Datasheet

Solar Powered PoE Switch

WI-PMS306GF-UPS-I

Overview

Wi-Tek Solar Powered PoE Switch Serial is designed for CCTV surveillance and wireless network. Based on its green energy, it can be charged by the inexhaustible and natural source of energy – solar power. It can conserve green energy economically and power the remote IP cameras and wireless AP, especially used for expansive applications such as dams, forests, deserts, national parks, and highways.

Features

Built-in MPPT (Maximum Power Point Tracking) Controller

The MPPT (Maximum Power Point Tracker) controller can detect the voltage of the solar panel in real time, track the highest power, and convert the high voltage DC output of the solar panel to the low voltage required for effective charging, so that the system can charge the battery at the maximum power. It is the brain of the photovoltaic system which coordinates with solar panels, batteries and loads in the solar photovoltaic system.

Zero-Carbon, Green and Stable Power Supply

During the day, solar energy can power the communication system and charge the battery, and at night, the battery uses the excess electricity generated by solar energy during the day to power the communication system, which builds a zero-carbon, green and stable communication system without any external energy.

Easy and Intelligent Photovoltaic Power and Battery Status Monitoring

The dashboard in local WEB management makes it easy to monitor real-time solar power and battery status, receive battery capacity and charge status alarm, track power generation, power consumption, and battery data.

Layer 2 Managed Powerful Functions

Abundant Layer 2 functions can help you manage your Powered Devices easily, such as low voltage cut-off protection, intelligent powered device alive check, schedule power recycling, and PoE schedule for energy savings.

Specifications

Products	WI-PMS306GF-UPS-I
Hardware Version	V1
Hardware Features	
Interface	2*10/100/1000Mbps PoE++ (Type 4) RJ45 ports 2*10/100/1000Mbps 24V(passive)/48V(af/at) PoE(Auto detective) RJ45 ports 2*1000Mbps SFP ports
Console	1*RS-232(38400,8,N,1,N) RJ45 port
Power Input Port	Bottom panel: 6-PIN 5.08mm phoenix connector 2*Solar power input in parallel 1*Battery charging & discharging 2-PIN 5.08mm pho phoenix connector 1*DC (V3) input for battery charging
	Top panel: 6-PIN 3.81mm phoenix connector 2*DC (V1&V2) input for switch 1*Alarm in, High voltage: 3~57V, Low voltage: <3V 2-PIN 3.81mm phoenix connector 1*Relay alarm out, 0~57V, 3A max.
LED Indicator	Front panel: 1*PWR, Power indicator 2*V1&V2, DC input indicator 1*RING, Ring status indicator 2*SFP port indicator
	Top panel: 1*BT, Battery system status indicator 1*VO, Power output indicator 1*BIN, Battery charging status indicator 1*BOUT, Battery discharging status indicator 1*SUN, Solar power input indicator 7*Battery percentage, battery capacity percentage indicator
DIP Switch	Top panel: 12V/24V lead acid, 12.6V/25.2V lithium and 14.8V/29.6V Lithium iron phosphate battery type selection. Wide voltage charging switch, Enable/disable 24V solar panel charge the 12V battery.
Button	RING SET: press over 10s to form a RING network (comply with MSTP) between the two SFP ports. Press over 15s to turn off the Ring network. Reset: press over 10s to restore the switch setting to default.
Power Supply	V1&V2: 37~57V DC (Enable PoE out, cannot charge the battery), 12~37V DC (Disable PoE out, cannot charge the battery)
Power Consumption	<10W (Without PoE), 4.2W (Typical power consumption without load)

Products	WI-PMS306GF-UPS-I
Hardware Version	V1
Hardware Features	
Dimensions(W*D*H)	67*157*115mm
Weight	1.3kg
Package Dimensions	230*165*79mm
Package Weight	1.49kg
Installation	DIN-rail/Desktop/Wall mounted
Fan Quantity	Fan-less
Material	Metal shell
Color	Black
PoE	
PoE Port	Port 1-4
PoE Standard	Port 1-2: IEEE 802.3bt (Type 4) Port 3-4: IEEE 802.3af/at or 24V passive PoE (Auto detective)
PoE Pin Assignment	Port 1-2: 1/2/4/5 (+), 3/6/7/8 (-) Port 3-4: 1/2(+), 3/6(-) @IEEE 802.3af/at PoE or 4/5(+), 7/8(-) @24V passive PoE
PoE Port Power	90W max for port 1-2, 30W max@ IEEE 802.3af/at or 24W max @24V passive PoE for port 3-4
PoE Power Budget	120W max for whole switch PoE power budget
Switch Property	
Standards and Protocols	IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3x, IEEE 802.3af, IEEE 802.3at, IEEE 802.3bt, IEEE 802.3ad, IEEE 802.1Q, IEEE 802.1p, IEEE 802.1D, IEEE 802.1w, IEEE 802.1s
Forwarding Mode	Store and forward
MAC Address Table	8k
Switching Capacity	12Gbps
Packet Forwarding Rate	8.94Mpps
Packet Buffer Memory	4.1Mb
Jumbo Frame	10240Bytes
Reliability	
ESD Protection	6kV
Surge Immunity	6kV
Operating Environment	-40°C to 75°C, 10%~90% (non-condensation)
Storage Environment	-40°C to 80°C, 5%~90% (non-condensation)

