Industrial L2/L4 8-Port 10/100/1000T + 4-Port 10G SFP+ Managed Ethernet Switch

Budget-friendly Industrial L2/L4 Switch with PoE Capability

Tailored for the challenges of heavy industrial environments, the **IGS-4215-8T4X** and **IGS-4215-8UP4X** stand out as PLANET's **latest DIN-rail L2/L4 Managed Gigabit switches**. The IGS-4215-8T4X, a budget-friendly option, delivers versatile features, including **IPv6/IPv4** dual stack management and a built-in L2/L4 Gigabit switching engine. Boasting **8 10/100/1000BASE-T** ports and **4 10GBASE-X SFP+** fiber slots, it ensures unwavering, stable performance in temperatures ranging from -40 to 75 °C, showcasing remarkable adaptability. In comparison, the **IGS-4215-8UP4X is a robust PoE++ solution**, featuring intelligent PoE functions, a **360-watt** power budget, and a **rugged IP30 aluminum casing**. Both switches include a **USB Type C console** port for seamless management, ensuring durability and reliability in challenging industrial environments.

Cybersecurity Network Solution to Minimize Security Risks

The IGS-4215 Series supports SSHv2 and TLSv1.2 protocols to provide strong protection against advanced threats. It includes a range of cybersecurity features such as **DHCP Snooping**, **IP Source Guard**, **dynamic ARP Inspection** Protection, **802.1x port-based** network access control, **RADIUS** and **TACACS+** user accounts management, **SNMPv3** authentication, and so on to complement it as an all-security solution.

Physical Port

- **8 10/100/1000BASE-T** Gigabit Ethernet RJ45 ports
- **8 ports with IEEE 802.3bt PoE++** injector function (PoE functionality is exclusive in the IGS-4215-8UP4X model)
- **4 10GBASE-SR/LR SFP+** slots, backward compatible with 1G/2.5GBASE-X SFP
- One **USB Type C** console interface for basic management and setup

Power over Ethernet (PoE functionality is exclusive in the IGS-4215-8UP4X model)

- Compliance with IEEE 802.3bt Type-4 PoE++ standard
- Backward compatible with IEEE 802.3af/at Power over Ethernet
- Powers up to 8 ports of IEEE 802.3bt PoE++ devices
- PoE budget
  - Dual power input: 360W
  - Single power input: 240W
- Supports PoE power up to 95 watts for each PoE port
- Auto detects powered devices (PDs)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100 meters in standard mode and 250m in extended 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
  - Temperature threshold control
  - PoE extension
  - PD alive check
  - PoE schedule

Industrial Case and Installation

- IP30 aluminum case
- DIN-rail and wall-mount design

*Redundant Ring, Fast Recovery for Critical Network Applications*

The IGS-4215 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.

ERPS Ring for Metropolitan Area Network Application
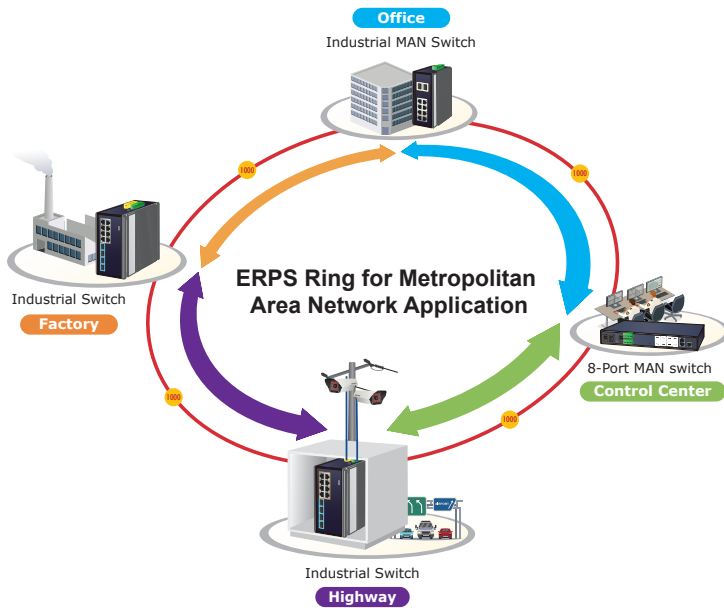
High Power and Full-speed Data Delivered over 4-pair UTP Cabling

The IGS-4215-8UP4X meets the standards of IEEE 802.bt PoE++ technology and has a total power capacity of 1440 watts. This allows it to supply up to 95 watts of power to each remote PoE-compliant powered device (PD) using all four pairs of standard Cat5e/6 Ethernet cabling, ensuring high power and full-speed data delivery. Compared to the conventional 802.3at PoE+, it offers triple power capacity, making it the perfect solution for higher power consuming PDs, including:

- 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
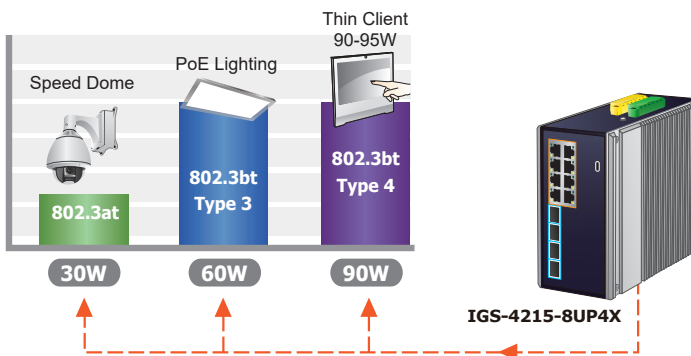
- **IGS-4215-8UP4X**: 48~54V DC (redundant power with reverse polarity protection)
- **IGS-4215-8T4X**: 9~48V DC (redundant power with reverse polarity protection) or 24V AC input
- Supports 6KV DC Ethernet ESD protection
- -40 to 75 °C operating temperature

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 SNMP trap

Switching

- Hardware-based 10/100Mbps (half/full duplex), 1000Mbps (full duplex), auto-negotiation and auto MDI/MDI-X
- IEEE 802.3x flow control for full duplex operation and back pressure for half duplex operation
- 16K MAC address table size
- 12K jumbo frame
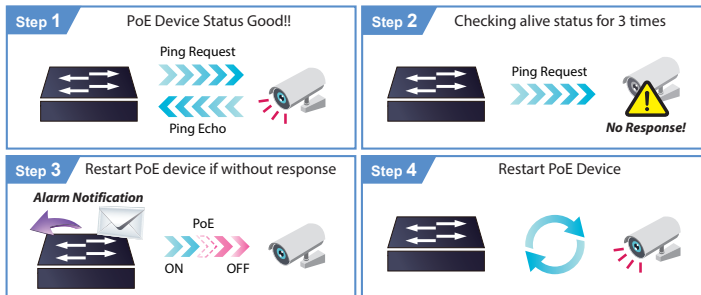- Automatic address learning and address aging

