PLANET
Networking & Communication

Industrial Flat-type L2/L4 Managed Gigabit PoE+ Switch

Physical Port
- **8/16 10/100/1000BASE-T** Gigabit RJ45 copper ports
- **2 100/1000BASE-X SFP** slots for SFP type auto detection

Power over Ethernet
- Complies with IEEE 802.3at Power over Ethernet Plus, end-span PSE
- Backward compatible with IEEE 802.3af Power over Ethernet
- Up to 4/8/16 ports of IEEE 802.3af/802.3at devices powered
- 144-/200-/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

Easily-deployed and Expanded Network

Designed to be installed in a wall enclosure or simply mounted on a wall in any convenient location, PLANET WGS-4215 series, the innovative **Industrial Flat-type Managed Gigabit PoE+ Switch**, offers IPv6/IPv4 dual stack management, **intelligent Layer 2 management functions**, and **user-friendly interface**. The WGS-4215 series is able to operate reliably, stably and quietly in any environment without affecting its performance. Featuring ultra networking speed and operating temperature ranging from **-40** to **75 degrees C** (-10 to 60 degrees C----WGS-4215-16P2S) in a compact but rugged IP30 metal housing, the WGS-4215 series is an ideal solution to meeting the demand for the following network applications:

- Building/Home automation network
- Internet of things (IoT)
- IP surveillance
- Wireless LAN

Item \ Model Name	WGS-804HPT	WGS-4215-8P2S	WGS-4215-16P2S
10/100/1000BASE-T Copper	8	8	16
100/1000BASE-X SFP	-	2	2
Power over Ethernet Standard	IEEE 802.3at PoE+	IEEE 802.3at PoE+	IEEE 802.3at PoE+
PoE Ports	4	8	16
PoE Budget	144 watts	200 watts	240 watts
Power Input	48~54V DC	48~54V DC	48~54V DC
Operating Temperature	-40~75°C	-40~75°C	-10~60°C

Cybersecurity Network Solution to Minimize Security Risks

The WGS-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**, **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.

Industrial Case and Installation
- Compact size with fixed wall-mounted, magnetic wall-mounted or DIN-rail design
- IP30 metal case
- Supports industrial-grade, wide operating temperature
- Supports ESD 6KV DC Ethernet protection
- Dual power input design
  - 48V~54V DC wide power input with reverse polarity protection
 - 3-pin terminal block or DC jack connector

Layer 2 Features
- High performance Store and Forward architecture, broadcast storm control, runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- Supports **VLAN**
  - IEEE 802.1Q tagged VLAN
  - Provider Bridging (VLAN Q-in-Q) support (IEEE 802.1ad)
  - Protocol VLAN

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) into customer's network to enhance system reliability and uptime in various environments.
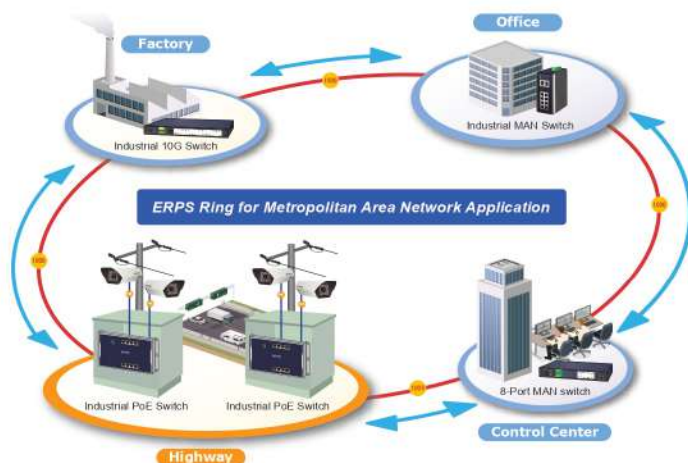
Built-in Unique PoE Functions for Powered Devices Management

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

Intelligent Powered Device Alive Check

The WGS-4215 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 WGS-4215 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 administrator management burden.

