Industrial L2+ 8/16-Port 2.5GBASE-T 802.3bt PoE + 4-Port 10GBASE-X SFP+ Managed Ethernet Switch



High-Density Multigigabit switching with 480W PoE++ Power for Industrial Edge Deployment

Engineered to excel in demanding environments, the **IMGS-5215 Series** is PLANET's latest industrial-grade, DIN-rail Layer 2+ Managed Multigigabit Ethernet switch family, delivering an optimal balance of high performance, power efficiency, and cost-effectiveness. Built with full **PoE++ PSE (Power Sourcing Equipment)** capabilities, it provides up to 480W of power budget, making it purpose-built to power high-bandwidth edge devices such as Wi-Fi 6/7/8 access points, high-speed IP cameras, NAS, and 2.5GBASE-T workstations.

Featuring models such as the **IMGS-5215-8UP4X** and **IMGS-5215-16UP4X**, the series incorporates an advanced L2/L4 switching engine alongside robust IPv6/IPv4 dual-stack management to ensure reliable, high-speed connectivity for next-generation industrial applications. The models feature **8 or 16 10/100/1G/2.5GBASE-T ports** and **4 10GBASE-X SFP+ fiber slots**, ensuring dependable operation across a wide temperature range of **-40** to **75°C**. In comparison, the **IMGS-5215 series** is a PoE++ solution, featuring **8 or 16 IEEE 802.3bt PoE++ ports**, a **480-watt power budget**, support for up to **95W per port**, and a rugged **IP30 aluminum casing.**

Model	10/100/1G/2.5GT Copper Port	100/1G/2.5G/10G SFP+ Port	PoE Standard	PoE Budget	Power Input
IMGS-5215-8UP4X	8	4	IEEE 802.3bt PoE++	480-watt	Dual 48~54V DC
IMGS-5215-16UP4X	16	4	IEEE 802.3bt PoE++	480-watt	

Physical Port

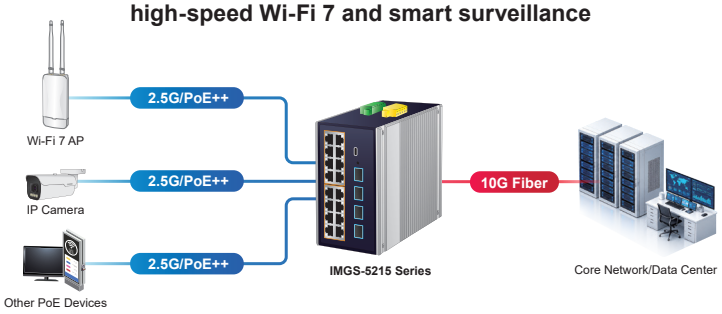
- **8/16 10/100/1G/2.5GBASE-T** Gigabit Ethernet RJ45 ports
- **PoE Functionality:**
  - 8 ports with IEEE 802.3bt PoE++ injector function (IMGS-5215-8UP4X)
  - 16 ports with IEEE 802.3bt PoE++ injector function (IMGS-5215-16UP4X)
- **4 10GBASE-SR/LR SFP+** slots, backward compatible with **100M/1G/2.5GBASE-X SFP**
- One **USB Type C** console interface for basic management and setup

Power over Ethernet

- Compliance with IEEE 802.3bt Type-4 PoE++ standard and backward compatible with IEEE 802.3af/at Power over Ethernet
- Powers up to 8 ports of IEEE 802.3bt PoE++ devices(IMGS-5215-8UP4X)
- Powers up to 16 ports of IEEE 802.3bt PoE++ devices(IMGS-5215-16UP4X)
- Supports PoE power up to 95 watts for each PoE port
- Remote power feeding up to 100 meters in standard mode and 250m 40W in extended mode
- PoE budget
  - Single power input: 240 W
  - Dual power input: 480 W @ 60 degree C
  - Dual power input: 420 W @ 75 degree C
- Auto detects powered devices (PDs)
- Circuit protection prevents power interference between ports
- 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

All switches include a **USB Type-C console port** for seamless management, ensuring durability and reliability in challenging industrial environments.

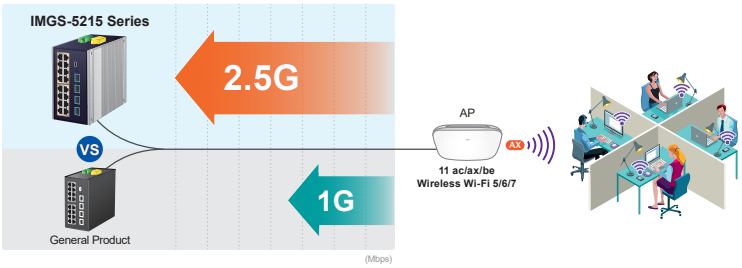
Building an integrated infrastructure for high-speed Wi-Fi 7 and smart surveillance



2.5Gbps Capability for Diversified Bandwidth Applications

With the terminal access rates of **Wi-Fi 6/7/8 (802.11ax/be/bn)** wireless APs reaching as high as **3.6Gbps**, Gigabit ports have been unable to satisfy the demand. Supporting **2.5Gbps capability and 802.3bt PoE++ output**, the **IMGS-5215 series** can deliver not only high-speed data to Wi-Fi 5/6/7 wireless APs, but also power over existing CAT5e Ethernet cables to other powered devices such as APs and IP cameras. It can deliver the speed you demand, while its **Plug and Play** design makes installation easy.

New Generation of Multigigabit Switch



Cybersecurity Network Solution to Minimize Security Risks

The IMGS-5215 Series supports secure management protocols such as SSHv2 and TLSv1.3, with **TLS Post-Quantum Cryptography (PQC)** to enhance cryptographic security against emerging quantum computing threats. It also provides a comprehensive suite of cybersecurity features, including **DHCP Snooping, IP Source Guard, Dynamic ARP Inspection (DAI), RADIUS/TACACS+ authentication**, and **SNMPv3 authentication**, helping safeguard industrial networks against evolving cyber threats.



