User's Guide
for WEB/SNMP Ethernet Switch
Module

FCC Information

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

The user should not modify or change this equipment without written approval from company name. Modification could void authority to use this equipment.

For the safety reason, people should not work in a situation which RF Exposure limits are exceeded. To prevent the situation happening, people who work with the antenna should be aware of the following rules:

1. Install the antenna in a location where a distance of 6.5 cm from the antenna may be maintained.
2. While installing the antenna in the location, please do not turn on the power of wireless card.
3. While the device is working, please do not contact the antenna.

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CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

About This Manual

WEB/SNMP Ethernet Switch Module User's Guide is published by Planet Technology Corp. in 1999.   This Revision is issued in Nov. 1999.

Revision

WEB/SNMP Ethernet Switch Module User's Guide
Part No.: EMQ-WGSWM

CONTENTS

Introduction & Installation

- The WGSW-1602 supports WEB/SNMP management. The switch can control, setup or manage the modules, please also refer to the manual of the switch for the detail information.
- There are two expansion slots ("slot 1" and "slot 2") on the front panel of the Ethernet Switch. The modules -- WGSW-8TP, WGSW-4ST/SC and WGSW-1SX -- can be slide in to this two slots.
- There is one extension slot on the rear panel of the Ethernet Switch. The modules – WGSW-1ST and WGSW-1SC – can be slide in to this slot.

Expansion Module Installation:

1. Power off the system.
2. Insert one or two modules into the slots. (Please be sure the module is aligned within the guide-rails)
3. Tighten up the two fasteners on the front side of the module. AS shown in the following figure.

Extension Module Installation:

1. Power off the system.
2. Please make sure the port#16 of WGSW-1602 is free.
3. Insert the optional MII fiber-optic module in the slot.
4. Tighten up the two fasteners on the front side of the module. As shown in the following figure.
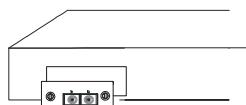
8 ports 10/100Base-TX Module –WGSW-8TP


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                                                        10/100Base-TX

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 WGSW-8TP  1      2      3      4      5      6      7      8
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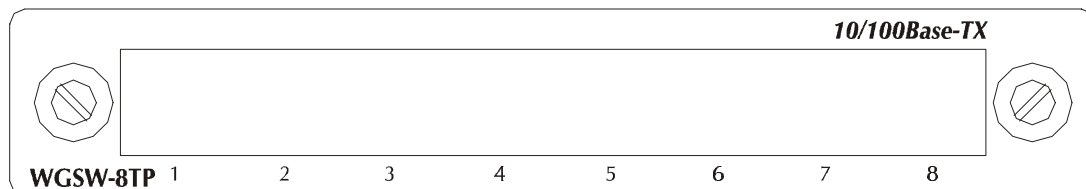
Figure 1. WGSW-8TP Front Panel

When it is installed into a Switch, the 10/100Base-TX Module provides 8 10/100Mbps Switch ports which can connect to 10Mbps or 100Mbps hub or end station.

1-1. 8 Ports 10/100Base-Tx Module Features

♦ 8 10/100Base-TX N-Way Switch ports.
♦ Conforms to IEEE 802.3, IEEE 802.3u , IEEE 802.3x and 100Base-TX standards
♦ Store and forward switch architecture for abnormal packet filtering
♦ Support for half and full duplex on all ports
♦ 2M memory Buffer support
♦ Automatic address learning with 12K address entry storage
♦ Filtering and forwarding rate of 14,880~148,800 packets per second

1-2. LED Descriptions

Once the module(s) slides into the open slot(s) on the front panel of the switch, the LED indicators for the module(s) will be shown in the LED Monitor area of the WGSW-1602. The display includes all the possible configurations. For instance, when the 'slot 1' slot is occupied, LED columns 17 to 24 are used as indicators for the WGSW-8TP module. When the 'slot 2' slot is used, LED columns 25 to 32 are the indicators. There are three LEDs for each port.

There are three LED indicators for each of the RJ-45 LAN connection ports.   If there is no connection to a port, the corresponding LED indicators are not lit.

10/100Mbps LED

Off	10Mbps (Default)
Solid Green	100Mbps

Duplex/Col   LED

Off	Half Duplex operation (Default)
Solid Green	Full Duplex operation
Blinking Amber	Collisions detected for half Duplex operation.

