



SL60 is an all-in-one smart solar station that integrates router, PoE, solar, battery, edge control functions. The system is mainly designed for a variety of scenarios such as video surveillance, outdoor Wi-Fi, remote site coverage, energy network control, industrial network control, smart city, environmental detection, smart agriculture, etc. In conjunction with the industrial sensor, a more comprehensive one-stop solution can be achieved. The node has a built-in programmable core, which can implement control, monitoring and management functions required by various deployment scenarios.

General Specifications

- IP65 Waterproof Enclosure
- Operating Temperature: -10°C ~ +60°C
- Working Humidity: 10% ~ 95% non-condensing
- Surge Protection of Power In: 10KA
- Optional Industrial / Environmental Sensor
- Optional RS485/RS232/DI/DO
- Industrial PoE Router Embedded
- 1*1000Base-T WAN Port
- 3*1000Base-T LAN Ports
- PoE ports support 802.3bt/at
- 1* Passive PoE LAN port
- MPPT Solar Controller 1000W max.
- Integrated 55Ah (2640Wh) Lithium Battery



Designed for Industrial Sensor

The system is designed for outdoor access scenario. The programmable core can easily access various Industrial and environmental sensors. Through the software end is configured to quickly realize scenario-based deployment.



Rich Interface for Outdoor Scenario

The system supports various interfaces for outdoor use and can provide a one-stop solution for outdoor environmental sensor deployment. Use RS485 to connect to other devices via Modbus. At the same time, the station can provide various types of power for external devices according to the scenario.



Solar Power and Battery Backup

The smart solar station has built-in an industrial grade MPPT solar controller designed for outdoor high temperature environments. Its small form factor design with natural heat dissipation can make the entire system compact and easy to deploy. It connects to battery unit providing power for outdoor Wi-Fi system. The solar controller and battery are fully monitored and managed by the software system.



POE++

The smart solar station has a built-in industrial grade POE router to meet the challenges under high temperature working environment. The PoE Router module supports 802.3at and 802.3bt standards. The software platform can also remotely control the opening, closing, and restarting of the PoE port to remotely restart the PoE power-consuming equipment.



System Management and Monitoring

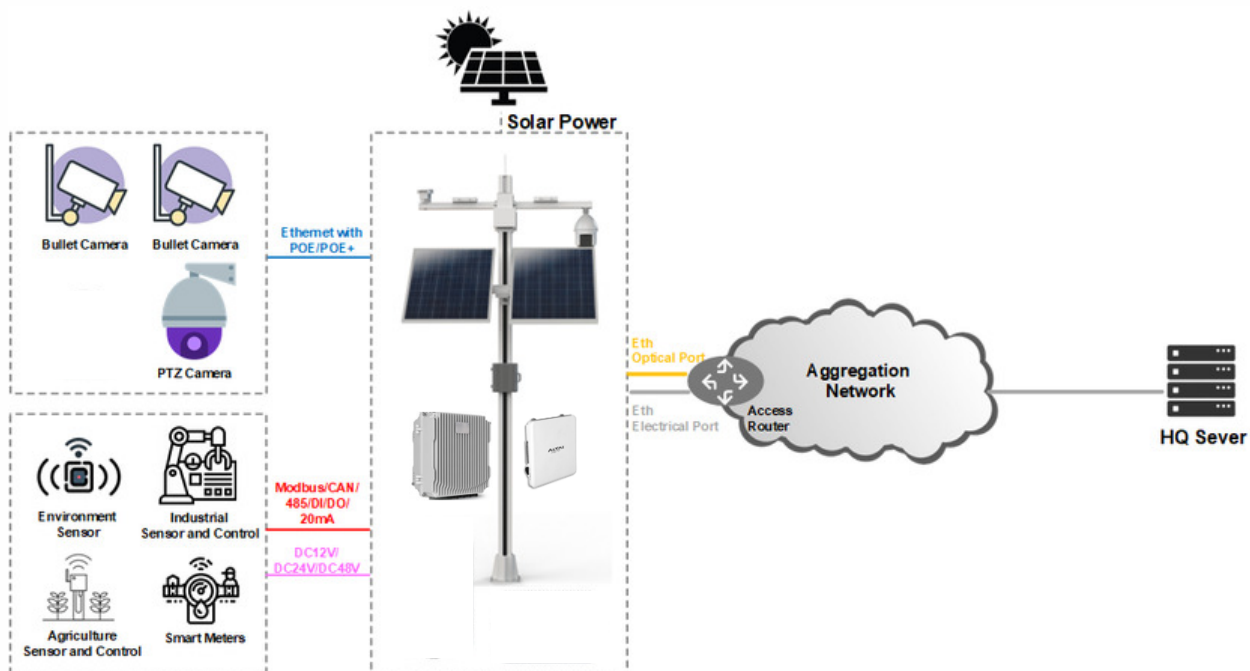
The system has comprehensive monitoring and management features, and can be remotely monitored and managed through software platform, depending on the project requirements.



