

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



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

Designed to be installed in heavy industrial demanding environments, the IGS-4215 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 36-watt 802.3at 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 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 240 watts for different kinds of PoE applications and operating temperature ranging from -40 to 75 degrees C in a rugged IP30 metal housing.

Model Name	IGS-4215-4P4T	IGS-4215-4P4T2S	IGS-4215-8P2T2S		
10/100/1000BASE-T Copper	8	8	10		
100/1000BASE-X SFP	-	2	2		
PoE Standard	IEEE 802.3at PoE+	IEEE 802.3at PoE+	IEEE 802.3at PoE+		
PoE Ports	4	4	8		
PoE Budget	144 watts	144 watts	240 watts		
Power Input	48~54V DC x 2				

#### Cybersecurity Network Solution to Minimize Security Risks

The IGS-4215 PoE series comes with enhanced cybersecurity to fend off cyberthreats and cyberattacks. It supports SSHv2 and TLSv1.2 protocols to provide strong protection against advanced threats. Served as a key point to transmit data over a long-distance fiber optic cable to customer's critical equipment in a business network, the cybersecurity feature of the IGS-4215 PoE series protects the switch management and enhances the security of the mission-critical network without any extra deployment cost and effort.

#### **Physical Port**

- 4/8 10/100/1000BASE-T Gigabit Ethernet RJ45 ports with IEEE 802.3at/af 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 802.3at Power over Ethernet Plus, endspan PSE
- Backward compatible with IEEE 802.3af Power over Ethernet
- Up to 4/8 ports of IEEE 802.3af/802.3at devices powered
- 144-/240-watt PoE budget
- Supports PoE power up to 36 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 detection
- 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

#### Laver 2 Features

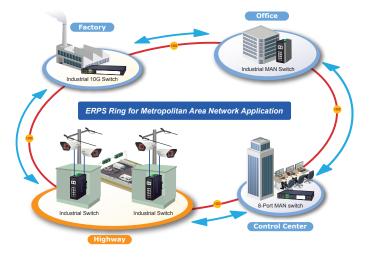
- · Supports VLAN
  - IEEE 802.1Q tagged VLAN
  - Provider bridging (VLAN Q-in-Q, IEEE 802.1ad) support
  - Protocol VLAN
  - Voice VLAN





#### Redundant Ring, Fast Recovery for Critical Network Applications

The IGS-4215 PoE series 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) into customer's network to enhance system reliability and uptime in various environments.



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

As the industrial PoE+ managed switch for surveillance, wireless and VoIP networks, the IGS-4215 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 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 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.

- 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



#### **PD Alive Check**



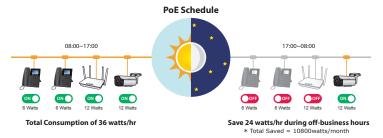
#### Scheduled Power Recycling

The IGS-4215 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 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.



#### 802.3at PoE+ Power and Ethernet Data Transmission Distance Extension

In the "Extend" operation mode, the IGS-4215 PoE series operates on a perport basis at 10Mbps duplex operation but can support 20-watt PoE power output over a distance of up to 250 meters overcoming the 100m limit on Ethernet UTP cable. With this brand-new feature, the IGS-4215 PoE series provides an additional solution for 802.3at/af PoE distance extension, thus saving the cost of Ethernet cable installation.

- RADIUS/TACACS+ users access authentication
- · Access Control List
  - IPv4/IPv6 IP-based ACL
  - IPv4/IPv6 IP-based ACE
  - MAC-based ACL
  - MAC-based ACE
- · 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



#### Intelligent LED Indicators for Real-time PoE Usage Monitoring

Via the power usage chart in the web management interface, the IGS-4215 PoE series enables the administrator to monitor the status of the power usage of the connected PDs in real time. Thus, it greatly enhances the management efficiency of the facilities. Moreover, the IGS-4215 PoE series helps users to monitor the current status of PoE power usage easily and efficiently via its advanced LED indication. Called "PoE Power Usage", the front panel of the IGS-4215 PoE series has four amber LEDs indicating four different PoE power usages.



