

## Industrial L2/L4 Multi-port 802.3bt PoE++ 2-Port 100/1000X SFP Managed Ethernet Switch Series



### Cost-optimized Full PoE+ Power Solution Ideal for Hardened Environment

Designed to be installed in heavy industrial demanding environments, the IGS-4215 802.3bt PoE series is the new member of PLANET Industrial-grade, DIN-rail type L2/L4 Managed Gigabit PoE ++ Switch family featuring **PLANET intelligent PoE** functions to improve the availability of critical business applications. It provides **IPv6/IPv4 dual stack management** and built-in **L2/L4 Gigabit switching engine** along with **4 or 8 10/100/1000BASE-T** ports featuring **95-watt 802.3bt PoE ++**, **2 or 4 additional Gigabit copper ports** and another 2 extra 100/1000BASE-X SFP fiber slots for data and video uplink. The IGS-4215 802.3bt PoE series is able to operate reliably, stably and quietly in any hardened environment without affecting its performance. It comes with a total power budget of up to **360 watts** for different kinds of PoE applications and operating temperature ranging from **-40 to 75 degrees C** in a rugged IP30 metal housing.

Item	Model Name	IGS-4215-4UP4T2S	IGS-4215-8UP2T2S
10/100/1000BASE-T Copper		8	10
100/1000BASE-X SFP		2	2
PoE Standard		IEEE 802.3bt PoE++	IEEE 802.3bt PoE++
PoE Ports		4	8
PoE Budget		240 watts	360 watts
Power Input		48~54V DC x 2	



### Physical Port

- 4/8 10/100/1000BASE-T Gigabit Ethernet RJ45 ports with IEEE 802.3bt PoE++ Injector function
- 4/2 10/100/1000BASE-T Gigabit Ethernet RJ45 ports
- Two 100/1000BASE-X SFP slots for SFP type auto detection
- One RJ45 console interface for basic management and setup

### Power over Ethernet

- Complies with IEEE 802.3bt Power over Ethernet Plus Type-4 PSE
- Backward compatible with IEEE 802.3af/at PD device
- Up to 4/8 ports of IEEE 802.3af/802.3at/802.3bt PoE++ devices powered
- 240-/360-watt PoE budget
- 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 100 meters in standard mode and 250m in extend mode
- PoE management
  - Total PoE power budget control
  - Per port PoE function enable/disable
  - PoE port power feeding priority
  - Per PoE port power limitation
  - PD classification
- Intelligent PoE features
  - PD alive check
  - PoE schedule

### Industrial Hardened Design

- 48~54V DC, redundant power with reverse polarity protection
- DIN-rail and wall-mount designs
- IP30 aluminum case
- Supports 6KV DC Ethernet ESD protection
- -40 to 75 degrees C operating temperature

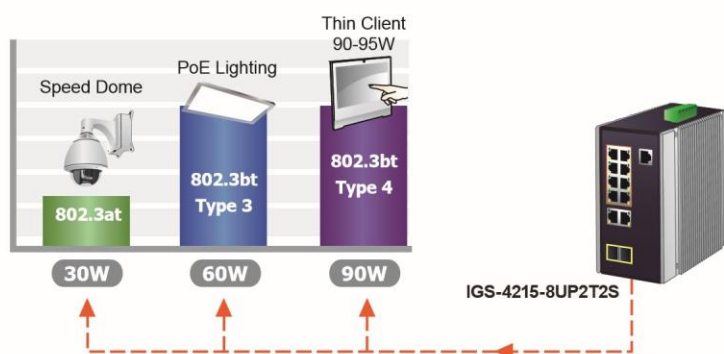
### Layer 2 Features

- Supports VLAN
  - IEEE 802.1Q tagged VLAN
  - Provider bridging (VLAN Q-in-Q, IEEE 802.1ad) support
  - Protocol VLAN

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

As PLANET IGS-4215 802.3bt PoE series adopts the IEEE 802.3bt 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
- 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-4215 802.3bt PoE series provides four different PoE power output modes for selection.

- 95W 802.3bt PoE++ Power Output Mode
- 95W Force Power Output Mode
- 36W End-span PoE Power Output Mode
- 36W Mid-span PoE Power Output Mode

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

As the industrial PoE++ managed switch for surveillance, wireless and VoIP networks, the IGS-4215 802.3bt PoE series features special PoE management functions:

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

## Intelligent Powered Device Alive Check

The IGS-4215 802.3bt PoE series can be configured to monitor connected PD (powered device) status in real time via ping action. Once the PD stops working and responding, the IGS-4215 802.3bt PoE series 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 the administrator's management burden.