PD Alive Check

- Voice VLAN
- Private VLAN
- 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)
- Provides port mirroring (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

- Authentication
  - IEEE 802.1X Port-based network access authentication
  - Built-in RADIUS client to co-operate with the RADIUS servers
  - RADIUS/TACACS+ login user access authentication
- Access Control List
  - IPv4/IPv6 IP-based ACL
  - IPv4/IPv6 IP-based ACE
  - MAC-based ACL
  - MAC-based ACE
- MAC Security
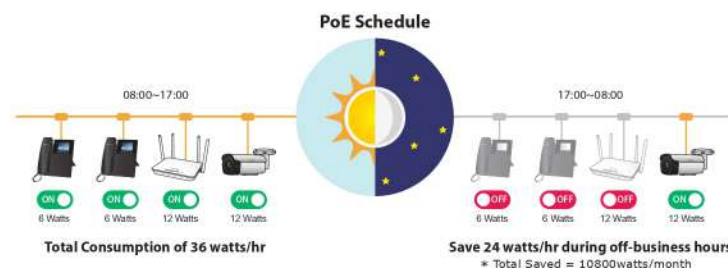 - Static MAC
  - MAC Filtering

Scheduled Power Recycling

The WGS-4215 series allows each of the connected PoE IP cameras or PoE wireless access points to reboot at a specific 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
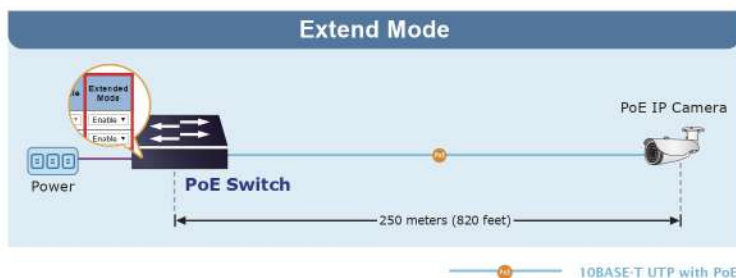
PoE lighting

Door Phone

Automatically Reboot

PoE Schedule for Energy Savings

Under the trend of energy saving worldwide and contributing to environmental protection, the WGS-4215 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 and it 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

802.3at PoE+ Power and Ethernet Data Transmission Distance Extension

In the **"Extend"** operation mode, the WGS-4215 series operates on a per-port 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 WGS-4215 series provides an additional solution for 802.3at/af PoE distance extension, thus saving the cost of Ethernet cable installation.

Extend Mode

Extended Mode
Enable
Enable

Power

PoE Switch

PoE IP Camera

250 meters (820 feet)

10BASE-T UTP with PoE

- 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
  – 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

Innovative Wall-mount Installation

The WGS-4215 series is specially designed to be installed in a narrow environment, such as wall enclosure. The compact, flat and wall-mounted design fits easily in any space-limited location. It adopts the user-friendly **"Front Access"** design, making the installing, cable wiring, LED monitoring and maintenance of the WGS-4215 series placed in an enclosure very convenient for technicians. The WGS-4215 series can be installed by **fixed wall mounting**, **magnetic wall mounting** or **DIN rail**, thereby making its usability more flexible.

Flat Design	**DIN-rail Installation**	**PoE Usage**	**Dual Power Input**
PoE	**Fiber Connection**	**Magnetic Installation**	**Front Access**

* The above pictures are for illustration only.

Environmentally Hardened Design

With IP30, flat but rugged metal housing protection, the WGS-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 degrees C (-10 to 60 degrees C----WGS-4215-16P2S), the WGS-4215 series can be placed in almost any difficult environment.