- PD alive check
- PoE schedule

Industrial Case and Installation

- IP30 aluminum case
- DIN-rail and wall-mount designs
- 48~54V DC (redundant power with reverse polarity protection)
- Supports 6KVDC 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), 1G/2.5Gbps (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
- 32K MAC address table size
- 12K jumbo frame
- Automatic address learning and address aging

Layer 3 IP Routing Features

- Supports maximum 32 static routes and route summarization
- Routing interface provides per VLAN routing mode

Layer 2 Features

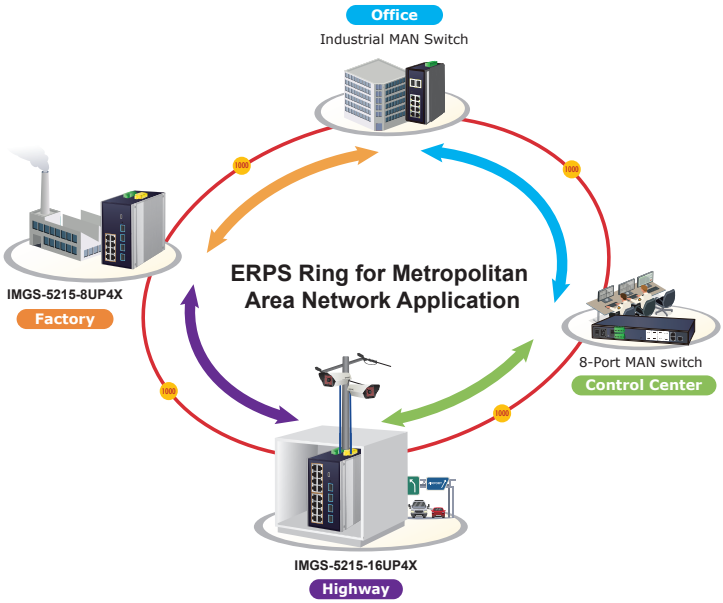
- Supports **VLAN**
  - IEEE 802.1Q tagged VLAN
  - Provider bridging (VLAN Q-in-Q, IEEE 802.1ad) support
  - Protocol VLAN
  - Voice VLAN
  - Private VLAN (Protected port)
  - Management VLAN
  - GVRP
- Supports **Spanning Tree Protocol**
  - STP (Spanning Tree Protocol)
  - RSTP (Rapid Spanning Tree Protocol)
  - MSTP (Multiple Spanning Tree Protocol)

Modbus TCP Provides Flexible Network Connectivity for Factory Automation

The IMGS-5215 Series supports the **Modbus TCP** protocol, allowing for easy integration with **SCADA** systems, **HMI** systems, and other data acquisition systems in factory floors. This enables administrators to remotely monitor the industrial Ethernet switch's **operating information**, **port information**, communication status, and DI/DO status, thereby enhancing monitoring and maintenance of the entire factory.

Redundant Ring, Fast Recovery for Critical Network Applications

The IMGS-5215 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 and Spanning Tree Protocol (802.1s MSTP) into customer's network to enhance system reliability and uptime in various environments.



High Power and High-speed Data Delivered over 4-pair UTP Cabling

The IMGS-5215 Series meets the standards of **IEEE 802.bt PoE++** technology and has a total power capacity of **480 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 high-speed data transmission. 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

  - 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
- Supports ERPS (Ethernet Ring Protection Switching)
- Link Layer Discovery Protocol (LLDP)

Quality of Service

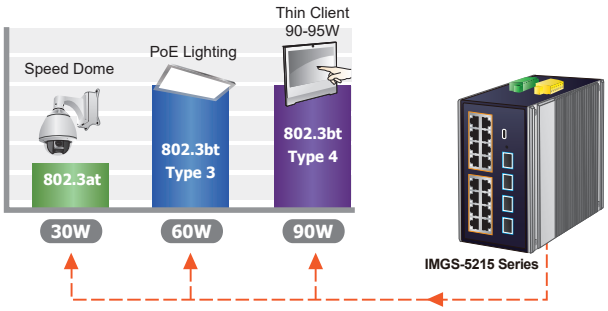
- Ingress/Egress Rate Limit per port bandwidth control
- Traffic classification
  - IEEE 802.1p CoS
  - TOS/DSCP/IP precedence of IPv4/IPv6 packets
- Strict priority and Weighted Round Robin (WRR) CoS policies

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

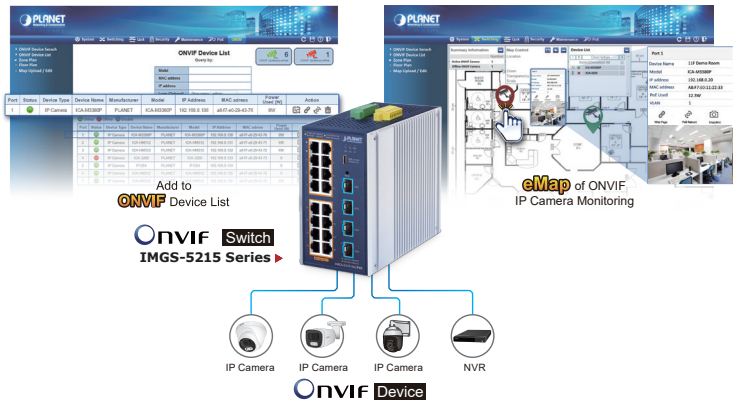
- Storm Control support
  - Broadcast / Multicast / Unknown Unicast
- Authentication
  - Built-in RADIUS client to cooperate with the RADIUS servers
  - DHCP Option 82
  - RADIUS/TACACS+ authentication
- Access Control List
  - IPv4/IPv6 IP-based ACL
  - IPv4/IPv6 IP-based ACE
  - MAC-based ACL
  - MAC-based 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



ONVIF Support Allows Effective and Centralized Control Over IP-based Security Products

The IMGS-5215 Series switch offers ONVIF support as part of its versatile feature set for seamless integration with IP surveillance cameras. Through the switch's web GUI, users can easily search for and display all ONVIF-compliant devices on their LAN.

