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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.

Revision

PLANET 24 ports 10/100Mbps + 2 Gigabit-slot Ethernet Smart Switch User's Manual

FOR MODELS: FGSW-2402RS

Part No.: 2010-000028-000

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Chapter 1

TINTRODUCTION

1.1 Package Contents

Check the contents of your package for following parts:

- FGSW-2402RS Gigabit Ethernet Smart Switch
- Power Cord
- RS-232 cable
- User's Manual
- Rock-mounting blackest



NOTE:

if any of these pieces are missing or damage please con-tact your dialer immediately.

1.2 About this Switch

FGSW-2402RS is a latest 10/100Mbps + 2 GbE-slot smart switch from PLANET. This switch provides 24 10/100Mbps ports and 2 Gigabit expansion slots for optional modules. FGSW-2402RS is a high performance switch that provides users with high-speed network connections with a store-and-forward architecture that is able to eliminate faulty packets.

The FGSW-2402RS is equipped with a console interface and is able to manage basic switch functions such as bandwidth control, port status configuration, QOS, port trunking and VLAN parameters. The FGSW-2402RS supports auto learning and storage up to 8K of MAC addresses, as well as a non-blocking 8.8Gbps back plane for packet transmission. Also this switch supports two different types of VLAN, which are port-based VLAN and 802.1Q VLAN.

The switch is suitable for the following application:

Workgroup switch

FGSW-2402RS has 24 10/100mbps ports and 2-slot available for a 10/100Mbps Ethernet ports optional 1000SX/1000LX/1000GT module. This switch provides a high performance solution for a variety of user applications

Department Switch

With its 8.8 Gigabits per second, non-blocking switch fabric, the FGSW-2402RS can easily provide a local, high bandwidth network for your departmental backbone. Choice for Gigabit optic module also can be deployed to extend the network distance

1.3 Product Features

- 24 (10/100Mbps), 2-slot (10/100/1000Mbps) Gigabit Smart Switch
- Provide 8.8Gbps switch fabric, non-blocking switch architecture
- 8K MAC address, auto-aging
- 2.5Mbit as packet buffer
- Store-and-forward architecture, broadcast control
- 24 TP ports 10/100Mbps Auto-Negotiation
- 2 expansion slots, work with MII-SX/LX, GT and FX modules
- Smart function support, Port Trunk, Port status configure, VLAN
- 19-inch rack mount size
- Comply with IEEE802.3, IEEE802.3u 10/100Base-TX, IEEE802.3ab, IEEE802.3z 1000Base-T, 1000Base-SX/LX Standard
- Console interface for switch basic management and setup
- Auto-MDI/MDI-X detection on each RJ-45 port

1.4 Product Specifications

Model	FGSW-2402RS 24-port 10/100Mbps + 2 Gigabit-slot Ethernet Smart Switch
Hardware Specification	
Ports	24 10/100Base-TX RJ-45 Auto-MDI ports 2 open slots 1 RS-232
Environment	Operating Temp: 5 ~ 50°C (32 ~ 122°F) Storage Temp: -40 ~ 70°C (-22 ~ 158°F) Humidity 0 ~ 90% non-condensing
Dimensions	440 x 200 x 44 mm (W x D x H); 1U height
Power supply	100 ~ 240V AC (± 10%), 50/60Hz (± 3%) auto-sensing
Power Consumption	30 watts / 100BTU maximum
Switch Specification	
Switch architecture	Store-and-forward
Switch Fabric	8.8Gbps

MAC Address table	8K entries, auto learning/ageing
Memory	2.5Mbits for packet buffer
Auto-MDI/MDI-X	Support on all RJ-45 ports
Flow Control	Back pressure for half duplex, IEEE 802.3x for full duplex
Rate Control	Per port TX/RX at 128K, 256K, 512K, 1M, 2M, 4M, 8M
Port Trunk	8 Trunk with up to 4port per trunk
Standard / Emission	
Network Standards	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX/100BASE-FX IEEE802.3z, ab Gigabit Ethernet 1000Base-SX/LX, 1000Base-T IEEE802.3x Flow Control IEEE802.1p Class of service IEEE802.1Q VLAN Tagging
Emission	FCC, CE Class A



