Milesight

4G Solar-powered Varifocal Security Camera Kit

Applicable Solution:
S100B96 (or S100B55)
+ SP112 Camera+ SA02+ A02

AI 4G Solar-Powered 1TB Storage



Battery pack is available

KEY FEATURES

Nano SIM + eSIM + Solar-powered Flexible Deployment
Deploy anywhere without power lines, fixed networks, or complex cabling. Featuring global 4G LTE connectivity, support for Nano SIM and embedded eSIM, and flexible solar kits, camera enables rapid deployment in remote, temporary, and infrastructure-critical locations.

Smarter Power Consumption, Longer Operation
Multiple operating modes — including Performance, Power Saving, AOV, and Standby — balance performance and endurance for different scenarios.
Powered by intelligent low-power technology, camera delivers up to 57 days of operation in AOV mode and over 290 days of standby time with recommended battery configurations.

Advanced AI for Smarter Site Protection
Supports intelligent video analytics including **Intrusion Detection, Line Crossing, Object Left, Object Counting, Advanced Motion Detection, and PPE Detection,** helping improve worker safety and asset protection in dynamic environments.

One Camera, Multiple Scenarios
The motorized varifocal lens enables flexible viewing angles and precise target capture across changing environments. From construction sites and farms to road traffic and parking management, one device adapts to evolving monitoring requirements.

4G Solar-powered Varifocal Security Camera



Name		4G Solar-powered Varifocal Security Camera (4MP)
Model		**SP112** **/42**
Camera	Image Sensor	1/1.8″ Progressive Scan CMOS
	Min. Illumination	Color: 0.0008Lux@F1.2 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 30 m
	S/N	>55dB
	DORI	D: 69.3-149m / O: 27.3-58.7m / R: 13.6-29.3m / I: 14.7-16.82m
	SVCPDOO	O (Recognize): W:67.4, T:160.1; O (Observe): W:33.7, T:80.1; D (Detect): W:16.9, T:40.0; P (Process): W:10.8, T:25.6; C (Classify): W:5.4, T:12.8; V (View): W:2.7, T:6.4; S (Signal): W:0.9, T:2.1
Lens	Lens	Motorized 2.8mm~12mm@F1.2
	Mount	Φ16
	Camera Angle Adjustment	Pan: 0° ~ 360° ; Tilt: -35° ~ 70°
	Field of View	H:107.3°-47.8°; V:57.3°-27°; D:124.9°-54.9°
	Close Focus Distance	0.5m
	Focus Control	Auto / Manual
	Aperture	F1.2
	Iris Type	fixed
Video	Max. Image Resolution	4MP (2688*1520)
	Primary Stream	Performance Mode: 60Hz: max 30fps@(2688*1520, 2304*1296, 1920*1080, 1280*720) 50Hz: max 25fps@(2688*1520, 2304*1296, 1920*1080, 1280*720) Power Saving Mode/AOV Mode/Standy Mode: 60Hz: max 15fps@(2688*1520, 2304*1296, 1920*1080, 1280*720) 50Hz: max 12fps@(2688*1520, 2304*1296, 1920*1080, 1280*720)
	Secondary Stream	Performance Mode: 60Hz: max 30fps@(1280*720, 704*576, 640*480) 50Hz: max 25fps@(1280*720, 704*576, 640*480) Power Saving Mode/AOV Mode/Standy Mode: 60Hz: max 15fps@(1280*720, 704*576, 640*480) 50Hz: max 12fps@(1280*720, 704*576, 640*480)

