

# Industrial L2+ 8-Port 10/100/1000T 802.3at PoE + 2-Port 10G SFP+ Wall-mount Managed Ethernet Switch



## Wall-mounted PoE Managed Switch with Advanced L2+ Switching and Security

PLANET **WGS-4215-Series** is an Industrial Wall-mount PoE+ Managed Switch with **LCD Touch Screen** (WGS-4215-8P2XV only) featuring PLANET **intelligent PoE** functions to improve the availability of industrial applications. It provides IPv6/IPv4 dual stack management a built-in Layer3 static routing capability, and a powerful L2+/L4 Gigabit switching engine along with **eight 10/100/1000BASE-T** ports featuring **36-watt PoE and two additional 100/1000/2500/10G BASE-X SFP ports**. With a total power budget of up to **288 watts** for different kinds of PoE applications, and featuring networking speed and operating temperature ranging from **-40 to 75 degrees C** for the WGS-4215-8P2X and from **-20 to 70 degrees C** for the WGS-4215-8P2XV in a compact but rugged IP30 metal housing, the **WGS-4215-Series** is an ideal solution to meet the demand for the following network applications:



## Innovative Wall-mount Installation

The WGS-4215-Series is specially designed to be installed in a narrow environment, such as wall enclosure or electric box. The compact, flat and wall-mounted design fits easily in any space-limited location. The WGS-4215-Series can be installed by **fixed wall mounting or magnetic wall mounting**, thereby making its usability more flexible.

## Physical Port

- **8 10/100/1000BASE-T** Gigabit Ethernet RJ45 ports with **IEEE 802.3at PoE+** Injector function
- **2 100/1G/2.5G/10GBASE-X SFP+** slots for SFP type auto detection

## Industrial Case and Installation

- IP30 metal case
- Supports -20 to 70 degrees C operating temperature (WGS-4215-8P2XV only)
- Supports -40 to 75 degrees C operating temperature (WGS-4215-8P2X only)
- Supports ESD 6KV DC Ethernet protection
- Dual power input design
  - 48V~54V DC wide power input with reverse polarity protection
- Compact size with fixed wall-mounted design

## Power over Ethernet

- Complies with IEEE 802.3at Power over Ethernet PSE
- Up to 8 IEEE 802.3af/802.3at devices powered
- 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 250 meters in extend mode
- Advanced PoE management capabilities:
  - Total PoE power budget control
  - Per port PoE function enable/disable
  - PoE port power feeding priority
  - Per PoE port power limitation
  - Detection of PD
- Intelligent PoE features
  - PD alive check
  - PoE schedule
  - Scheduled power recycling



### 10Gbps Fiber Ports and Multiple Dual Speed Ports Deliver High-speed Networking

Featuring a **10Gbps uplink**, the WGS-4215-Series excels in connecting to both the industrial backbone or high-capacity servers, delivering unmatched performance. Operating flawlessly across an extensive temperature range, it guarantees a non-blocking switch fabric and delivers astonishing wire-speed throughput of up to **56Gbps**. The 10G fiber port serves as a backbone for high-bandwidth applications, such as video streaming, cloud computing, and virtualization, ensuring seamless and swift data transmission. This transformative capability simplifies the process of industrial LAN upgrades, efficiently catering escalating bandwidth requirements.

### Intuitive LCD Control (WGS-4215-8P2XV only)

The WGS-4215-8P2XV comes with an intuitive touch panel on its front panel that facilitates the Ethernet PoE PD management that greatly promotes management efficiency in large-scale networks, such as enterprises, hotels, shopping malls, government buildings, and other public areas. It also features the following special management and status functions:

- IP address, VLAN and QoS configuration
- PoE management and status
- Port management and status, and SFP information
- Troubleshooting: cable diagnostic and remote IP ping
- Maintenance: reboot, factory default and save configuration



### Layer 3 IP Routing Features

- Supports maximum 32 static routes and 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
  - 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
- Supports ERPS (Ethernet Ring Protection Switching)
- Link Layer Discovery Protocol (LLDP)

### Quality of Service

- Ingress and egress rate limit per port bandwidth control
- Storm control support
  - Broadcast/Unknown unicast/Unknown multicast
- 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 and v3
- Supports IPv6 MLD snooping v1, v2
- IGMP querier mode support
- IGMP snooping port
- MLD snooping port

### Cybersecurity Network Solution to Minimize Security Risks

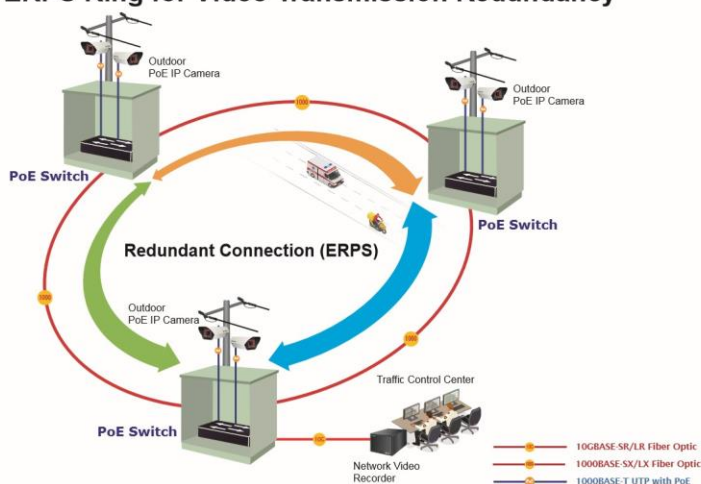
The WGS-4215-Series supports SSHv2 and TLS protocols to provide strong protection against advanced threats. It includes a range of cybersecurity features such as **DHCP Snooping**, **IP Source Guard**, **dynamic ARP Inspection** Protection, **RADIUS** and **TACACS+** user accounts management, SNMPv3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



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

The WGS-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), and **dual power** input system into customer's industrial automation network to enhance system reliability and uptime in harsh factory environments. In a certain simple ring network, the recovery time of data link can be as fast as 10ms.

#### ERPS Ring for Video Transmission Redundancy



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

As it is the managed PoE switch for surveillance, wireless and VoIP networks, the WGS-4215-Series features the following special PoE management functions:

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

### Security

- Authentication
  - Built-in RADIUS client to cooperate with the RADIUS servers
  - RADIUS/TACACS+ login user access authentication
  - DHCP Option 82
- 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 and telnet command line interface
  - SNMP v1 and v2c switch management
  - SSHv2, TLSv1.2 and SNMP v3 secure access
  - 2.4-inch color LCD touch screen (WGS-4215-8P2XV only)
- SNMP Management
  - Four RMON groups (history, statistics, alarms and events)
  - SNMP trap for interface link up and link down notification
- 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-based reset button for system reboot or reset to factory default
- SNTP Network Time Protocol