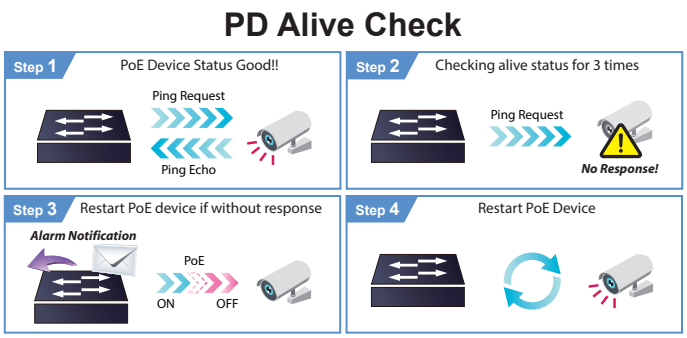
Users can also upload floor plans to the switch and place IP surveillance cameras on the plan for more intuitive planning and faster inspection in the future. Additionally, the web GUI provides real-time surveillance information, online/offline status, and the ability to remotely reboot cameras.



Intelligent PD Alive Check for Automatic Device Recovery

The IMGS-5215 Series features an intelligent Powered Device (PD) Alive Check function, enabling real-time monitoring of connected PoE devices via ping detection. When a connected PD becomes unresponsive, the switch automatically reboots the PoE port to restore device operation.

This self-healing mechanism enhances network reliability by automatically recovering failed devices, reducing downtime and minimizing the need for manual intervention—ultimately lowering maintenance effort for administrators.



- 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, TLSv1.3 and SNMP v3 secure access
  - TLS Post-Quantum Cryptography (PQC) support
- 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
- **Cloud-based Network Management**: Centralized multi-site oversight via **PLANET CloudNMS** with instant mobile app access for flexible, remote administration
- **On-premises Network Management**: Robust localized deployment via **PLANET NMS Controller** paired with the NMSViewerPro mobile app for intuitive site monitoring

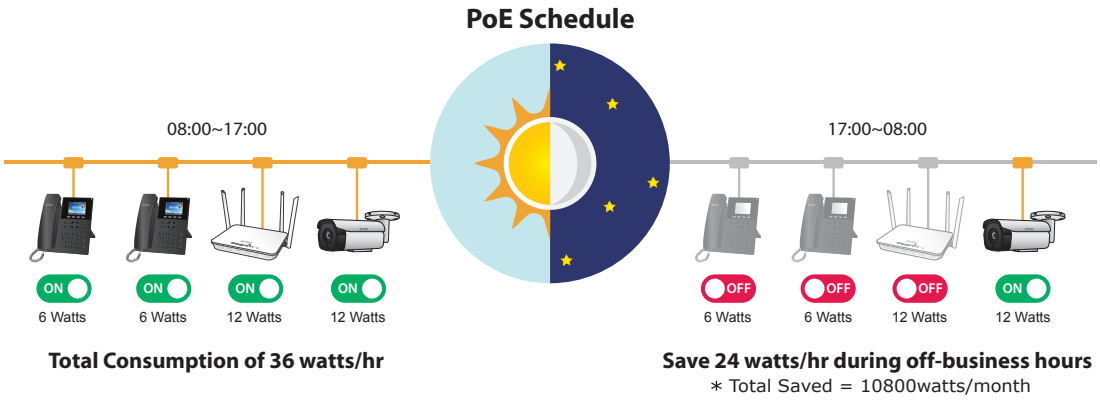
Scheduled Power Recycling

The IMGS-5215 Series allow 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.



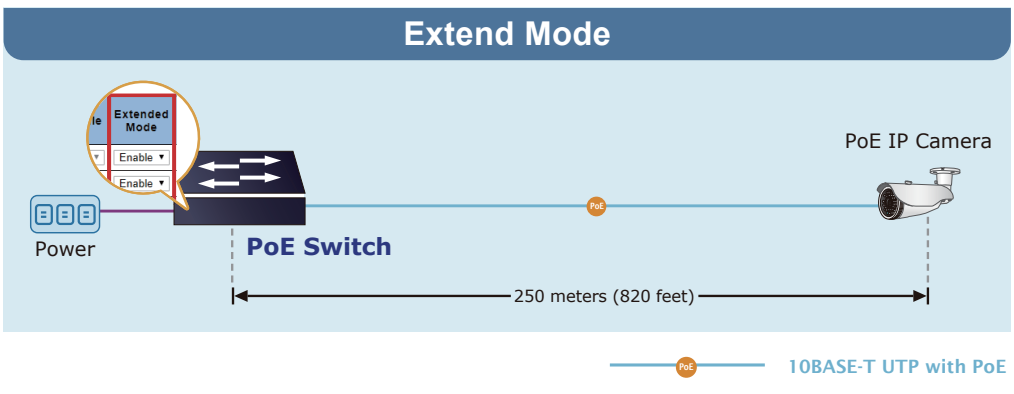
PoE Schedule for Energy Savings

Under the global trend of energy savings and contributing to environmental protection, the IMGS-5215 Series 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.



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

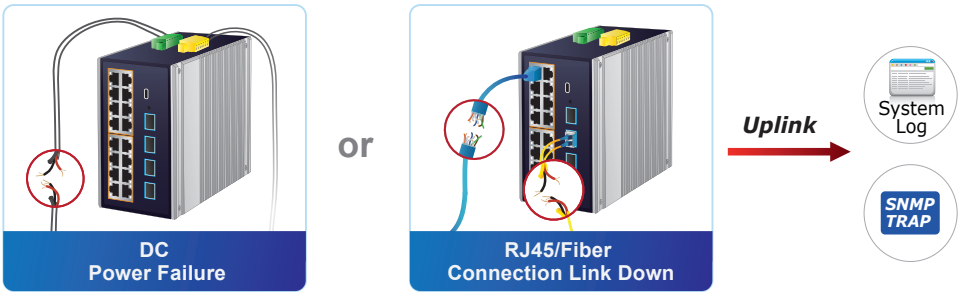
In the **"Extend"** operation mode, the **IMGS-5215 Series** functions on a per-port basis with a 10Mbps duplex operation. Remarkably, it can deliver a 40-watt PoE power output over a distance of up to 250 meters, surpassing the standard 100m limit on Ethernet UTP cables. Thus, PoE power can be supplied over a long distance without the need of additional Ethernet cabling and electrical outlets, resulting in cost savings.



