# 4 Port Gigabit Smart Managed Industrial Solar PoE Switch
# POE-SW402SG

A multi-functional PoE switch specifically designed by LTS for solar power scenarios, offering flexible energy-saving options, enabling remote monitoring of the health status of solar batteries, and providing a variety of voltage input and output choices to adapt to different scenarios.

- 4 x Gigabit PoE Ports, 2 × Gigabit SFP
- Support 802.3bt Hi-PoE, Max. 90 W for one port
- Support 24 V passive PoE output for wireless bridge, etc.
- Support 12 V to 24 V solar power input, DC 54 V input
- Wider Temperature (-40 °C to 75 °C) Design
- Support battery health monitoring via LTS Platinum Partner and LTS Connect
- Support power consumption schedule
- 6 kV Surge Protection

## ▪ Specification

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|---|---|
| **General** | |
| Net Weight | 1.54 lb (0.7 kg) |
| Gross Weight | 2.56 lb (1.16 kg) |
| Dimensions (W × H × D) | 6.22'' × 1.73'' × 5.12'' (158.00 mm × 44.00 mm × 130.00 mm) |
| Operating Temperature | -40 °C to 75 °C (-40 °F to 167 °F) |
| Storage Temperature | -40 °C to 85 °C (-40 °F to 185 °F) |
| Operating Humidity | 5% to 95% (no condensation) |
| Relative Humidity | 5% to 95% (no condensation) |
| Power Supply | 12 VDC, 10 A or 24 VDC, 5 A; 54 V 2.22 A |
| Installation Mode | Desk-Mounted,Rail,Wall-Mounted |
| Max. Power Consumption | 120 W |
| Power Consumption in Idle | 2 W |
| Surge Protection | 6 kV |
| Shell | Metal material, IP30 |
| **Network Parameters** | |
| Ports | 4 × Gigabit PoE port,2 × Gigabit fiber optical port,1 x RS485 port |
| MAC Address Table | 2 K |
| Switching Capacity | Whole-Device Performance: 14 Gbps<br>Port Performance: 12 Gbps |
| Packet Forwarding Rate | Whole-Device Performance: 10.42 Mpps<br>Port Performance: 8.93 Mpps |
| Internal Cache | 1 Mbits |
| **PoE Power Supply** | |
| PoE Standard | Port 1: IEEE 802.3af, IEEE 802.3at, IEEE 802.3bt<br>Ports 2 to 4: IEEE 802.3af, IEEE 802.3at<br>Ports 3 to 4: support passive PoE, 24 V or 54 V output depending on DIP switch settings |
| PoE Power Pin | Port 1: 8-pin power: 1/2(-), 3/6(+), 4/5(+), 7/8(-)<br>Port 2: End-span: 1/2(-), 3/6(+)<br>Ports 3 to 4: 8-pin power: 1/2(-), 3/6(+), 54 V output ; 4/5(+), 7/8(-), 24 V output |
| PoE Port | Hi-PoE: Port 1<br>PoE: Ports 2 to 4 |
| Max. Port Power | Port 1: 90 W<br>Ports 2 to 4: 30 W |
| PoE Power Budget | DC 54 V input: 110 W<br>DC 12 V~24 V input: 60 W |
| **Software Function** | |
| Long Range | Ports 1 to 4: up to 300 m.<br>Long range performance may vary depend on camera model or cable condition. |
| Port Isolation | Ports 1 to 6: port isolation mode to improve network security<br>Ports in an isolation group cannot communicate with each other, but they can communicate with ports outside the isolation group. |
| PoE Watchdog | Ports 1 to 4: auto detect and restart the cameras that do not respond. |