#### **Environmentally Hardened Design**

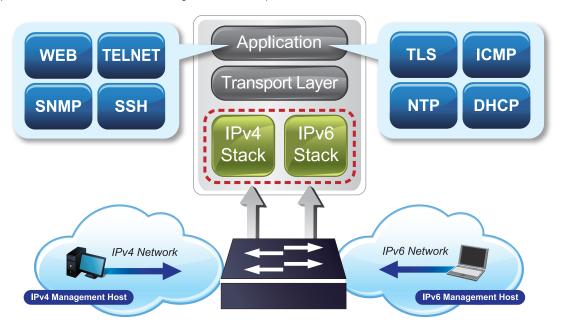
With the IP30 aluminum industrial case, the IGS-4215 PoE series provides a high level of immunity against electromagnetic interference and heavy electrical surges which are usually found on plant floors or in curb-side traffic control cabinets without air conditioner. Being able to operate under the temperature range from -40 to 75 degrees C, the IGS-4215 PoE series can be placed in almost any difficult environment.

#### **Robust Protection**

The IGS-4215 PoE series provides contact discharge of ±6KV DC and air discharge of ±8KV DC for Ethernet ESD protection. It also supports ±4KV surge immunity to improve product stability and protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

#### IPv6/IPv4 Dual Stack Management

Supporting both IPv6 and IPv4 protocols, the IGS-4215 PoE series helps the SMBs to step in the IPv6 era with the lowest investment as its network facilities need not be replaced or overhauled if the IPv6 FTTx edge network is set up.





#### Robust Layer 2 Features

The IGS-4215 PoE series can be programmed for advanced switch management functions such as dynamic port link aggregation, 802.1Q VLAN, Q-in-Q VLAN, Multiple Spanning Tree Protocol (MSTP), loop and BPDU guard, IGMP snooping, and MLD snooping. Via the link aggregation, the IGS-4215 PoE series allows the operation of a high-speed trunk to combine with multiple ports such as an 8Gbps fat pipe, and supports fail-over as well. Also, the Link Layer Discovery Protocol (LLDP) is the Layer 2 protocol included to help discover basic information about neighboring devices on the local broadcast domain.



#### **Efficient Traffic Control**

The IGS-4215 PoE series is loaded with robust QoS features and powerful traffic management to enhance services to business-class data, voice, and video solutions. The functionality includes broadcast/multicast/unicast **storm control**, per port **bandwidth control**, 802.1p/CoS/IP DSCP QoS priority and remarking. It guarantees the best performance in VoIP and video stream transmission, and empowers the enterprises to take full advantage of the limited network resources.

#### Powerful Security

PLANET IGS-4215 PoE series offers comprehensive **IPv4/IPv6** Layer 2 to Layer 4 **Access Control List (ACL)** for enforcing security to the edge. It can be used to restrict network access by denying packets based on source and destination IP address, TCP/UDP ports or defined typical network applications. Its protection mechanism also comprises **802.1X port-based** user and device authentication, which can be deployed with RADIUS to ensure the port level security and block illegal users. With the **protected port** function, communication between edge ports can be prevented to guarantee user privacy. Furthermore, **Port security** function allows to limit the number of network devices on a given port. The network administrators can now construct highly-secure corporate networks with considerably less time and effort than before.

#### **Advanced Network Security**

The IGS-4215 PoE series also provides **DHCP Snooping**, **IP Source Guard** and **Dynamic ARP Inspection** functions to prevent IP snooping from attack and discard ARP packets with invalid MAC address. The network administrators can now construct highly-secure corporate networks with considerably less time and effort than before.

#### User-friendly and Secure Management

For efficient management, the IGS-4215 PoE series is equipped with Command line, Web and SNMP management interfaces.

- With the built-in Web-based management interface, the IGS-4215 PoE series offers an easy-to-use, platform-independent management and configuration facility.
- For text-based management, it can be accessed via Telnet and the console port.
- By supporting the standard SNMP protocol, the switch can be managed via any SNMP-based management software.

Moreover, the IGS-4215 PoE series offers secure remote management by supporting **SSHv2**, **TLSv1.2** and **SNMP v3** connections which encrypt the packet content at each session.