Effective Alarm Alert for Better Protection

The IMGS-5215 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.

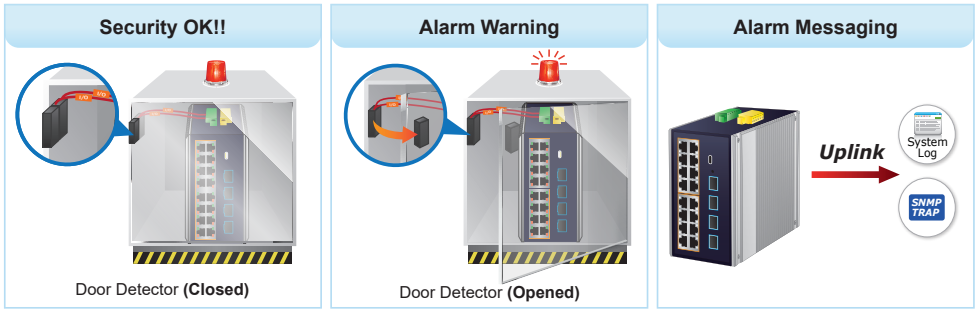
Fault Alarm Feature



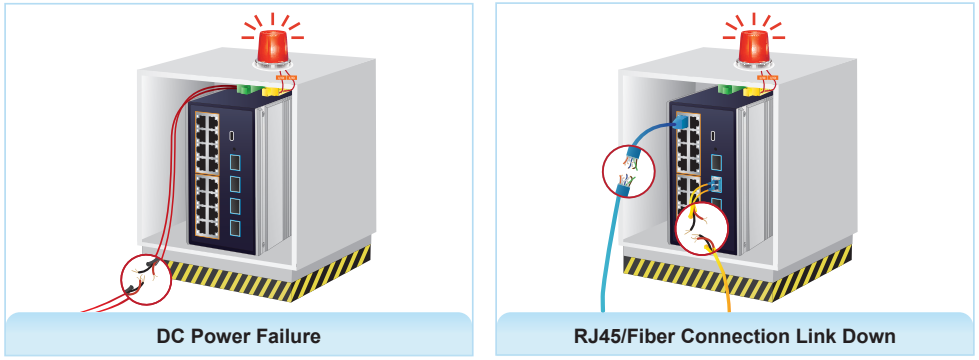
Digital Input and Digital Output for External Alarm

The IMGS-5215 Series supports 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 IMGS-5215 Series port shows “link down”, “link up” or “power failure”.

Digital Input



Digital Output



Environmentally Hardened Design

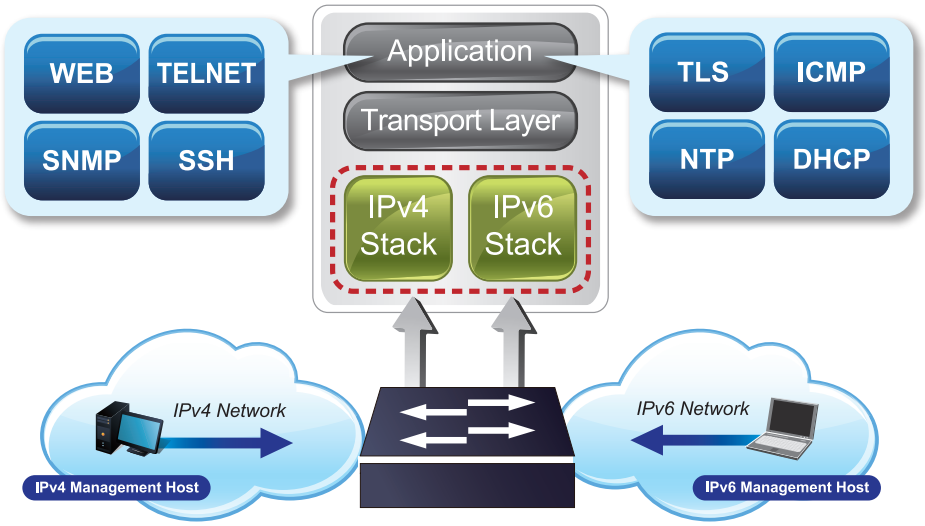
With the IP30 aluminum industrial case, the IMGS-5215 Series provides a high level of immunity against electromagnetic interference and heavy electrical surges which are usually found on plant floors or in curb-side traffic control cabinets without air conditioner. Being able to operate under the temperature range from -40 to 75 °C, the IMGS-5215 Series can be placed in almost any difficult environment.

Robust Protection

The IMGS-5215 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.

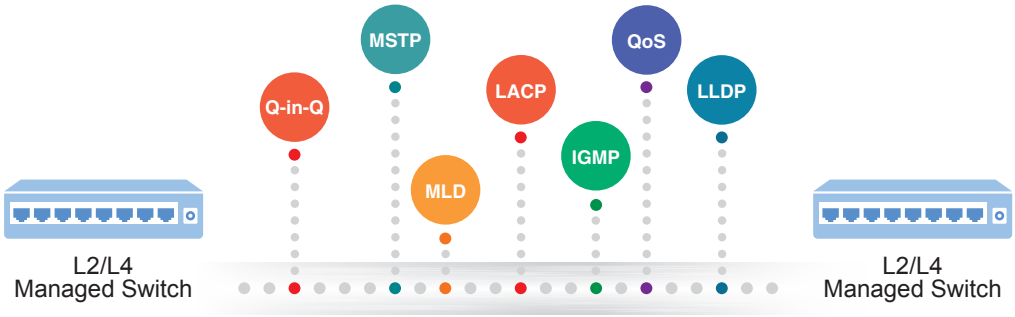
Layer 3 IPv4 and IPv6 VLAN Routing for Secure and Flexible Management

The IMGS-5215 Series delivers high-performance transmission and advanced Layer 2 and Layer 4 functionalities, along with Layer 3 IPv4 and IPv6 static routing. This capability enables efficient routing between different VLANs and IP addresses, offering a secure, flexible, and straightforward networking solution for diverse applications.