IPv6/IPv4 Dual Stack Management

Supporting both IPv6 and IPv4 protocols, the WGS-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.
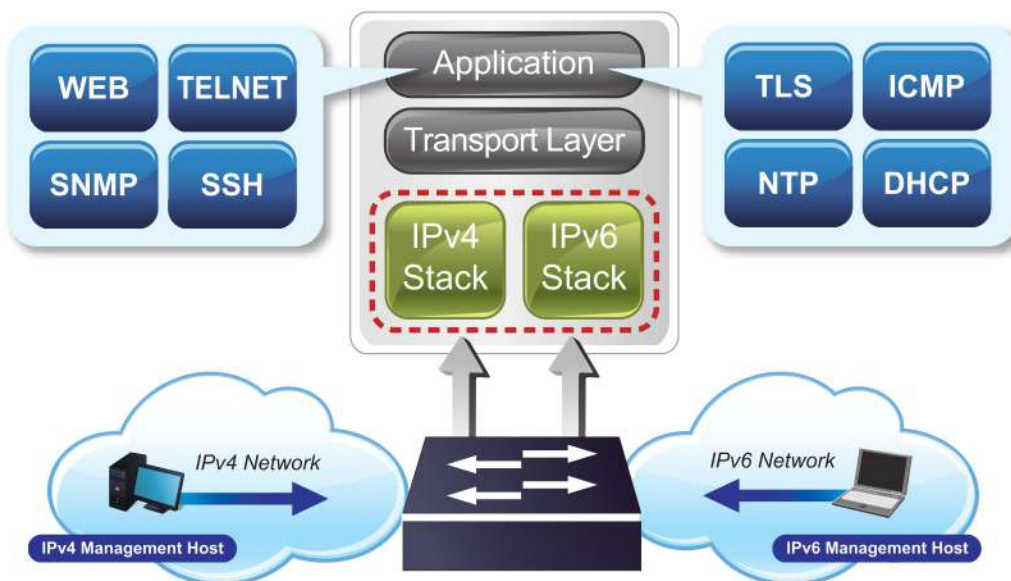
Robust Layer 2 Features

The WGS-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**. Via the link aggregation, the WGS-4215 series allows the operation of a high-speed trunk to combine with multiple ports such as a 16Gbps 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.
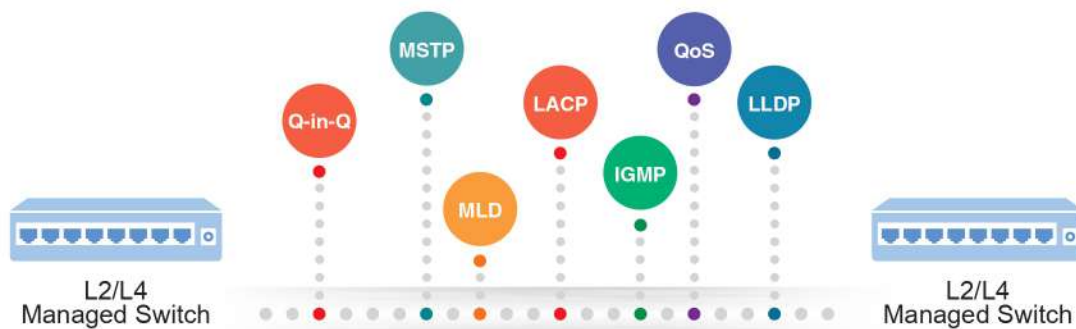
Efficient Traffic Control

The WGS-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.

Powerful Security from Layer 2 to Layer 4

PLANET WGS-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 limiting the number of network devices on a given port..

Advanced Network Security

The WGS-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 WGS-4215 series is equipped with Command line, Web and SNMP management interfaces.

- With the built-in secure HTTPs **Web-based** management interface, the WGS-4215 series offers an easy-to-use, platform-independent management and configuration facility.
- For **text-based** management, it can be accessed via Telnet and SSHv2 protocols.
- For standard-based monitor and management software, it offers SNMPv3 connection which encrypts the packet content at each session for secure remote management.

Next-generation 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.


NMS Controller

CloudViewer App

Flexible Long-distance Extension Solution

The WGS-4215-8P2S and WGS-4215-16P2S provide 2 additional **dual-speed fiber SFP slots**, and 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 WGS-4215-8P2S and WGS-4215-16P2S support **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.