Products	WI-PMS306GF-UPS-I					
Hardware Version	V1					
Solar Controller						
Battery Type	Lead acid		Lithium		Lithium iron phosphate	
	12V	24V	12.6V	25.2V	14.8V	29.6V
Battery Capacity	<500Ah					
Charging Mode	MPPT					
Consumable Supplement	Support					
Consumable Detection Voltage	<12.6V	<24.8V	<12.2V	<24.4V	<14.2V	<28.8V
Max. Charging Voltage	14.7V	29.6V	12.6V	25.2V	14.8V	29.6V
Rated Charging Current	15A					
Float Voltage	13.7V	27.4V	-			
Float Current	50mA-1000mA		-			
Float Time	3hours		-			
Discharge Cut-off Voltage	10.1V	20.2V	9V	18V	10.2V	20.4V
Rated Discharging Current	6.5A	3.6A	8.5A	4A	6.5A	4A
Power input						
Photovoltaic Input	<440W	<880W	<380W	<720W	<440W	<880W
Photovoltaic Open Circuit Voltage	<32V	<57V	<32V	<57V	<32V	<57V
DC(V3) Input	15~32V DC@12V battery, 240W input max. 30~57V DC@24V battery, 480W input max.					
Protection						
Protection	Over current protection, Short-circuit protection, Reverse connection protection, PoE over load protection, Over charging protection, Over discharging protection, Delay start, Switch over temperature protection, Battery over temperature protection (with temperature sensor)					

* The solar power input and V3 DC input cannot supply power to the switch independently without the battery connection.

Software

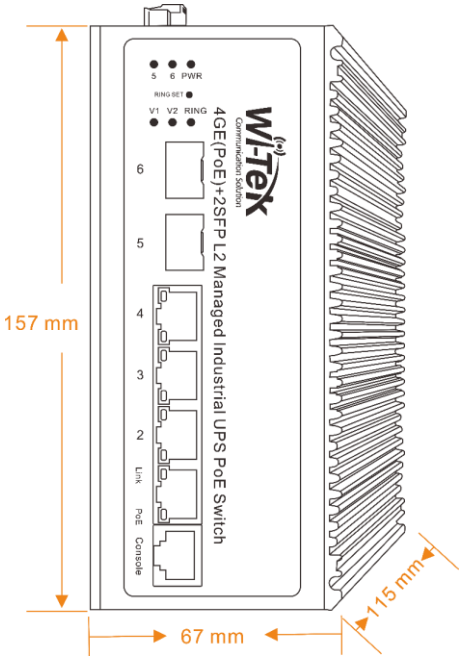
Products	WI-PMS306GF-UPS-I
Software Features	
Solar Configuration	Solar status: voltage, current, power Battery status: voltage, current, load power System temperature, Charging/discharging status Temperature, Battery level alarm (local log) Battery type configuration, Charge voltage, current
Industrial Monitoring	Ring network, Alarm input configuration, Alarm output configuration
Port Configuration	Port enable/disable, Duplex, Bandwidth, Flow control, Port rate limit, Broadcast storm control, MAC address learn limit, Jumbo frame Port trunk Port mirror (One-to-One Many-to-One Tx/Rx/Both)
VLAN	Support 4k 802.1Q VLANs Support Port/MAC/IP/Protocol-based VLAN Support QinQ Support GVRP
Spanning Tree	Support STP/RSTP/MSTP
ACL	Support standard IP/Extended IP/MAC IP/MAC ARP/IPv6/ACL Port/Time based ACL
QoS	Support 802.1p CoS/DSCP priority Support 8 priority queues Queue scheduling: SP, WRR, WFQ
Multicast Feature	Support IGMP Snooping V1/V2/V3, GMRP
Security	802.1X AAA, RADIUS/TACACS+ Static and Dynamic ARP DHCP snooping IP-MAC-Port binding Port based authentication Port MAC address filtering
Reliability	EAPS, ERPS, LLDP, UDLD
PoE power control	Total power, Port PoE mode, Port power, PoE policy, PD Query
Management	WEB, CLI management HTTP, Telnet, SSH v1/v2, SNMP v1/v2c/c3, RMON SNTP System log Traceroute, Ping Firmware upgrade, Configuration file download/upload User management, Management IP Reboot, restore factory

