Industrial L3 8-Port 10/100/1000T 802.3bt PoE + Multi- Port SFP Managed Ethernet Switch

Outstanding 802.3bt PoE++ Solution for Hardened Environment

Complying with the IEEE 802.3bt Power over Ethernet Plus Plus technology, PLANET IGS-6325-8UP2S2X L3 Industrial Managed PoE++ Switch features **eight 10/100/1000BASE-T 802.3bt PoE++ ports** with each port powering up to **95 watts**, **two 10G SFP+ ports** and **two 100/1000/2500BASE-X SFP** interfaces in a rugged IP30 metal case for stable operation in heavy industrial demanding environments. It supports rich PoE operation modes including **95-watt 802.3bt type-4 PoE++ ports**, Legacy PoE mode and 4-pair force mode to solve the incompatibility of non-standard 4-pair PoE PDs in the field.

Being able to operate under wide temperature range from -40 to 75 degrees C, the IGS-6325 PoE++ Switch series can be placed in almost any difficult environment. The IGS-6325 PoE++ Switch series also allows either DIN rail or wall mounting for efficient use of cabinet space.

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

As the IGS-6325 PoE++ Series adopts the IEEE 802.bt PoE++ standard and PoH technology, 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

Physical Port

- 8 10/100/1000BASE-T Gigabit Ethernet RJ45 ports with 802.3bt PoE++ Injector function
- 2 100/1000/2500BASE-X SFP slots for SFP type auto detection
- 2 10GBASE-SR/LR SFP+ slots, compatible with 1G/2.5GBASE-X SFP(IGS-6325-8UP2S2X)
- One RJ45-to-RS232 console interface for basic management and setup

802.3bt Power over Ethernet

- Complies with IEEE 802.3bt Power over Ethernet Plus Plus Type-4 PSE
- Backward compatible with IEEE 802.3at/af PD device
- Up to 8 ports of IEEE 802.3af/IEEE 802.3at/IEEE 802.3bt PoE++ devices powered
- Supports PoE power up to 95 watts for each PoE port
- Total of 360-watt PoE budget
- 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
  - PoE extend mode control to support power feeding up to a distance of up to 200 meters
- Intelligent PoE features
  - Temperature threshold control
  - PoE usage threshold control
  - PD alive check
  - PoE schedule

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
- Remote digital signage displays
- PoE lightings
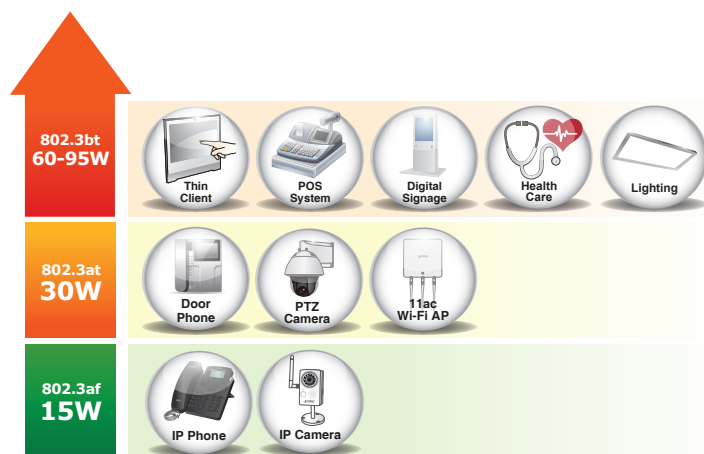
802.3bt PoE++ and Advanced PoE Power Output Mode Management

To meet the demand of various powered devices consuming stable PoE power, the IGS-6325 PoE++ Switch series provides five different PoE power output modes for selection.

- **95W 802.3bt PoE++ Power Output Mode**
- **95W UPOE/Legacy Power Output Mode**
- **95W Force Power Output Mode**
- **36W End-span PoE Power Output Mode (Pins 1, 2, 3, 6)**
- **36W Mid-span PoE Power Output Mode (Pins 4, 5, 7, 8)**

Convenient and Smart ONVIF Devices with Detection Feature

PLANET has newly developed an awesome feature -- ONVIF Support -- which is specifically designed for co-operating with video IP surveillances. From the IGS-6325 PoE++ Switch series GUI, clients just need one click to search and show all of the ONVIF devices via network application.

In addition, clients can upload floor plans to the switch, allowing to locate surveillance devices for easier inspection and planning. Moreover, clients can get real-time surveillance's information and online/offline status, and also allows cameras PoE reboot control from GUI.