SFP DDM (Digital Diagnostic Monitor)

Voltage   Ammeter   Temperature   Power Transceiver   Power Receiver
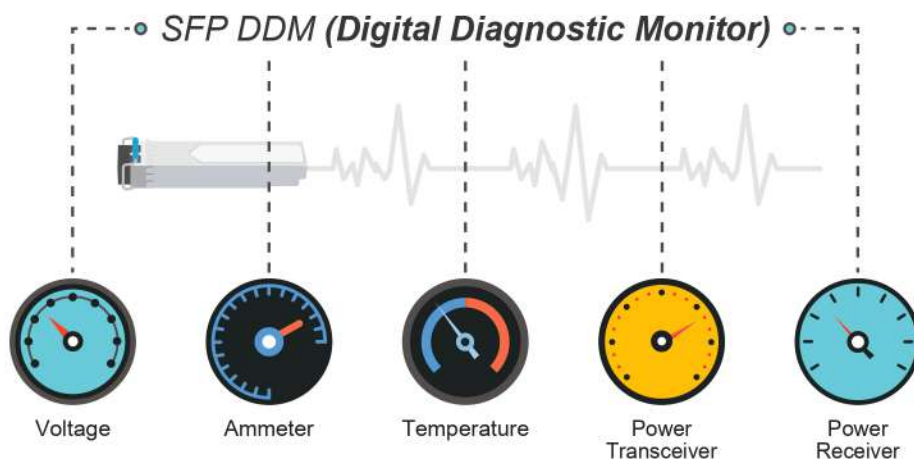
Applications

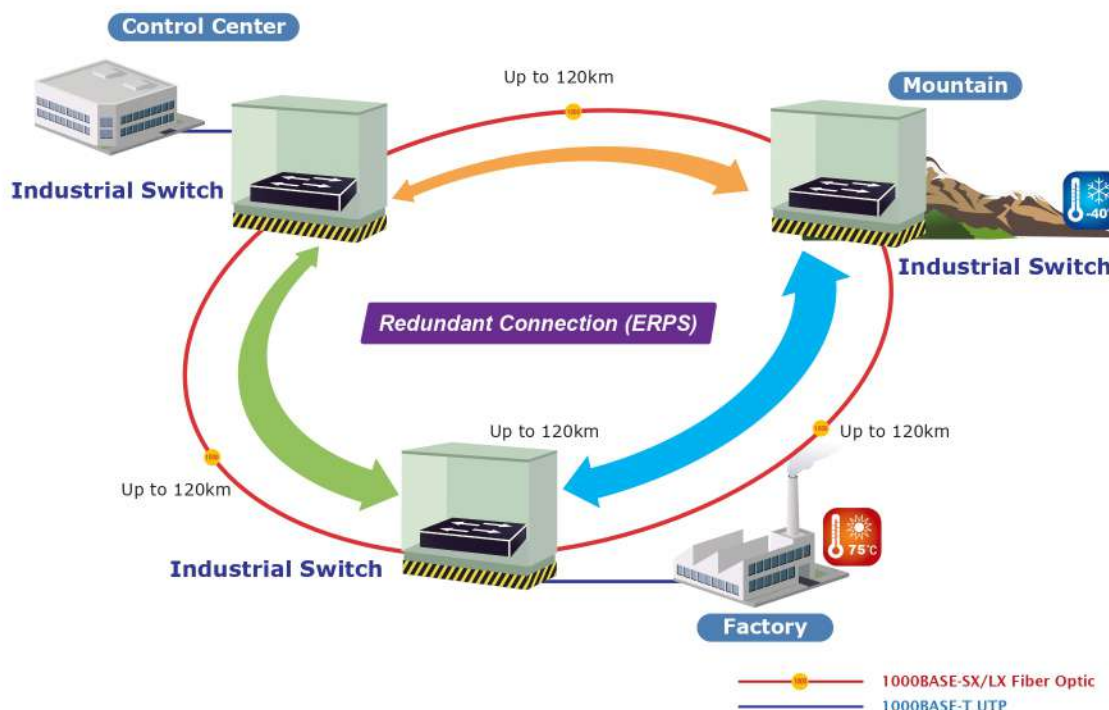## Industrial-grade PoE+ Switch for Building Automation and Security