#### Remote Management Solution

PLANET's **Universal Network Management System** (UNI-NMS) and CloudViewer app support IT staff by remotely managing all network devices and monitoring PDs' operational statuses. Thus, they're designed for both the enterprises and industries where deployments of PDs can be as remote as possible, without having to go to the actual location once a bug or faulty condition is found. With the UNI-NMS or CloudViewer app, all kinds of businesses can now be speedily and efficiently managed from one platform.

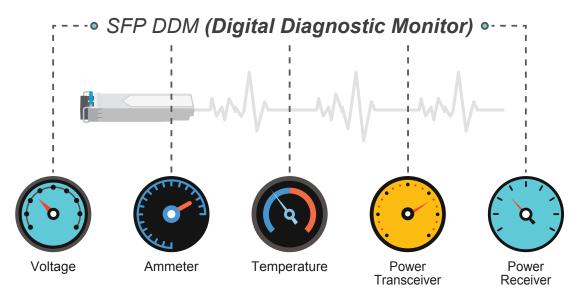


#### Flexible Long-distance Extension Solution

The IGS-4215 PoE series provides 2 or 4 extra Gigabit TP interfaces supporting 10/100/1000BASE-T RJ45 copper to connect with surveillance network devices such as NVR, Video Streaming Server or NAS to facilitate surveillance management. Or through the two **dual-speed fiber SFP slots**, it can also connect with the **100BASE-FX /1000BASE-SX/LX SFP** (Small Form-factor Pluggable) fiber transceiver to uplink to backbone switch and monitoring center in long distance. The distance can be extended from 550 meters to 2 kilometers (multi-mode fiber) and to 10/20/40/60/80/120 kilometers (single-mode fiber or WDM fiber). They are well suited for applications within the enterprise data centers and distributions.

#### Intelligent SFP Diagnosis Mechanism

The IGS-4215 PoE series supports **SFP-DDM** (**Digital Diagnostic Monitor**) function that can easily monitor real-time parameters of the SFP for the network administrator, such as optical output power, optical input power, temperature, laser bias current, and transceiver supply voltage.

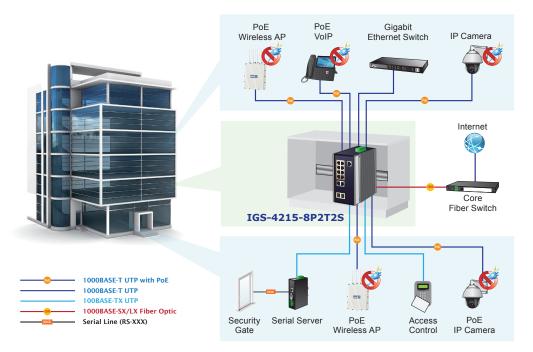




## **Applications**

#### Industrial-grade PoE+ Switch for Building Automation and Security

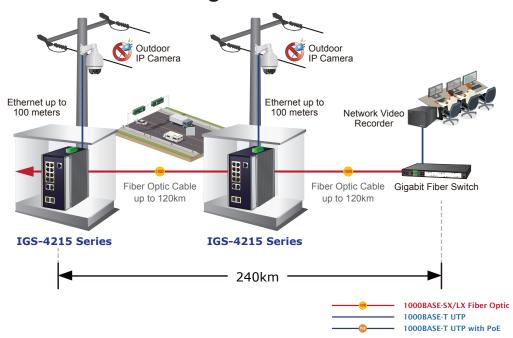
Suitable for buildings where security is strictly to be enforced, the IGS-4215 PoE series, with up to eight 802.3at PoE+, in-line power interfaces, can easily build a power centrally controlled for an IP phone system, IP surveillance system, and wireless AP group in the harsh Industrial environment. For instance, 8 PoE IP cameras or PoE wireless APs can be easily installed for surveillance demands or a wireless roaming environment in the industrial area can be built. Without the power-socket limitation, the IGS-4215 PoE series makes the installation of IP cameras or wireless APs easier and more efficient.