Layer 2 Features

- Supports **VLAN**
  - IEEE 802.1Q tagged VLAN
  - Provider bridging (VLAN Q-in-Q, IEEE 802.1ad) support
  - Protocol VLAN
  - Voice VLAN
  - Private VLAN (Protected port)
  - Management VLAN
  - GVRP
- Supports **Spanning Tree Protocol**
  - STP (Spanning Tree Protocol)
  - RSTP (Rapid Spanning Tree Protocol)
  - MSTP (Multiple Spanning Tree Protocol)
  - 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 8 trunk groups, up to 8 ports per trunk group
- Supports port mirror (many-to-1)
- Loop protection to avoid broadcast loops

Intelligent Powered Device Alive Check

The IGS-4215-8UP4X 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-4215-8UP4X 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.

PD Alive Check

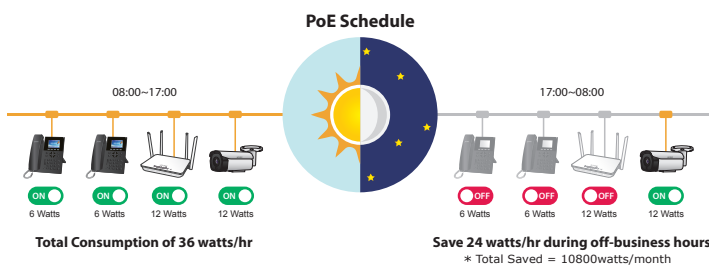| Step **1**	PoE Device Status Good!!	Step **2**	Checking alive status for 3 times
	Ping Request / Ping Echo		Ping Request / **No Response!**
Step **3**	Restart PoE device if without response	Step **4**	Restart PoE Device
Alarm Notification	PoE ON OFF		

Scheduled Power Recycling

The IGS-4215-8UP4X 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.

IP Camera
AP Router
IP Phone
PoE lighting
Door Phone

Automatically Reboot
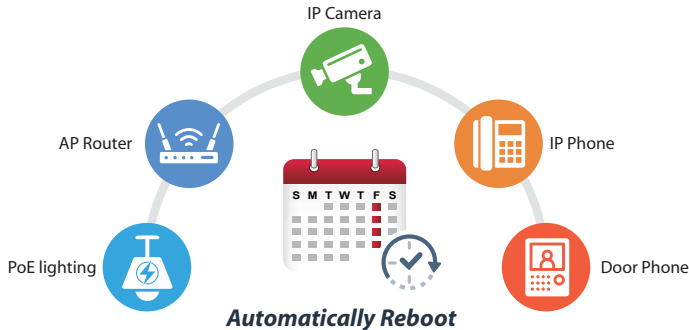
PoE Schedule for Energy Savings

Under the global trend of energy saving and contributing to environmental protection, the IGS-4215-8UP4X can effectively control the power supply besides its capability of giving high watts power. The "PoE schedule" function helps you 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.

PoE Schedule

08:00~17:00
17:00~08:00

| ON | ON | ON | ON | | OFF | OFF | OFF | ON |
| 6 Watts | 6 Watts | 12 Watts | 12 Watts | | 6 Watts | 6 Watts | 12 Watts | 12 Watts |

Total Consumption of 36 watts/hr

Save 24 watts/hr during off-business hours
＊ Total Saved = 10800watts/month

- 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
  – TOS/DSCP/IP precedence of IPv4/IPv6 packets
- Strict priority and Weighted Round Robin (WRR) CoS policies

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 / Multicast / Unknown Unicast
- Authentication
  – IEEE 802.1X port-based network access authentication
  – Built-in RADIUS client to cooperate with the RADIUS servers
  – DHCP Option 82
  – RADIUS/TACACS+ 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

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

In "Extended" operation mode, the IGS-4215-8UP4X functions on a per-port basis with a 10Mbps duplex operation. Remarkably, it can deliver a 40-watt PoE power output over a distance of up to 250 meters, surpassing the standard 100m limit on Ethernet UTP cables. Thus, PoE power can be supplied over a long distance without the need of additional Ethernet cabling and electrical outlets, resulting in cost savings.

Extend Mode
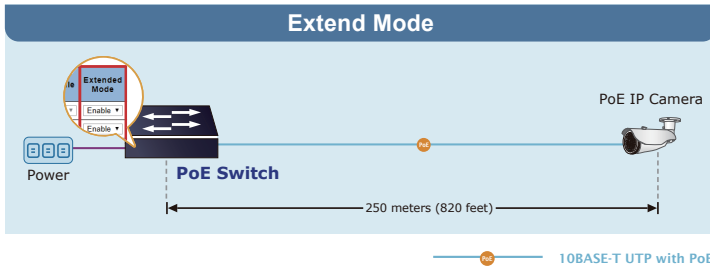
Effective Alarm Alert for Better Protection