Suitable for buildings where security is strictly to be enforced, the WGS-4215 series, with up 4 to 16 802.3at 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, multiple 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 WGS-4215 series makes the installation of IP cameras or wireless APs easier and more efficient.
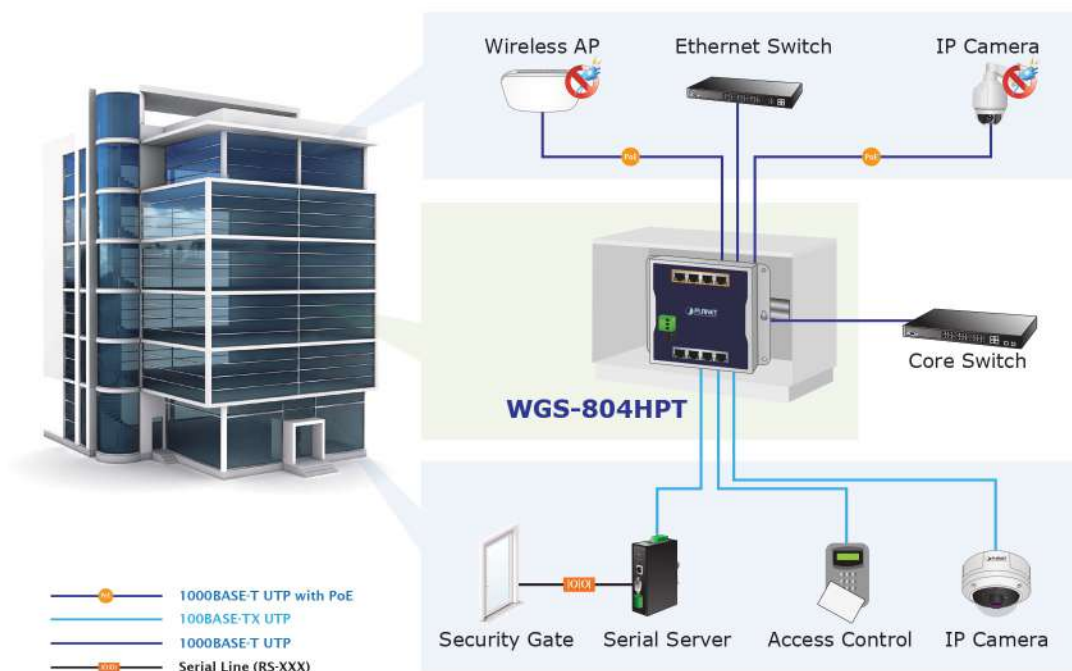
ITU-T G.8032 ERPS Makes Data Transmission Uninterrupted

The WGS-4215 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 WGS-4215 series can directly connect with any IEEE 802.3at end nodes like PTZ (pan, tilt, zoom) network cameras and speed dome cameras. The WGS-4215 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	WGS-804HPT	WGS-4215-8P2S	WGS-4215-16P2S
Hardware Specifications			
Copper Ports	8	8	16
	10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports		
SFP Ports	---	2	2
	--	1000BASE-SX/LX/BX SFP interfaces Compatible with 100BASE-FX SFP	
PoE Inject Port	4	8	16
	802.3af / 802.3at PoE injector function		
RAM	128Mbytes		
Flash Memory	16Mbytes		
Reset Button	< 5 sec: System reboot > 5 sec: Factory default		

Connector	■ Removable 3-pin terminal block for power input
	  - Pin 1/2 for Power (Pin 1: V+ / Pin 2: V-)
	  - Pin 3 for earth ground
	■ DC power jack with 2.1mm central pole		

