

Industrial L2+ 8-Port 10/100/1000T 802.3bt PoE + 2-Port 1G/2.5G SFP Wall-mount Managed Switch with LCD Touch Screen



Wall-mounted PoE++ Managed Switch with Advanced L2+/L4 Switching and Security

PLANET WGS-5225-8UP2SV is an Industrial Wall-mount PoE++ Managed Switch with LCD Touch Screen featuring PLANET intelligent PoE functions to improve the availability of industrial applications. It provides IPv6/IPv4 dual stack management and built-in L2+/L4 Gigabit switching engine along with eight 10/100/1000BASE-T ports featuring 95-watt PoE and two additional 100/1000/2500BASE-X SFP ports. With a total power budget of up to 720 watts for different kinds of PoE applications, and featuring networking speed and operating temperature ranging from -20 to 70 degrees C in a compact but rugged IP30 metal housing, the WGS-5225-8UP2SV is an ideal solution to meet the demand for the following network applications:







Dual Power Input

Fiber Connection

802.3bt PoE++ - 90~95-watt Power over 4-pair UTP Solution

As the WGS-5225-8UP2SV adopts the IEEE 802.bt PoE++ standard and PoH technology, it is capable to source up to **95 watts** of power by using all the four pairs of standard Cat5e/6 Ethernet cabling to deliver power and full-speed data to each remote PoE compliant powered device (PD). It possesses triple amount of power capability than the conventional 802.3at PoE+ and is an ideal solution to satisfy the growing demand for higher power consuming network PDs, such as:

Physical Port

- 8 10/100/1000BASE-T Gigabit Ethernet RJ45 ports with IEEE
 802.3bt PoE++ Injector function
- 2 100/1000/2500BASE-X SFP slots for SFP type auto detection

Industrial Case and Installation

- · IP30 aluminum case
- · Supports -20 to 70 degrees C operating temperature
- · 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 802.3bt Power over Ethernet Plus Plus
- Backward compatible with 802.3at PoE+ end-span or midspan PSE
- · Up to 8 IEEE 802.3af/802.3at/802.3bt devices powered
- Supports PoE power up to 95 watts for each PoE port
- · Auto detects powered device (PD)
- · Circuit protection prevents power interference between ports
- Remote power feeding up to 100m
- · PoE management features
 - Total PoE power budget control
 - Per port PoE function enable/disable
 - PoE admin-mode control
 - PoE port power feeding priority
 - Per PoE port power limit
 - PD classification detection
 - Sequence port PoE
 - PoE extend mode control to support power feeding up to a distance of up to 160 meters
 - Auto maximum PoE budget control by power input detection
- · Intelligent PoE features
 - PoE usage threshold control
 - PD alive check
 - PoE schedule

^{*} The above pictures are for illustration only.



- PoE PTZ speed dome cameras
- Network devices
- Thin clients
- AlO (all-in-one) touch PCs, point of sale (POS) and information kiosks
- Remote digital signage displays
- PoE lightings



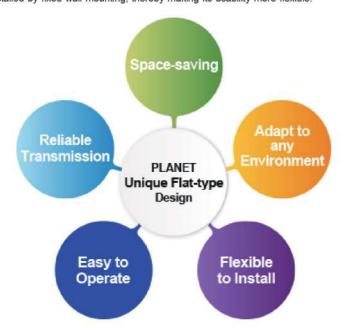
802.3bt PoE++ and Advanced PoE Power Output Mode Management

To meet the demand of various powered devices consuming stable PoE power, the WGS-5225-8UP2SV provides five different PoE power output modes for selection.

- 90W 802.3bt PoE++ Power Output Mode
- 95W UPOE/PoH Power Output Mode
- 30W End-span PoE Power Output Mode
- 30W Mid-span PoE Power Output Mode
- 60W Force Power Output Mode

Innovative Wall-mount Installation

The WGS-5225-8UP2SV 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. It adopts the user-friendly "Front Access" and touch color screen design, making the installing, cable wiring, LED monitoring and maintenance of the WGS-5225-8UP2SV placed in an enclosure very convenient for technicians. The WGS-5225-8UP2SV can be installed by fixed wall mounting, thereby making its usability more flexible.