The IGS-4215 Series incorporates a Fault Alarm feature that promptly notifies users of any issues with the switches. This valuable feature eliminates the need for users to spend time locating the problem, resulting in significant time and human resource savings.
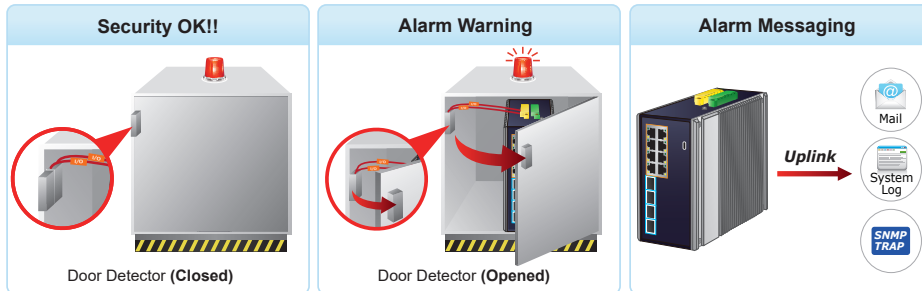
Fault Alarm Feature
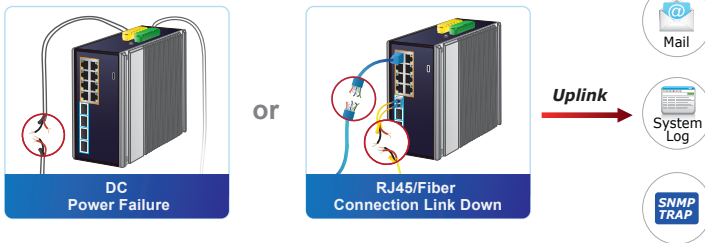
- – Web switch management
- – Console/Telnet Command Line Interface
- – SNMP v1 and v2c switch management
- – SSHv2, TLSv1.2 and SNMP v3 secure access
- • SNMP Management
  - – SNMP trap for interface Link Up and Link Down notification
  - – Four RMON groups (history, statistics, alarms and events)
- • 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/CloudViewerPro for deployment management
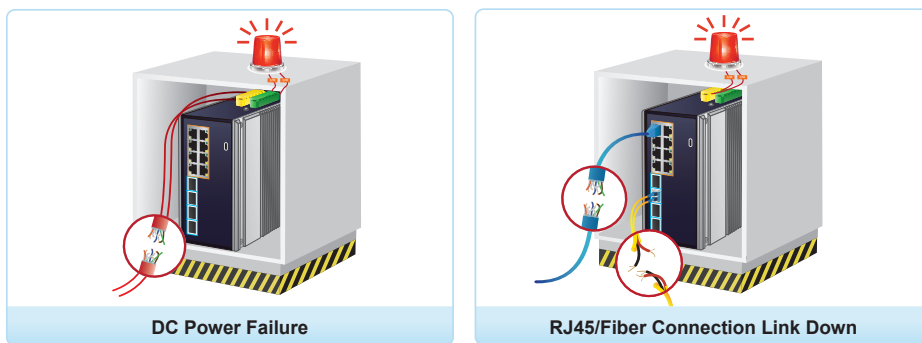
Digital Input and Digital Output for External Alarm

The IGS-4215-8UP4X and IGS-4215-8T4X support Digital Input and Digital Output through a terminal block located on its upper panel. This external alarm enables users to use Digital Input to detect and log external device status (such as door intrusion detector), and send event alarm to the administrators. The Digital Output could be used to alarm the administrators if the IGS-4215 Series port shows "link down", "link up" or "power failure".

Digital Input

Security OK!!	Alarm Warning	Alarm Messaging
Door Detector **(Closed)**	Door Detector **(Opened)**	

Digital Output

| DC Power Failure	RJ45/Fiber Connection Link Down

Environmentally Hardened Design

With the IP30 aluminum industrial case, the IGS-4215 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 °C, the IGS-4215 Series can be placed in almost any difficult environment.

Robust Protection

The IGS-4215 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 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.
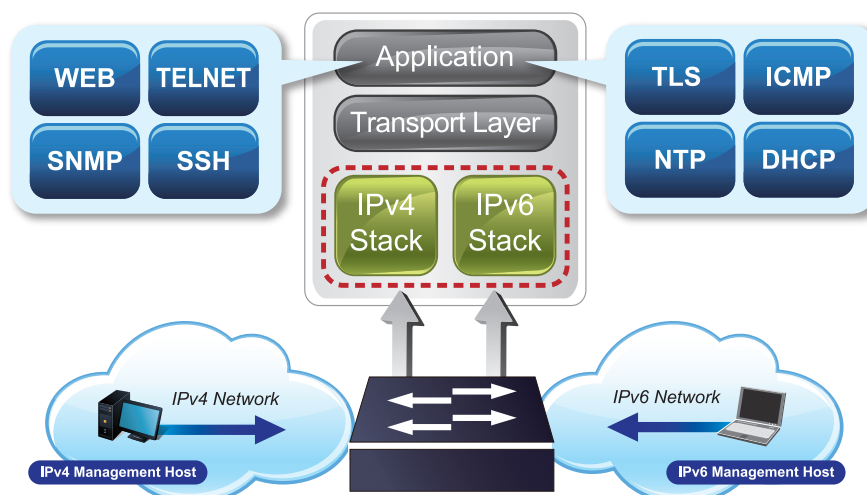
Robust Layer 2 Features

The IGS-4215 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**. With dynamic port link aggregation, the switch enables the creation of a high-speed trunk. For instance, it can combine four 10G ports, creating a resilient 40Gbps connection with fail-over support. Additionally, the inclusion of **Link Layer Discovery Protocol (LLDP)** enhances Layer 2 functionality by providing essential information about neighboring devices within the local broadcast domain.
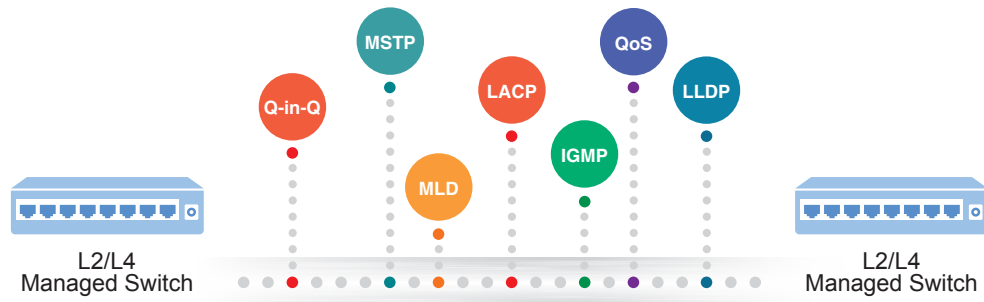
Efficient Traffic Control

The IGS-4215 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.

Enhancing Network Security

PLANET IGS-4215 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.

Ensuring Network Integrity

The I IGS-4215 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 Series is equipped with Command line, Web and SNMP management interfaces.