Chapter 2

HARDWARE INSTALLATION

This section describes the hardware features and installation of the 24-port 10/100Mbps + 2 Gigabit-slot Ethernet Smart Switch. – FGSW-2602RS

FGSW-2402RS has provide two different module slots for expansion:

- MII-SX - 1000Base-SX Gigabit Ethernet Module (SC, MM)
- MII-LX - 1000Base-LX Gigabit Ethernet Module (SC, SM/MM)
- MII-GT - 10/100/1000Mbps Ethernet Module (RJ-45 copper)
- MII-ST - 100Base-FX Fast Ethernet Module (ST, MM)
- MII-SC - 100Base-FX Fast Ethernet Module (SC, MM)

2.1 Front Panel

The front panel of the FGSW-2402RS Ethernet Smart Switch consist RS-232 console port, LED indicators, 24 10/100BaseTX RJ45 ports and two expansion slot. For the open slot, please refer to the MII module's installation guide for the hardware installation. The front panel of the switch is as blow.

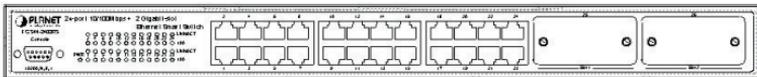


Figure 2-1 The Front Panel of FGSW-2402RS

LED Indication of the Switch

LED	Statu	Descript
Power	Green	Power On
	Off	Power is not connected
LNK/ACT	Green	This indicator light green when the port is connected to an Ethernet or Fast Ethernet station, if the indicator is blinking green, it will be transmitting or receiving data on the network.
100	Orange	This LED indicator light orange when a Fast Ethernet station is connected. It remains OFF, if an Ethernet station is connected.

2.2 Rear Panel

The Rear Panel of the Switch indicates an AC 3 pronged power socket and I/O power switch. This switch will work with AC in the range 100-240V AC, 50-60Hz



Figure 2-2 Rear Panel of FGSW-2402RS

Power Receptacle

For the compatibility with electric service in most of areas, FGSW-2402RS's power supply can automatically adjust line power in the range 100-240V AC, 50-60Hz.

 **NOTE:**

The Switch is a power-required device, it means, the Switch will not work until it is powered. If your networked PCs will need to transmit data all the time, please consider use an UPS (Uninterrupted Power Supply) for your Switch. It will prevent you from network data loss.

In some area, installing a surge suppression device may also help to protect your Switch from being damaged by unregulated surge or current to the Switch or the power adapter

2.3 Hardware installation

FGSW-2402RS Ethernet Smart Switch can be placed on desktop or mounted on rack. If this Switch is used as standalone standard, the user can immediately use most of the features simply by attaching the cables and turning the power on

Desktop installation

To install an FGSW-2402RS on a desktop or shelf, simply complete the following steps:

- Step1: Attach the rubber feet to the recessed areas on the bottom of the switch.
- Step2: Place the FGSW-2402RS on a desktop or shelf near an AC power source.
- Step3: Keep enough ventilation space between the switch and the surrounding objects

 **NOTE:**

Do not obstruct any vents at the sides of the case and keep water off.

Rock-mount installation

To install the switch in a 19-inch standard rack, follow the instructions described below.

- Step1: Place your FGSW-2402RS on a hard flat surface, with the front panel positioned towards your front side.
- Step2: Attach a rack-mount bracket to each side of the switch with supplied screws attached to the package. Figure 2-3 shows how to attach brackets to one side of the switch.

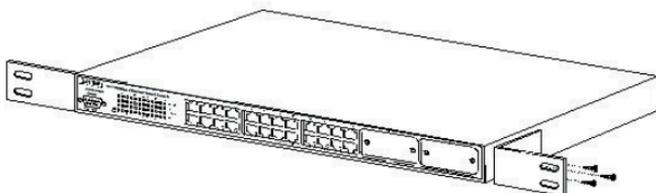


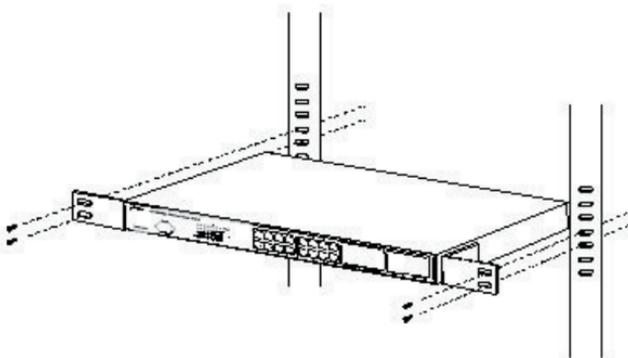
Figure 2-3 Attaching the brackets to the FGSW-2402RS

