

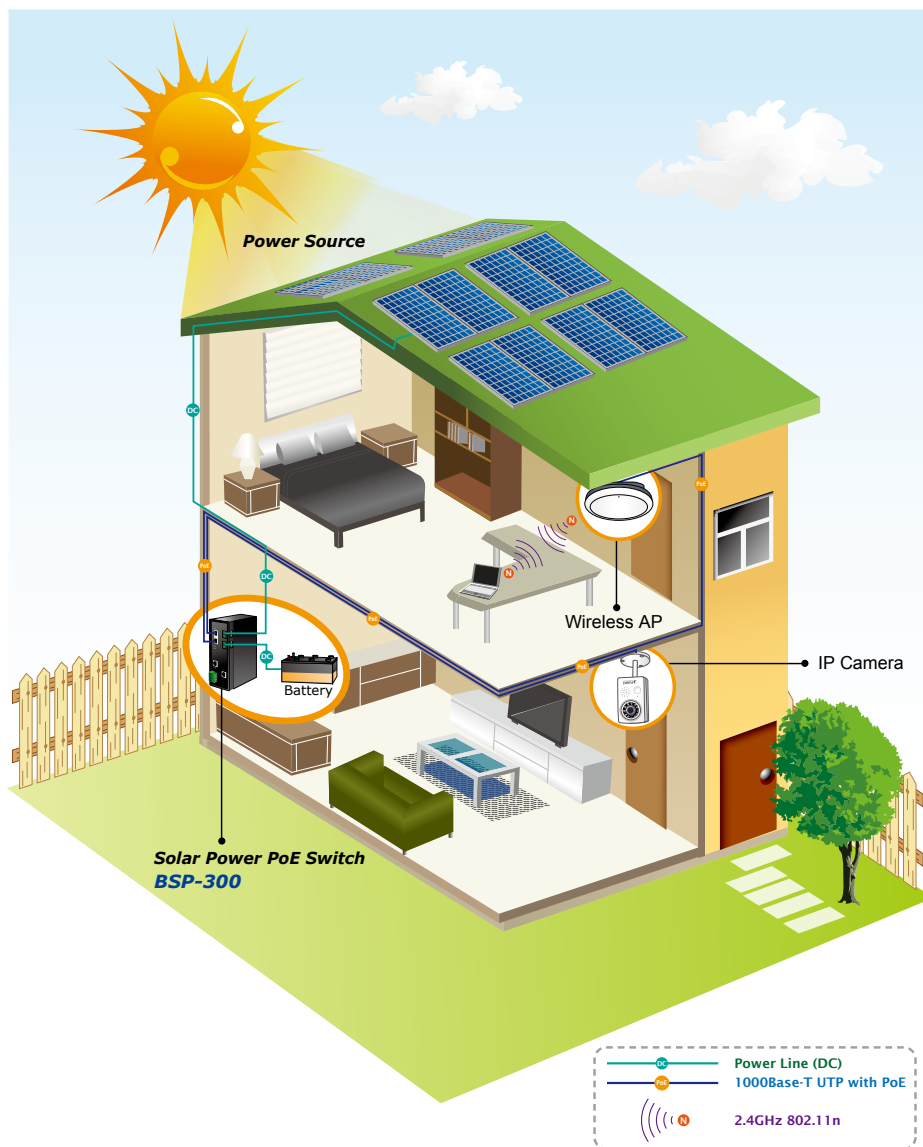
# Industrial Solar Power PoE Switch



### Industry-leading integration of PoE technology and Solar Power System

For the increasing demand of network installation anywhere, the PLANET BSP-300 Industrial Solar Power PoE Switch now provides the ideal solution. Powered by Zero-Carbon emission source - the sun light, the BSP-300 incorporates Pulse Width Modulated (PWM) charge controllers to effectively force the solar panels to operate at the same voltage as the battery bank during charging. The BSP-300 can empower the high power PoE network devices anywhere without any obstacles of geographical barrier.

With the integration of IEEE 802.3at PoE technology and solar power system, the BSP-300 provides hassle-free and maintenance-free solution for those in need for fast connectivity that require great flexibility and reliability, such as remote monitoring and long distance wireless communication. The BSP-300 makes the network deployment more easily and reliably.



*Plug and Play High Power PoE Network Deployment*

Through its two IEEE 802.3at Gigabit High Power PoE interface delivering power to wireless access points and IP cameras, the BSP-300 makes it easy to realize far-reaching data transmission and IP surveillance in remote areas. Just simple **Plug and Play**, the 802.3at / 802.3af PoE wireless LAN and IP surveillance system can be constructed easily without additional wiring.