- With the built-in **Web-based** management interface, the IGS-4215 series offers an easy-to-use, platform-independent management and configuration facility.
- For **text-based command line** management, it can be accessed via Telnet, SSH 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 Series offers secure remote management by supporting **SSHv2**, **TLSv1.2** and **SNMP v3** connections which encrypt the packet content at each session.
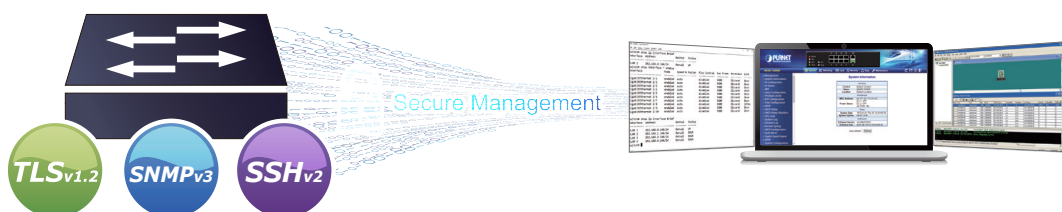
Flexible Long-distance Extension Solution

The emergence of 10G Ethernet marks a significant advancement in Ethernet technology. The IGS-4215-8T4X/IGS-4215-8UP4X is a powerful networking device that offers **four 10G SFP+** slots capable of supporting three different speeds. These slots can operate at 10GBASE-SR/LR or 1G/2.5GBASE-SX/LX backwards, providing administrators with flexibility in choosing the most suitable SFP/SFP+ transceiver based on the required transmission distance and speed. With ample bandwidth and robust processing capacity, the IGS-4215 Series provides an efficient solution for administrators seeking to enhance their network infrastructure.

Intelligent SFP Diagnosis Mechanism

The IGS-4215 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.

Voltage   Ammeter   Temperature   Power Transceiver   Power Receiver
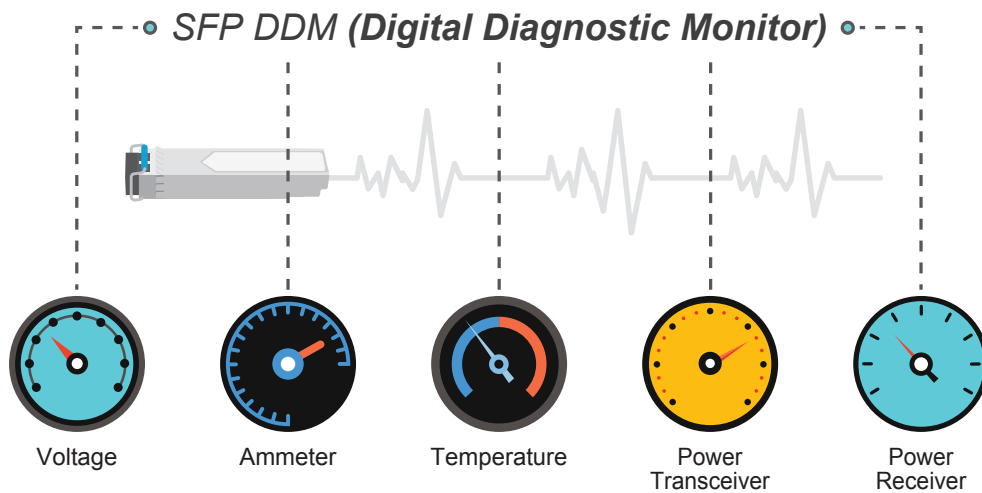
Remote Management Solution

PLANET's Universal Network Management System (UNI-NMS) and CloudViewerPro app provide robust support for IT staff in effectively managing and monitoring all network devices, including the IGS-4215 series, from remote locations. Tailored for deployment in both enterprises and industries where the IGS-4215 series is utilized remotely, these systems enable the identification of bugs or faulty conditions without the need for on-site visits. With UNI-NMS or the CloudViewerPro app, businesses of all types can now be swiftly and efficiently managed through a unified platform, streamlining operational oversight.

NMS Controller   CloudViewerPro App

Applications

Industrial-grade PoE+ Switch for Building Automation and Security
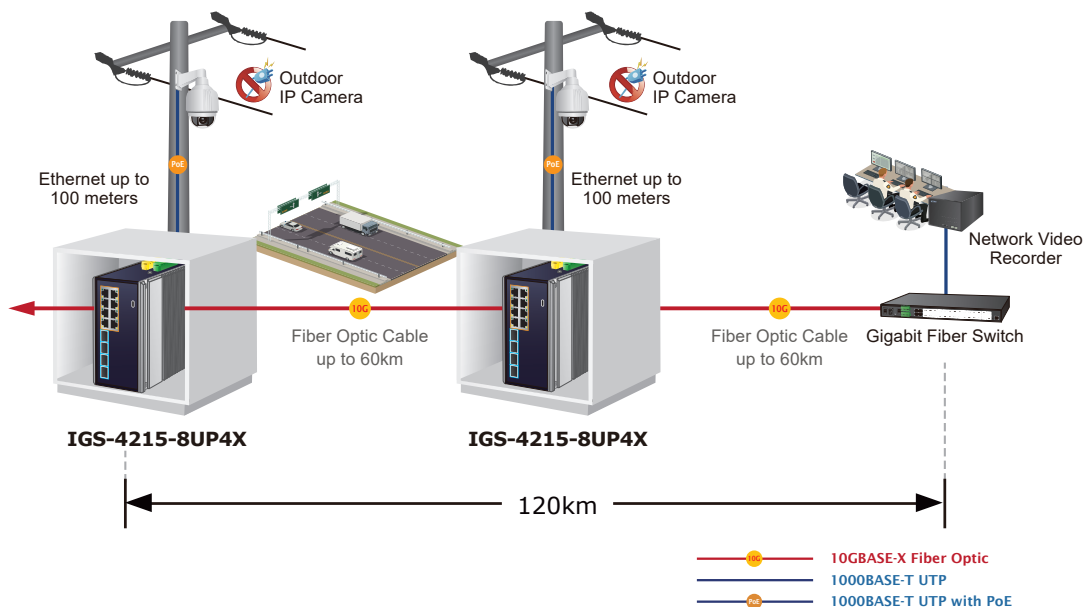
Suitable for buildings where security is strictly to be enforced, the IGS-4215-8UP4X, with eight 802.3bt PoE++, in-line power interfaces, can easily build a power centrally controlled for an IP phone system, IP surveillance system, and wireless AP group in the harsh Industrial environment. For instance, 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-4215-8UP4X makes the installation of IP cameras or wireless APs easier and more efficient.
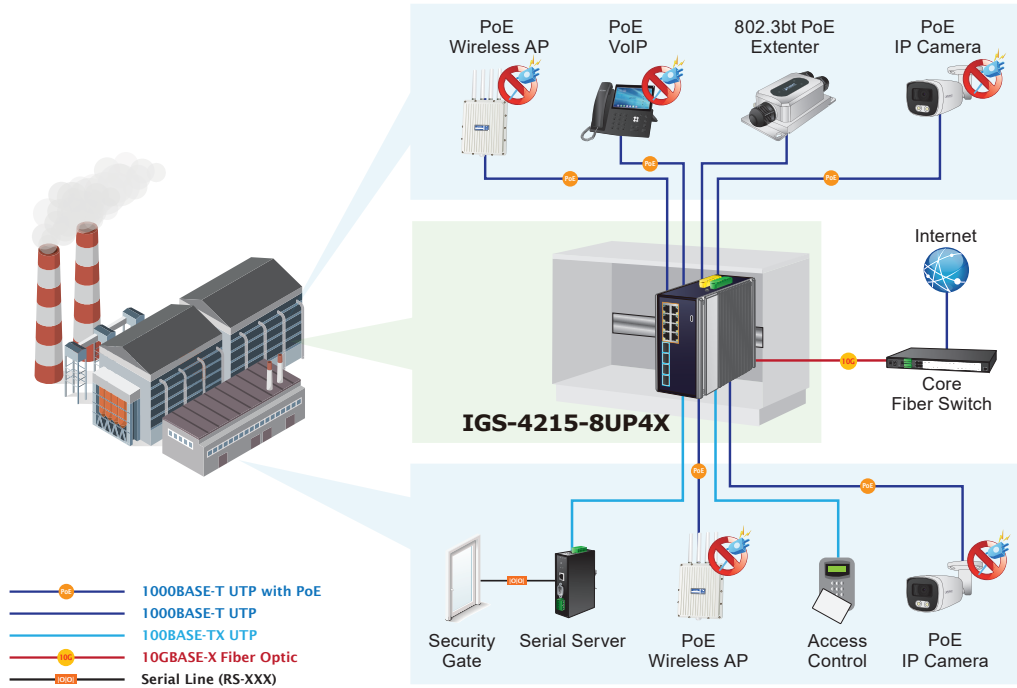
Perfect Integration Solution for IP PoE Camera and NVR System

