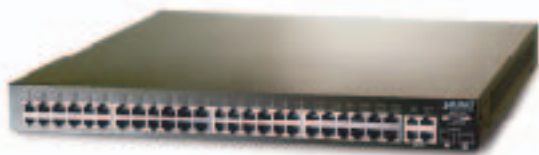


# 48-Port 10/100Mbps TP + 4-Port Gigabit TP/2-Port mini-GBIC Layer 3 Managed Ethernet Switch



## Cost-Effective Solution

The PLANET WGS3-5220 is a 48-Port 10/100Mbps Layer 3 Managed Ethernet Switch. It essential Layer 3 functionality multimedia switch that brings high-end security and traffic control to the edge of the network. With IP routing capability and flexible management tools, the PLANET Managed Multi-Layer Switch Solution performs a cost-effective way for today with the ability to expend as the growing of network demands.

## High Performance

PLANET WGS3-5220 boasts a high performed switch architecture that is capable of providing non-blocking switch fabric and wire-speed throughput as high as 17.6Gbps. Its two built-in Fiber uplink ports also offer incredible extensibility, flexibility and connectivity to the other core switches or Servers.

## Excellent Traffic Control

PLANET WGS3-5220 is loaded with powerful traffic management and QoS features to enhance services offered by telecoms. The functionality includes QoS features such as wire-speed Layer 4 traffic classifiers, bandwidth limiting, Policy-Based DiffServ that are particular useful for multi-tenant units, multi business units, Telco, or Network Service Provide applications. It also empowers the enterprises to take full advantages of the limited network resources and guarantees the best performance at VoIP and Video conferencing transmission.

## Powerful Security

PLANET WGS3-5220 offers comprehensive Access Control List (ACL) for enforcing security to the edge. Its protection mechanisms comprises of port-based 802.1x user and device authentication. The port-security is effective in limit the numbers of clients pass through. The administrators can now construct highly secured corporate networks with time and effort considerably less than before.

## Flexibility and Extension Solution

The two mini-GBIC slots are compatible with 1000Base-SX / LX and WDM SFP (Small Factor Pluggable) fiber-optic modules. The distance can be extended from 550 meters (Multi-Mode fiber), up to above 10/50/70/120 kilometers (Single-Mode fiber or WDM fiber). They are well suited for use within the enterprise data center and distribution.

## Efficient Management

With its built-in web-based management, the PLANET WGS3-5220 offers an easy-to-use, platform-independent management and configuration facility. The PLANET WGS3-5220 supports standard Simple Network Management Protocol (SNMP) and can be managed via any standard-based management software. For text-based management, the WGS3-5220 can also be accessed via Telnet and the console port. For remote secured management, the WGS3-5220 supports SSL and SSH connection which encrypt the packet content at each session.

## KEY FEATURE

### Layer 2 Features

- The 10/100Base-TX ports support auto-sensing and auto-negotiation
- Supports Jumbo frame up to 9K bytes on 10/100/1000Base-T ports
- Provides wire speed of L2 switching performance
- Supports up to 16K MAC address entries
- IEEE 802.3x Flow Control for Full-Duplex mode and Back-Pressure of Half-Duplex mode
- Provides Store-and-Forward forwarding scheme
- Provides Broadcast storm protection
- Supports IGMP snooping v1, v2 and V3
- Supports 802.1Q Tagged VLAN, Protocol-Based VLAN and GVRP protocol for dynamic VLAN Management
- Supports double-tagged for Q-in-Q VLAN tag frame
- Supports Spanning Tree Protocol with 802.1d STP, 802.1w RSTP and 802.1s MSTP
- Link Aggregation bandwidth gathering supports 802.3ad LACP and Static Port Trunk
- Provides Port Mirror (many-to-1)

### IP Routing Features

- IP Routing protocol supports RIP v1 / v2, OSPF v2
- Routing interface provides per-Port routing and VLAN routing mode
- Supports router discovery (IRDP)
- VRRP protocol for redundant routing deploy
- Supports route redistribution