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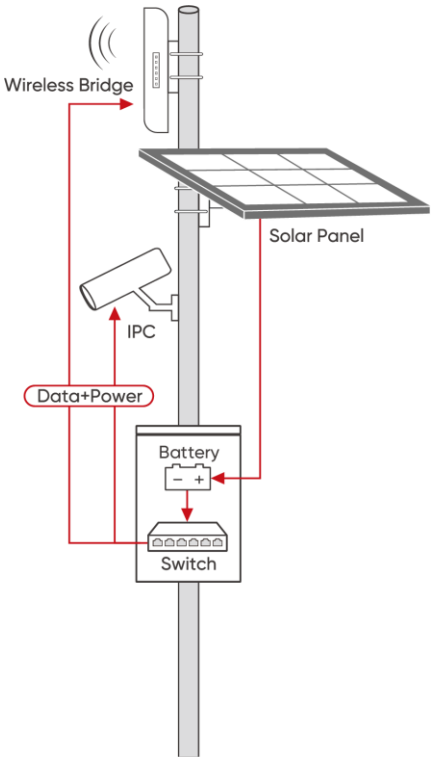
| Link Aggregation | Link aggregation is used to aggregate multiple physical ports to form a logical port for load balancing, bandwidth expansion, and port protection.<br>Support static link aggregation.<br>Support 2 aggregation group(s). |
| Loop Prevention | Loop prevention is used to prevent the switching network from forming loops, which will seriously affect network communication. Disabled by default.<br>Support 802.1D STP.<br>Support 802.1w RSTP.<br>Support G.8032 ERPS. |
| VLAN | VLAN is used for network scale planning and network health improvement.<br>Support 802.1Q.<br>Configurable VLAN ID from 1-4094.<br>Support Trunk, Access port mode.<br>Support Max. 4094 VLAN. |
| LPP | Support one-click activation and remote management via LTS Platinum Partner.<br>Functions supported:<br>1. Display the port rate.<br>2. Display the port bandwidth utilization rate.<br>3. Display the PoE power usage.<br>4. Display topology information.<br>5. Display the alarm status.<br>6. Restart ports and devices.<br>7. Enable port long-rage mode.<br>8. Remotely upgrade the device. |
| System Maintenance | Support device management via web.<br>Support DHCP Client. Enabled by default for dynamic assignment of management IP addresses.<br>Support Super IP, which is a fixed IP address (10.180.190.200) for direct access.<br>Support management via XVMS.<br>Support remote management via LTS Platinum Partner.<br>Support cable detection. Abnormal open circuits and short circuits as well as network cable length can be detected.<br>Support 802.1ab LLDP for peer device discovery.<br>Support port mirroring for fault locating. |
| DHCP Snooping | DHCP Snooping can prevent unauthorized connections to DHCP servers from disrupting the network and affecting normal network communication, and only allow DHCP packets from trusted ports to pass through. Disabled by default. |
| DDM (Digital Diagnostic Monitoring) | Support real-time monitoring of key parameters in optical modules, such as operating temperature, operating voltage, operating current, and Rx and Tx optical power. |
| **Approval** | |
| EMC | CE-EMC (EN 55032: 2015+A11: 2020, EN IEC 61000-3-2: 2019, EN 61000-3-3: 2013+A1: 2019, EN 50130-4: 2011+A1: 2014, EN 55035: 2017+A11: 2020),IC (ICES-003: Issue 7:2020),RCM (AS/NZS CISPR 32: 2015) |
| Safety | CB (AMD1:2009, AMD2:2013, IEC 62368-1: 2014 (Second Edition)), CE-LVD (EN 62368-1: 2014+A11: 2017) |
| Chemistry | CE-RoHS (2011/65/EU),WEEE (2012/19/EU),Reach (Regulation (EC) No.1907/2006) |

