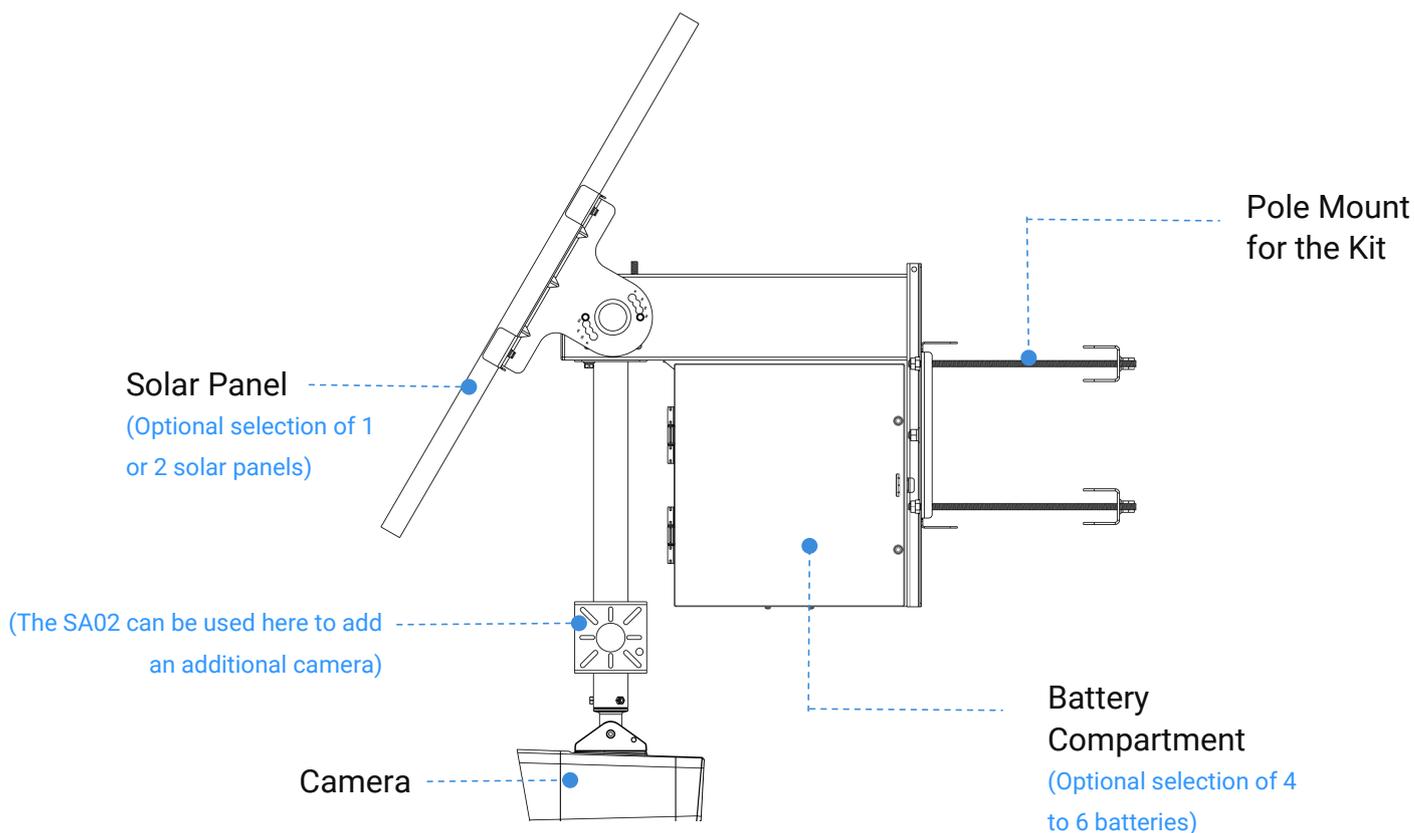
Accessories Support

B90 Modular Battery
Weight: 730g
Dimensions:
125*48*95 mm

S90 Solar Panel
Weight: 5.25kg
Dimensions:
585*830*30 mm