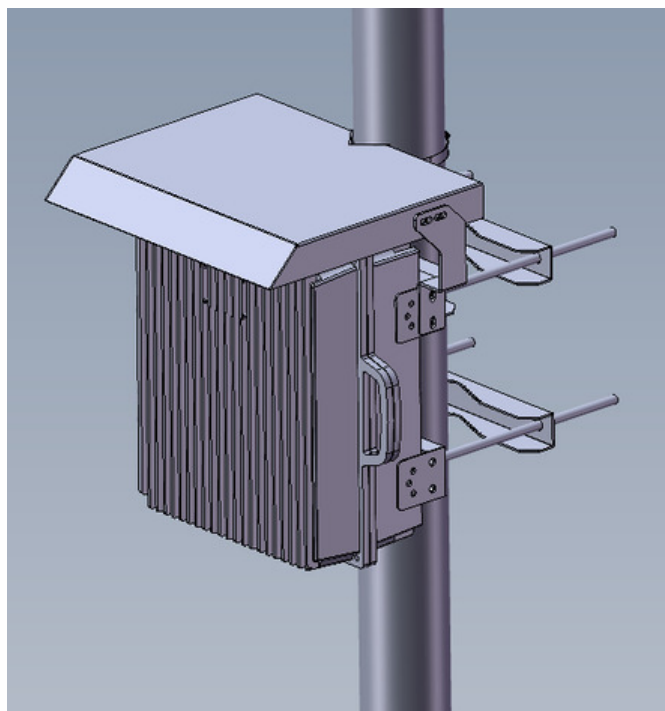
Pre-Integration for Plug and Play

Completely revolutionize the installation mode of outdoor power solution. Highly integrated networking, solar power, battery into an all-in-one system. Fully integrated solution makes deployment so easy.

Use Cases



Main Features

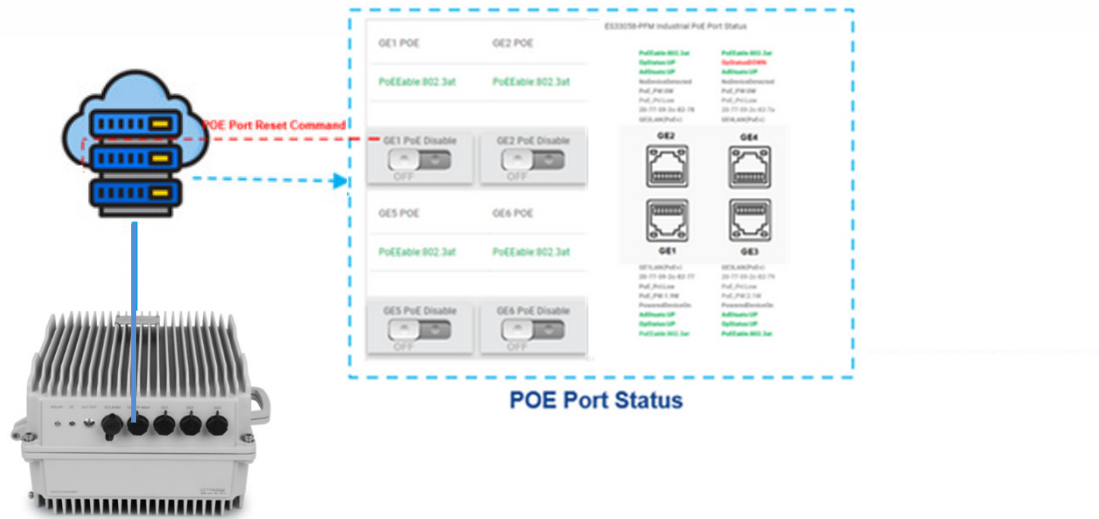


Sunshade Designed for High Temperature Environment

The Smart Solar Station is equipped with sunshade to reduce heating effect due to direct sunlight.