#### Perfect Integration Solution for IP PoE Camera and NVR System

The IGS-4215 PoE series provides 4 or 8 10/100/1000BASE-T 802.3at PoE+ ports which can offer sufficient PoE power to multile PoE IP cameras at the same time. In addition, with the two 100/1000BASE-X SFP interfaces, the IGS-4215 PoE series can connect to a core fiber switch and send video streams to an NVR and monitoring center. Through the high-performance switch architecture, the IGS-4215 PoE series facilitates the recorded video files from the 4 or 8 PoE+ IP cameras to be saved in the NVR systems. Furthermore, the NVR systems can be controlled and monitored in both the local LAN and the remote site via Internet. The IGS-4215 PoE series undoubtedly brings an ideal secure surveillance system at a lower total cost.

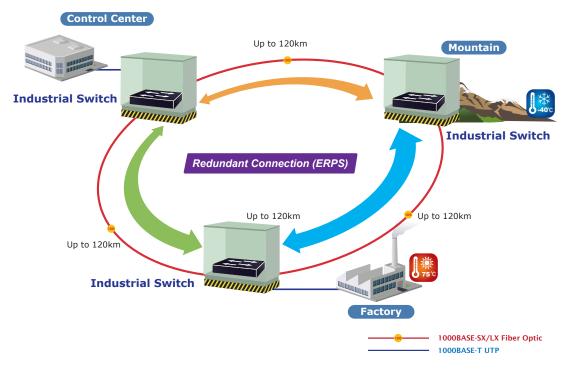
## **Extending Ethernet Distance**





#### ITU-T G.8032 ERPS Makes Data Transmission Uninterrupted

The IGS-4215 PoE series features strong rapid self-recovery capability to prevent interruptions and external intrusions. It incorporates **ITU-T G.8032 ERPS** (Ethernet Ring Protection Switching) technology into customer's automation network to enhance system reliability and uptime. Applying the IEEE 802.3at Power over Ethernet standard, the IGS-4215 PoE series can directly connect with any IEEE 802.3at end-nodes like PTZ (Pan, Tilt & Zoom) network cameras and speed dome cameras. The IGS-4215 PoE series can easily help system integrators with the available network infrastructure to build wireless AP, IP camera and VoIP systems where power can be centrally-controlled.



## **Specifications**

Product		IGS-4215-4P4T	IGS-4215-4P4T2S	IGS-4215-8P2T2S				
Hardware Specification	ns							
Cannar Darta		8	8	10				
Copper Ports		10/100/1000BASE-T RJ45	10/100/1000BASE-T RJ45 auto-MDI/MDI-X port					
		-	2	2				
SFP Ports			1000BASE-SX/LX/BX SFP interfaces					
		-	Compatible with 100BASE-FX SFP					
DoE Injector Dort		4	4	8				
PoE Injector Port		802.3at PoE+	802.3at PoE+	802.3at PoE+				
Console		1 x RS232-to-RJ45 serial p	ort (115200,8, N, 1)					
RAM		128Mbytes						
Flash Memory		16Mbytes						
Decid D. Her		< 5 sec: System reboot	< 5 sec: System reboot					
Reset Button		> 5 sec: Factory default						
Connector		Removable 6-pin terminal b	Removable 6-pin terminal block					
Connector		Pin 1/2 for Power 1; Pin 3/4	Pin 1/2 for Power 1; Pin 3/4 for fault alarm; Pin 5/6 for Power 2					
Alarm		One relay output for power	failure. Alarm relay current carry ability:	1A @ 24V AC				
		48~54V DC,	48~54V DC,	48~54V DC,				
Power Requirements		6A (max.)	6A (max.)	6A (max.)				
		(>52V DC for PoE+ output recommended)						
	System On	Max.4.32 watts/	Max. 6.72 watts/	Max. 6.72 watts/				
Power Consumption/	System On	14.73BTU	22.91BTU	22.91BTU				
Dissipation	PoE Full Loading	Max. 151 watts/	Max. 156 watts/	Max. 252 watts/				
	FOL I dil Loading	514.91BTU	531.96BTU	859.32BTU				
Dimensions (W x D x I	H)	76.8 x 107.3 x 152 mm						
Weight		1,000g	1,043g	1,084g				
Enclosure		IP30 aluminum case						
Installation		DIN-rail kit and wall-mount ear						