The IGS-4215-8UP4X provides 8 10/100/1000BASE-T 802.3bt PoE++ ports which can offer sufficient PoE power to 8 PoE IP cameras at the same time. In addition, with the four 10GBASE-X SFP interfaces, the IGS-4215-8UP4X 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-4215-8UP4X facilitates the recorded video files from the 8 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-4215-8UP4X undoubtedly brings an ideal secure surveillance system at a lower total cost.

Extending Ethernet Distance

Specifications

Product	IGS-4215-8UP4X	IGS-4215-8T4X
Hardware Specifications		
Copper Ports	8 10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports (Ports 1 to 8)	8 10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports (Ports 1 to 8)
PoE Injector Port	8 ports with 802.3bt PoE++ injector function (Ports 1 to 8)	-
SFP Ports	4 10GBASE-SR/LR SFP+ interfaces (Port XG1 to Port XG4) Backward compatible with 1G/2.5GBASE-SX/LX/BX SFP transceivers	
Console	1 x USB Type C to RS232 serial port (115200,8, N, 1)	
Reset Button	< 5 sec: System reboot > 5 sec: Factory default	
Connector	Removable 6-pin terminal block Pin 1/2 for Power 1; Pin 3/4 for fault alarm; Pin 5/6 for Power 2 Removable 6-pin terminal block for DI/DO interface Pin 1/2 for DI 1 & 2, Pin 3/4 for DO 1 & 2, Pin 5/6 for GND	
Alarm	One relay output for power failure. Alarm relay current carry ability: 1A @ 24V AC	
Digital input (DI)	2 digital input (DI): Level 0: -24V~2.1V (±0.1V) Level 1: 2.1V~24V (±0.1V) Input load to 24V DC, 10mA max.	
Digital output (DO)	2 digital output (DO): Open collector to 24V DC, 100mA max.	
Power Requirements	48~54V DC, 8A (max.)	9~48V DC, 2A (max.) or 24V AC, 0.8A (max.)
Power Consumption/ Dissipation	Max. 10.2 watts / 34.8BTU (system on) Max. 398.6 watts/1360.1BTU (Full loading)	DC: Max. 5.57 watts / 19BTU (system on), Max. 11.6 watts / 39.6BTU (Full loading); AC: Max. 4.7 watts / 16.04BTU (system on), Max. 10.6 watts / 36.2BTU (Full loading)
Dimensions (W x D x H)	76 x 135 x 152 mm	
Weight	1361g	1232g
Enclosure	IP30 aluminum case	
Installation	DIN-rail kit and wall-mount ear	
ESD Protection	Contact Discharge 6KV DC Air Discharge 8KV DC	
LED	System: Power 1 (Green), Power 2 (Green), Alarm (Red), Ring (Green), R.O.(Green), I/O (Red) Per 10/100/1000T RJ45 PoE++ Ports: Up: 1000 LNK/ACT (Green), 10/100 LNK/ACT (Amber); Down: 802.3bt (Green), 802.3at (Amber) PoE Usage: 90/180/270/360W (Amber) Per 10G SFP Interface: 1G/2.5G LNK/ACT (Green) 100/10G LNK/ACT (Amber)	System: Power 1 (Green), Power 2 (Green), Alarm (Red), Ring (Green), R.O.(Green), I/O (Red) Per 10/100/1000T RJ45: Up: 1000 LNK/ACT (Green); Down: 10/100 LNK/ACT (Amber) Per 10G SFP Interface: 1G/2.5G LNK/ACT (Green) 100/10G LNK/ACT (Amber)
Switching Specifications		
Switch Architecture	Store-and-Forward	
Switch Fabric	96Gbps/non-blocking	
Switch Throughput@64 bytes	71.43Mpps @64 bytes	
MAC Address Table	16K entries	
Shared Data Buffer	12Mbits	
Flow Control	IEEE 802.3x pause frame for full duplex Back pressure for half duplex	
Jumbo Frame	12 Kbytes	
Power over Ethernet		
PoE Standard	IEEE 802.3bt PoE++ Type-4	-
PoE Power Supply Type	End-span Mid-span BT	-