Power Requirements	48~54V DC, 3A (max.)	48~54V DC, 5A (max.) Note: The two power input interfaces don't support power redundant function	48~54V DC, 5.8A (max.) Note: The two power input interfaces don't support power redundant function.
Power Consumption/ Dissipation — System On	2.7 watts/9.2 BTU	3.78 watts/12.8 BTU	7.02 watts/23.9 BTU
Power Consumption/ Dissipation — PoE Full Loading	Max. 152 watts/519 BTU	Max. 210 watts/716 BTU	Max. 276 watts/941 BTU
Dimensions (W x D x H)	148 x 25 x 134 mm	178 x 25 x 134 mm	245 x 24.4 x 140 mm
Weight	532g	640g	1090g
Enclosure	Metal		
Installation	Wall mount, magnetic wall mount and DIN-rail kit		
ESD Protection	Contact Discharge 6KV DC Air Discharge 8KV DC		
Surge Protection	4KV DC		
LED — Power LED	Power (Green)	Power (Green)	
LED — PoE Port	PoE-in-Use (Amber) LNK/ACT (Green)	PoE-in-Use (Amber) LNK/ACT (Green)	PoE-in-Use (Amber) LNK/ACT (Green)
LED — PoE Power Usage LED	30W, 60W, 90W, 120W (Amber)	N/A	60W, 120W, 180W, 240W (Amber)
LED — LAN Port (Non-PoE)	10/100/1000BASE-TX Port (Port-5 to Port-8): - 1000 (Green) - LNK/ACT (Green)	N/A	N/A
LED — Fiber Port	N/A	1000 LNK/ACT (Green) 100 LNK/ACT (Amber)	1000 LNK/ACT (Green) 100 LNK/ACT (Amber)
Switching Specifications			
Switch Architecture	Store-and-Forward		
Switch Fabric	16Gbps/non-blocking	20Gbps/non-blocking	36Gbps/non-blocking
Switch Throughput@64 bytes	11.9Mpps @64 bytes	14.8Mpps @64 bytes	26.78Mpps @64 bytes
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 802.3af / 802.3at Power over Ethernet PSE		
PoE Power Supply Type	End-span		
Power Pin Assignment	1/2(+), 3/6(-)		
PoE Power Output — IEEE 802.3af	Per port 48V~51V DC, max. 15.4 watts		
PoE Power Output — IEEE 802.3at	Per port 51V~54V DC, max. 36 watts		
PoE Power Budget	144 watts maximum	200 watts maximum	240 watts maximum
Max. Number of Class 2 PDs	4	8	16
Max. Number of Class 3 PDs	4	8	16
Max. Number of Class 4 PDs	4	7	9
PoE Management Functions			
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 schedule
PoE Schedule	4 schedule profiles
PoE Extend Mode	Yes, up to 250 meters, max.
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
	WGS-804HPT and WGS-4215-8P2S: Support 5 groups with 8 ports per trunk
	WGS-4215-16P2S: Supports 8 groups with 8 ports per trunk
Spanning Tree Protocol	STP, IEEE 802.1D Spanning Tree Protocol
	RSTP, IEEE 802.1w Rapid Spanning Tree Protocol
	MSTP, IEEE 802.1s Multiple Spanning Tree Protocol
	STP BPDU Guard, BPDU Filtering and BPDU Forwarding
IGMP Snooping	IPv4 IGMP (v2/v3) snooping
	IGMP querier
	Up to 256 multicast groups
MLD Snooping	IPv6 MLD (v1/v2) snooping, up to 256 multicast groups
QoS	8 mapping ID 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	Web browser
	Telnet
	SNMP v1, v2c
Secure Management Interfaces	SSHv2, TLSv1.2, SNMP v3

System Management	Firmware upgrade by HTTP/HTTPS/TFTP protocol through Ethernet network Configuration upload/download through HTTP/HTTPS/TFTP LLDP protocol SNTP PLANET Smart Discovery Utility PLANET NMS System/CloudViewer	
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	
Standards Conformance		
Regulatory Compliance	FCC Part 15 Class A EN 55032 EN 55035 ICES-003 issue 7	
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 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 802.3az for Energy-Efficient Ethernet RFC 768 UDP RFC 793 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 G.8032 ERPS Ring
Standards Conformance		
Operating Temperature	-40 ~ 75 degrees C	-10 ~ 60 degrees C
Storage Temperature	-40 ~ 85 degrees C	-40 ~ 85 degrees C
Humidity	5 ~ 95% (non-condensing)	