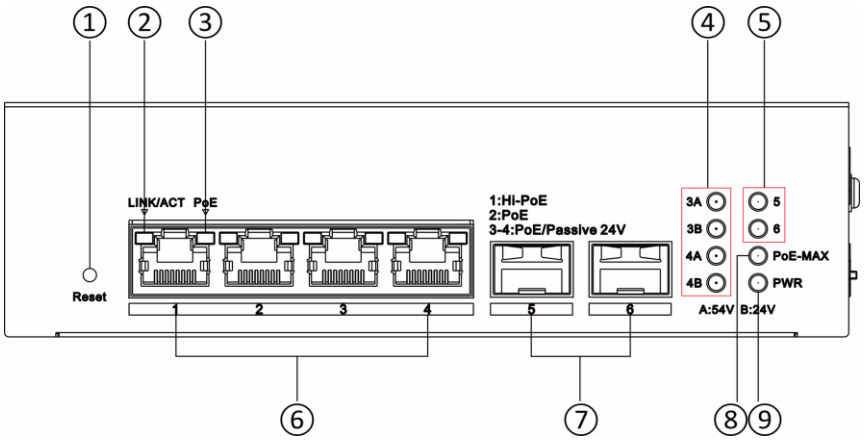
## ▪ Typical Application



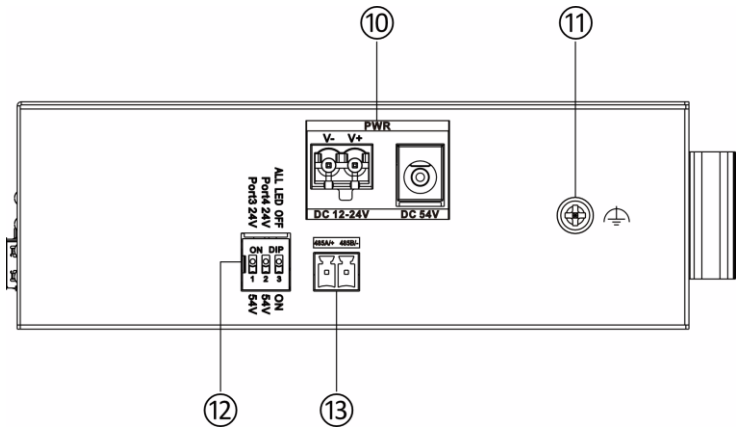

Typical Application

## ▪ Physical Interface

Front Panel




Side Panel




| No. | Indicator/ Port | Description |
|---|---|---|
| ① | Reset Button | Press and hold the reset button for about five seconds to restore all the configurations of the switch to default settings. |
| ② | LINK/ACT Indicator | ● Solid on: The port is connected.<br>● Flashing: The port is transmitting data.<br>● Unlit: The port is disconnected or connection is abnormal. |
| ③ | PoE Indicator | ● Solid on: The switch supplies power to a powered device (PD) normally.<br>● Unlit: The switch is disconnected from a PD or power supply is abnormal. |
| ④ | Function Indicator | 3A:<br>● Solid on: 54 V standard PoE is enabled for port 3.<br>● Unlit: 54 V standard PoE is disabled for port 3.<br>3B:<br>● Solid on: 24 V non-standard PoE is enabled for port 3.<br>● Unlit: 24 V non-standard PoE is disabled for port 3.<br>4A:<br>● Solid on: 54 V standard PoE is enabled for port 4.<br>● Unlit: 54 V standard PoE is disabled for port 4.<br>4B:<br>● Solid on: 24 V non-standard PoE is enabled for port 4.<br>● Unlit: 24 V non-standard PoE is disabled for port 4. |
| ⑤ | Gigabit SFP Fiber Optical Port Indicator | ● Solid on: The gigabit SFP fiber optical port is connected.<br>● Flashing: The gigabit SFP fiber optical port is transmitting data. |

