

Industrial L2+ 8/16/24-Port 10/100/1000T + 4-Port 10G SFP+ Managed Ethernet Switch



Budget-friendly Industrial L2+ Switch with PoE Capability

Engineered to excel in demanding industrial settings, the **IGS-4215 series** stands out as PLANET's latest DIN-rail Layer 2+ Managed Gigabit switches, combining performance with affordability. The series, now including the **IGS-4215-8T4X**, **IGS-4215-16T4X**, **IGS-4215-16P4X**, **IGS-4215-24T4X**, and **IGS-4215-8UP4X**, provides robust network management with IPv6/IPv4 dual-stack support and an integrated L2/L4 Gigabit switching engine.

The models feature **8, 16, or 24 10/100/1000BASE-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 **IGS-4215-16P4X** is a PoE+ solution, featuring **16 IEEE 802.3at PoE+ ports**, a **360-watt power budget**, and a rugged **IP30 aluminum casing**, while the **IGS-4215-8UP4X** is a robust PoE++ switch with **8 IEEE 802.3bt PoE++ ports**, a **360-watt power budget**, and support for up to **95W per port**.

All 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 TLSv1.3 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**, **RADIUS** and **TACACS+** user accounts management, **SNMPv3** authentication, and so on to complement it as an all-security solution.



Physical Port

- **8/16/24 10/100/1000BASE-T** Gigabit Ethernet RJ45 ports
- **PoE Functionality:**
 - 16 ports with IEEE 802.3at PoE+ injector function (IGS-4215-16P4X)
 - 8 ports with IEEE 802.3bt PoE++ injector function (IGS-4215-8UP4X)
- **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 (PoE functionality is exclusive for the IGS-4215-8UP4X & IGS-4215-16P4X.)

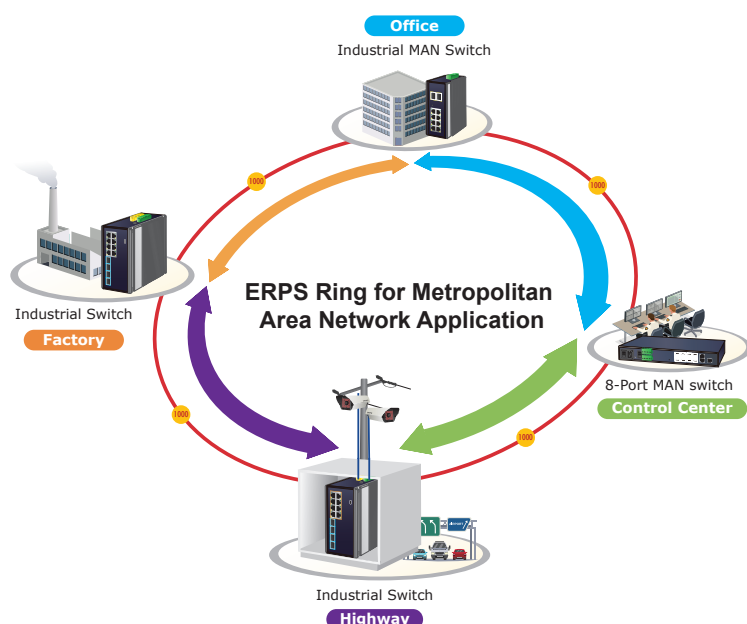
- Compliance with IEEE 802.3bt Type-4 PoE++ standard and backward compatible with IEEE 802.3af/at Power over Ethernet (exclusive to IGS-4215-8UP4X)
- Powers up to 8 ports of IEEE 802.3bt PoE++ devices (exclusive to IGS-4215-8UP4X)
- Powers up to 16 ports of IEEE 802.3at PoE+ devices (exclusive to IGS-4215-16P4X)
- PoE budget (Both IGS-4215-8UP4X & IGS-4215-16P4X)
 - Dual power input: 360W
 - Single power input: 240W
- Supports PoE power up to 95 watts for each PoE port (IGS-4215-8UP4X)
- Supports PoE power up to 36 watts for each PoE+ port (IGS-4215-16P4X)
- 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
 - IGS-4215-8UP4X: 40W
 - IGS-4215-16P4X: 15W
- 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