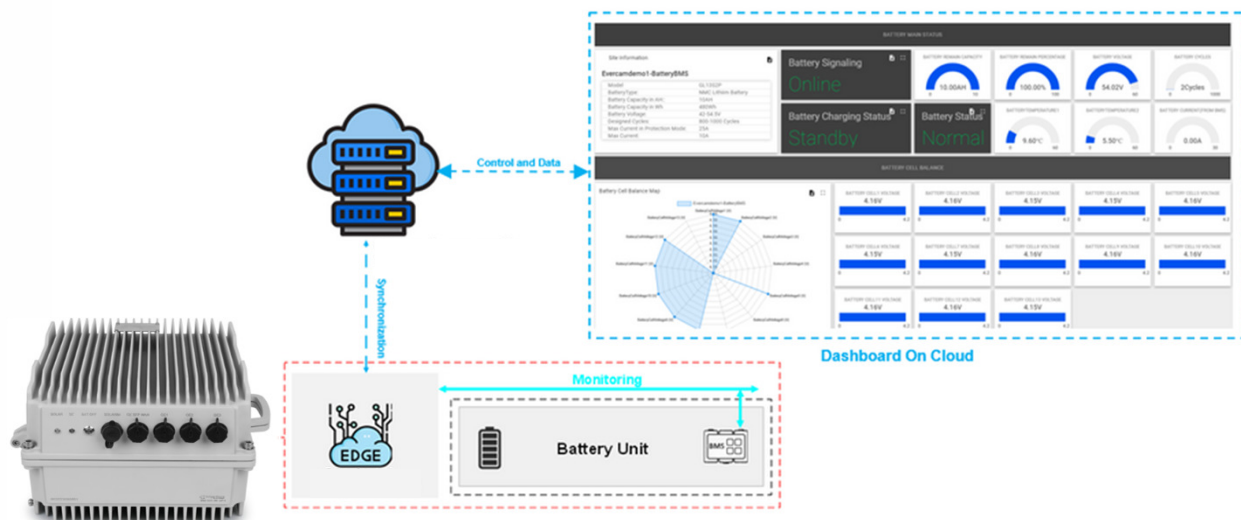
SL60 Smart Solar Station

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POE Remote Control

The PoE ports can be remotely monitored and controlled. PoE powered device (e.g., surveillance camera) can be remotely power ON/OFF.