* Some functions can be configured only on the WEB or CLI.

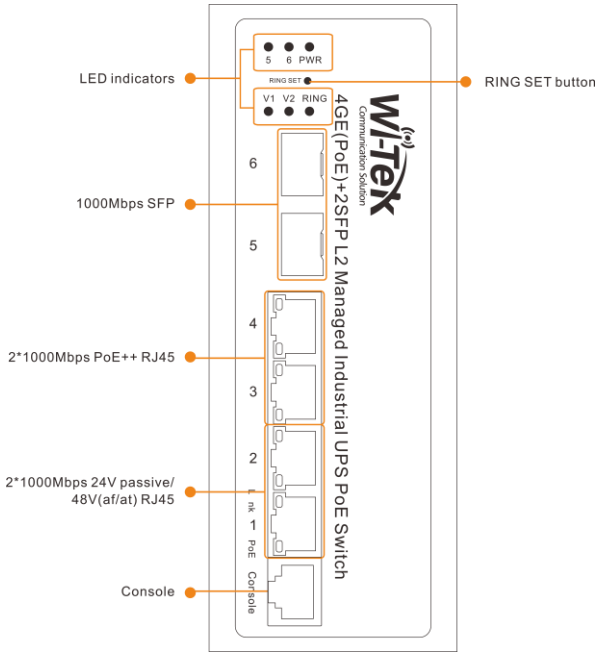
Appearances and Dimensions

WI-PMS306GF-UPS-I

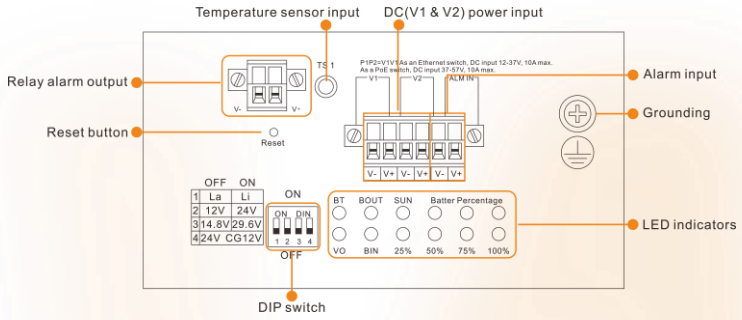
Dimensions



Front Panel

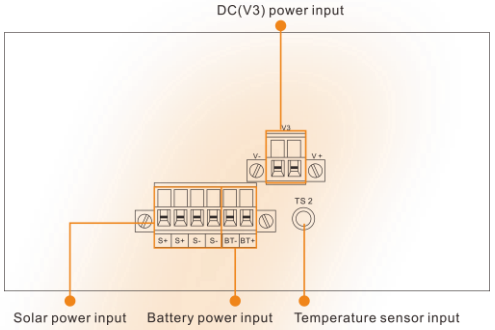


Top Panel



*V1 & V2 DC power input only supply power to the switch and cannot charge the battery.

Bottom Panel



*The solar input and V3 DC input cannot supply power to the switch independently without the battery connect.

Package Content

Welcome to order our products. After purchasing, you will receive:

Item	Quantity
Switch (with DIN-rail bracket, Wall mounting bracket)	1 pcs
Temperature Sensor	1 pcs
Mounting Accessories (Screwdriver)	1 pcs
Quick Installation Guide	1 pcs

Wireless-Tek Technology Limited
Address: Building 3, Units 1801-1807, 1812, Huaqiang Era Plaza, Tangwei Community, Fuhai Street, Bao'an District, Shenzhen City, Guangdong Province, China.
Website: www.wireless-tek.com
Tel: 86-0755-32811290
Email: sales@wireless-tek.com
Technical Support: tech@wireless-tek.com

Technical Support | Cloud Management | Company Website

Version, V3.0, updated 2024-03-15.