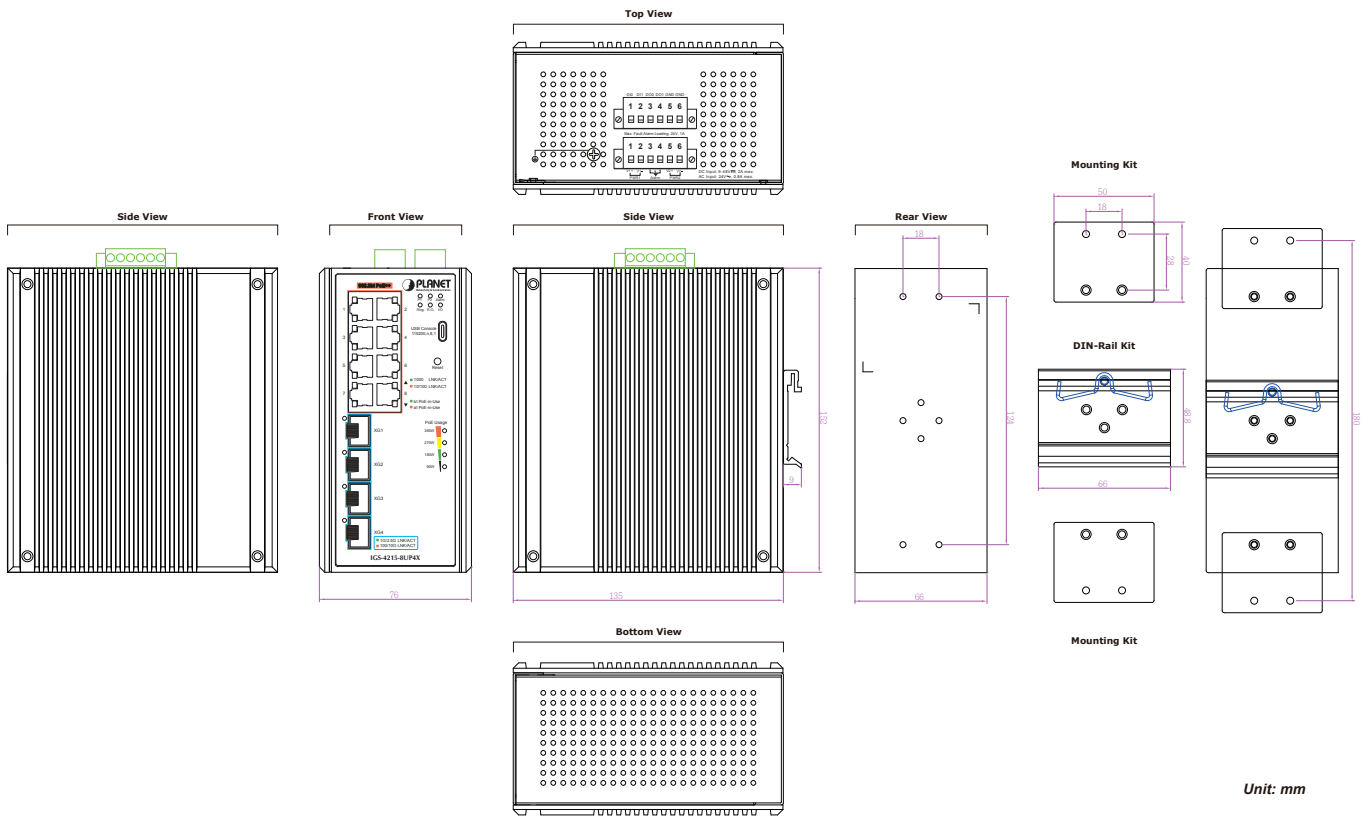| Power Pin Assignment	802.3bt/UPoE: 1/2(-), 3/6(+), 4/5(+), 7/8(-) 802.3at PoE: End-span: 1/2(-), 3/6(+) 802.3at PoE: Mid-span: 4/5(+), 7/8(-)	-

PoE Power Output	Per port 48V ~ 54VDC
	  802.3bt Type-4 mode: maximum 95 watts
	  802.3bt Type-3 mode: maximum 60 watts
	  End-span mode: maximum 36 watts
	  Mid-span mode: maximum 36 watts
	  Force mode: maximum 95 watts
		-

PoE Power Budget	Single power input: 240W maximum (depending on power input)	-
	Dual power input: 360W maximum (depending on power input)	-
	* Dual power input must be the same as DC voltage, like dual 54V.	-
Max. Number of 90W 802.3bt Type 4 PDs	4	-
Max. Number of 60W 802.3bt Type 3 PDs	6	-
Max. Number of 30W 802.3at Type 2 PDs	8	-
PoE Management Functions		
PoE Management	PD Alive Check Scheduled Power Recycling PoE Schedule PoE Usage Monitoring PoE Extension	-
Enhanced PoE Mode	Standard/Legacy/Force	-
Active PoE Device Live Detection	Yes	-
PoE Power Recycling	Yes, daily or predefined schedule	-
PoE Schedule	4 schedule profiles	-
PoE Extend Mode	Yes, max. up to 250 meters	-
Layer 2 Functions		
Port Mirroring	TX/RX/Both Many-to-1 monitor Up to 4 sessions	
VLAN	802.1Q tagged VLAN 802.1ad Q-in-Q tunneling (VLAN stacking) Voice VLAN Protocol VLAN Private VLAN (Protected port) GVRP Management VLAN Up to 256 VLAN groups, out of 4094 VLAN IDs	
Link Aggregation	IEEE 802.3ad LACP and static trunk Supports 8 groups with 8 ports per trunk	
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) STP BPDU Guard, BPDU Filtering and BPDU Forwarding	
IGMP Snooping	IPv4 IGMP snooping v2, v3 IGMP querier Up to 256 multicast groups	
MLD Snooping	IPv6 MLD snooping v2, v3, up to 256 multicast groups	
Access Control List	IPv4/IPv6 IP-based ACL/MAC-based ACL IPv4/IPv6 IP-based ACE/MAC-based ACE	

QoS	8 mapping IDs to 8 level priority queues
	  - Port number
	  - 802.1p priority
	  - 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 Recovery time < 450ms	

Security Functions	
Access Control List	IPv4/IPv6 IP-based ACL/MAC-based ACL IPv4/IPv6 IP-based ACE/MAC-based ACE Max. 256 ACL entries
Port Security	IEEE 802.1X – Port-based authentication Built-in RADIUS client to co-operate with RADIUS server RADIUS/TACACS+ user access authentication
MAC Security	IP-MAC port binding MAC filter Static MAC address, max. 256 static MAC entries
Enhanced Security	DHCP Snooping and DHCP Option82 STP BPDU guard, BPDU filtering and BPDU forwarding DoS attack prevention ARP inspection IP source guard