Robust Layer 2 Features

The IMGS-5215 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 IMGS-5215 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 IMGS-5215 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. 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 IMGS-5215 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. Its accuracy, consistency, and reliability of data can be transmitted across a network. Moreover, it ensures that information remains unaltered during transmission and that the network itself is secure from unauthorized access or attacks.

User-friendly and Secure Management

For efficient management, the IMGS-5215 Series is equipped with Command line, Web and SNMP management interfaces.

- With the built-in **Web-based** management interface, the IMGS-5215 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.

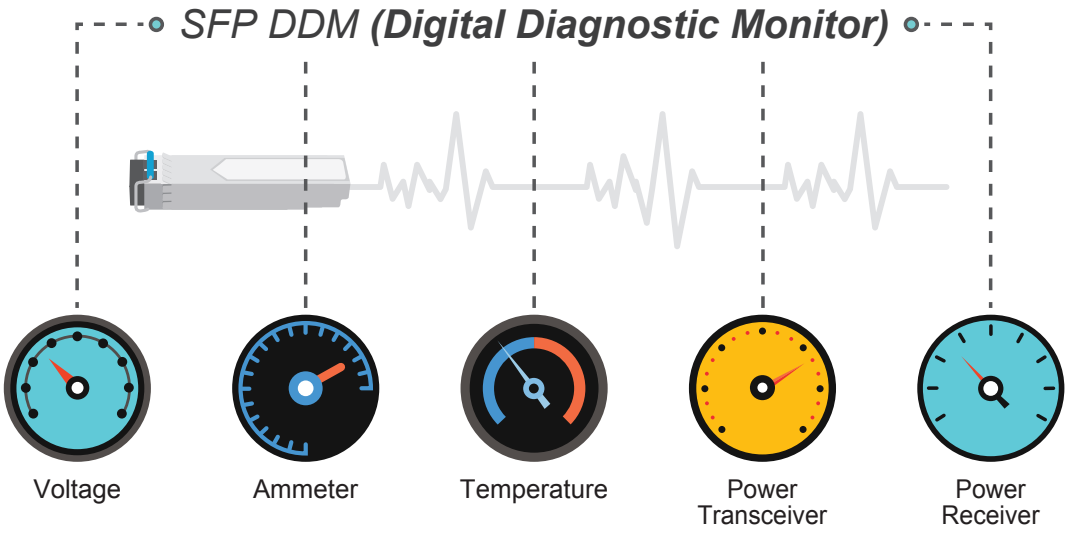
Moreover, the IMGS-5215 Series offers secure remote management by supporting **SSHv2**, **TLSv1.3** and **SNMPv3** connections which encrypt the packet content at each session.

Flexible Long-distance Extension Solution

The emergence of 10G Ethernet marks a significant advancement in Ethernet technology. The IMGS-5215 Series 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 100M/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 IMGS-5215 Series provides an efficient solution for administrators seeking to enhance their network infrastructure.

Intelligent SFP Diagnosis Mechanism

The IMGS-5215 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.



PLANET CloudNMS – Cloud-Based Universal Network Management

PLANET's **CloudNMS** platform and mobile app empower IT staff to remotely manage all network devices and Powered Devices (PDs) in real time. Designed for enterprises and industries, CloudNMS minimizes the need for on-site troubleshooting by providing centralized monitoring, fault detection, and instant alerts. The IMGS-5215 Series also supports **CloudNMS**, enabling businesses to manage diverse network deployments more **efficiently**, **securely**, **and intelligently**—all from a single cloud-based platform.



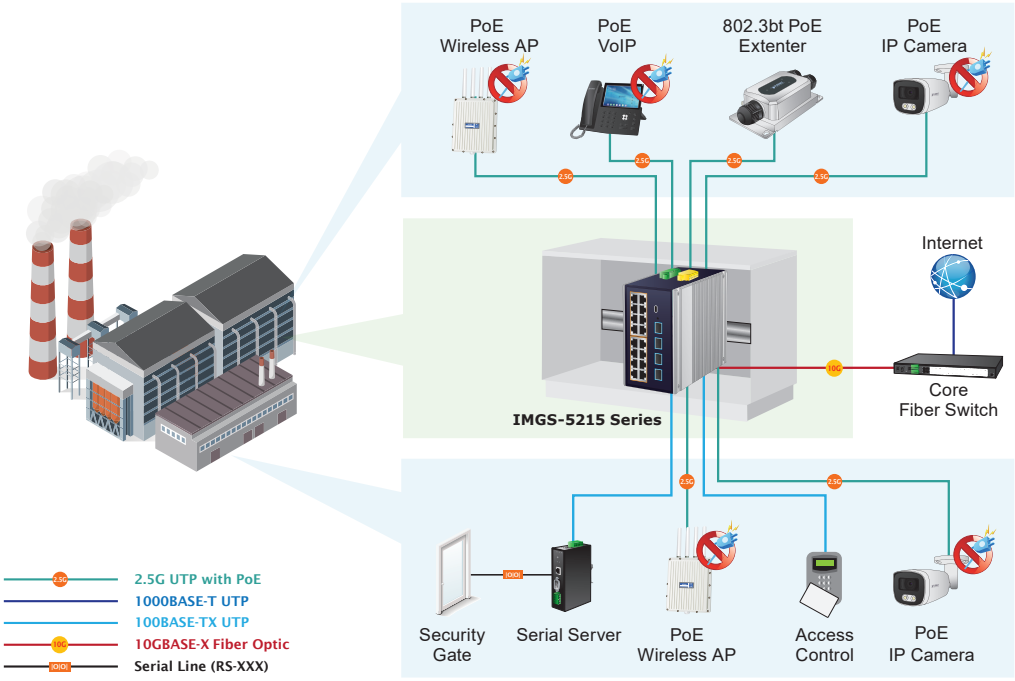
Applications

High-Density 480W PoE++ Solution for Building Automation and Security

Designed for buildings with stringent security and automation requirements, the **IMGS-5215 Series** delivers a high-density PoE++ solution with **8 or 16 IEEE 802.3bt ports** and a total power budget of up to **480W**. With **2.5GBASE-T connectivity**, it enables high-speed network and centralized power management for a wide range of devices, including IP surveillance systems, IP telephony, and wireless access points.