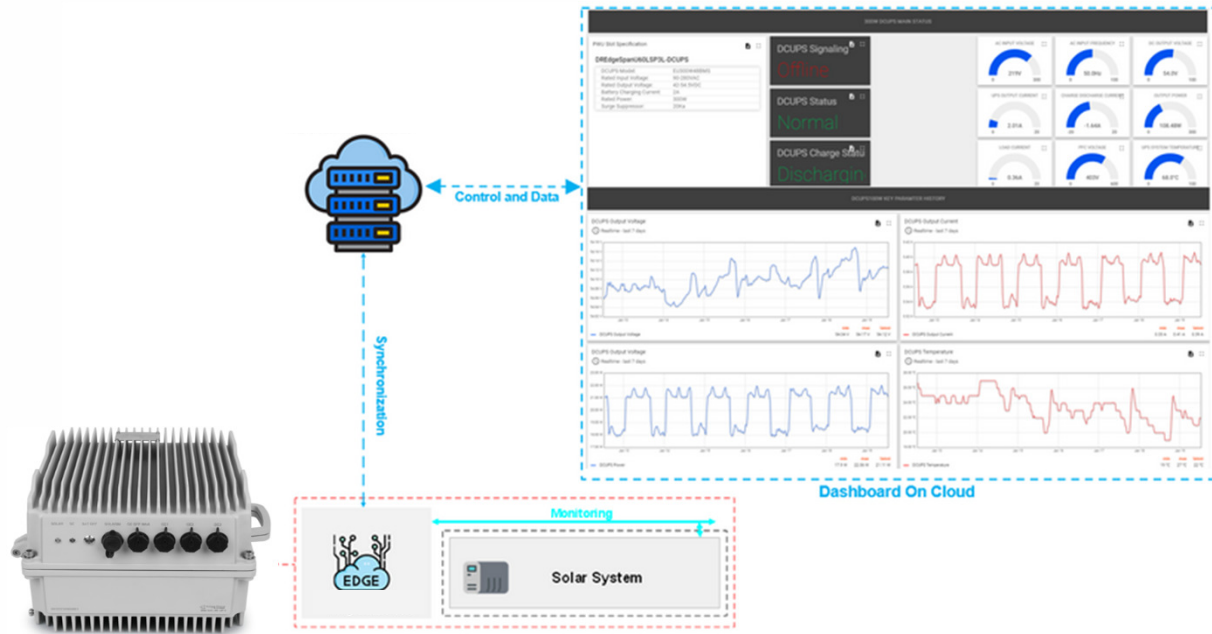
Battery Management System

The status of the battery are also very important for the operation of system, especially when there are a large number of sites to be managed. The built-in BMS can provide various information such as battery voltage, current, power, number of charging cycles, single cell voltage, cell voltage balance, etc. thus helping to understand its operation status through software platform at remote maintenance center.

SL60 Smart Solar Station

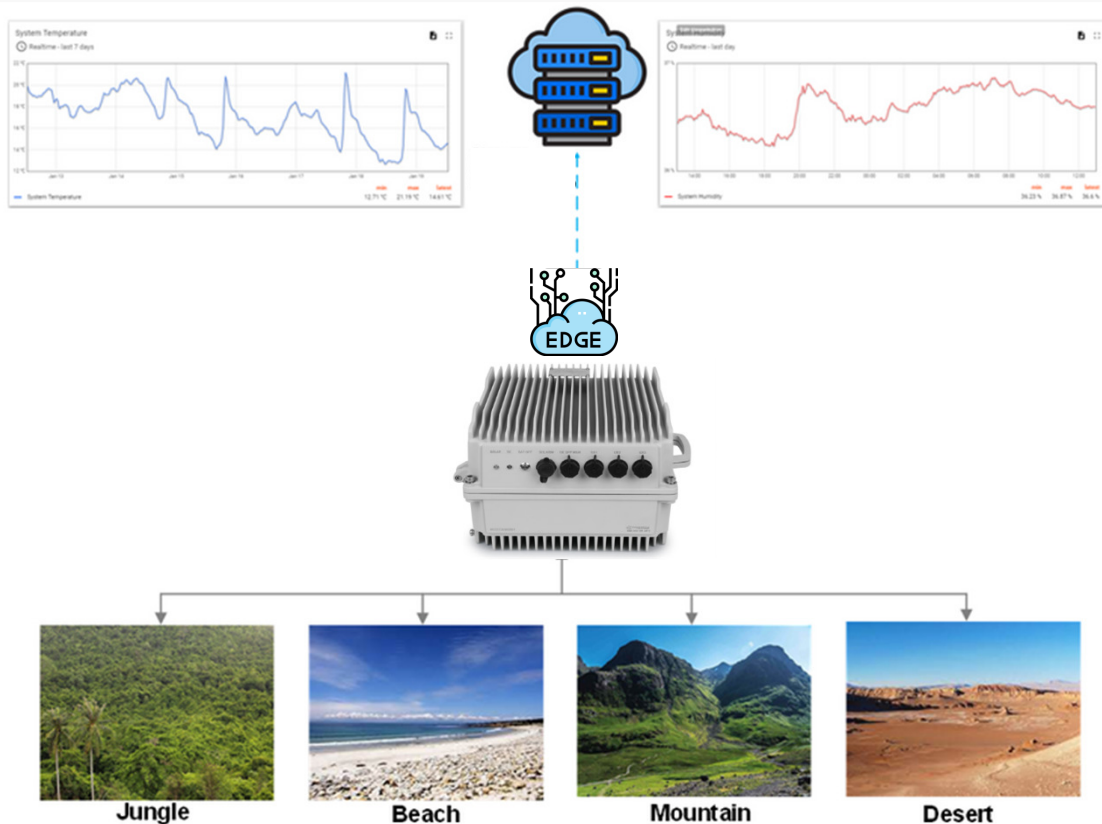
Data Sheet | SD.SL60-0000-EW

ALTAI
Super WiFi



Solar Controller State Monitoring

As the core component of edge site, remote monitoring and early warning of solar controller working status is very important. The system has a built-in control unit, which can monitor the solar controller status such as solar panel input current, operating power, solar controller temperature, output power, battery voltage, battery current. Operation status can be monitored in real time as well as retrieving historical information.