### Multicast Routing Features

- Supports PIM-DM and PIM-SM
- Supports DVMRP
- Supports IGMP v1 / v2 / v3

### Security

- User / Password protected system management
- L2 / L3 / L4 ACL (Access Control List)
- RADIUS and TACACS client
- IEEE 802.1x Port-Based Authentication for network access control
- Port MAC lock Security

### Quality of Service

- IEEE 802.1p based CoS
- IP TOS / Precedence and DSCP based CoS
- 8 priority queues per port
- Policy based DiffServ per port
- Supports for strict priority and weighted round robin (WRR) CoS policies

### Management

- Provides 1 male DB9 RS-232C console interface
- Supports Command Line Interface of switch management
- Supports Web management for switch
- Supports SNMP v1, v2c, and v3 switch management
- Supports BOOTP and DHCP for IP address assignment
- Supports software and configuration upload / download via XMODEM or TFTP
- Supports SSH v1 / v2 and SSL v3 / TLS v1 switch management and security network login
- Supports SSH / SSL / TLS keys download via XMODEM or TFTP
- Supports SNTP (Simple Network Time Protocol)
- Supports Ping and telnet functions
- Supports message / event / error / trap logs
- Supports logging to local file and syslog server
- Supports Private Enterprise MIB
- Supports RMON groups 1, 2, 3 and 9

**SPECIFICATION**

**Product** 48-Port 10/100Mbps TP + 4-Port Gigabit TP/2-Port mini-GBIC Layer 3 Managed Ethernet Switch

<b>Model</b>	WGS3-5220	
<b>Hardware Specification</b>		
10/100Base-TX Ports	48 RJ-45 Auto-MDI / MDI-X ports	
10/100/1000Base-T Ports	4 RJ-45 Auto-MDI / MDI-X ports	
SFP / mini-GBIC Slots	2 SFP interfaces	
Switch Architecture	Store-and-Forward	
Switch Fabric	17.6Gbps Capacity	
Switch Throughput	13Mpps	
Address Table	16K MAC address table with Auto learning function	
Layer 3 Routing Table	2048	
Buffer Memory	2Mbits for packet buffer	
Flow Control	Back pressure for Half-Duplex IEEE 802.3x Pause Frame for Full-Duplex	
LED	Power, Link / Act- for per port for status definition	
<b>Layer 2 Function</b>		
Management Interface	Console, Telnet, SSH, Web, SSL, SNMP	
Port Configuration	Port disable / enable. Auto-negotiation 10/100Mbps full and half duplex mode selection. Flow Control disable / enable. Bandwidth control on each port	
Port Status	Display each port's speed duplex mode, link status and Flow control status. Auto negotiation status and trunk status	
VLAN	IEEE 802.1Q Tagged Based VLAN, up to 4041 VLAN groups	
Port Trunking	Supports 8 groups of 8-Port trunk	
QoS	Traffic classification based on Port Number, 802.1p priority and DS / TOS field in IP Packet	
IGMP Snooping	Allow to be disabled or enable	
IP Routing Protocol	Static Route, RIPv1 / v2, OSPFv2, IRDP, VRRP	
Multicast Routing Protocol	DVMRP, PIM-DM / SM	
<b>Standards Conformance</b>		
Regulation 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	Gigabit 1000T
	IEEE 802.3x	Flow Control
	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
<b>Physical Specifications</b>		
Dimensions (W x H x D)	430 x 44.5 x 350 mm, 1U height	
Weight	4.6 KG	
<b>Environment Specifications</b>		
Operating	Temperature	0°C ~ 50 Degree C
	Relative Humidity	20% ~ 85% (non-condensing)
Storage	Temperature	-40°C ~ 70 degree C
	Relative Humidity	20% ~ 90% (non-condensing)