*Zero-Carbon and Stable Power Supply*

The BSP-300 utilizes the solar power sourcing and co-works with common Nickel-cadmium battery or Lead-acid battery to form an independent solar power supply system for outdoor network system. The BSP-300 delivers zero-carbon and uninterruptible power supply for continuous outdoor wireless and IP surveillance applications without the need of any cabling. This system saves 100% power loss for users. It can power the client devices and charging at the same time during the day and continuing the operation in the right with the co-working battery.



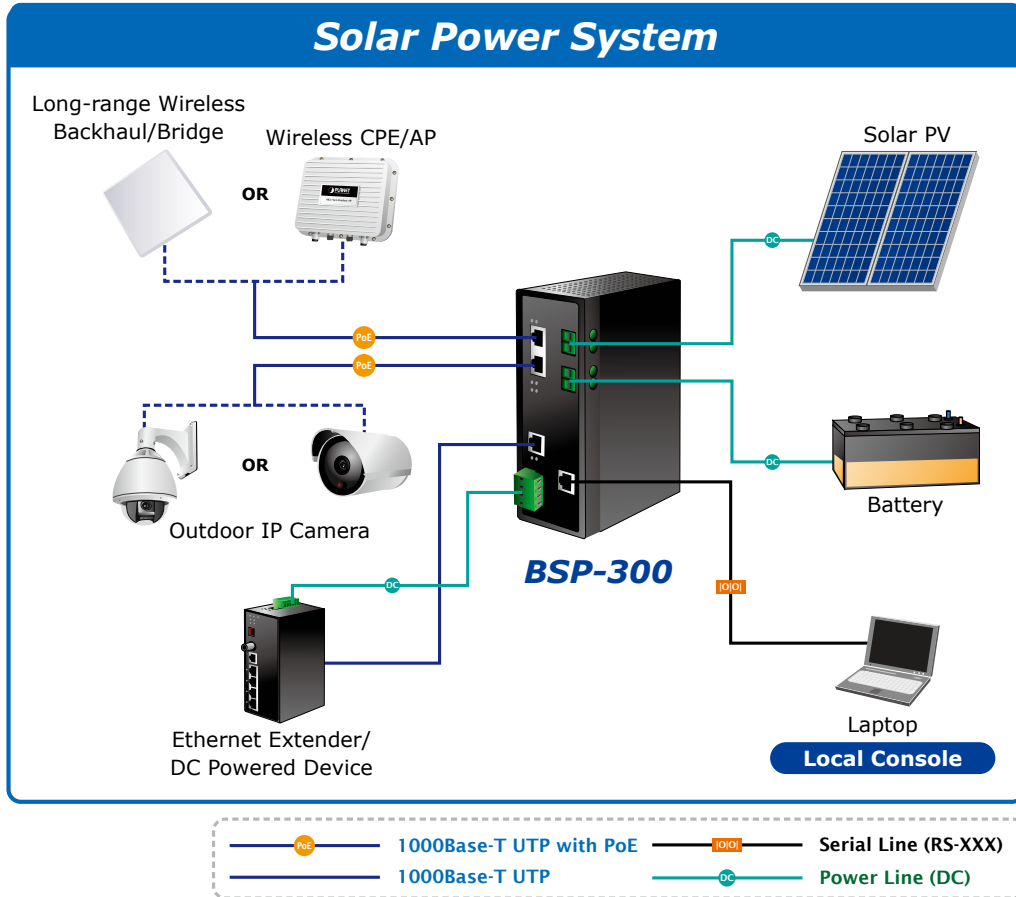
*Application Site*

- Forest / National Park Monitoring
- Hospital / Remote Health Care
- Harbor / Oil rig / Mine industry
- Public Surveillance / Public Wireless LAN System
- Village / Resort
- Instant Network Infrastructure for Critical Mission
- Telecom / ISP Wireless Extension