4G Solar-powered Varifocal Security Camera



Video	Video Compression	H.265+/H.265(HEVC)/H.264+/H.264
	Video Bit Rate	16Kbps~8Mbps(CBR/VBR Adjustable)
	Privacy Masking	Up to 8 Areas (Mask Area and Mosaic Area are optional)
	ROI	Up to 8 areas
	Image Setting	Brightness/Contrast/Saturation/Sharpness
	Image Rotation	Off, Rotating 180°, Flip Horizontal, Flip Vertical, Clockwise 90°, Anticlockwise 90°
	Image Enhancement	BLC, HLC, 2D DNR, 3D DNR, AGC, Defog, AWB, Deblur, Anti-flicker, LDC, EIS
	Hybrid Zoom	Up to 32X
	Web Access	WiFi/VPN/Milesight P2P Tunnel/RJ45
Audio	Audio Compression	G.711/AAC/G.722/G.726
	Audio Sampling Rate	8/16/32/44.1/48KHz
	Audio Bit Rate	16~256kbps
Interface	Alarm I/O	Input *1, Output *1
	Audio I/O	Input *1, Output *1
	Ethernet	1*RJ45 10M/100M Ethernet Port
	RS485	2
Network	WLAN	802.11n/802.11g Note: Up to 80 m in Wi-Fi STA mode and up to 30 m in Wi-Fi AP mode.
	Cellular	LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66 LTE-TDD: B38/B39/B40/B41 UMTS: B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8
	SIM Card	Nano SIM
	eSIM	Support Note: Cannot be used simultaneously with physical SIM.
	Protocol	VPN(General VPN/Milesight VPN/Wireguard VPN/IPSec VPN/Tailscale VPN), Milesight P2P Tunnel, IPv4/IPv6, ARP, TCP, UDP, RTCP, RTP, RTSP, RTMP, HTTP, HTTPS, DHCP, FTP, NTP, SMTP, SNMP, SIP, QoS, IGMP, ICMP, TLS 1.2, TLS 1.3
Intelligent Analytics	Object Counting & Report	Count the number of objects crossing the line, optionally human/vehicle/e-scooter/bicycle. Support regional people counting for up to 2 detection areas.
	Video Analysis	Intrusion Detection, Advanced Motion Detection, Line Crossing, Object Left, Tamper Detection
	PPE Detection	Match/Mismatch Modes; Supports Hard Hat & Hi-Vis Vest

4G Solar-powered Varifocal Security Camera



System	Work Mode	Performance Mode: Ensures optimal video image quality and AI algorithm effectiveness. Power Saving Mode: Adjusts video image quality, frame rate, bitrate, and other parameters to save power. AOV Mode: Supports detecting moving targets Only; the frame rate lowers when no target is detected and increases when a target is detected. Standby Mode: Support remote wake-up and timing snapshot tasks only.
	Wake Up Method	Call, MQTT or TCP
	GPS	Built-in High-accuracy GPS Module
	Storage	Support microSD/SDHC/SDXC card local storage (up to 1TB) with secure encryption support.
	Event Trigger	Intelligent Analytics, External Input, etc.
	Event Action	HTTP Post, FTP Upload, SMTP Upload, SD Card Record, External Output, Snapshot, Play Audio, Alarm to SIP Phone, etc.
	System Compatibility	ONVIF Profile G & M & S & T, API
General	Working Temperature	-40 °C to 60 °C (-40° F to 140° F)
	Working Humidity	0~95% (Non-condensing)
	Power Supply	DC 12V±10%
	Power Consumption	Performance Mode: 2.46W Power Saving Mode: 2.01W AOV Mode: 0.53W Standby Mode: 0.03W *Note: Minimum power consumption in each mode.*
	Power Manager	Supports power consumption reporting and data export.
	Surge Protection	4KV
	Weather Proof	Up to IP67-rated for Weather-resistant Performance
	Camera Dimensions	120*120*260 mm
	Weight	2.31kg
Certifications	EMC	CE-EMC (EN 55032, EN 55035), FCC (PART 15B), RCM (AS/NZS CISPR 32:2015+A1:2020)
	RF	CE-RED (EN 301 489-1, EN 301 489-17, EN 301 489-19, EN 301 489-52, EN 301 908-1, EN 301 908-3, EN 301 908-13, EN 301 511, EN 303 413, EN 300 328, EN 50663, EN 62479) FCC (PART 15.247) RCM (AS/CA S042.1, AS/CA S042.4, AS/NZS 2772.2) TELEC (Radio Law Article 2(1)(19), MIC Notice No. 99)
	Safety	CE-LVD (EN IEC 62368-1), RCM (AS/NZS 62368)
	Telecom	JATE (Terminal Facilities Ordinance No. 31/1985, Article 4(2), MIC Notice No. 147, ISO/IEC 8802-3 [Clauses 14/25/40])
	Environment	CE-RoHS (Directive (EU) 2015/863 amending 2011/65/EU);IP67 (IEC 60529)