Industrial Protocol

- · Modbus TCP for real-time monitoring in SCADA system
- IEEE 1588v2 PTP (Precision Time Protocol) transparent clock mode

Layer 3 IP Routing Features

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

Layer 2 Features

- · Storm Control support
 - Broadcast/Multicast/Unicast
- · Supports VLAN
 - IEEE 802.1Q tagged VLAN
 - Provider Bridging (VLAN Q-in-Q) support (IEEE 802.1ad)
 - Private VLAN Edge (PVE)
 - Protocol-based VLAN
 - MAC-based VLAN
 - Voice VLAN
 - GVRP (GARP VLAN Registration Protocol)
- · Supports 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), spanning tree by VLAN
 - BPDU Guard/BPDU Filtering
- Supports Link Aggregation
 - 802.3ad Link Aggregation Control Protocol (LACP)
 - Cisco ether-channel (static trunk)
 - Maximum 2 trunk groups with 2 ports per trunk group
 - Up to 10Gbps bandwidth (duplex mode)
- · Provides port mirror (many-to-1)
- Port mirroring to monitor the incoming or outgoing traffic on a particular port
- · Loop protection to avoid broadcast loops
- · Supports ERPS (Ethernet Ring Protection Switching)
- Compatible with Cisco Uni-directional link detection (UDLD)
 that monitors a link between two switches and blocks the
 ports on both ends of the link if the link fails at any point
 between the two devices
- Link Layer Discovery Protocol (LLDP)

Quality of Service

Ingress Shaper and Egress Rate Limit per port bandwidth control



Intuitive LCD Control

The WGS-5225-8UP2SV 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



Redundant Ring, Fast Recovery for Critical Network Applications

The WGS-5225-8UP2SV 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.



- · 8 priority queues on all switch ports
- · Traffic classification
- IEEE 802.1p CoS
- IP TOS/DSCP/IP precedence
- 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 v1, v2 and v3
- Supports IPv6 MLD Snooping v1 and v2
- · Querier mode support
- · IPv4 IGMP Snooping port filtering
- · IPv6 MLD Snooping port filtering
- MVR (Multicast VLAN Registration)

Security

- Authentication
 - IEEE 802.1x Port-based / MAC-based network access authentication
 - Built-in RADIUS client to cooperate with the RADIUS servers
 - TACACS+ login users access authentication
 - RADIUS/TACACS+ users access authentication
 - Guest VLAN assigns clients to a restricted VLAN with limited services
- · Access Control List
 - IP-based Access Control List (ACL)
 - MAC-based Access Control List
- · Source MAC / IP address binding
- DHCP Snooping to filter un-trusted DHCP messages
- Dynamic ARP Inspection discards ARP packets with invalid MAC address to IP address binding
- IP Source Guard prevents IP spoofing attacks
- · Auto DoS rule to defend DoS attack
- IP address access management to prevent unauthorized intruder

Management

- IPv4 and IPv6 dual stack management
- Switch Management Interfaces
 - Telnet Command Line Interface



Built-in Unique PoE Functions for Powered Devices Management

As it is the managed PoE switch for surveillance, wireless and VoIP networks, the WGS-5225-8UP2SV features the following special PoE management functions:

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

Intelligent Powered Device Alive Check

The WGS-5225-8UP2SV can be configured to monitor connected PD status in real time via ping action. Once the PD stops working and responding, the WGS-5225-8UP2SV 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.

PoE PD Alive Check



Scheduled Power Recycling

The WGS-5225-8UP2SV 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.



PoE Schedule for Energy Saving

Under the trend of energy saving worldwide and contributing to environmental protection, the WGS-5225-8UP2SV 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.

- Web switch management
- SNMP v1, v2c, and v3 switch management
- SSHv2 and TLSv1.2 secure access
- · SNMP Management
 - Four RMON groups (history, statistics, alarms, and events)
 - SNMP trap for interface Link Up and Link Down notification
- . IPv6 IP address/NTP/DNS management
- · Built-in Trivial File Transfer Protocol (TFTP) client
- · BOOTP and DHCP for IP address assignment
- · System Maintenance
 - Firmware upload/download via HTTP/TFTP
 - Reset button for system reboot or reset to factory default
 - Dual Images
- · DHCP Relay and DHCP Option 82
- DHCP Server
- · User Privilege levels control
- · Network Time Protocol (NTP)
- Network Diagnositc
 - ICMPv6/ICMPv4 Remote Ping
 - Cable diagnostic technology provides the mechanism to detect and report potential cabling issues
 - SFP-DDM (Digital Diagnostic Monitor)
- · SMTP, Syslog and SNMP trap remote alarm
- · System Log
- PLANET UNI-NMS (Universal Network Management) and Smart Discovery Utility for deployment management
- Provides ONVIF for co-operating with PLANET video IP surveillances



