Industrial L3 4-Port 2.5G 802.3bt PoE + 4-Port 10/100/1000T 802.3bt PoE + 2-Port 10G SFP+ Wall-mount Managed Switch
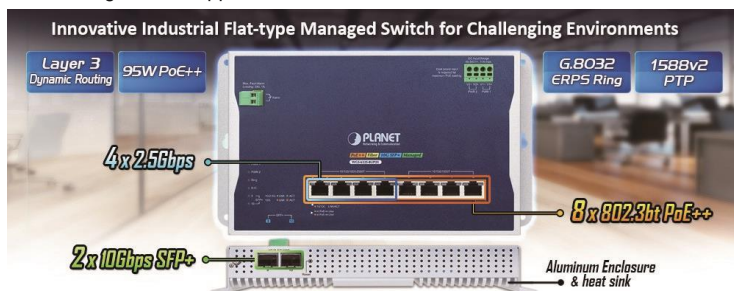
Physical Port

- **4 10/100/1000/2500BASE-T** an **4 10/100/1000BASE-T** Gigabit Ethernet RJ45 ports with IEEE 802.3bt PoE++ Injector function
- **2 1G/2.5G/10GBASE-XSFP +** slots for SFP type auto detection

Industrial Case and Installation

- IP30 aluminum case
- Supports -40 to 75 degrees C operating temperature
- Supports ESD 6KV DC Ethernet protection
- Dual power input design
  – 48V~54V DC wide power input with reverse polarity protection
- Compact size with fixed wall-mounted design

Wall-mounted PoE++ Managed Switch with Advanced L3 Switching and Security

PLANET WGS-6325-8UP2X is an Industrial Wall-mount PoE++ Managed Switch featuring PLANET **intelligent** functions to improve the availability of industrial applications. It provides IPv6/IPv4 dual stack management and offers a versatile mix of ports, including **four 10/100/1000/2500BASE-T** and **four 10/100/1000BASE-T** ports. What sets it apart is the 95-watt PoE capability on these ports delivers ample power to various PoE applications. For connecting to a wider network infrastructure, this switch features additional **1G/2.5G/10GBASE-X SFP +** ports, ensuring high-speed data transmission and seamless connectivity. With a total power budget of up to 480 watts for different kinds of PoE applications, and featuring fast performanceand operating temperature ranging from **-40** to **75 degrees C** in a compact but rugged IP30 metal housing, the **WGS-6325-8UP2X** is an ideal solution to meet the demand for the following network applications:

Power over Ethernet

- Complies with IEEE 802.3bt Power over Ethernet Plus Plus PSE
- Backward compatible with 802.3at PoE+ end-span or mid-span PSE
- Up to 8 IEEE 802.3af/802.3at/802.3bt devices powered
- Supports PoE power up to 95 watts for each PoE port
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m
- PoE management features
  – Total PoE power budget control
  – Per port PoE function enable/disable
  – PoE admin-mode control
  – PoE port power feeding priority
  – Per PoE port power limit
  – PD classification detection
  – Sequence port PoE
  – PoE extend mode control to support power feeding up to distance of up to 160 meters
  – Auto maximum PoE budget control by power input detection
- Intelligent PoE features
  – PoE usage threshold control

802.3bt PoE++ – 90~95-watt Power over 4-pair UTP Solution

As the WGS-6325-8UP2X adopts the IEEE 802.bt PoE++ standard, it is capable to source up to 95 watts of power by using all the four pairs of standard Cat5e/6 Ethernet cabling to deliver power and full-speed data to each remote PoE compliant powered device (PD). It possesses triple amount of power capability than the conventional 802.3at PoE+ and is an ideal solution to satisfy the growing demand for higher power consuming network PDs, such as:

- PoE PTZ speed dome cameras
- Any network device that needs higher PoE power to work normally
- Thin clients
- AIO (all-in-one) touch PCs, point of sale (POS) and information kiosks
- Remotedigital signage displays
- PoE lightings

802.3bt PoE++ and Advanced PoE Power Output Mode Management

To meet the demand of various powered devices consuming stable PoE power, the WGS-6325-8UP2X provides five different PoE power output modes for selection.