Link/Act. LED

Off	Port is link down.
Solid Green	Port is link up and no traffic.
Blinking Green	Port is link up and with traffic.

1-3. Specification

Standard	IEEE802.3u, 100Base-TX
Interface	RJ-45 connector

Environment	Temperature:
	  Operating: 0℃ to 40℃
	  Storage: -20℃ to 70℃
	Humidity:
	  Operating: 10%RH to 90%RH
	  Storage: 5%RH to 90%RH

Dimension	145 x 116.8 x 25 mm (W x D x H) 5.7 x 4.6 x 0.98 in
EMI	FCC, CE, VCCI Class A

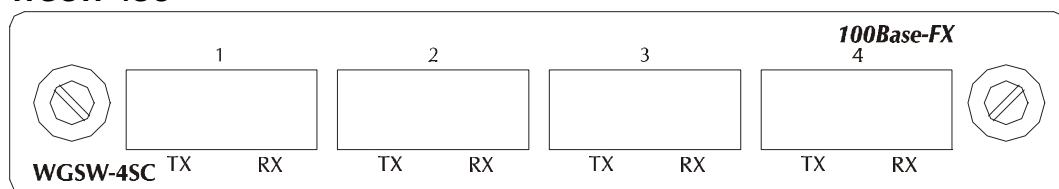# 4 Ports 100Base-FX Fiber (ST/SC) Module – WGSW- 4ST & WGSW-4SC

Figure 2. WGSW-4SC Front View

When installed into a Switch, this Module provides 4 x 100Mbps Fast Ethernet fiber ports which can be used to:

- Connect the Switch to the backbone of your network; that is, to a basement switch, hub or router.
- Connector the Switch to a 100Mbps server or end station.

2-1.   Four ports 100Base-FX Fiber Module Feature

- Conforms to IEEE 802.3u Fast Ethernet standard
- Support SC or ST fiber connector (optional)
- Support half and full duplex
- Store-and-forward switch architecture for abnormal packets filtering
- Automatic address learning with 12K address entry storage
- Filtering and forwarding rate 148,800 packets per second for 100Mbps
- 100Base-FX uses 62.5/125 micron multi-mode fiber

2-2.   LED Descriptions

Once the module(s) slides into the open slot(s) on the front panel of the switch, the LED indicators for the module(s) will be shown in the LED Monitor area of the WGSW-1602. The display includes all the possible configurations. For instance, when the 'slot 1' slot is occupied, LED columns 17 to 20 are used as indicators for the WGSW-4SC module. When the 'slot 2' slot is used, LED columns 25 to 28 are the indicators. There are three LEDs for each port.

There are two LED indicators for each of the Fiber connection ports.   If there is no connection to a port, the corresponding LED indicators are not lit.

10/100Mbps LED

Off	Not Applicable
Solid Green	100Mbps

Duplex/Col   LED

Off	Half Duplex operation (Default)
Solid Green	Full Duplex operation
Blinking Amber	Collisions detected for half Duplex operation.

Link/Act. LED

Off	Port is link down.
Solid Green	Port is link up and no traffic.
Blinking Green	Port is link up and with traffic.

2-3. Specification

Standard	IEEE802.3u, 100Base-FX
Interface	Fiber ST/SC connector
Environment	Temperature: Operating: 0℃ to 40℃ Storage: -20℃ to 70℃ Humidity: Operating: 10%RH to 90%RH Storage: 5%RH to 90%RH
Dimension	145 x 116.8 x 25 mm (W x D x H) 5.7 x 4.6x 0.98 in
EMI	FCC, CE, VCCI Class A

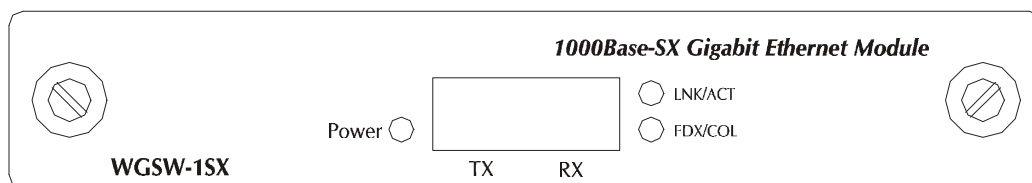# 1000Base-SX Gigabit Ethernet Module – WGSW-1SX

Figure 3. WGSW-1SX Front View

When installed into a Switch, the 1000Base-SX Module provides 1 Gigabit Ethernet port which can connect the Switch to a Gigabit Backbone Switch or Server with Gigabit NIC.