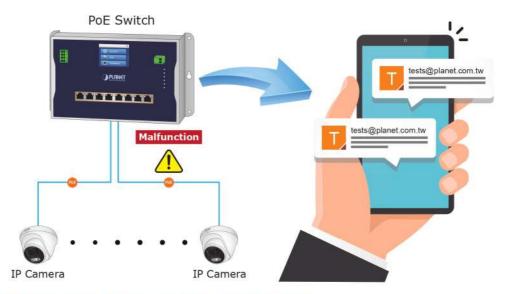
Convenient and Smart ONVIF Devices with Detection Feature

PLANET has newly developed an awesome feature -- ONVIF Support -- which is specifically designed for co-operating with video IP surveillances. From the WGS-5225-8UP2SV's GUI, you just need one click to search and show all of the ONVIF devices via network application. In addition, you can upload floor images to the switch and can remotely monitor or inspect an assembly line. Moreover, you can get real-time surveillance information and online/offline status; the PoE reboot can be controlled from the GUI.



SMTP/SNMP Trap Event Alert

The WGS-5225-8UP2SV provides event alert function to help to diagnose the abnormal device owing to whether or not there is a break of the network connection, or the rebooting response.



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

To help customers stay on top of their businesses, the WGS-5225-8UP2SV not only provides ultra high transmission performance and excellent Layer 2 technologies, but also IPv4/IPv6 software VLAN routing feature which allows to cross over different VLANs and different IP addresses for the purpose of having a highly-secure, flexible management and simpler networking application.

Robust Layer 2 Features

The WGS-5225-8UP2SV can be programmed for advanced switch management functions such as dynamic port link aggregation, Q-in-Q VLAN, private VLAN, Rapid Spanning Tree Protocol, Layer 2 to Layer 4 QoS, bandwidth control and IGMP snooping. The WGS-5225-8UP2SV provides 802.1Q tagged VLAN, and the VLAN groups allowed will be maximally up to 4K. Via aggregation of supporting ports, the WGS-5225-8UP2SV allows the operation of a high-speed trunk combining multiple ports. It enables a maximum of up to 2 trunk groups with 2 ports per trunk group, and supports fail-over as well.



Network with Cybersecurity Helps Minimize Security Risks

The WGS-5225-8UP2SV comes with enhanced cybersecurity to fend off cyberthreats and cyberattacks. It supports SSHv2 and TLSv1.2 protocols to provide strong protection against advanced threats. Served as a key point to transmit data to customer's critical equipment in a business network, the cybersecurity feature of the WGS-5225-8UP2SV protects the switch management and enhances the security of the mission-critical network without any extra deployment cost and effort.

Efficient Management

For efficient management, the WGS-5225-8UP2SV is equipped with Command line, Web and SNMP management interfaces.

- With the built-in **Web-based** management interface, the WGS-5225-8UP2SV offers an easy-to-use, platform-independent management and configuration facility.
- For text-based management, it can be accessed via Telnet and SSHv2 protocol.
- For standard-based monitor and management software, it offers SNMPv3 connection which encrypts the packet content at each session for secure remote management.



Powerful Security from Layer 2 to Layer 4

The WGS-5225-8UP2SV offers comprehensive 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 and MAC-based user and device authentication. With the private VLAN function, communication between edge ports can be prevented to ensure user privacy.

Advanced IP Network Protection

The WGS-5225-8UP2SV 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.

Modbus TCP provides Flexible Network Connectivity for Factory Automation

With the supported Modbus TCP/IP protocol, the WGS-5225-8UP2SV can easily integrate with SCADA systems, HMI systems and other data acquisition systems in factory floors. It enables administrators to remotely monitor the industrial Ethernet switch's operating information, port information and communication status, thus easily achieving enhanced monitoring and maintenance of the entire factory.

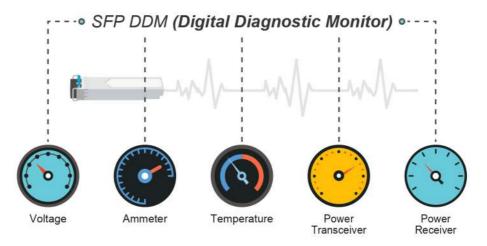
Flexibility and Extension Solution

The additional two SFP slots built in the WGS-5225-8UP2SV support multi-speed, 100BASE-FX, 1000BASE-SX/LX and 2500BASE-X SFP (Small Form-factor Pluggable) fiber-optic modules, meaning the administrator now can flexibly choose the suitable SFP transceiver according to not only the transmission distance but also the transmission speed required. The distance can be extended from 550 meters (multi-mode fiber) to 20/40/80/120 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-5225-8UP2SV supports **SFP-DDM** (Digital Diagnostic Monitor) function that greatly helps network administrator to easily monitor real-time parameters of the SFP, such as optical output power, optical input power, temperature, laser bias current, and transceiver supply voltage.