With its high port density, 2.5G bandwidth, and power capacity, the switch can support up to **16 PoE devices**, such as IP cameras or wireless APs, making it ideal for large-scale surveillance deployments and seamless wireless connectivity in industrial and commercial environments.

By transmitting both **high-speed data and power** over a single Ethernet cable, it eliminates the need for additional power outlets, simplifying installation while improving deployment flexibility and overall efficiency.



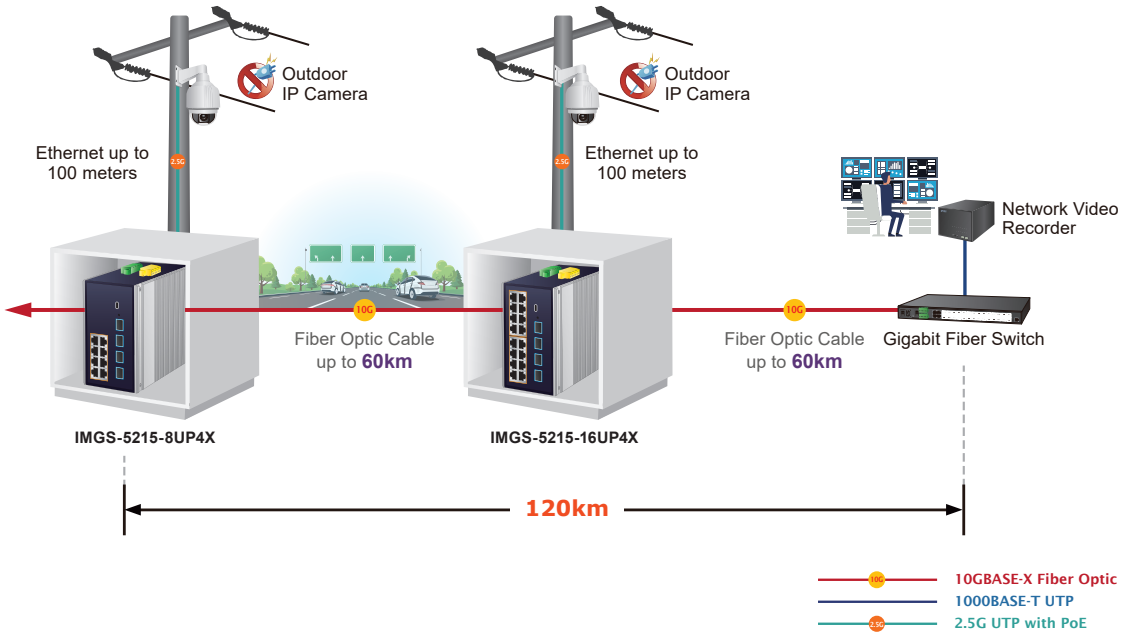
Integrated PoE Surveillance Solution for Smart Buildings and Transportation Systems

The IMGS-5215 Series integrates **8 or 16 2.5GBASE-T PoE++ ports** and **10G SFP+ uplinks** to deliver a high-performance IP surveillance solution for cameras and NVR systems. With support for **VLAN**, **QoS**, **IGMP Snooping**, and **PD Alive Check**, it ensures stable video transmission, automatic fault recovery, and efficient network management.

It is particularly well-suited for transportation applications such as intelligent traffic control, roadside surveillance, railway systems, and transit hubs, where continuous operation and real-time monitoring are essential.

Combined with remote management and intelligent PoE control, it offers a reliable and scalable solution for mission-critical surveillance across transportation and industrial networks.

Extending Ethernet Distance



Specifications

Product	IMGS-5215-8UP4X	IMGS-5215-16UP4X
Hardware Specifications		
Copper Ports	8 10/100/1G/2.5GBASE-T RJ45 auto-MDI/MDI-X ports	16 10/100/1G/2.5GBASE-T RJ45 auto-MDI/MDI-X ports
PoE Injector Port	8 ports with 802.3bt PoE++ injector function (Ports 1 to 8)	16 ports with 802.3bt PoE++ injector function (Ports 1 to 16)
SFP+ Ports	4 10GBASE-SR/LR SFP+ interfaces (Port XG1 to Port XG4) Backward compatible with 100/1G/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, 12A (max.)	
Power Consumption/ Dissipation	Max. 14.4 watts/49.1BTU@48V DC input (System on) Max. 553 watts/1885.73BTU@48V DC input (Full loading with PoE)	Max. 16.5 watts/56.1BTU@48V DC input (System on) Max. 558 watts/1902.78BTU@48V DC input (Full loading with PoE)