Management Functions		
Basic Management Interfaces	USB to RS232 Console Web browser Telnet SNMP v1, v2c	
Secure Management Interfaces	SSHv2, TLSv1.2, SNMP v3	
System Management	Firmware upgrade by HTTP/TFTP protocol through Ethernet network Configuration upload/download through HTTP/TFTP LLDP protocol SNTP PLANET Smart Discovery Utility PLANET NMS System/CloudViewer/CloudViewerPro	
Event Management	Remote/Local Syslog System log	
SNMP MIBs	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	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 -

Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC 60068-2-32 (free fall) IEC 60068-2-27 (shock) IEC 60068-2-6 (vibration)

| Standards Compliance | IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX/100BASE-FX
IEEE 802.3z Gigabit SX/LX
IEEE 802.3ab Gigabit 1000BASE-T
IEEE802.3ae 10Gb/s Ethernet
IEEE 802.3x Flow Control and Back Pressure
IEEE 802.3ad Port Trunk with LACP
IEEE 802.1D Spanning Tree Protocol
IEEE 802.1w Rapid Spanning Tree Protocol
IEEE 802.1s Multiple Spanning Tree Protocol
IEEE 802.1p Class of Service
IEEE 802.1Q VLAN Tagging
IEEE 802.1x Port Authentication Network Control*
IEEE 802.1ab LLDP
IEEE 802.3af Power over Ethernet
IEEE 802.3at Power over Ethernet Plus
IEEE 802.3bt Power over Ethernet Plus Plus
IEEE 802.3az for Energy-Efficient Ethernet
RFC 768 UDP
RFC 783 TFTP
RFC 791 IP
RFC 792 ICMP
RFC 2068 HTTP
RFC 1112 IGMP v1
RFC 2236 IGMP v2
RFC 3376 IGMP v3
RFC 2710 MLD v1
RFC 3810 MLD v2
ITU-T G.8032 ERPS Ring | IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX/100BASE-FX
IEEE 802.3z Gigabit SX/LX
IEEE 802.3ab Gigabit 1000BASE-T
IEEE 802.3x Flow Control and Back Pressure
IEEE 802.3ad Port Trunk with LACP
IEEE 802.1D Spanning Tree Protocol
IEEE 802.1w Rapid Spanning Tree Protocol
IEEE 802.1s Multiple Spanning Tree Protocol
IEEE 802.1p Class of Service
IEEE 802.1Q VLAN Tagging
IEEE 802.1x Port Authentication Network Control
IEEE 802.1ab LLDP
IEEE 802.3af Power over Ethernet
-
-
-
RFC 768 UDP
RFC 783 TFTP
RFC 791 IP
RFC 792 ICMP
RFC 2068 HTTP
RFC 1112 IGMP v1
RFC 2236 IGMP v2
RFC 3376 IGMP v3
RFC 2710 MLD v1
RFC 3810 MLD v2
ITU-T G.8032 ERPS Ring |

Environment		
Operating Temperature	-40 ~ 75 degrees C	
Storage Temperature	-40 ~ 85 degrees C	
Humidity	5 ~ 95% (non-condensing)	

Dimensions

■ IGS-4215-8UP4X

Top View

Side View

Front View

IGS-4215-8UP4X

Side View

Rear View

Mounting Kit

DIN-Rail Kit

Mounting Kit

Bottom View

Unit: mm

■ IGS-4215-8T4X

Top View

Side View

Front View

IGS-4215-8T4X

Side View

Rear View

Mounting Kit

DIN-Rail Kit

Mounting Kit

Bottom View

Unit: mm

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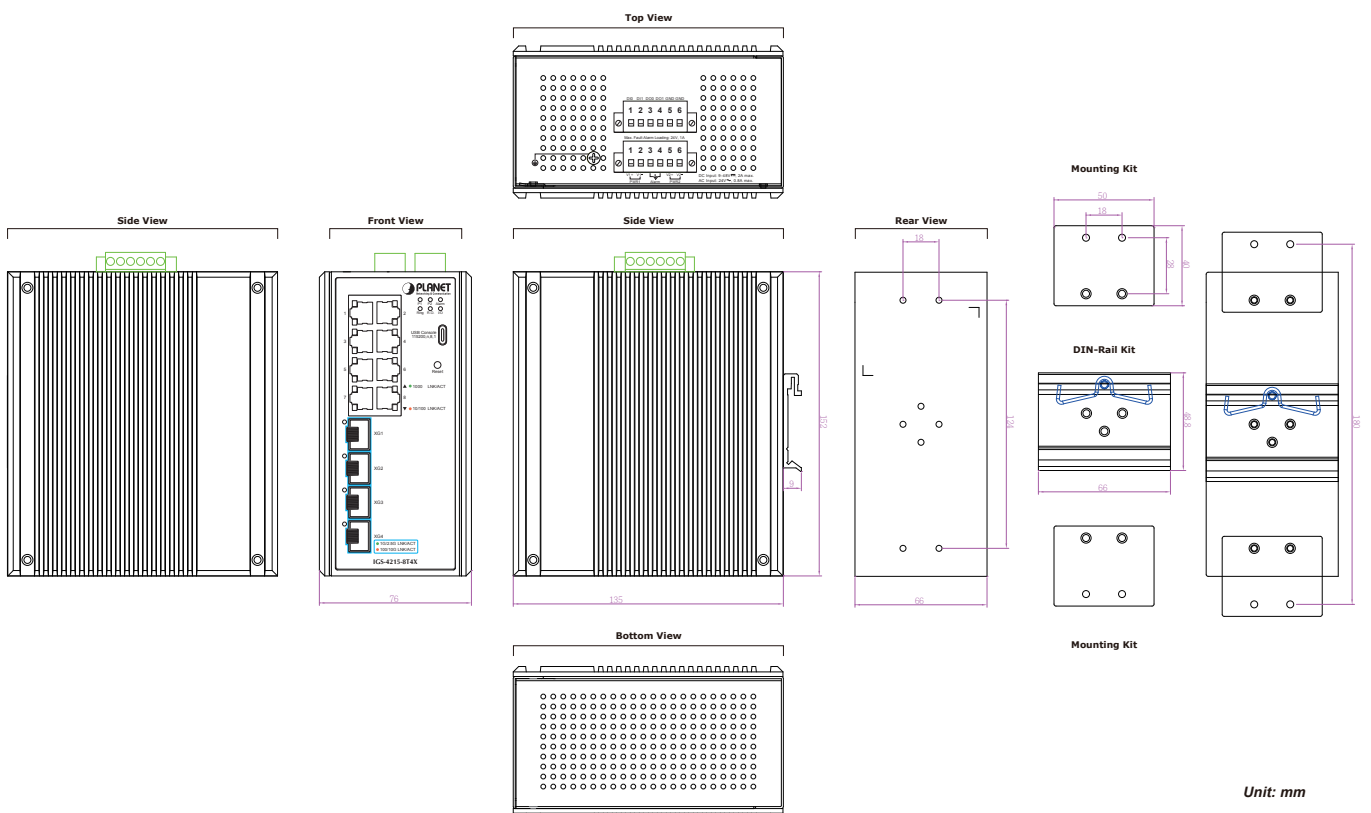
Ordering Information