4G Solar-powered Varifocal Security Camera



Name		S100 Solar Power System	
Model		**S100B55**	**S100B96**
Appearance			
Solar Panel Modules in Kit		**Default: 1 units; Optional: 2 units**	
Charge	PV Power	100W	
	PV Input Voltage	18V	
	Material	Monocrystalline silicon	
Energy Storage	Battery Type	NMC	
	Battery Capacity	50AH	90AH
	Total Energy	555Wh	962Wh
	Battery Life	Performance Mode:67 days Power Saving Mode: 7.8 days AOV mode: 32.8 days Standby Mode: 168 days	Performance Mode: 10 days Power Saving Mode: 13.5 days AOV mode: 57 days Standby Mode: 290 days
	Deep Cycles	＞1000	
	Nominal Voltage	11.1V	
Discharge	Output Voltage	9~12.6V DC	
	Maximum Output Current	10A	
	Discharge Depth	95%DOD	
Function	Battery Heating	Charging current > 2A and lower than -5℃ turns on	
	Protection Type	Overcurrent/ Overvoltage/ Short Circuit/ Undervoltage/ Temperature	
	Charging Temperature Range	0℃~60℃	
	Discharging Temperature Range	-20℃~65℃	
	Status Indicator	LED (charging status, battery status, output status)	
Interface	Communication	RS485	
	Output Method	M14 5-pin Connector	
	Output Line Length	1.5m	

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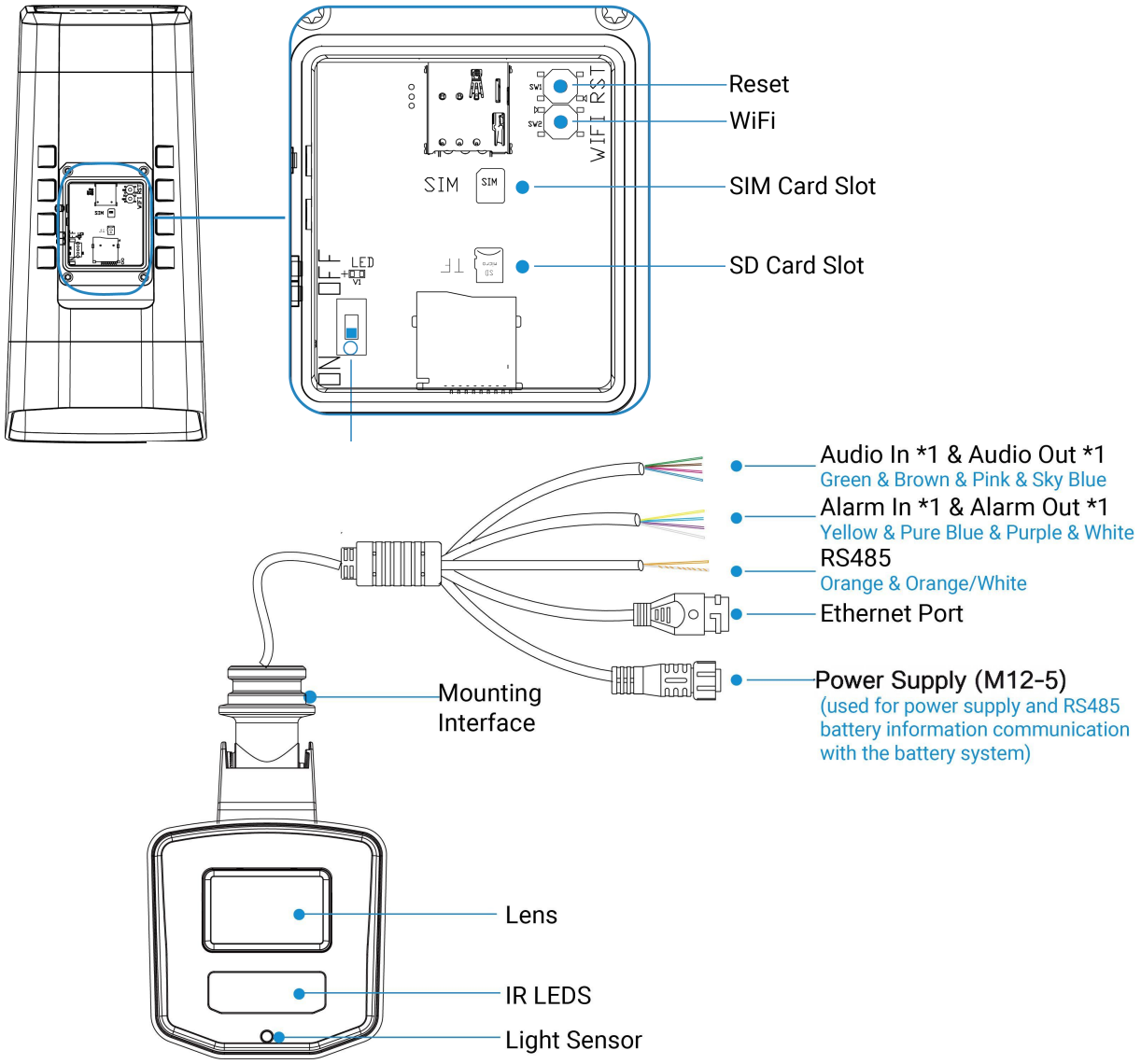


