

8GE + 2GF Managed Solar Industrial PoE Switch

Model: SIPM-8G2F-BT90



The SIPM-8G2F-BT90 Compact Solar Industrial PoE Switch Offers Intelligent Management And Wide Applicability For Low-Voltage Digital Energy Systems. It Features Efficient Solar Power Conversion, Stable Operation, And Remote Management, Ideal For Outdoor Security, Smart Agriculture, Forest Fire Prevention, And Other IoT Applications.

- 8GE + 2GF Managed Solar Industrial PoE Switch | BT 90W | 120W Budget | PV & Battery Monitoring
- PoE Management: Displays PoE supply voltage/current/power in real-time. Ports 1-2 support 90W BT standard. Ports 3-4 configurable for 24V/48V PoE (remote setting), Ports 5-8 deliver up to 30W output. Configurable PoE priority & 120W max power budget
- Power In: Support PV panel & battery input: DC22~29.2V, AC Adapter 24V input
- Support LED and FAN DIDO
- PV Panel Monitoring: Real-time voltage/current/power readings
- Battery Status Tracking: Daily min/max voltage. Charge/discharge peak current & power. Amp-hour (Ah) charge/discharge totals. Daily energy generation/consumption
- Operating Temperature: -30°C-70°C

Core Advantages & Functional Features

Model	SIPM-8G2F-BT90
Highly Integrated Design	Combines solar power, IoT, communication, PoE, and intelligent O&M technologies into one system for simplified installation.
Eco-Friendly & Energy-Efficient	Zero environmental pollution with reduced reliance on traditional energy sources.
Remote Intelligent O&M	Proactive Fault Prediction (sets thresholds and preemptively identifies potential failures before reaching critical values) Real-Time Incident Handling Post-Event Analysis to improve equipment availability and reduce long-term operational costs
Smart Enclosure Management	Intelligent Temperature Control: Auto-activates cooling fans based on preset parameters Real-Time Monitoring: Displays temperature, humidity, and door status for enhanced security
Battery Management System	Supports intelligent charging control Supports intelligent Discharging control Supports Reverse Polarity Protection Overcharge Protection: Prevents battery damage from excessive charging Over-discharge Protection: Avoids deep discharge battery failure Low-Temp Charging Protection: Suspends charging when battery temperature < 0°C Low-Temp Discharging Protection: Halts discharge when battery temperature < -20°C High-Temp Charging Protection: Interrupts charging when battery temperature > 70°C High-Temp Discharging Protection: Stops discharge when battery temperature > 70°C
Ethernet Port Management	Jumbo Frame Support: Ensures stable transmission of large data frames Flow Control: Auto-adjusts transmission rate for optimal performance VLAN Support: Isolates different services without interference MAC Whitelist: Enables secure access authentication Port Traffic Statistics: Provides detailed data usage monitoring
PoE Management	Displays PoE supply voltage/current/power in real-time Ports 1-2 support 90W BT standard Ports 3-4 configurable for 24V/48V PoE (remote setting) Ports 5-8 deliver up to 30W output Configurable PoE priority & 120W max power budget
Solar Control Management	PV Panel Monitoring: Real-time voltage/current/power readings Battery Status Tracking: Daily min/max voltage. Charge/discharge peak current & power. Amp-hour (Ah) charge/discharge totals. Daily energy generation/consumption System Diagnostics: Operating days count and Over-discharge/Full-charge cycle records

System Administration

User Authentication: Password-protected access

Version Control: Displays software/hardware versions

Firmware/configuration remote updates

System reboot capability

Factory reset option

NTP clock support



Application Scenarios

Application Scenarios	Security surveillance Forest fire prevention Smart agriculture Environmental monitoring Oil/Gas operations Power/Water utilities Geological disaster prevention Scenic areas Unattended remote installations
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Communication Interfaces

Communication Interfaces	2×1000M SFP ports
Ethernet ports	8×10/100/1000M Ethernet ports (with PoE support)
Management Ports	1×RJ45 out-of-band management port 1×RJ45 console port
Communication Protocols	Serial transparent transmission, MQTT, TCP/IP, UDP, HTTP, etc

Power & PoE

Power Input	DC24V input
PV panel & battery input	DC22~29.2V
PoE Standards	IEEE 802.3af/at/bt
PoE ports	Ports 1-8 (Ports 1-2 support BT, Ports 3-4 support 24V PoE)
Power Consumption	Smart terminal: 13W Full load: 140W

System Specifications

Processor	A40i, 1.2GHz clock speed, 1GB total memory
Reset Button	Press and hold for 10s to reboot and restore factory settings

Physical & Environmental

Dimensions	163.5mm × 216mm × 88.7mm
Weight	1.5kg
Installation Methods	Desktop, wall-mounted, or built-in enclosure
Protection Rating	IP20
Operating Temperature	Low: -30°C High: 70°C





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