- **95W 802.3bt PoE++ Power Output Mode**
- **30W End-span PoE Power Output Mode**
- **30W Mid-span PoE Power Output Mode**
- **95W Force Power Output Mode**

Innovative Wall-mount Installation

The WGS-6325-8UP2X is specially designed to be installed in a narrow environment, such as wall enclosure or electric box. The compact, flat and wall-mounted design fits easily in any space-limited location. The WGS-6325-8UP2X can be installed by fixed wall mounting, thereby making its usability more flexible.

Redundant Ring, Fast Recovery for Critical Network Applications

The WGS-6325-8UP2X supports redundant ring technology and features strong, rapid self-recovery capability to prevent interruptions and external intrusions. It incorporates advanced **ITU-T G.8032 ERPS (Ethernet Ring Protection Switching)** technology, Spanning Tree Protocol (802.1s MSTP), and **dual power** input system into customer's industrial automation network to enhance system reliability and uptime in harsh factory environments. In a certain simple ring network, the recovery time of data link can be as fast as 10ms.

- PD alive check
- PoE schedule

Industrial Protocol

- Modbus TCP for real-time monitoring in SCADA system
- IEEE 1588v2 PTP (Precision Time Protocol) transparent clock mode

Layer 3 IP Routing Features

- IPv4 dynamic routing protocol supports RIPv2 and OSPFv2.
- IPv6 dynamic routing protocol supports OSPFv3.
- IPv4/IPv6 hardware static routing
- Supports maximum 32 static routes and route summarization
- Routing interface provides per VLAN routing mode

Layer 2 Features

- Storm Control support
  - Broadcast/Multicast/Unicast
- Supports **VLAN**
  - IEEE 802.1Q tagged VLAN
  - Provider Bridging (VLAN Q-in-Q) support (IEEE 802.1ad)
  - Private VLAN Edge (PVE)
  - Protocol-based VLAN
  - MAC-based VLAN
  - Voice VLAN
  - GVRP (GARP VLAN Registration Protocol)
- Supports **Spanning Tree Protocol**
  - IEEE 802.1D Spanning Tree Protocol (STP)
  - IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
  - IEEE 802.1s Multiple Spanning Tree Protocol (MSTP), spanning tree by VLAN
  - BPDU Guard/BPDU Filtering
- Supports **Link Aggregation**
  - 802.3ad Link Aggregation Control Protocol (LACP)
  - Cisco ether-channel (static trunk)
  - Maximum 5 trunk groups with 10 ports per trunk group
  - Up to 10Gbps bandwidth (duplex mode)
- Provides port mirror (many-to-1)
- Port mirroring to monitor the incoming or outgoing traffic on a particular port
- Loop protection to avoid broadcast loops
- Supports ERPS (Ethernet Ring Protection Switching)
- Compatible with Cisco Uni-directional link detection (UDLD) that monitors a link between two switches and blocks the

ERPS Ring for Video Transmission Redundancy
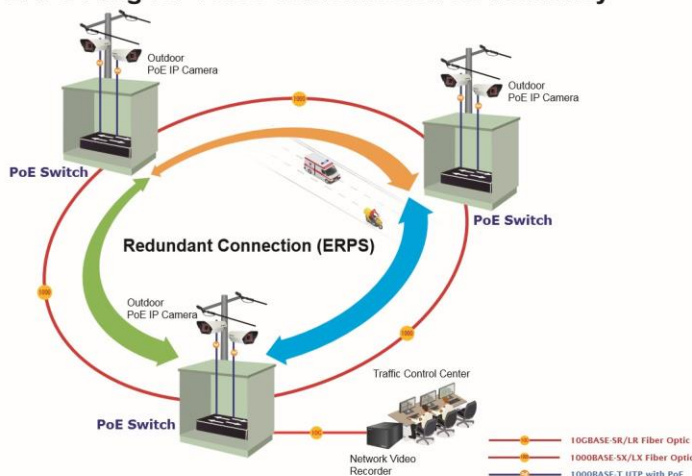
### Built-in Unique PoE Functions for Powered Devices Management