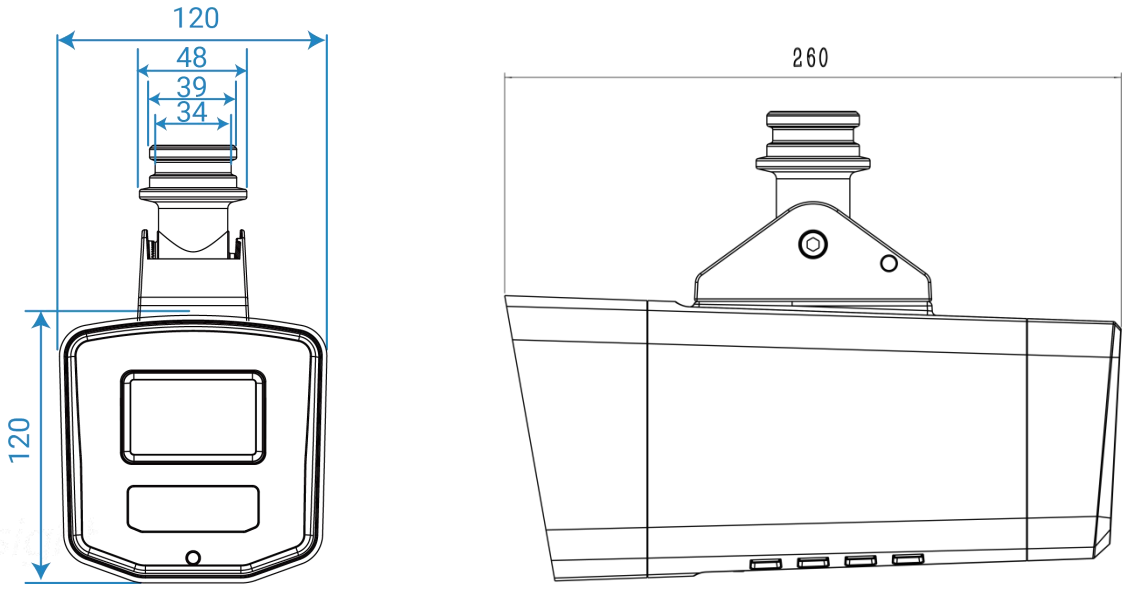
Interface	Supported Cables	Dual Device Power Splitter Cable (M14 -> M14*2) Bridge Data & Power Cable (M14 -> RS485 & DC Output) Main Power Cable (M14 -> M12)	
General Parameters	Waterproof	IP66	
	Humidity Range	4-100% (no condensation)	
	Cooling Method	Natural Heat Dissipation	
	Hazardous Material Classification	9	
	Shell Material	Galvanized Steel + Plastic	
	Fixed Way	Hanging Rod / Wall Mounting	
	Product Dimensions	765*630*69 mm 825*690*105 mm (with Package)	765*630*112.5 mm 825*690*140 mm (with Package)
	Weight	13kg	16kg
	Warranty	2 years	
	Certificate	UN38.3/MSDS/CE/ROHS	