		Cartast Diagharas CIV/ Di	2					
ESD Protection		Contact Discharge 6KV Do Air Discharge 8KV DC	<del>C</del>					
Surge Protection		4KV DC						
Switching Specifications		TICV DO						
Switch Architecture	•	Store-and-Forward						
Owner / Weintecture		16Gbps/	20Gbps	24Gbps				
Switch Fabric		non-blocking	/non-blocking	/non-blocking				
Switch Throughput@64	1 bytes	11.9Mpps	14.8Mpps	17.85Mpps				
MAC Address Table		8K entries						
Shared Data Buffer		4.1 megabits						
Flow Control		IEEE 802.3x pause frame for full duplex  Back pressure for half duplex						
Jumbo Frame		10 Kbytes						
Power over Ethernet		,						
PoE Standard		IEEE 802.3at PoE+ PSE						
PoE Power Supply Typ	e	End-span						
Power Pin Assignment		1/2(+), 3/6(-)						
	IEEE 802.3af	Per port 48V~51V DC, ma	x. 15.4 watts					
PoE Power Output	IEEE 802.3at	Per port 51V~54V DC, ma:						
PoE Power Budget		144 watts maximum	144 watts maximum	240 watts maximum				
Max. Number of Class	4 PDs	4	4	8				
PoE Management Fund	tions							
Enhanced PoE Mode		Standard/Legacy/Force						
PoE Management		PD Alive Check Scheduled Power Recycling PoE Schedule PoE Usage Monitoring PoE Extension						
Active PoE Device Live	Detection	Yes						
PoE Power Recycling		Yes, daily or predefined so	hedule					
PoE Schedule		4 schedule profiles						
PoE Extend Mode		Yes, max. up to 250 meter	S					
Layer 2 Functions								
Port Mirroring		TX/RX/Both Many-to-1 monitor Up to 4 sessions						
Up to 4 sessions								
Link Aggregation		IEEE 802.3ad LACP and s Supports 8 groups with 8 p	ports per trunk					
Spanning Tree Protoco	I	IEEE 802.1D Spanning Tree Protocol (STP) IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)						
IGMP Snooping		IPv4 IGMP snooping v2, v IGMP querier Up to 256 multicast groups						
MLD Snooping		IPv6 MLD snooping v2, v3	, up to 256 multicast groups					
Accord Control List		IPv4/IPv6 IP-based ACL/N	AC-based ACL					
Access Control List  IPv4/IPv6 IP-based ACE/MAC-based ACE  IPv4/IPv6 IP-based ACE/MAC-based ACE								