As it is the managed PoE switch for surveillance, wireless and VoIP networks, the WGS-6325-8UP2X features the following special PoE management functions:

- PD alive check
- Scheduled power recycling
- PoE schedule
- PoE usage monitoring

Intelligent Powered Device Alive Check

The WGS-6325-8UP2X can be configured to monitor connected PD status in real time via ping action. Once the PD stops working and responding, the WGS-6325-8UP2X will resume the PoE port power and bring the PD back to work. It will greatly enhance the network reliability through the PoE port resetting the PD's power source and reducing administrator management burden.

PD Alive Check
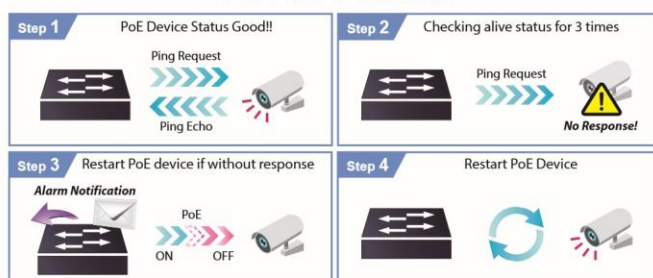
Scheduled Power Recycling

The WGS-6325-8UP2X allows each of the connected PoE IP cameras or PoE wireless access points to reboot at a specific time each week. Therefore, it will reduce the chance of IP camera or AP crash resulting from buffer overflow.

---
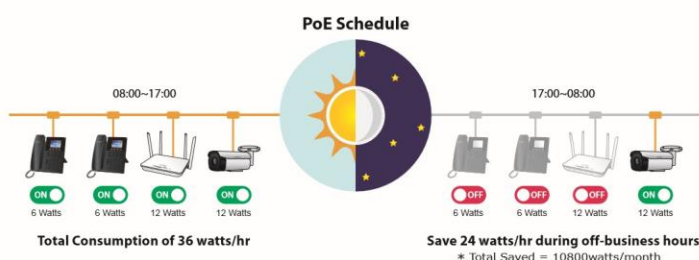
ports on both ends of the link if the link fails at any point between the two devices

- Link Layer Discovery Protocol (LLDP)

Quality of Service

- Ingress Shaper and Egress Rate Limit per port bandwidth control
- 8 priority queues on all switch ports
- Traffic classification
  - IEEE 802.1p CoS
  - IP TOS/DSCP/IP precedence
  - IP TCP/UDP port number
  - Typical network application
- Strict priority and Weighted Round Robin (WRR) CoS policies
- Supports QoS and In/Out bandwidth control on each port
- Traffic-policing on the switch port
- DSCP remarking

Multicast

- Supports IPv4 IGMP Snooping v1, v2 and v3
- Supports IPv6 MLD Snooping v1 and v2
- Querier mode support
- IPv4 IGMP Snooping port filtering
- IPv6 MLD Snooping port filtering
- MVR (Multicast VLAN Registration)

Security

- Authentication
  - IEEE 802.1x Port-based / MAC-based network access authentication
  - Built-in RADIUS client to cooperate with the RADIUS servers
  - TACACS+ login users access authentication
  - RADIUS/TACACS+ users access authentication
  - Guest VLAN assigns clients to a restricted VLAN with limited services
- Access Control List
  - IP-based Access Control List (ACL)
  - MAC-based Access Control List
- Source MAC / IP address binding
- DHCP Snooping to filter un-trusted DHCP messages
- Dynamic ARP Inspection discards ARP packets with invalid MAC address to IP address binding