Dimensions

WGS-804HPT

- Dimensions (W x D x H) : 148 x 25 x 134mm

Unit: mm

WGS-4215-8P2S

- Dimensions (W x D x H) : 178 x 25 x 134mm

Unit: mm

WGS-4215-16P2S

■ Dimensions (W x D x H) : 245 x 24.4 x 140mm

Unit: mm
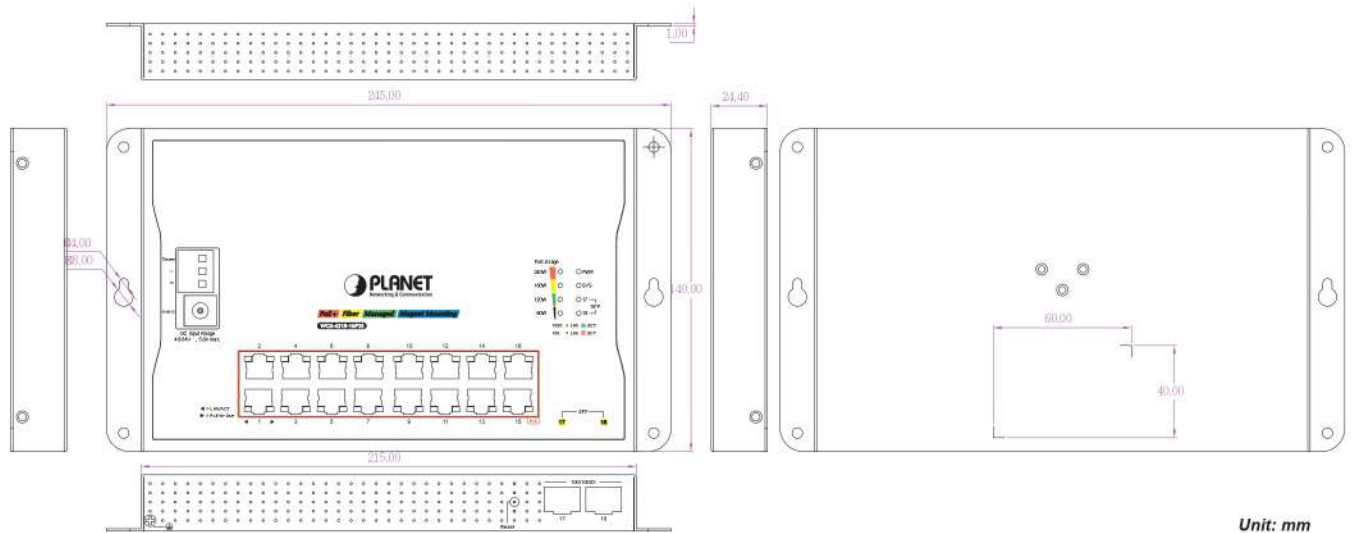
Ordering Information

WGS-804HPT	Industrial 8-Port 10/100/1000T Wall-mounted Managed Switch with 4-Port PoE+
WGS-4215-8P2S	Industrial 8-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Wall-mount Managed Switch
WGS-4215-16P2S	Industrial 16-Port 10/100/1000T 802.3at PoE+ 2-Port 100/1000X SFP Wall-mounted Managed Switch

Related Products

PWR-120-48	120W 48V DC Single Output Industrial DIN-rail Power Supply (-10 ~ 60 degrees C)
PWR-240-48	240W 48V DC Single Output Industrial DIN-rail Power Supply (-10 ~ 60 degrees C)
PWR-480-48	480W 48V DC Single Output Industrial DIN-rail Power Supply (-25 ~ 70 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-5225-8UP2SV	Industrial L2+ 8-Port 10/100/1000T 802.3bt PoE + 2-Port 1G/2.5G SFP Wall-mount Managed Switch with LCD Touch Screen
WGS-5225-8P2SV	Industrial 8-port 10/100/1000T 802.3at PoE + 2-port 1G/2.5G SFP Wall-mount Managed Switch with LCD Touch Screen
WGS-5225-8P2S	Industrial 8-port 10/100/1000T 802.3at PoE + 2-port 1G/2.5G SFP Wall-mount Managed Switch
WGS-804HP	8-Port 10/100/1000T Wall Mounted Gigabit Ethernet Switch with 4-Port PoE+
WGS-814HP	Industrial 8-Port 10/100/1000T Wall-mounted Gigabit Switch with 4-port PoE+
WGS-818HP	Industrial 8-Port 10/100/1000T Wall-mounted Gigabit PoE+ Switch

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)

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

FC CE   **WGS-804HPT/WGS-4215-8P2S/WGS-4215-16P2S**