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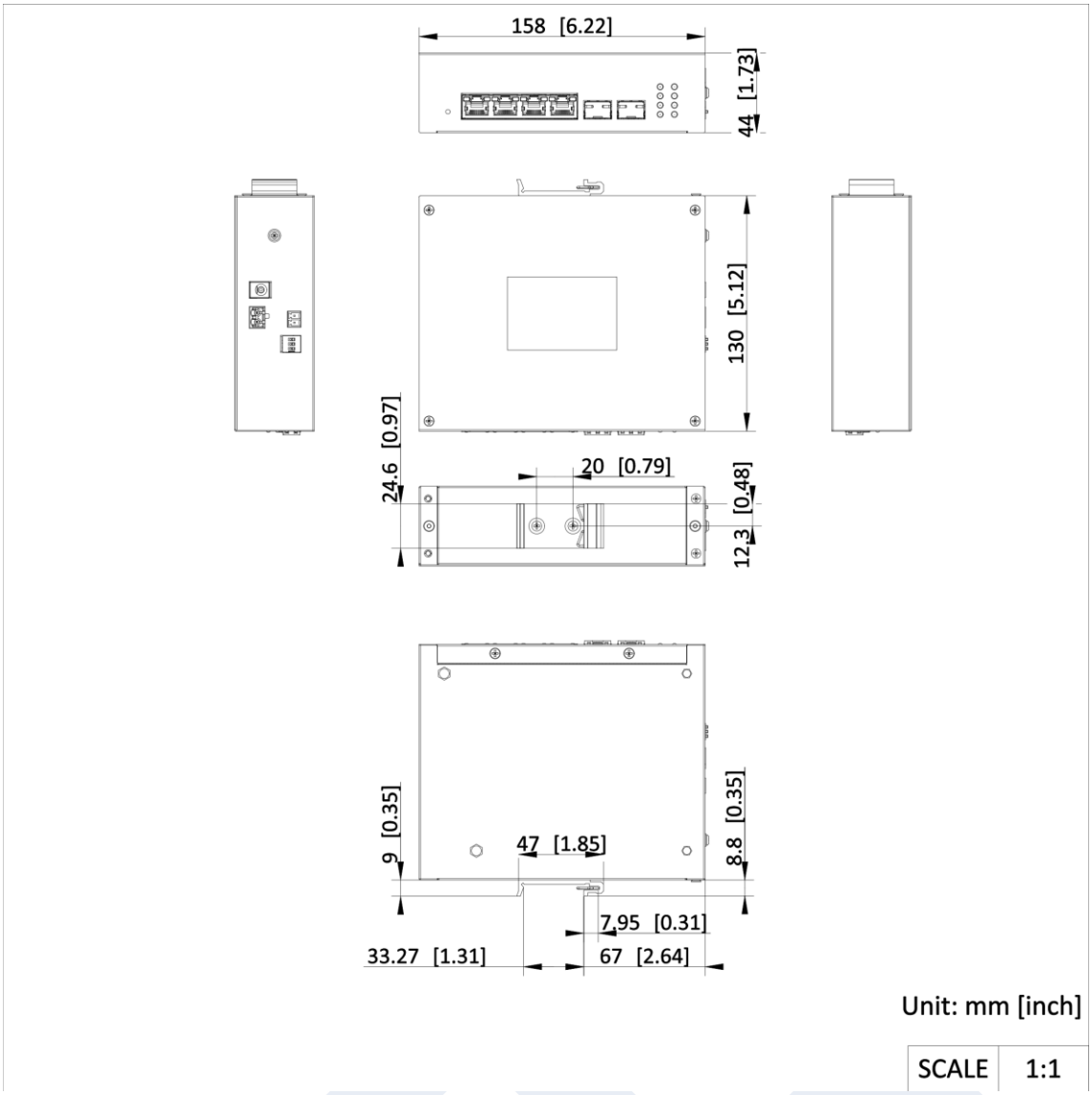
|---|---|---|
| | | • Unlit: No gigabit SFP fiber optical port connected or connection is abnormal. |
| ⑥ | Gigabit PoE RJ45 Port | Used for connection to a PD via a network cable.<br>Note: Port 1 of the switch is a Hi-PoE RJ45 port, which can be connected to a high-power device. |
| ⑦ | Gigabit SFP Fiber Optical Port | Used for connection to another device via an optical fiber when plugged into with an optical module. |
| ⑧ | PoE-MAX Indicator | • Solid on: The output power of the switch is about to reach or has reached the upper limit. The power supply may be abnormal if more devices are connected.<br>• Unlit: The switch supplies power to a PD normally and its output power does not reach the upper limit. |
| ⑨ | PWR Indicator | • Solid on: The switch is powered on normally.<br>• Unlit: No power supply is connected or power supply is abnormal. |
| ⑩ | Power Supply | Select DC 54 V for normal power input or DC 12-24 V for solar power input as required.<br>• DC 54 V: Use a self-prepared power cord and power adapter to connect the switch to a power socket.<br>• DC 12-24 V: Use two self-prepared power cords to connect the DC positive electrode to the battery positive electrode and the DC negative electrode to the battery negative electrode respectively. |
| ⑪ | Grounding Terminal | Used for connection to the grounding cable to protect the switch from lightning. |
| ⑫ | DIP Switch | 1 (24 V/54 V for port 3):<br>• When the DIP switch 1 is set to Port3 24V, port 3 can be compatible with 24 V forced PoE powered devices, such as wireless bridges.<br>• When the DIP switch 1 is set to 54V, port 3 only supplies power to IEEE 802.3af/at PoE powered devices, such as IPCs.<br>2 (24 V/54 V for port 4):<br>• When the DIP switch 2 is set to Port4 24V, port 4 can be compatible with 24 V forced PoE powered devices, such as wireless bridges.<br>• When the DIP switch 2 is set to 54V, port 4 only supplies power to IEEE 802.3af/at PoE powered devices, such as IPCs.<br>3 (All indicators off/on):<br>• When the DIP switch 3 is set to ALL LED OFF, all indicators on the switch except the PWR indicator are unlit to save power.<br>• When the DIP switch 3 is set to ON, all indicators on the switch are solid on. |
| ⑬ | RS485 interface | Reserved for the switch to acquire battery information, such as battery voltage, current, state of charge (SOC), etc. |

## ▪ Dimension




## ▪ Accessory

### ▪ Optional

| LTA-SLP180-B1200 |
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