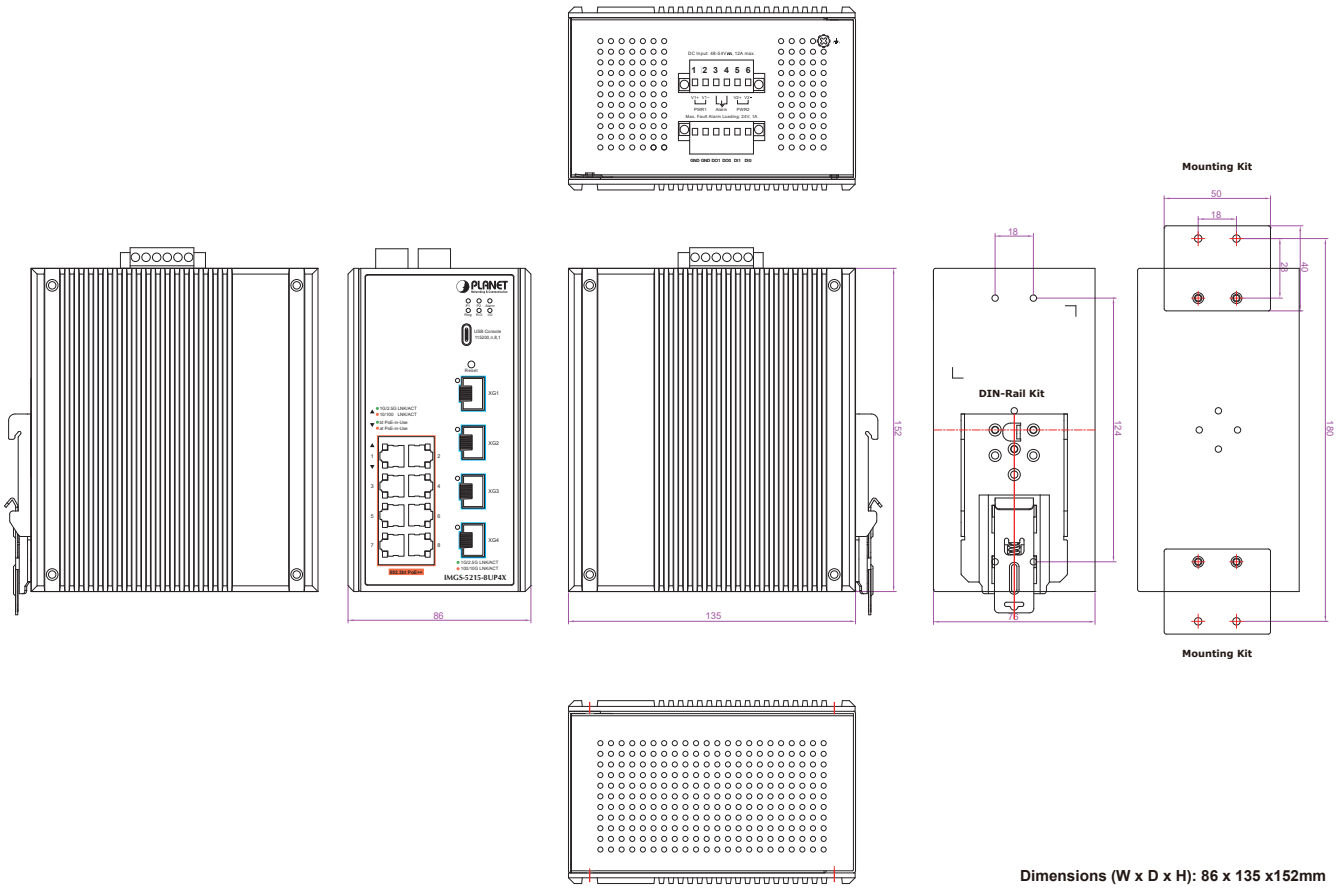
Dimensions (W x D x H)	86 x 135 x 152 mm	
Weight	1,565g	2,031g
Enclosure	IP30 aluminum case	
Installation	DIN-rail kit and wall-mount ear	
ESD Protection	Contact Discharge 6KV DC Air Discharge 8KV DC	
LED	**System:** PWR 1, PWR 2, Ring, R.O. (Green) Alarm, I/O (Red) **Per 10/100/1G/2.5GBASE-T RJ45 PoE++ Port:** 1G/2.5G LNK/ACT (Green) 10/100 LNK/ACT (Amber) PoE-in-Use 802.3bt PoE++ (Green) PoE-in-Use 802.3at PoE+ (Amber) **Per 100/1G/2.5G/10GBASE-X SFP+ Interface:** 1G/2.5G LNK/ACT (Green) 100/10G LNK/ACT (Amber)	
Switching Specification		
Switch Architecture	Store-and-Forward	
Switch Fabric	120Gbps/non-blocking	160Gbps/non-blocking
Switch Throughput@64 bytes	89.28Mpps @64 bytes	119.04Mpps @64 bytes
MAC Address Table	32K 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: **480 W** maximum @ **60 degree C** (depending on power input) Dual power input: **420 W** maximum @ **75 degree C** (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	5	5
Max. Number of 60W 802.3bt Type 3 PDs	8	8
Max. Number of 30W 802.3at Type 2 PDs	8	16
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
Layer 3 Functions	
IP Interfaces	Max. 64 VLAN interfaces
Routing Table	Max. 32 routing entries
Routing Protocols	IPv4/IPv6 hardware static routing
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	Built-in RADIUS client to co-operate with RADIUS server RADIUS/TACACS+ user access authentication
MAC Security	IP-MAC port binding MAC filtering 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 TLSv1.3 SNMP v3 TLS Post-Quantum Cryptography (PQC)
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, NMSViewerPro App and CloudNMS
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 LLDP MIB PLANET-Aggr-MIB PLANET-DDMI-MIB PLANET-Firmware-MIB PLANET-GVRP-MIB PLANET-LACP-MIB PLANET-SYSUTIL-MIB PLANET-CONFIG-VLANDATA-MIB PLANET-CONFIG-PORTDATA-MIB PLANET-CONFIG-QOSDATA-MIB PLANET-CONFIG-LACPPORTDATA-MIB PLANET-CONFIG-REMOTESYSLOG-MIB PLANET-CONFIG-SNTPDATA-MIB PLANET-CONFIG-UPGRADEDATA-MIB PLANET-CONFIG-BACKUPDATA-MIB PLANET-CONFIG-SYSTEM-MIB_v2 PLANET-CONFIG-LLDPDATA-MIB
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX/100BASE-FX IEEE 802.3z Gigabit SX/LX IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5GBASE-T IEEE 802.3ae 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 802.1ab 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
Environment	
Operating Temperature	-40 ~ 75 degrees C
Storage Temperature	-40 ~ 85 degrees C
Humidity	5 ~ 95% (non-condensing)