♦ In Multimode, the fiber optic segment cannot exceed 220m (62.5/125μm) or 500m (50/125μm) in length.

3-1. 1000Base-SX Gigabit Ethernet Module Features

Conforms to IEEE 802.3z and 802.3x standard
♦ 1x1000Base-SX Ethernet Port
♦ 2M memory buffer support
♦ Flow-Control for full duplex
♦ Backpressure for half duplex
♦ Automatic address learning with 12K address entry storage

3-2. LED Descriptions

Once the module slides into the open slot(s) on the front panel of the switch, the LED indicator for the module(s) will be shown on the module itself. Note also that, when the 'slot 1' slot is occupied, the port becomes Port 17 of the switch. When the 'slot 2' slot is used, the port becomes Port 25 of the switch. There are three LEDs for the 1000Mbps port.
There are three LED indicators for one Gigabit Fiber connection ports. If there is no connection to a port, the corresponding LED indicators are not lit.

Power LED

Off	No power
Solid Green	System is in operation.

Duplex/Col   LED

Solid Green	Full Duplex operation
Solid Yellow	Half Duplex operation
Blinking Yellow	Collisions detected for half Duplex operation.

Link/Act LED

Off	Port is link down.
Solid Green	Port is link up and no traffic.
Blinking Green	Port is link up and with traffic.

3-3. Specification

Standard	IEEE802.3u, 1000Base-SX
Interface	Fiber SC connector

Environment	Temperature:
	    Operating: 0℃ to 40℃
	    Storage: -20℃ to 70℃
	Humidity:
	    Operating: 10%RH to 90%RH
	    Storage: 5%RH to 90%RH

Dimension	145 x 116.8 x 25 mm (W x D x H) 5.7 x 4.6x 0.98 in
EMI	FCC, CE, VCCI Class A

1-port 100Base-FX Fiber Optic (ST/SC) Switch Module –
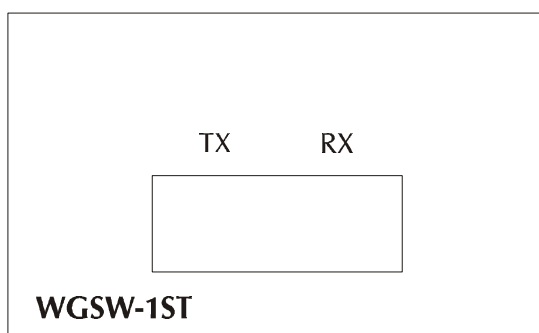## WGSW-1ST / WGSW-1SC

Figure 4. WGSW-1ST Front View

4-1. LED Descriptions

Once the fiber module slide into the slot on the back of the switch, it will occupy port#16 of WGSW-1602.Please make sure there is no any connection on port#16.

After power on the switch the LED indicator – Module Installed , on the right of port#16 will lit green.

The LED indicators of port#16 will indicate the operating status of the fiber module once the module slide into the slot.

Link/Active LED

Yellow	100M Link is successfully established on the port.
Blinking Yellow	Data receive activity occurs on the port, and it operates at 100Mbps.
Off	No link established on the port.

Duplex/Col LED

Green	The port operates at full duplex mode.
Blinking Green	The port operates at half duplex mode, and there is a collision being detected.
Off	The operating mode is configured at half duplex mode.

4-2. Specification

Standard	IEEE802.3u, 100Base-FX
Interface	Fiber SC connector

Environment	Temperature:
	   Operating: 0℃ to 40℃
	   Storage: -20℃ to 70℃
	Humidity:
	   Operating: 10%RH to 90%RH
	   Storage: 5%RH to 90%RH

Dimension	56 x 99 x 33.6 mm (W x D x H) 2.2 x 3.9 x 1.32 in
EMI	FCC, CE, VCCI Class A

CE

Part No.:EMQ-WGSWM