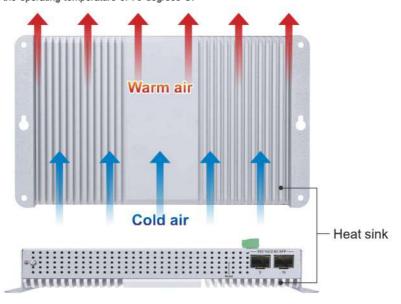
1588 Time Protocol for Industrial Computing Networks

The WGS-5225-8UP2SV is ideal for telecom and Carrier Ethernet applications, supporting MEF service delivery and timing over packet solutions for IEEE 1588 and synchronous Ethernet.



A One-piece Aluminum Enclosure Gives Protection and Heat Dissipation

The WGS-5225-8UP2SV comes with an unibody aluminum enclosure that, like a heat sink, has the shape of a fin profile on the rear side of the switch, thus dissipating heat very quickly, especially in the operating temperature of 70 degrees C.





Applications

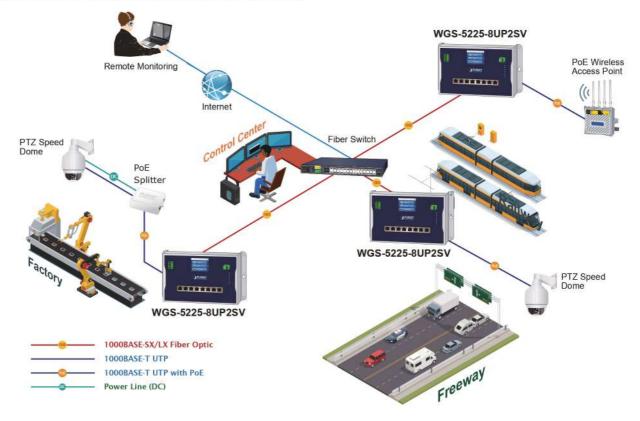
Security Building Automation Switch

Suitable for buildings where security is strictly to be enforced, the WGS-5225-8UP2SV offers a comprehensive Layer 2 to Layer 4 Access Control List (ACL). The switch can restrict network access by denying packets based on source and destination IP address, TCP/UDP ports or defined typical network applications. With the WGS-5225-8UP2SV, a tightly-controlled network can be easily had in no time.



Different Networks Managed by One Control Center

Providing up to 8 PoE++, in-line power interfaces, the WGS-5225-8UP2SV can centrally manage power supplying to an industrial network system where IP phones, IP cameras, wireless APs and more are built. For instance, 8 PoE IP cameras or wireless access points can be easily installed around the corner in the industrial environment for surveillance demands or for a wireless roaming network. Without the power-socket limitation, the WGS-5225-8UP2SV makes the installation of IP cameras and wireless APs easier and more efficient.