	General Specification
	SL60
Altai AP Model	A8n(ac), A8-Ein(ac) AX600-S, AX600-X A660-S, A660-X C260-S, C260-X
PoE	WAN: 802.3bt/at 60W max. LAN1: Passive PoE 60W max. LAN2: 802.3bt/at 60W max. LAN3: 802.3at 30W max.
Router Module	Industrial PoE Router
Ethernet Port	4*10/100/1000Base-T RJ45 ports
RS485	Can be configured according to scenario requirement
DI/DO	Can be configured according to scenario requirement
Operating Temperature	-10°C ~ +60°C
Humidity	10 % to 95 % non-condensing
System Surge Protection	Power Input Surge Protection:10KA Ethernet Port Surge Protection: 6kV
Solar panel Output Power	440W max.
Solar panel Dimensions	Approx. 1800 x 1200 x 30 mm
Solar Controller Input Voltage	24-50VDC Rated Voltage Input: 36VDC
Solar Controller Max Input Current	20A
Solar Controller Type	MPPT
Solar Controller Input Capacity	1000W max.
Weatherproof	IP65
Dimension	351mm * 214mm * 355mm (W*D*H)
Weight	22kg

	Battery Specification
Model	SL60
Battery Capacity	2640Wh
Battery Life	A8n(ac) or A8-Ein(ac) : up to 55 hours A8n(ac) + 2* AX600-S/-X : up to 36 hours AX600-S or AX600-X : up to 110 hours A660-S or A600-X : up to 110 hours 2* AX600-S or 2* AX600-X : up to 69 hours
Battery Management	BMS Module Included
Continuous Charging and Discharging Current	10A max.
Battery Working Temperature	Charging: -10°C - 55°C Discharging: -30 - 65°C
Temperature Sensor	Built-in
Battery Protection	Battery Cell Overvoltage Protection, Battery Cell Undervoltage Protection, Charge Over-current Protection, Discharge Over-current Protection, Short-Circuit Protection, Over-temperature Protection

	Networking Features
Networking	
Routing	Static routing, Dynamic routing (OSPF v2)
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSL v3, TLS, ARP, VRRP, PPP, PPPoE, UPnP, SSH, DHCP, Telnet client, SNMP, MQTT, Wake On Lan (WOL)
Connection Monitoring	TCP-Ping Reboot, Periodic Reboot, LCP and ICMP for link inspection
DHCP	Static and dynamic IP allocation, DHCP Relay
Network Backup	WAN and Mobile back up, can be one as main one as backup.
VPN	
OpenVPN	Multiple clients and server can be running simultaneously, 12 encryption methods
OpenVPN Encryption	DES-CBC, RC2-CBC, DES-EDE-CBC, DES-EDE3-CBC, DESX-CBC, BF-CBC, RC2-40-CBC, CAST5-CBC, RC2-64-CBC, AES-128-CBC, AES-192-CBC, AES-256-CBC
IPsec	IKEv1, IKEv2, supports up to 4 x VPN IPsec tunnels (instances), with 5 encryption methods (DES, 3DES, AES128, AES192, AES256)
GRE	GRE tunnel
PPTP, L2TP	Client/Server services can run simultaneously
Management	
SSH	SSH (v1, v2)
SNMP	SNMP (v1, v2, v3), SNMP trap

	Product Information
Part No.: SD.SL60-0000-EW	SL60 Smart Solar Station For A8n(ac) series or AX600 series or A660 series or C260 series
Contact us	Email: sales@altaitechnologies.com or info@altaitechnologies.com

DS-SL60-260507-V1.3

The information contained herein is subject to change without prior notice.