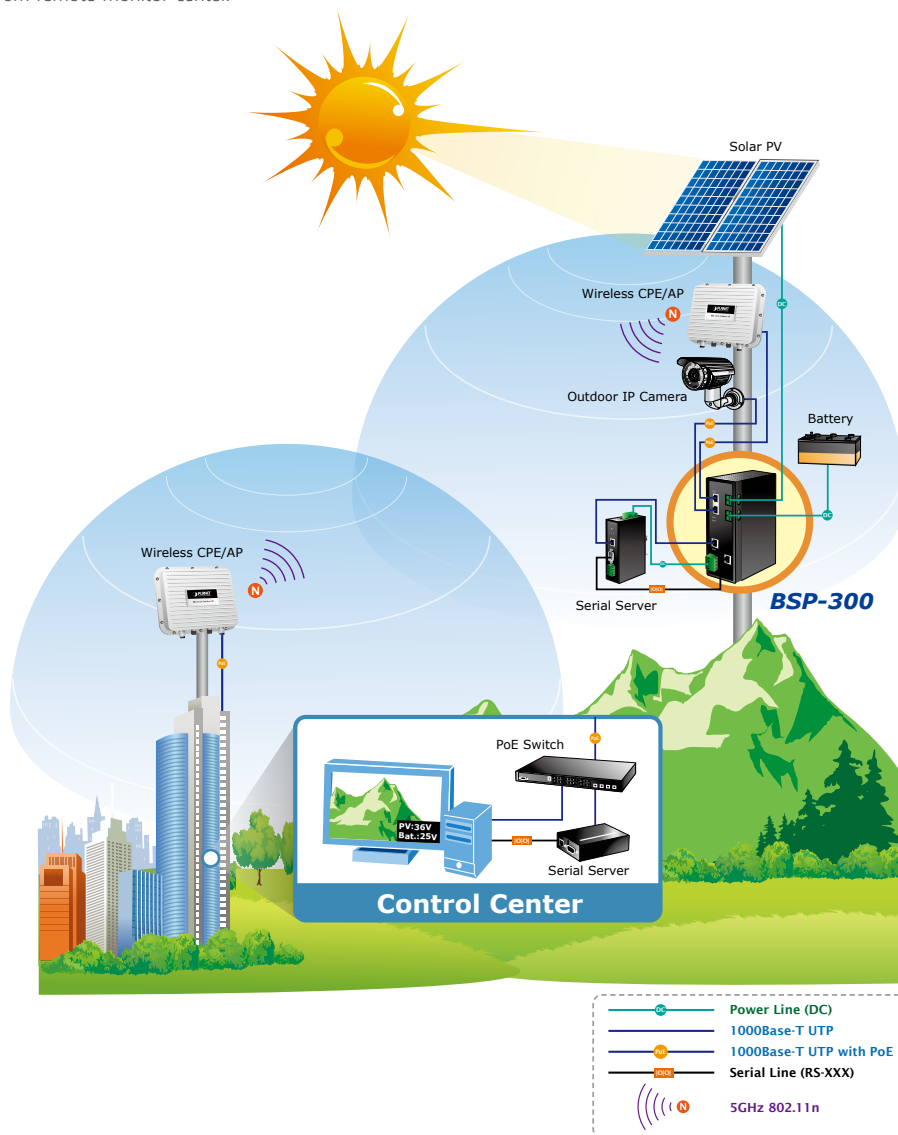
**Applications**

*Solar PoE Power Supply for Long Distance Wireless Surveillance Solution*

Provides Plug-and-Play instant Internet Service, the BSP-300 can be deployed anywhere in the city where there is need of Wireless Internet Connection. With the two 802.3at / 802.3af PoE interfaces, the BSP-300 enables you to install the PoE Access Point such as PLANET WAP-7350 and WSG-500 in any place of the city where there is no direct AC electricity. Just connect the PoE wireless access points or IP cameras to the BSP-300, the wireless LAN or Surveillance system can be deployed immediately.



By working with a pair of serial over Ethernet Media Converter and the Wireless transmission, the BSP-300 Industrial Solar Power PoE Switch can be efficiently managed from remote monitor center.



## Key Features

### HARDWARE

- Dual IEEE802.3at / 802.3af Power over Ethernet interfaces
  - Free the wiring for networking system installation, up to 100 meters distance for both power and data transmission
  - Enables flexible installation of dual PoE Wireless Access Point, Hot-spot Gateway or Surveillance system.
- Pulse Width Modulation (PWM) Protection
  - Reverse current protection to prevent the current circuits from flowing back to the PV panel
  - Over-current and Over-temperature protection
  - Reverse polarity protection (for battery and charging electrodes)
  - PWM voltage output control at power load

### SYSTEM

- Smart Power Management System
  - Co-working with 300 watts solar PV kit and battery, the BSP-300 empowers the connected PoE devices in the day time and charging the battery stably.
  - In the night time, the smart power system monitors and empower the client devices and helps to extend the battery life from charging and discharging.
  - Easy diagnose of the system operating status via LED indicator
  - Parameter settings can be remotely configured through the computer
- Installation
  - Integrates with solar PV and battery for easy installation of PoE devices and enabling client devices Plug-and-Play
  - Battery type options: Nickel-cadmium battery, Lead-acid battery