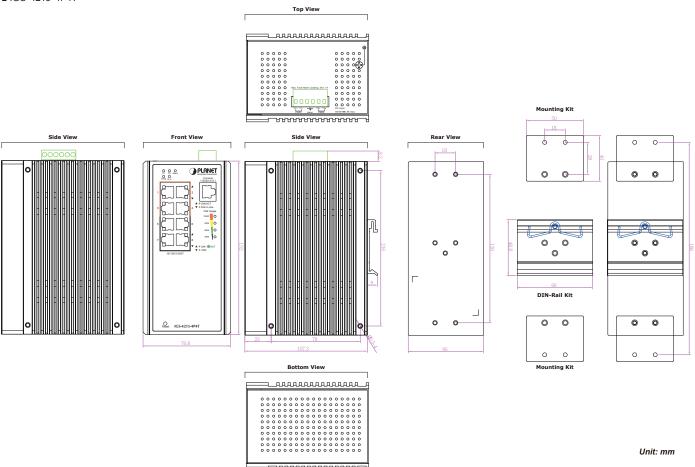
	8 mapping IDs to 8 level priority queues
	- Port number
	- 802.1p priority
QoS	- DSCP/IP precedence of IPv4/IPv6 packets
	Traffic classification based, strict priority and WRR
	Ingress/Egress Rate Limit per port bandwidth control
Ring	Supports ERPS, and complies with ITU-T G.8032
0 " 5 "	Recovery time < 450ms
Security Functions	
	IPv4/IPv6 IP-based ACL/MAC-based ACL
Access Control List	IPv4/IPv6 IP-based ACE/MAC-based ACE
	Max. 256 ACL entries
	IEEE 802.1X – Port-based authentication
Port Security	Built-in RADIUS client to co-operate with RADIUS server
·	RADIUS/TACACS+ user access authentication
	IP-MAC port binding
MAC Security	MAC filter
WAC Geculity	Static MAC address, max. 256 static MAC entries
	DHCP Snooping and DHCP Option82
	STP BPDU guard, BPDU filtering and BPDU forwarding
Enhanced Security	DoS attack prevention
	ARP inspection
	IP source guard
Management Functions	
	RS232 to RJ45 Console
	Web browser
Basic Management Interfaces	Telnet
	SNMP v1, v2c
Secure Management Interfaces	SSHv2, TLS v1.2, SNMP v3
- Cooure management into nacce	Firmware upgrade by HTTP/TFTP protocol through Ethernet network
	Configuration upload/download through HTTP/TFTP
	LLDP protocol
System Management	ONTO
System Management	SNTP
System Management	PLANET Smart Discovery Utility
System Management	
	PLANET Smart Discovery Utility
System Management  Event Management	PLANET Smart Discovery Utility PLANET NMS System/CloudViewer
	PLANET Smart Discovery Utility PLANET NMS System/CloudViewer  Remote/Local Syslog
	PLANET Smart Discovery Utility PLANET NMS System/CloudViewer  Remote/Local Syslog System log  RFC 1213 MIB-II
	PLANET Smart Discovery Utility PLANET NMS System/CloudViewer  Remote/Local Syslog System log  RFC 1213 MIB-II RFC 1215 Generic Traps
	PLANET Smart Discovery Utility PLANET NMS System/CloudViewer  Remote/Local Syslog System log  RFC 1213 MIB-II RFC 1215 Generic Traps RFC 1493 Bridge MIB
Event Management	PLANET Smart Discovery Utility PLANET NMS System/CloudViewer  Remote/Local Syslog System log  RFC 1213 MIB-II RFC 1215 Generic Traps RFC 1493 Bridge MIB RFC 2674 Bridge MIB Extensions
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Event Management  SNMP MIBs	PLANET Smart Discovery Utility PLANET NMS System/CloudViewer  Remote/Local Syslog System log  RFC 1213 MIB-II RFC 1215 Generic Traps RFC 1493 Bridge MIB RFC 2674 Bridge MIB Extensions RFC 2737 Entity MIB (Version 2) RFC 2819 RMON (1, 2, 3, 9) RFC 2863 Interface Group MIB RFC 3635 Ethernet-like MIB RFC 3621 Power Ethernet MIB
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Event Management  SNMP MIBs  Standards Conformance	PLANET Smart Discovery Utility PLANET NMS System/CloudViewer  Remote/Local Syslog System log  RFC 1213 MIB-II RFC 1215 Generic Traps RFC 1493 Bridge MIB RFC 2674 Bridge MIB Extensions RFC 2737 Entity MIB (Version 2) RFC 2819 RMON (1, 2, 3, 9) RFC 2863 Interface Group MIB RFC 3635 Ethernet-like MIB RFC 3621 Power Ethernet MIB  FCC Part 15 Class A EN 55032 EN 55035 ICES-003 issue 7
Event Management  SNMP MIBs  Standards Conformance  Regulatory Compliance	PLANET Smart Discovery Utility PLANET NMS System/CloudViewer  Remote/Local Syslog System log  RFC 1213 MIB-II  RFC 1215 Generic Traps  RFC 1493 Bridge MIB  RFC 2674 Bridge MIB Extensions  RFC 2737 Entity MIB (Version 2)  RFC 2819 RMON (1, 2, 3, 9)  RFC 2863 Interface Group MIB  RFC 3635 Ethernet-like MIB  RFC 3621 Power Ethernet MIB  FCC Part 15 Class A  EN 55032  EN 55035  ICES-003 issue 7  IEC 60068-2-32 (free fall)
Event Management  SNMP MIBs  Standards Conformance	PLANET Smart Discovery Utility PLANET NMS System/CloudViewer  Remote/Local Syslog System log  RFC 1213 MIB-II RFC 1215 Generic Traps RFC 1493 Bridge MIB RFC 2674 Bridge MIB Extensions RFC 2737 Entity MIB (Version 2) RFC 2819 RMON (1, 2, 3, 9) RFC 2863 Interface Group MIB RFC 3635 Ethernet-like MIB RFC 3621 Power Ethernet MIB  FCC Part 15 Class A EN 55032 EN 55035 ICES-003 issue 7