- Voice VLAN
- Private VLAN (Protected port)
- Management VLAN
- GVRP
- 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
  - STP BPDU Guard, BPDU Filtering and BPDU Forwarding
- Supports **Link Aggregation**
  - IEEE 802.3ad Link Aggregation Control Protocol (LACP)
  - Cisco ether-channel (static trunk)
  - Maximum 6 trunk groups, up to 8 ports per trunk group
- Provides port mirror (many-to-1)
- Loop protection to avoid broadcast loops
- Supports ERPS (Ethernet Ring Protection Switching)
- Link Layer Discovery Protocol (LLDP)

## Quality of Service

- Ingress/Egress Rate Limit per port bandwidth control
- Traffic classification
  - IEEE 802.1p CoS
  - 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

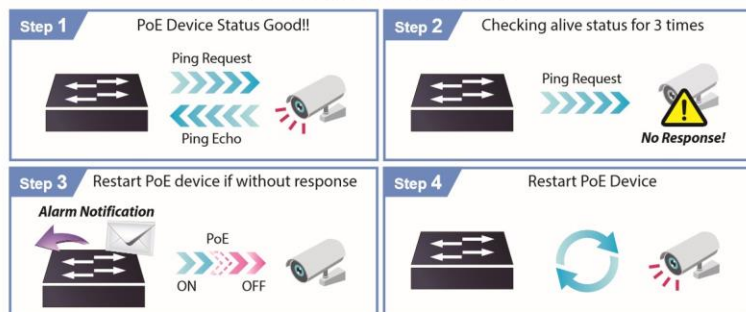
## Multicast

- Supports IPv4 IGMP snooping v2, v3
- Supports IPv6 MLD snooping v1, v2
- IGMP querier mode support
- IGMP snooping port filtering
- MLD snooping port filtering

## Security

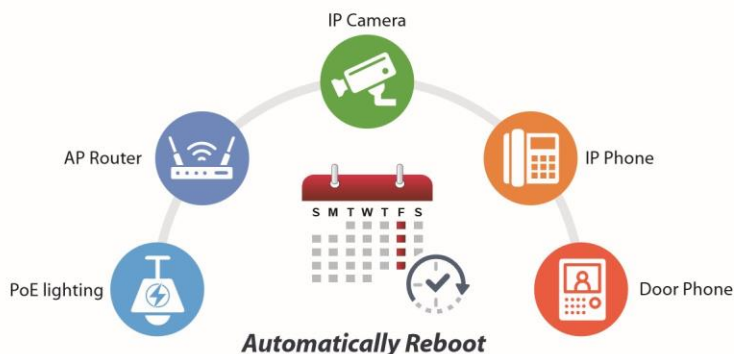
- Storm Control support
  - Broadcast/ unknown multicast/unknown unicast
- Authentication
  - IEEE 802.1X port-based network access authentication
  - Built-in RADIUS client to cooperate with the RADIUS servers
  - DHCP Relay and DHCP Option 82
  - RADIUS/TACACS+ users access authentication
- Access Control List
  - IPv4/IPv6 IP-based ACL
  - IPv4/IPv6 IP-based ACE
  - MAC-based ACL
  - MAC-based ACE

## PD Alive Check



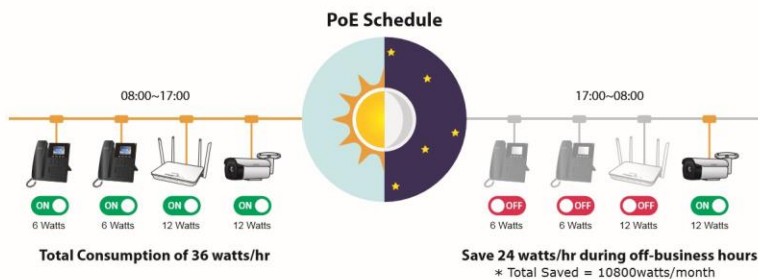
### Scheduled Power Recycling

The IGS-4215 802.3bt PoE 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.



### PoE Schedule for Energy Savings

Under the global trend of energy saving and contributing to environmental protection, the IGS-4215 802.3bt PoE series can effectively control the power supply besides its capability of giving high watts power. The “PoE schedule” function helps you to enable or disable PoE power feeding for each PoE port during specified time intervals, which is a powerful function to help SMBs or enterprises save power and budget. It also increases security by powering off PDs that should not be in use during non-business hours.



- MAC Security
  - Static MAC
  - MAC filtering
- Port security for source MAC address entries filtering
- 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
- DoS attack prevention

## Management

- IPv4 and IPv6 dual stack management
- Switch Management Interface
  - Web switch management
  - Console/Telnet Command Line Interface
  - SNMP v1 and v2c switch management
  - SSHv2, TLSv1.2 and SNMP v3 secure access
- SNMP Management
  - SNMP trap for interface Link Up and Link Down notification
  - Four RMON groups (history, statistics, alarms and events)
- User privilege levels control
- Built-in Trivial File Transfer Protocol (TFTP) client
- Static and DHCP for IP address assignment
- System Maintenance
  - Firmware upload/download via HTTP/TFTP
  - Configuration upload/download through HTTP/TFTP
  - Dual images
  - Hardware reset button for system reboot or reset to factory default
- SNTP Network Time Protocol
- Network Diagnostic
  - Cable diagnostics
  - ICMPv6/ICMPv4 Remote Ping
  - SFP-DDM (Digital Diagnostic Monitor)
- Link Layer Discovery Protocol (LLDP) Protocol and LLDP-MED
- Event message logging to remote syslog server
- PLANET Smart Discovery Utility for deployment management
- PLANET NMS system and CloudViewer for deployment management