Specifications

| and the state of t | | | | | | |
|--|---|--|--|--|--|--|
| Product | WGS-5225-8UP2SV | | | | | |
| Hardware Specifications | | | | | | |
| Copper Ports | 8 10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports | | | | | |
| SFP Slots | 2 100/1000/2500BASE-X SFP interfaces | | | | | |
| | Compatible with 100BASE-FX, 1000BASE-SX/LX/BX and 2500BASE-X SFP transceivers | | | | | |
| PoE Injector Port | 8 ports with 802.3bt PoE++ injector function with Port-1 to Port-8 | | | | | |
| RAM | 128MBytes | | | | | |
| Flash Memory | 64MBytes | | | | | |
| Reset Button | < 5 sec: System reboot | | | | | |
| | > 5 sec: Factory Default | | | | | |
| | 4-pin terminal block for power input | | | | | |
| Connector | - Pin 1/2 for Power 1 (Pin 1: V+ / Pin 2: V-) Pin 3/4 for Power 2 (Pin 3: V+ / Pin 4: V-) | | | | | |
| | - Pin 3/4 for Power 2 (Pin 3: V+ / Pin 4: V-) 2-pin terminal block for event alarm | | | | | |
| Alarm | One relay output for power failure. Alarm Relay current carry ability: 1A @ 24V DC | | | | | |
| Enclosure | IP30 aluminum case | | | | | |
| Installation | Wall-mount | | | | | |
| Dimensions (W x D x H) | 245 x 140 x 36 mm | | | | | |
| Weight | 1299g | | | | | |
| Power Requirements | Dual 48~54V DC (>52V DC for PoE++ and PoE+ output recommended) | | | | | |
| * | Max. 7.2 watts/24.7BTU (Power on without any connection) | | | | | |
| Power Consumption | Max. 251 watts/861.2BTU (Full loading with PoE function) | | | | | |
| ESD Protection | 6KV DC | | | | | |
| | System: | | | | | |
| | PWR 1(Green) | | | | | |
| | PWR 2 (Green) | | | | | |
| | Ring (Green) | | | | | |
| | Ring Owner (Green) | | | | | |
| | Per 10/100/1000T RJ45 PoE++ Ports: | | | | | |
| LED Indicator | 802.3bt PoE-in-Use (Green) | | | | | |
| | 802.3af/at PoE-in-Use (Amber) | | | | | |
| | 1000 LNK/ACT (Green) | | | | | |
| | 10/100 LNK/ACT (Amber) | | | | | |
| | Per SFP Interface: | | | | | |
| | 1000/2500 LNK/ACT (Green) | | | | | |
| | 100 LNK/ACT (Amber) | | | | | |
| Switching Specifications | | | | | | |
| Switch Architecture | Store-and-Forward | | | | | |
| Switch Fabric | 26Gbps/non-blocking | | | | | |
| Throughput (packet per second) Address Table | 19.345Mpps@ 64 bytes packet 8K entries, automatic source address learning and aging | | | | | |
| Shared Data Buffer | 4Mbits | | | | | |
| Onaica Data Dulici | IEEE 802.3x pause frame for full duplex | | | | | |
| Flow Control | Back pressure for half duplex | | | | | |
| Jumbo Frame | 9Kbytes | | | | | |
| Power Over Ethernet | | | | | | |
| | IEEE 802.3bt PoE++ Type-4 PSE | | | | | |
| PoE Standard | Backward compatible with 802.3at PoE+ PSE | | | | | |
| | ■ 802.3bt | | | | | |
| | ■ UPOE/POH | | | | | |
| PoE Power Supply Type | ■ End-span | | | | | |
| | ■ Mid-span | | | | | |
| | ■ Force | | | | | |
| | 802.3bt PoE++ | | | | | |
| | - Per port 52V~56V DC (depending on the power supply), max. 90 watts | | | | | |
| | | | | | | |
| | UPoE(PoH) - Per port 52V~56V DC (depending on the power supply), max. 95 watts | | | | | |
| DoE Dower Output | | | | | | |
| PoE Power Output | | | | | | |
| PoE Power Output | IEEE 802.3at Standard - Per port 52V~56V DC (depending on the power supply), may, 36 watts | | | | | |
| FOE Power Output | - Per port 52V~56V DC (depending on the power supply), max. 36 watts | | | | | |



| | End-span: 1/2 (-), 3/6 (+) |
|---------------------------------|--|
| Power Pin Assignment | Mid-span: 4/5 (+), 7/8 (-) |
| | 802.3bt/UPoE: 1/2 (-), 3/6 (+),4/5 (+), 7/8 (-) |
| | 48V Power input |
| | - 125W maximum (depending on power input) |
| PoE Power Budget | 52~54V Power input |
| ** | - Single power input: 360W maximum (depending on power input) |
| | - Dual power input: 720W maximum (depending on power input) |
| | * Dual power input must be the same as DC voltage, like dual 54V |
| Max. number of Class 3 PDs | 8 |
| Max. number of Class 4 PDs | 8 |
| Max. number of Class 8 PDs | 8 |
| PoE Management Functions | |
| Active PoE device alive detects | Yes |
| PoE Power Recycle | Yes, daily or predeinded schedule |
| PoE Schedule | 4 schedule profiles |
| PoE Extend Mode | Yes, max. 160 to 200 meters |
| | System PoE Admin control |
| | Total PoE power budget control |
| PoE System Management | Auto power input and PoE budget control |
| | PoE Legacy mode |
| | Over-temperature threshold alarm |
| | PoE usage threshold alarm |
| | Port Enable/Disable/Schedule |
| | PoE mode control |
| | - 802.3bt |
| PoE Port Management | - UPoE |
| | - 802.3at End-span |
| | - 802.3at Mid-span - Force mode |
| | - Port Priority |
| Layer 3 Functions | - Totaliony |
| IP Interfaces | Max. 8 VLAN interfaces |
| Routing Table | Max. 32 routing entries |
| | Ipv4 software static routing |
| Routing Protocols | Ipv6 software static routing |
| Layer 2 Function | |
| | Port disable/enable |
| | Auto-negotiation 10/100/1000Mbps full and half duplex mode selection |
| Port Configuration | Flow control disable/enable |
| | Port link capability control |
| Port Status | Display each port's speed duplex mode, link status, flow control status, auto negotiation status, trunk status |
| Port Mirrorina | TX/RX/both |
| Port Mirroring | Many-to-1 monitor |
| | IEEE 802.1Q tag-based VLAN |
| | IEEE 802.1ad Q-in-Q tunneling |
| | Private VLAN Edge (PVE) |
| | MAC-based VLAN |
| VLAN | Protocol-based VLAN |
| | Voice VLAN |
| | MVR (Multicast VLAN Registration) |
| | GVRP |
| | Up to 4K VLAN groups, out of 4094 VLAN IDs |
| Link Aggregation | IEEE 802.3ad LACP/static trunk |
| Link Aggregation | Supports 2 trunk groups with 2 ports per trunk group |
| | IEEE 802.1D Spanning Tree Protocol |
| Spanning Tree Protocol | IEEE 802.1w Rapid Spanning Tree Protocol |
| | IEEE 802.1s Multiple Spanning Tree Protocol |
| | Ipv4 IGMP (v1/v2 /v3) Snooping |
| IGMP Snooping | Ipv4 IGMP Querier mode support |
| | |
| | Up to 255 multicast Groups |