	IEEE 802.3 10BASE-T	IEEE 802.3at Power over Ethernet Plus
	IEEE 802.3u 100BASE-TX/100BASE-FX	IEEE 802.3az for Energy-Efficient Ethernet
	IEEE 802.3z Gigabit SX/LX	RFC 768 UDP
	IEEE 802.3ab Gigabit 1000BASE-T	RFC 783 TFTP
	IEEE 802.3x Flow Control and Back Pressure	RFC 791 IP
	IEEE 802.3ad Port Trunk with LACP	RFC 792 ICMP
Standarda Camplianas	IEEE 802.1D Spanning Tree Protocol	RFC 2068 HTTP
Standards Compliance	IEEE 802.1w Rapid Spanning Tree Protocol	RFC 1112 IGMP v1
	IEEE 802.1s Multiple Spanning Tree Protocol	RFC 2236 IGMP v2
	IEEE 802.1p Class of Service	RFC 3376 IGMP v3
	IEEE 802.1Q VLAN Tagging	RFC 2710 MLD v1
	IEEE 802.1x Port Authentication Network Control	RFC 3810 MLD v2
	IEEE 802.1ab LLDP	ITU G.8032 ERPS Ring
	IEEE 802.3af Power over Ethernet	
Environment		
Operating Temperature	-40 ~ 75 degrees C	
Storage Temperature	-40 ~ 85 degrees C	
Humidity	5 ~ 95% (non-condensing)	

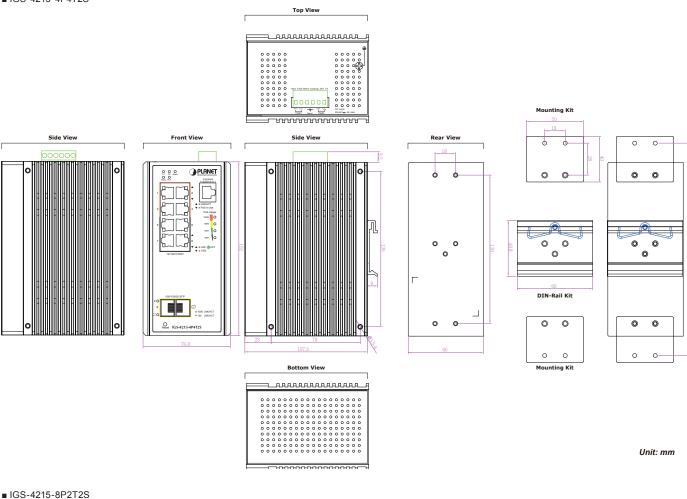
## **Dimensions**

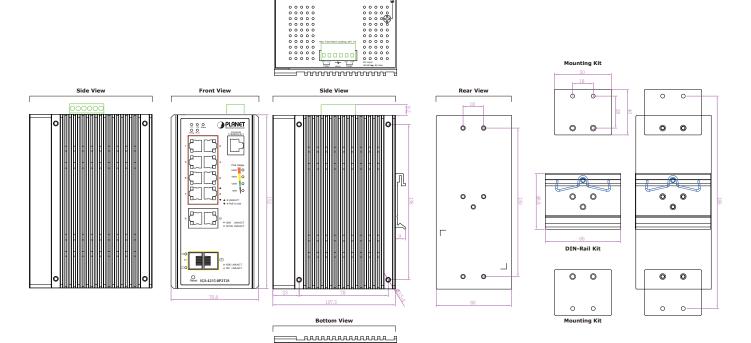
■ IGS-4215-4P4T





#### ■ IGS-4215-4P4T2S





Top View

Unit: mm



## **Ordering Information**

IGS-4215-4P4T	Industrial 4-Port 10/100/1000T 802.3at PoE + 4-Port 10/100/1000T Managed Switch (-40~75 degrees C)
IGS-4215-4P4T2S	Industrial 4-Port 10/100/1000T 802.3at PoE + 4-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch (-40~75 degrees C)
IGS-4215-8P2T2S	Industrial 8-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch (-40~75 degrees C)