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Structure Diagrams

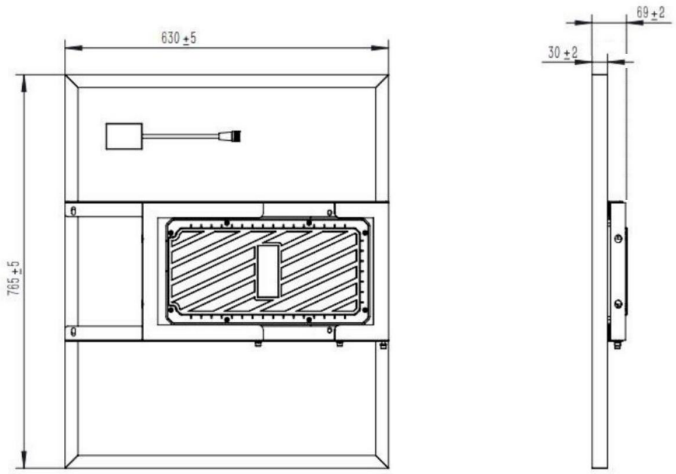




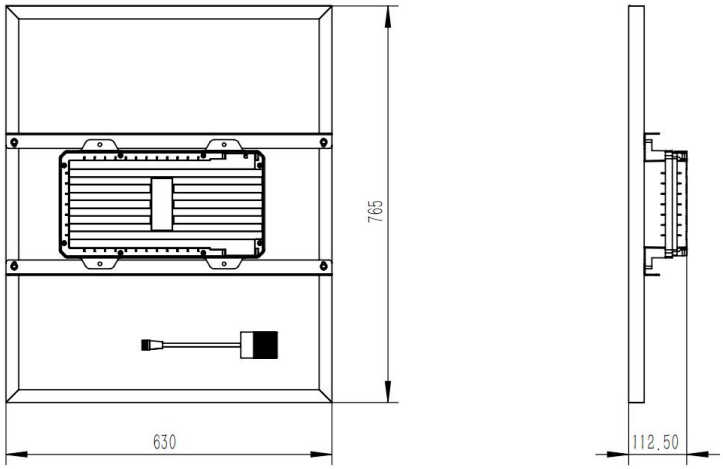
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S100B55
Weight: 13kg
Dimensions:
765*630*69 mm
825*690*105 mm
(with Package)

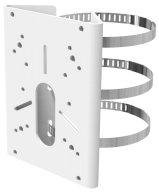


S100B96
Weight: 16kg
Dimensions:
765*630*112.5 mm
825*690*140 mm
(with Package)



Accessories Support

A02 V2 Pole Mount
Weight: 1kg
Dimensions:
180*136*46 mm



+

SA02 Wall Mount
Weight: 2.2kg
Dimensions:
150*260*400 mm



S100 Expansion Module



Solar Power System Bracket
Model: BJ-N
Weight: 3.5kg
Dimensions: 220*217.5*30 mm



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