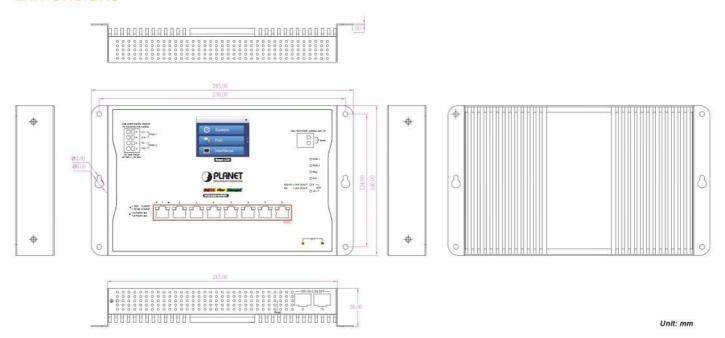
| | lpv6 MLD (v1/v2) Snooping | | | | |
|------------------------------|--|--|--|--|--|
| MLD Snooping | Ipv6 MLD Querier mode support | | | | |
| WES chooping | Up to 255 multicast Groups | | | | |
| | Per port bandwidth control | | | | |
| Bandwidth Control | Ingress: 500Kb~1000Mbps | | | | |
| Bandwidth Control | Egress: 500Kb~1000Mbps | | | | |
| | Supports ERPS, and complies with ITU-T G.8032 | | | | |
| RING | Recovery time < 10ms | | | | |
| | | | | | |
| Comphanization | IEEE 1588v2 PTP(Precision Time Protocol) | | | | |
| Synchronization | - Peer-to-peer transparent clock | | | | |
| | - End-to-end transparent clock | | | | |
| | Traffic classification based, strict priority and WRR | | | | |
| | 8-level priority for switching | | | | |
| QoS | - Port number | | | | |
| | - 802.1p priority | | | | |
| | - 802.1Q VLAN tag | | | | |
| | - DSCP/TOS field in IP packet | | | | |
| Security Functions | | | | | |
| | IP-based ACL/MAC-based ACL | | | | |
| | ACL based on: | | | | |
| | - MAC Address | | | | |
| | - IP Address | | | | |
| Access Control List | - Ethertype | | | | |
| Access Control List | - Protocol Type | | | | |
| | - VLAN ID | | | | |
| | - DSCP | | | | |
| | - 802.1p Priority | | | | |
| | Up to 256 entries | | | | |
| | Port security | | | | |
| | IP source guard | | | | |
| Security | Dynamic ARP inspection | | | | |
| | Command line authority control based on user level | | | | |
| | RADIUS client | | | | |
| AAA | TACACS+ client | | | | |
| | IEEE 802.1x port-based network access control | | | | |
| Network Access Control | MAC-based authentication | | | | |
| | Local/RADIUS authentication | | | | |
| Management Functions | | | | | |
| Basic Management Interfaces | Telnet; Web browser; SNMP v1, v2c | | | | |
| Secure Management Interfaces | SSHv2, TLS v1.2, SNMPv3 | | | | |
| | Firmware upgrade by HTTP protocol through Ethernet network | | | | |
| | Configuration upload/download through HTTP | | | | |
| System Management | LLDP protocol | | | | |
| Cyclom management | NTP | | | | |
| | PLANET Smart Discovery Utility | | | | |
| | Remote Syslog | | | | |
| Event Management | System log | | | | |
| Event Management | SMTP | | | | |
| | | | | | |
| ONIVIE | ONVIF device manifering | | | | |
| ONVIF | ONVIF device monitoring | | | | |
| | Floor Map | | | | |



