

Industrial L3 8-Port 10/100/1000T 802.3bt PoE + 2-Port 1G/2.5G SFP + 2/4-Port 10G SFP+ Managed Ethernet Switch



Outstanding 802.3bt PoE++ Solution for Heavy Industrial Environment

With **EN 61000-6-2** and **61000-6-4 Heavy Industrial EMC**, and railway **EN 50121-4** certified designs, and complying with the IEEE 802.3bt PoE++ technology, PLANET IGS-6329 L3 Industrial Managed PoE++ Switch Series provides non-stop data communication and reliable PoE injection, even with noise interferences coming from the heavy industrial field applications.

Complying with the IEEE 802.3bt Power over Ethernet Plus Plus technology, PLANET IGS-6329 Series features **eight 10/100/1000BASE-T 802.3bt PoE++ ports** with each port powering up to **95 watts**, **two 100/1000/2500BASE-X SFP ports** and **four 10G SFP+ ports** in a rugged IP30 metal case for stable operation in heavy industrial demanding environments. It supports rich PoE operation modes including **90-watt 802.3bt type 4 PoE++ ports**, **95-watt PoH** (Power over HD-BASE-T) 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-6329 Series can be placed in almost any difficult environment. The IGS-6329 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-6329 Series adopts the IEEE 802.3bt PoE++ standard and PoH technology, it is capable of sourcing 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

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
- 2/4 10GBASE-SR/LR SFP+ slots, compatible with 1000BASE-X and 2500BASE-X SFP
- One RJ45-to-RS232 console interface for basic management and setup

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 ESD 6KV DC Ethernet protection
- -40 to 75 degrees C operating temperature

Digital Input and Digital Output

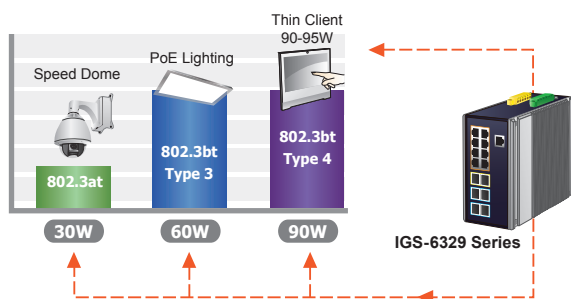
- 2 Digital Input (DI)
- 2 Digital Output (DO)
- Integrate sensors into auto alarm system
- Transfer alarm to IP network via email and SNMP trap

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

each remote PoE compliant powered device (PD). It possesses the power capacity that is triple 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
- Network devices
- 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

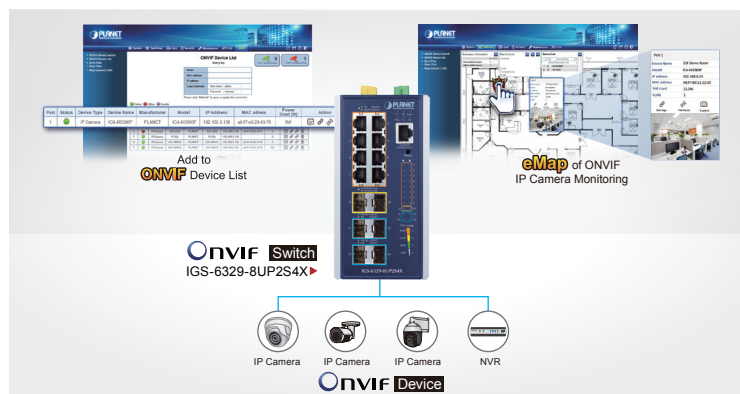
To meet the demand of various powered devices consuming stable PoE power, the IGS-6329 Series provides five different PoE power output modes for selection.

- 90W 802.3bt PoE++ Power Output Mode
- 95W UPOE/PoH Power Output Mode
- 60W Force Power Output Mode
- 30W End-span PoE Power Output Mode
- 30W Mid-span PoE Power Output Mode

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-6329 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.



- Per PoE port power limit
- PD classification detection
- PoE extend mode control to support power feeding up to a distance of up to 160 meters

Intelligent PoE features

- Temperature threshold control
- PoE usage threshold control
- PD alive check
- PoE schedule

Layer 3 IP Routing Features

- IP dynamic routing protocol supports RIPv2, OSPFv2 and OSPFv3
- IPv4/IPv6 hardware static routing
- Routing interface provides per VLAN routing mode

Layer 2 Features

- 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
 - Supports provider bridging (IEEE 802.1ad VLAN Q-in-Q)
 - 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 80Gbps 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)

Intelligent Alive Check for Powered Device

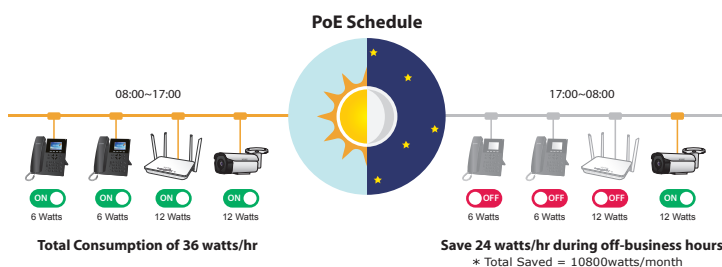
The IGS-6329 Series can be configured to monitor connected PD's status in real time via ping action. Once the PD stops working and responding, the IGS-6329-Series will recycle the PoE port power and bring the PD back to work. It also greatly enhances the reliability in that the PoE port will reset the PD power, thus reducing administrator's management burden.

PoE PD Alive Check



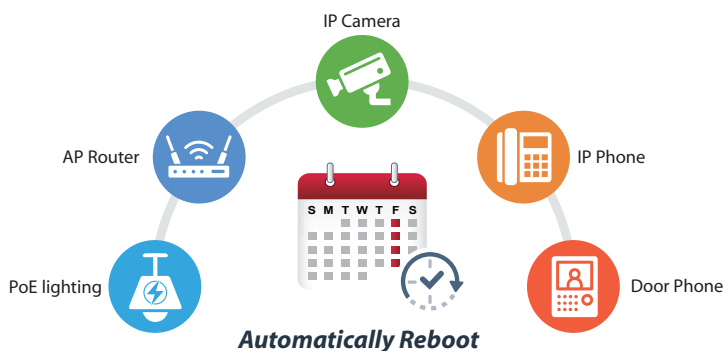
PoE Schedule for Energy Savings

Under the trend of energy savings worldwide and contributing to environmental protection on the Earth, the IGS-6329 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.



Scheduled Power Recycling

The IGS-6329 Series allows each of the connected PoE IP cameras or PoE wireless access points to reboot at a specified time each week. Therefore, it will reduce the chance of IP camera or AP crash resulting from buffer overflow.



Layer 3 Routing Support

The IGS-6329 Series enables the administrator to conveniently boost network efficiency by configuring Layer 3 IPv4/IPv6 VLAN static routing manually, the RIP (Routing Information Protocol) or OSPF (Open Shortest Path First) settings automatically. The RIP can employ the hop count as a routing metric and prevent routing loops by implementing a limit on the number of hops allowed in a path

- 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 1588v2 PTP (Precision Time Protocol) transparent clock mode

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 distrusted DHCP messages
- Dynamic ARP Inspection discards ARP packets with invalid MAC address to IP address binding
- IP Source Guard prevents IP spoofing attacks