## APPLICATIONS

### Enterprise Core Routing Switch

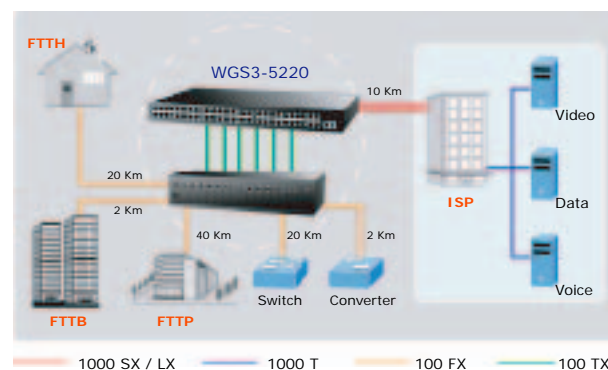
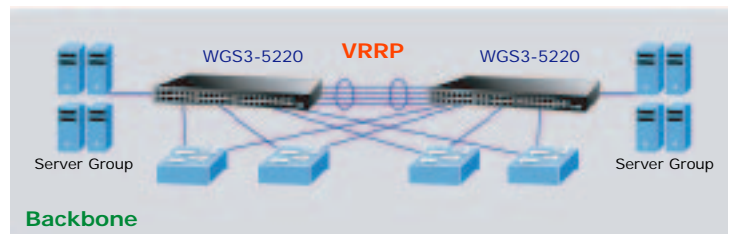
With 48 10/100Mbps ports and 4 Gigabit TP with 2 shared SFP fiber interfaces and Layer 3 IP/Multicast Routing capability, the WGS3-5220 provides a cost-effective and high-performance solution for Telecoms, Network Service Providers and enterprises.

### ISP / Telecom High Density and VRRP Backbone Routing Switch

With build-in robust Layer 3 IP and Multicast routing protocols, the WGS3-5220 ensures reliable routing between VLANs and network segmentation. The routing protocols can be applied by per-port or VLAN interface with up to 2K routing entries, and the high-density routing interfaces provide expandability to meet the growing needs of networks. Moreover, with the hot VLAN feature, Q-in-Q (VLAN stacking) supported, it allows the service providers to offer certain services, such as Internet access on specific VLANs for specific customers, and it still allows them to provide other types of services for their other customers on other VLANs.

### Department Security and QoS Switch

With its 17.6 Gigabits per second and non-blocking switch fabric, the WGS3-5220 can easily provide a local, high bandwidth, and Gigabit Ethernet network for backbone of your department. With the two SFP ports, the WGS3-5220 provides the uplink to the backbone network through Gigabit Ethernet LX/SX SFP modules. With the security and QoS features, it improves the network efficiency and protects the network clients.



## ORDERING INFORMATION

<b>WGS3-5220</b>	48-Port 10/100Mbps TP + 4-Port Gigabit TP/2-Port mini-GBIC Layer 3 Managed Ethernet Switch
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## AVAILABLE MODULES

<b>MGB-GT</b>	SFP-Port 1000Base-T Module
<b>MGB-SX</b>	SFP-Port 1000Base-SX mini-GBIC module
<b>MGB-LX</b>	SFP-Port 1000Base-LX mini-GBIC module
<b>MGB-L30</b>	SFP-Port 1000Base-LX mini-GBIC module-30km
<b>MGB-L50</b>	SFP-Port 1000Base-LX mini-GBIC module-50km
<b>MGB-L70</b>	SFP-Port 1000Base-LX mini-GBIC module-70km
<b>MGB-L120</b>	SFP-Port 1000Base-LX mini-GBIC module-120km
<b>MGB-LA10</b>	SFP-Port 1000Base-LX (WDM, TX:1310nm) mini-GBIC module-10km
<b>MGB-LB10</b>	SFP-Port 1000Base-LX (WDM, TX:1550nm) mini-GBIC module-10km
<b>MGB-LA20</b>	SFP-Port 1000Base-LX (WDM, TX:1310nm) mini-GBIC module-20km
<b>MGB-LB20</b>	SFP-Port 1000Base-LX (WDM, TX:1550nm) mini-GBIC module-20km
<b>MGB-LA40</b>	SFP-Port 1000Base-LX (WDM, TX:1310nm) mini-GBIC module-40km
<b>MGB-LB40</b>	SFP-Port 1000Base-LX (WDM, TX:1550nm) mini-GBIC module-40km