**Specification**

Product	Industrial Solar Power PoE Switch
Model	BSP-300
<b>Hardware Specification</b>	
Network Connector	3-Port RJ-45 for 10/100/1000Base-T (2-Port with 802.3at / 802.3af PoE injector function)
Console Port	1 x RS-232 RJ-45 serial port
Power Output	1 x DC out 24@ 2A maximum (two-pin terminal block) 2 x PoE out DC 52V; max. 30 Watts per PoE port
LED	<p><b>System</b></p> <ul style="list-style-type: none"> <li>• System (Green)</li> <li>• Fault (Green)</li> </ul> <p><b>Per PoE Port (Port 1 / Port 2)</b></p> <ul style="list-style-type: none"> <li>• Link / Active (Green)</li> <li>• PoE In-Use (Orange)</li> </ul> <p><b>LAN Port (Port 3)</b></p> <ul style="list-style-type: none"> <li>• 1000 Link / Active (Green)</li> <li>• 10/100 Link / Active (Green)</li> </ul> <p><b>Per PoE Interface</b></p> <ul style="list-style-type: none"> <li>• Power LNK/ACT (Green)</li> <li>• PoE In-Use (Orange)</li> </ul>
<b>Power over Ethernet</b>	
Standard	IEEE802.3at / IEEE802.3af
Port	Port 1, Port 2
Power pin	RJ-45 Pin# 4/5 (+); Pin# 7/8 (-); PSE Mid-span
Power voltage injecting	DC 52V
Consumption	30 watts max.; PoE Class 4
<b>Electrical Characteristics</b>	
System voltage ratings	DC 24V
Maximum charging current	15A
Max. solar array Voc	DC 60V
Max. operating voltage	DC 45V
Total current consumption	While operating -32Ma At idle -11mA
High temperature shutdown	100 Degree C disconnect solar and load 80 Degree C reconnect solar and load
Overload Capacity	Over 15 Amp will cut off output load
<b>Battery Charging Characteristics</b>	
Charge algorithm	Bulk charge (constant current), Absorption charge (constant voltage) and Floating charge. Absorption and Floating charge with PWM protection.
Maximum output current	15A
Nickel-cadmium battery	± 40 mV/Degree Celsius for NiCad type batteries, Charge cut-off @ 55 Degree C (Temperature compensation Baseline@ 25 Degree C)
Lead-acid battery (Default Setting)	± 60 mV/Degree Celsius for lead acid type batteries, Charge cut-off @ 55 Degree C (Temperature compensation Baseline@ 25 Degree C)
Float charge voltage	DC 27.2V (26.0~30.0V)
Absorption charge voltage	DC 29.2V (28.0~32.0V)
LVD (Low Voltage Disconnection)	DC 22.2V (21.0~25.0V)
LVR (Low Voltage Reconnection)	DC 24.8V (23.0~27.0V)
<b>Standards Conformance</b>	
Network Interface	IEEE 802.3 10Base-T IEEE 802.3u 10/100Base-TX IEEE 802.3ab 10/100/1000Base-T IEEE 802.3at / 802.3af for PoE (Power over Ethernet) devices
Regulation Compliance	CE, FCC
<b>System Unit</b>	
Operating Temperature	-20 ~ 60 Degree C
Storage Temperature	-40 ~ 90 Degree C
Operating humidity	20% ~ 80%
Dimension (W x D x H)	107.2 x 152 x 65.7 mm
Weight	0.79kg
Installation	DIN Rail Kit and Wall Mount Kit
Software Utility	Device detect / diagnostic, Windows XP / Win 7

**Ordering Information**

<b>BSP-300</b>	Industrial Solar Power PoE Switch
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**Related Products**

<b>WNAP-7350</b>	802.11a/n Wireless Outdoor Access Point
<b>WSG-500</b>	300Mbps Hotspot Wireless Subscriber Gateway
<b>IAP-2000PE</b>	IEEE 802.b/g/n Industrial Access Point
<b>ICA-3350V</b>	3 Mega-Pixel Vari-Focal Bullet IR IP Camera
<b>ICA-5350V</b>	3 Mega-Pixel Vandal Proof IR IP Camera
<b>ICA-HM620</b>	2 Mega-Pixel PoE Plus Speed Dome Internet Camera
<b>IPOE-162S</b>	Industrial IEEE 802.3at High Power over Ethernet Splitter
<b>ISW-504PT</b>	5-Port 10/100Mbps with 4-Port PoE Industrial Ethernet Switch - Wide Temperature
<b>ISW-514PT</b>	4-Port 10/100Mbps with PoE + 1-Port 100FX Industrial Ethernet Switch - Wide Temperature
<b>IVC-2004PT</b>	4-Port 10/100Base-TX with PoE + 1-Port BNC / RJ-11 Industrial Ethernet Extender
<b>ICS-2100</b>	Industrial RS-232/ RS-422/ RS-485 over Ethernet Media Converter
<b>ICS-100</b>	RS-232 over Fast Ethernet Media Converter
<b>ELA-100</b>	Lightning Arrest Box