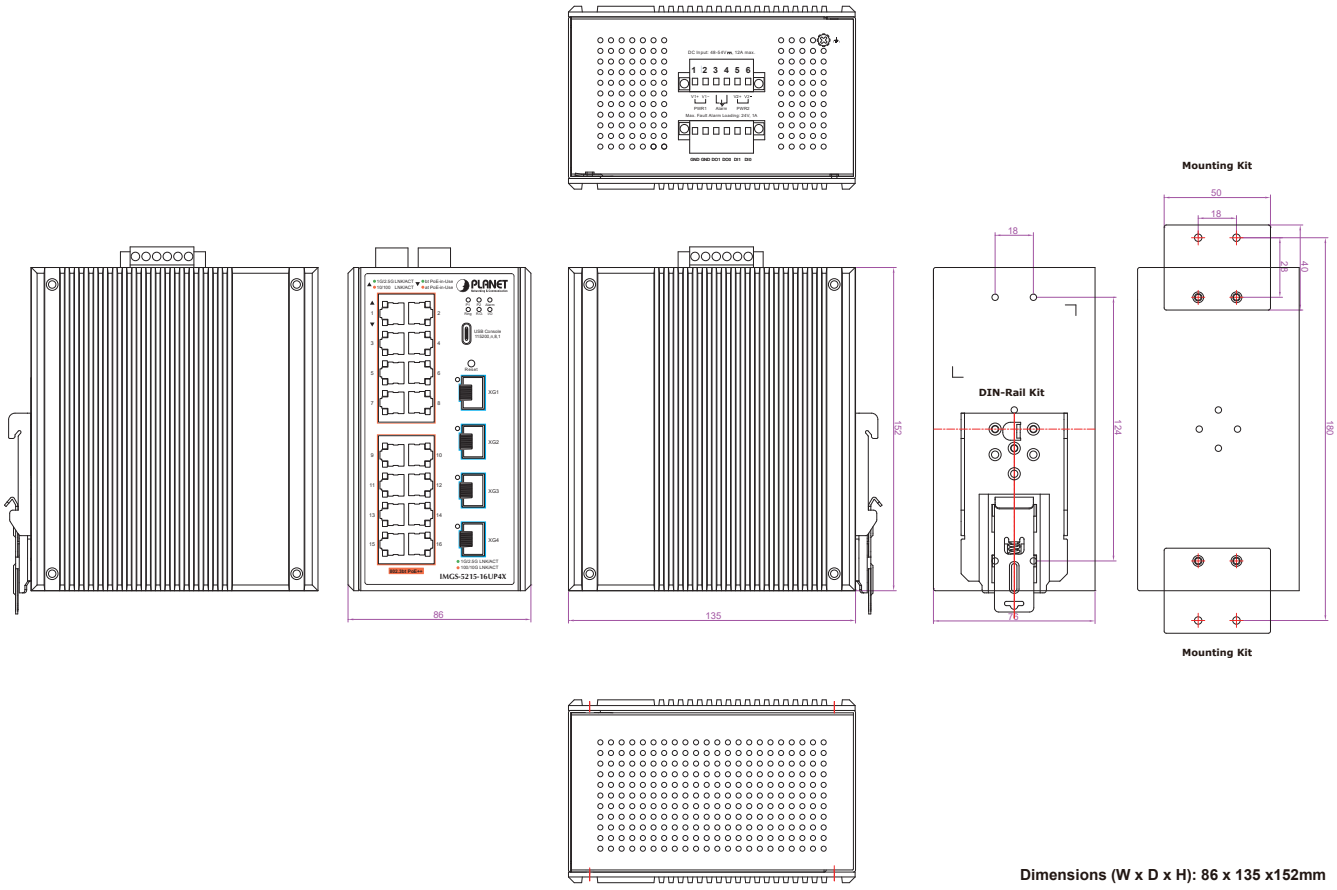
Dimensions

■ IMGS-5215-8UP4X



Dimensions (W x D x H): 86 x 135 x152mm

■ IMGS-5215-16UP4X



Dimensions (W x D x H): 86 x 135 x152mm

Ordering Information

IMGS-5215-8UP4X	Industrial L2+ 8-Port 2.5GBASE-T 802.3bt PoE + 4-Port 10GBASE-X SFP+ Managed Ethernet Switch
IMGS-5215-16UP4X	Industrial L2+ 16-Port 2.5GBASE-T 802.3bt PoE + 4-Port 10GBASE-X SFP+ Managed Ethernet Switch

Related Products

IGS-6325-4UP2X	Industrial L3 4-Port 10/100/1G/2.5G 802.3bt PoE + 2-Port 10G SFP+ Managed Ethernet Switch (-40~75 degrees C)
IGS-4215-8UP4X	Industrial L2+ 8-Port 10/100/1000T 802.3bt PoE + 4-Port 10G SFP+ Managed Ethernet Switch (-40~75 degrees C)
IGS-4215-16P4X	Industrial L2/L4 16-Port 10/100/1000T 802.3at PoE + 4-Port 10G SFP+ Managed Ethernet Switch (-40~75 degrees C)
IGS-4215-24P4X	Industrial L2+ 24-Port 10/100/1000T 802.3at PoE + 4-Port 10G SFP+ Managed Ethernet Switch
IGS-R4215-24P4X	Industrial L2+ 24-Port 10/100/1000T 802.3at PoE + 4-Port 10G SFP+ Managed Ethernet Switch
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-4215-8UP2T2S	Industrial 8-Port 10/100/1000T 802.3bt PoE + 2-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Ethernet Switch
IGS-4215-4UP4T2S	Industrial 4-Port 10/100/1000T 802.3bt PoE + 4-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch (-40~75 °C)
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-4215-4P4T	Industrial 4-Port 10/100/1000T 802.3at PoE + 4-Port 10/100/1000T Managed Switch (-40~75 °C)

Accessories

PWR-240-48	240W 48V DC Single Output Industrial DIN-rail Power Supply (-40~ 70 degrees C)
PWR-480-48	480W 48V DC Single Output Industrial DIN-rail Power Supply (-40 ~ 70 degrees C)
PWR-960-48	960W 48V DC Single Output Industrial DIN-rail Power Supply (-40 ~ 70 degrees C)

Available SFP Modules

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

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

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

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	1490nm	1550nm	-40 ~ 85 °C
MGB-TLB120	1000	WDM(LC)	Single Mode	120km	1550nm	1490nm	-40 ~ 85 °C

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

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

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