| | RFC 1213 MIB-II | | | | |
|-----------------------|---|--|--|--|--|
| | IF-MIB | | | | |
| | RFC 1643 Ethernet MIB | | | | |
| | RFC 2863 Interface MIB | | | | |
| | RFC 2665 Ether-Like MIB | | | | |
| | RFC 2819 RMON MIB (Groups 1, 2, 3 and 9) | | | | |
| | RFC 2737 Entity MIB | | | | |
| SNMP MIBs | RFC 2618 RADIUS Client MIB | | | | |
| | RFC 2933 IGMP-STD-MIB | | | | |
| | RFC 3411 SNMP-Frameworks-MIB | | | | |
| | IEEE 802.1X PAE | | | | |
| | LLDP | | | | |
| | MAU-MIB | | | | |
| | Power over Ethernet MIB | | | | |
| Standards Conformance | Powel over Edieniet Mid | | | | |
| Regulatory Compliance | FCC Part 15 Class A, CE | | | | |
| Regulatory Compliance | | | | | |
| CA-LINA T | IEC60068-2-32 (free fall) | | | | |
| Stability Testing | IEC60068-2-27 (shock) | | | | |
| | IEC60068-2-6 (vibration) | | | | |
| | IEEE 802.3 10BASE-T | | | | |
| | IEEE 802.3u 100BASE-TX/100BASE-FX | | | | |
| | IEEE 802.3z Gigabit SX/LX | | | | |
| | IEEE 802.3ab Gigabit 1000T | | | | |
| | 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 | | | | |
| Standards Compliance | IEEE 802.3ah OAM | | | | |
| Standards Compliance | IEEE 802.3af Power over Ethernet | | | | |
| | IEEE 802.3at Power over Ethernet Plus | | | | |
| | IEEE 802.3bt Power over Ethernet Plus Plus | | | | |
| | RFC 768 UDP | | | | |
| | RFC 793 TFTP | | | | |
| | RFC 791 IP | | | | |
| | RFC 792 ICMP | | | | |
| | RFC 2068 HTTP | | | | |
| | RFC 1112 IGMP v1 | | | | |
| | RFC 2236 IGMP v2 | | | | |
| | RFC 3367 IGMP version 3 | | | | |
| | RFC 2710 MLD version 1 | | | | |
| | RFC 3810 MLD version 2 | | | | |
| | ITU-T G.8032 Ethernet Ring Protection Switching | | | | |
| Environment | | | | | |
| Operating Temperature | -20 ~ 70 degrees C | | | | |
| Storage Temperature | -20 ~ 70 degrees C -40 ~ 85 degrees C | | | | |
| Humidity | 5 ~ 95% (non-condensing) | | | | |
| riumdity | 5 55% (non-condensing) | | | | |



Dimensions



Ordering Information

| WGS-5225-8UP2SV | Industrial L2+ 8-Port 10/100/1000T 802.3bt PoE + 2-Port 100/1000X SFP Wall-mount Managed Switch with LCD |
|-----------------|--|
| WGG-3223-00F23V | Touch Screen |

Related Product

| WGS-5225-8P2SV | Industrial L2+ 8-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Wall-mount Managed Switch with LCD Touch Screen |
|----------------|---|
| WGS-5225-8P2S | Industrial L2+ 8-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Wall-mount Managed Switch |
| WGS-5225-8T2SV | Industrial L2+ 8-Port 10/100/1000T + 2-Port 100/1000X SFP Wall-mount Managed Switch with LCD Touch Screen |

Related Power Supply

Available 1000Mbps Modules

Gigabit Ethernet Transceiver (1000BASE-X SFP)

| Model | DDM | Speed (Mbps) | Connector Interface | Fiber Mode | Distance | Wavelength (nm) | Operating Temp. |
|----------|------|--------------|---------------------|-------------|----------|-----------------|--------------------|
| MGB-GT | 17.5 | 1000 | Copper | 175 | 100m | == | 0 ~ 60 degrees C |
| MGB-TSX | YES | 1000 | LC | Multi Mode | 550m | 850nm | -40 ~ 75 degrees C |
| MGB-TSX2 | YES | 1000 | LC | Multi Mode | 2km | 1310nm | -40 ~ 75 degrees C |
| MGB-TLX | YES | 1000 | LC | Single Mode | 20km | 1310nm | -40 ~ 75 degrees C |
| MGB-TL40 | YES | 1000 | LC | Single Mode | 40km | 1310nm | -40 ~ 75 degrees C |
| MGB-TL80 | YES | 1000 | LC | Single Mode | 80km | 1550nm | -40 ~ 75 degrees C |