Industrial Protocol

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

Industrial Hardened Design

- Dual power input, redundant power with reverse polarity protection
  - DC 48 to 54V input
  - Active-active redundant power failure protection
  - Backup of catastrophic power failure on one supply
  - Fault tolerance and resilience
- DIN-rail and wall-mountable designs
- IP30 aluminum case
- Supports 6000V Ethernet ESD protection
- -40 to 75 degrees C operating temperature
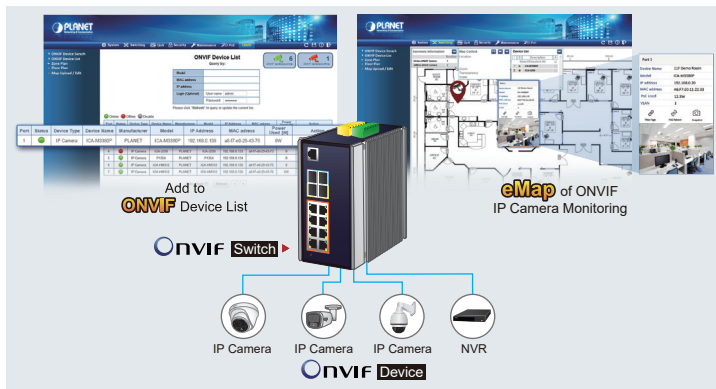
Digital Input and Digital Output

- 2 Digital Input (DI)
- 2 Digital Output (DO)
- Integrate sensors into auto alarm system
- Transfer alarm to IP network via email and SNMP trap

Layer 3 IP Routing Features

- IP dynamic routing protocol supports RIP, OSPFv2 and OSPFv3
- Supports maximum 128 static routes and route summarization
- IPv4 dynamic routing protocol supports OSPFv2
- IPv4/IPv6 hardware static routing
- Routing interface provides per VLAN routing mode

Layer 2 Features

- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full-duplex)
- High performance of Store-and-Forward architecture, and runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- Storm Control support
  - Broadcast/Multicast/Unicast
- Supports **VLAN**
  - IEEE 802.1Q tagged VLAN
  - Up to 4K VLANs groups, out of 4095 VLAN IDs

Add to **ONVIF** Device List

eMap of ONVIF
IP Camera Monitoring

IP Camera   IP Camera   IP Camera   NVR

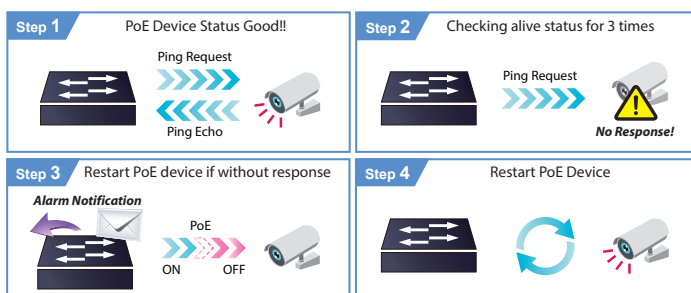## Built-in Unique PoE Functions for Powered Devices Management

Being the managed PoE switches for surveillance, wireless and VoIP networks, the IGS-6325 PoE++ Switch series features the following special PoE management functions:

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

Intelligent Alive Check for Powered Device

The IGS-6325 PoE++ Series can be configured to monitor connected PD's status in real time via ping action. Once the PD stops working and responding, the IGS-6325 PoE++ Series will recycle the PoE port power and bring the PD back to work. It also greatly enhances the reliability in that the PoE port will reset the PD power, thus reducing administrator's management burden.

PD Alive Check

Step 1 — PoE Device Status Good!!
Ping Request
Ping Echo

Step 2 — Checking alive status for 3 times
Ping Request
No Response!

Step 3 — Restart PoE device if without response
Alarm Notification
PoE ON OFF

Step 4 — Restart PoE Device

PoE Schedule for Energy Savings

Under the trend of energy savings worldwide and contributing to environmental protection on the Earth, the IGS-6325 PoE++ Series can effectively control the power supply besides its capability of giving high watts power. The built-in **"PoE schedule"** function helps you to enable or disable PoE power feeding for each PoE port during specified time intervals and it is a powerful function to help SMBs or enterprises save power and money.

- – Supports provider bridging (VLAN Q-in-Q 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
- Supports **Link Aggregation**
  - – 802.3ad Link Aggregation Control Protocol (LACP)
  - – Cisco ether-channel (static trunk)
  - – Maximum 4 trunk groups with 4 ports per trunk group
  - – Up to 40Gbps 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
- Link Layer Discovery Protocol (LLDP)
- Compatible with Cisco uni-directional link detection(UDLD) that monitors a link between two switches and blocks the ports on both ends of the link if the link fails at any point between the two devices
- Supports G.8032 ERPS (Ethernet Ring Protection Switching)
- IEEE 1588 and Synchronous Ethernet network timing

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