## **Related Products**

IGS-4215-4T2S	Industrial L2/L4 4-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch (-40~75 degrees C)
IGS-4215-8T2S	Industrial L2/L4 8-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch(-40~75 degrees C)
IGS-4215-16T2S	Industrial L2/L4 16-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch (-40~75 degrees C)
WGS-804HP	8-Port 10/100/1000T Wall Mounted Gigabit Ethernet Switch with 4-Port PoE+(-40~75 degrees C)
WGS-4215-8P2S	Industrial 8-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Wall-mounted Managed Switch (-40~75 degrees C)
WGS-4215-8HP2S	Industrial 4-Port 10/100/1000T 802.3bt PoE + 4-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Wall-mount Managed Switch (-40~75 degrees C)
WGS-4215-16P2S	Industrial 16-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Wall-mounted Managed Switch (-10~60 degrees C)

## Accessories

PWR-240-48	240W 48V DC Single Output Industrial DIN-rail Power Supply (-20 ~ 70 degrees C)
PWR-480-48	480W 48V DC Single Output Industrial DIN-rail Power Supply (-20 ~ 70 degrees C)

## Available Gigabit SFP Modules

Gigabit Ethernet Transceiver (1000BASE-X SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MGB-GT	1000	Copper		100m		0 ~ 60 degrees C
MGB-TSX	1000	LC	Multi Mode	550m	850nm	-40 ~ 75 degrees C
MGB-TLX	1000	LC	Single Mode	10km	1310nm	-40 ~ 75 degrees C
MGB-TL30	1000	LC	Single Mode	30km	1310nm	-40 ~ 75 degrees C
MGB-TL70	1000	LC	Single Mode	70km	1550nm	-40 ~ 75 degrees C

Gigabit Ethernet Transceiver (1000BASE-BX, Single Fiber Bi-directional SFP)

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Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MGB-TLA10	1000	WDM(LC)	Single Mode	10km	1310nm	1550nm	-40 ~ 75 degrees C
MGB-TLB10	1000	WDM(LC)	Single Mode	10km	1550nm	1310nm	-40 ~ 75 degrees C
MGB-TLA20	1000	WDM(LC)	Single Mode	20km	1310nm	1550nm	-40 ~ 75 degrees C
MGB-TLB20	1000	WDM(LC)	Single Mode	20km	1550nm	1310nm	-40 ~ 75 degrees C
MGB-TLA40	1000	WDM(LC)	Single Mode	40km	1310nm	1550nm	-40 ~ 75 degrees C
MGB-TLB40	1000	WDM(LC)	Single Mode	40km	1550nm	1310nm	-40 ~ 75 degrees C
MGB-TLA60	1000	WDM(LC)	Single Mode	60km	1310nm	1550nm	-40 ~ 75 degrees C
MGB-TLB60	1000	WDM(LC)	Single Mode	60km	1550nm	1310nm	-40 ~ 75 degrees C



## Available Fast Ethernet SFP Modules

Fast Ethernet Transceiver (100BASE-X SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MFB-TFX	100	LC	Multi Mode	2km	1310nm	-40 ~ 75 degrees C
MFB-TF20	100	LC	Single Mode	20km	1550nm	-40 ~ 75 degrees C

Fast Ethernet Transceiver (100BASE-BX, Single Fiber Bi-directional SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MFB-TFA20	100	WDM(LC)	Single Mode	20km	1310nm	1550nm	-40 ~ 75 degrees C
MFB-TFB20	100	WDM(LC)	Single Mode	20km	1550nm	1310nm	-40 ~ 75 degrees C
MFB-TFA40	100	WDM(LC)	Single Mode	40km	1310nm	1550nm	-40 ~ 75 degrees C
MFB-TFB40	100	WDM(LC)	Single Mode	40km	1550nm	1310nm	-40 ~ 75 degrees C

Tel: 886-2-2219-9518 Email: sales@planet.com.tw Fax: 886-2-2219-9528 www.planet.com.tw



**IGS-4215-PoE Series**