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

| Model | DDM | Speed (Mbps) | Connector Interface | Fiber Mode | Distance | Wavelength (TX) | Wavelength (RX) | Operating Temp. |
|------------------------|------|--------------|---------------------|-------------|----------|-----------------|-----------------|--------------------|
| MGB-TSA | VEC | 1000 | WDM(LC) | Single Mode | 2km | 1310nm | 1550nm | -40 ~ 75 degrees C |
| MGB-TSB | YES | 1000 | WDM(LC) | Single Mode | 2km | 1550nm | 1310nm | -40 ~ 75 degrees C |
| MGB-TLA10 | YES | 1000 | WDM(LC) | Single Mode | 10km | 1310nm | 1550nm | -40 ~ 75 degrees C |
| MGB-TLB10 | TES | 1000 | WDM(LC) | Single Mode | 10km | 1550nm | 1310nm | -40 ~ 75 degrees C |
| MGB-TLA20 MGB-TLB20 | V/E0 | 1000 | WDM(LC) | Single Mode | 20km | 1310nm | 1550nm | -40 ~ 75 degrees C |
| | YES | 1000 | WDM(LC) | Single Mode | 20km | 1550nm | 1310nm | -40 ~ 75 degrees C |
| MGB-TLA40 | V/50 | 1000 | WDM(LC) | Single Mode | 40km | 1310nm | 1550nm | -40 ~ 75 degrees C |
| MGB-TLB40 | YES | 1000 | WDM(LC) | Single Mode | 40km | 1550nm | 1310nm | -40 ~ 75 degrees C |
| MGB-TLA80 | VEC | 1000 | WDM(LC) | Single Mode | 80km | 1490nm | 1550nm | -40 ~ 75 degrees C |
| MGB-TLB80 | YES | 1000 | WDM(LC) | Single Mode | 80km | 1550nm | 1490nm | -40 ~ 75 degrees C |
| MGB-TLA120 | VEC | 1000 | WDM(LC) | Single Mode | 120km | 1490nm | 1550nm | -40 ~ 75 degrees C |
| MGB-TLB120 | YES | 1000 | WDM(LC) | Single Mode | 120km | 1550nm | 1490nm | -40 ~ 75 degrees C |

Available 2500Mbps Modules

2.5 Gigabit Ethernet Transceiver (2.5GBASE-X SFP)

| Model | Speed (Mbps) | Connector Interface | Fiber Mode | Distance | Wavelength (nm) | Operating Temp. |
|------------|--------------|---------------------|-------------|----------|-----------------|--------------------|
| MGB-2GTSR | 2.5G | LC | Multi Mode | 300m | 850nm | -40 ~ 75 degrees C |
| MGB-2GLR2 | 2.5G | LC | Single Mode | 2km | 1310nm | -40 ~ 75 degrees C |
| MGB-2GLR20 | 2.5G | LC | Single Mode | 20km | 1310m, | -40 ~ 75 degrees C |

2.5G Gigabit Ethernet Transceiver (2.5GBASE-BX, Single Fiber Bi-directional SFP)

| Model | Speed (Mbps) | Connector Interface | Fiber Mode | Distance | Wavelength (TX) | Wavelength (RX) | Operating Temp. |
|-------------|--------------|---------------------|-------------|----------|-----------------|-----------------|--------------------|
| MGB-2GTLA20 | 2.5G | WDM(LC) | Single Mode | 20km | 1310nm | 1550nm | -40 ~ 75 degrees C |
| MGB-2GTLB20 | 2.5G | WDM(LC) | Single Mode | 20km | 1550nm | 1310nm | -40 ~ 75 degrees C |

Available 100Mbps 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 | 13100nm | -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-TSA | 100 | WDM(LC) | Multi Mode | 2km | 1310nm | 1550nm | -40 ~ 75 degrees C |
| MFB-TSB | 100 | WDM(LC) | Multi Mode | 2km | 1550nm | 1310nm | -40 ~ 75 degrees C |
| 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 |
| MGB-TL80 | YES | 1000 | LC | Single Mode | 80km | 1550nm | -40 ~ 75 degrees C |

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