IGS-4215-8UP4X	Industrial L2/L4 8-Port 10/100/1000T 802.3bt PoE + 4-Port 10G SFP+ Managed Ethernet Switch (-40~75 °C)
IGS-4215-8T4X	Industrial L2/L4 8-Port 10/100/1000T + 4-Port 10G SFP+ Managed Ethernet Switch (-40~75 °C)

Related Products

IGS-4215-16P2T2S	Industrial 16-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Ethernet Switch
IGS-4215-16T2S	Industrial 16-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Ethernet Switch
IGS-4215-8UP2T2S	Industrial 8-Port 10/100/1000T 802.3bt PoE + 2-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Ethernet Switch
IGS-4215-8P2T2S	Industrial 8-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Ethernet Switch
IGS-4215-8T2S	Industrial 8-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Ethernet Switch
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 °C)
IGS-4215-4P4T	Industrial 4-Port 10/100/1000T 802.3at PoE + 4-Port 10/100/1000T Managed Switch
IGS-4215-4T2S	Industrial IP67 1-Port 802.3bt PoE to 2-Port 802.3at Gigabit PoE Extender
IGS-4215-4T2S	Industrial 4-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Ethernet Switch

Accessories

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

Available SFP Modules

10 Gigabit Ethernet Transceiver (10GBASE-X SFP+)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MTB-TSR	10G	LC	Multi-Mode	300m	850nm		-40 ~ 85°C
MTB-TLR	10G	LC	Single Mode	10km	1310nm		-40 ~ 85°C
MTB-TLR40	10G	LC	Single Mode	40km	1310nm		-40 ~ 85°C
MTB-TSR2	10G	LC	Single Mode	2km	1310nm		-40 ~ 85°C
MTB-TLR20	10G	LC	Single Mode	20km	1310nm		-40 ~ 85°C
MTB-TLR60	10G	LC	Single Mode	60km	1310nm		-40 ~ 85°C
MTB-TLA20	10G	LC	Single Mode	20km	1270nm	1330nm	-40 ~ 85°C
MTB-TLB20	10G	LC	Single Mode	20km	1330nm	1270nm	-40~85°C
MTB-TLB40	10G	LC	Single Mode	40km	1330nm	1270nm	-40 ~ 85°C
MTB-TLA40	10G	LC	Single Mode	40km	1270nm	1330nm	-40 ~ 85°C
MTB-TLA60	10G	LC	Single Mode	60km	1270nm	1330nm	-40 ~ 85°C
MTB-TLB60	10G	LC	Single Mode	60km	1330nm	1270nm	-40 ~ 85°C

2.5 Gigabit Ethernet Transceiver (2500BASE-X SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MGB-2GTSR	2500	LC	Multi-mode	300m	850nm		-40 ~ 85°C
MGB-2GTLR2	2500	LC	Single mode	2km	1310nm		-40 ~ 85°C
MGB-2GTLA20	2500	LC	Single mode	20km	1310nm	1550nm	-40 ~ 85°C
MGB-2GTLB20	2500	LC	Single mode	20km	1550nm	1310nm	-40 ~ 85°C
MGB-2GTLR20	2500	LC	Single mode	20km	1310nm		-40 ~ 85°C

Gigabit Ethernet Transceiver (1000BASE-X SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MGB-TGT	1000	Copper	--	100m	--	-40 ~ 85 °C
MGB-TSX	1000	LC	Multi Mode	550m	850nm	-40 ~ 85 °C
MGB-TSX2	1000	LC	Multi Mode	2km	1310nm	-40 ~ 85 °C
MGB-TLX	1000	LC	Single Mode	10km	1310nm	-40 ~ 85 °C
MGB-TL40	1000	LC	Single Mode	40km	1310nm	-40 ~ 85 °C
MGB-TL80	1000	LC	Single Mode	80km	1550nm	-40 ~ 85 °C

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

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 ~ 85 °C
MGB-TLB10	1000	WDM(LC)	Single Mode	10km	1550nm	1310nm	-40 ~ 85 °C
MGB-TLA20	1000	WDM(LC)	Single Mode	20km	1310nm	1550nm	-40 ~ 85 °C
MGB-TLB20	1000	WDM(LC)	Single Mode	20km	1550nm	1310nm	-40 ~ 85 °C
MGB-TLA40	1000	WDM(LC)	Single Mode	40km	1310nm	1550nm	-40 ~ 85 °C
MGB-TLB40	1000	WDM(LC)	Single Mode	40km	1550nm	1310nm	-40 ~ 85 °C
MGB-TLA80	1000	WDM(LC)	Single Mode	80km	1310nm	1550nm	-40 ~ 85 °C
MGB-TLB80	1000	WDM(LC)	Single Mode	80km	1550nm	1310nm	-40 ~ 85 °C
MGB-TLA120	1000	WDM(LC)	Single Mode	120km	149nm	1550nm	-40 ~ 85 °C
MGB-TLB120	1000	WDM(LC)	Single Mode	120km	1550nm	1490nm	-40 ~ 85 °C

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 ~ 85 °C
MFB-TF20	100	LC	Single Mode	20km	1550nm	-40 ~ 85 °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 ~ 85 °C
MFB-TFB20	100	WDM(LC)	Single Mode	20km	1550nm	1310nm	-40 ~ 85 °C
MFB-TFA40	100	WDM(LC)	Single Mode	40km	1310nm	1550nm	-40 ~ 85 °C
MFB-TFB40	100	WDM(LC)	Single Mode	40km	1550nm	1310nm	-40 ~ 85 °C

IGS-4215-8T4X/IGS-4215-8UP4X