Modbus TCP Provides Flexible Network Connectivity for Factory Automation

The IGS-4215 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 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 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 IGS-4215-8UP4X meets the standards of IEEE 802.bt PoE++ technology and has a total power capacity of 360 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

- PD alive check
- PoE schedule

Industrial Case and Installation

- IP30 aluminum case
- DIN-rail and wall-mount designs
- **IGS-4215-8UP4X/IGS-4215-16P4X**: 48~54V DC (redundant power with reverse polarity protection)
- **IGS-4215-8T4X/IGS-4215-16T4X/IGS-4215-24T4X**: 9~48V DC (redundant power with reverse polarity protection) or 24V AC input
- 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

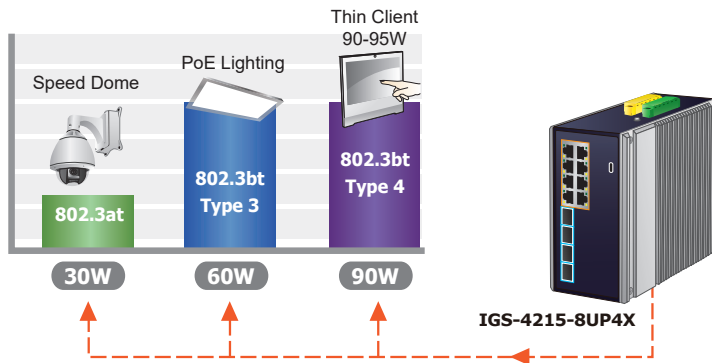
- Hardware-based 10/100Mbps (half/full duplex), 1000Mbps (full duplex), auto-negotiation and auto MDI/MDI-X
- IEEE 802.3x flow control for full duplex operation and back pressure for half duplex operation
- 32K MAC address table size
- 12K jumbo frame
- Automatic address learning and address aging

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)
 - 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



Reliable Power and High-speed Data with IEEE 802.3at PoE+ Support

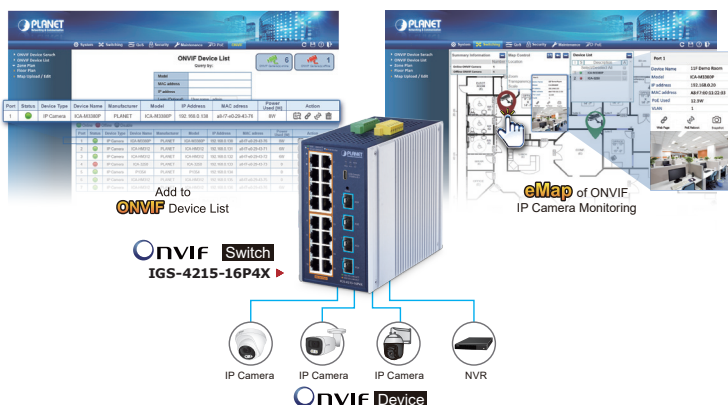
The **IGS-4215-16P4X** is designed to meet the needs of networks with **smaller to medium PoE power demands**, complying with the IEEE 802.3at PoE+ standard. It delivers a total power capacity of **360 watts** across its **16 PoE+ ports**, with each port supporting up to **36 watts** of power. This makes it ideal for powering a range of **medium-power PoE-compliant devices (PDs)** over standard Cat5e/6 Ethernet cabling.

Compared to its PoE++ counterpart, the **IGS-4215-8UP4X**, which supports devices with higher power consumption, the **IGS-4215-16P4X** is better suited for applications with multiple devices that require moderate power. It's an excellent choice for:

- PoE IP cameras
- Wireless access points (APs)
- IP phones and VoIP systems
- Digital signage displays
- Industrial IoT devices

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

The IGS-4215 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.



- 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
- 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