Caution: You must use the screws supplied with the mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.

Step3: Secure the brackets tightly.

Step4: Follow the same steps to attach the second bracket to the opposite side.

Step5: After the brackets are attached to the switch, use suitable screws to securely attach the brackets to the rack





Chapter 3 **CONFIGURATION**

The FGSW-2402RS is a Smart Ethernet Switch that can be controlled by the RS-232 console interface. This chapter describes how to configure the Switch through the RS-232 smart interface.

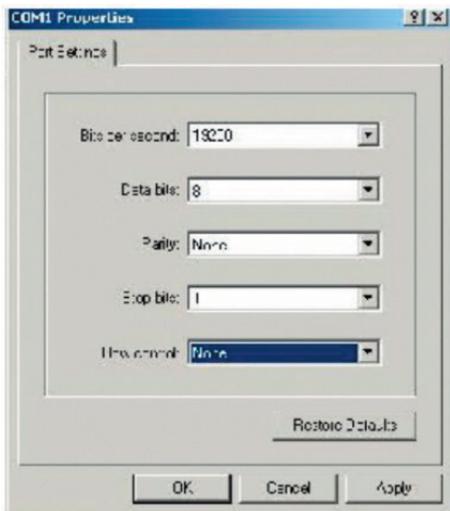
3.1 Connect to PC's RS-232 serial port

When you are ready to configure the smart functions of the Switch, make sure you had connected the supplied RS-232 serial cable to the RS-232 port at the front panel of your FGSW-2402RS Switch and your PC.

Hyper Terminal

In Windows 98/2000/XP, launch "HyperTerminal", create a new connection, and adjust settings as below:

- Baud per second: 19200
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow Control: None



3.2 Main Menu

Login is required to access the command console after the self-test completes successfully. The factory default Username is "admin" without password

Control key describe:

I / M / J / L: Up / down / left / right

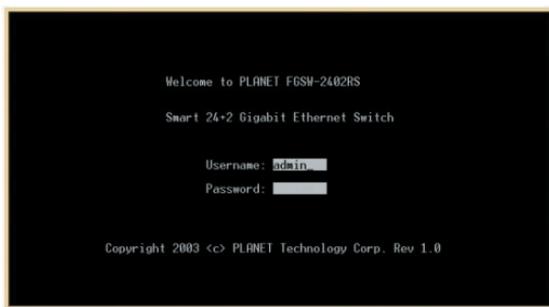
1 / 2: Page up / Page down

S: Save the configuration

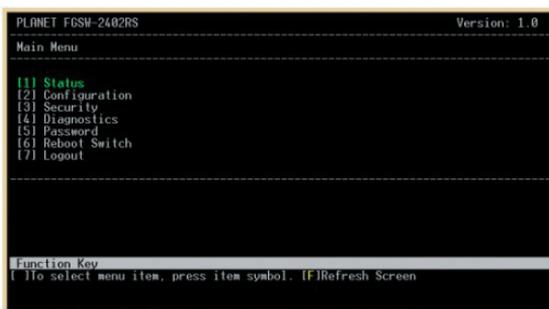
F: Refresh

Space: Toggle selected item to change the value.

O: Exit current action



After type in username and press enter twice then you can see the screen as below:



To enter any of sub-menus, simply type the number on the main menu.

3.3 Status

In this menu it shows the basic information of the Switch including, Switch overview, MIB counter and port status.

3.3.1 Overview

In this menu, there are some basic information of the Switch like, System name, Switch MAC ID, Chip Mode ID and Vender ID

```
PLANET FGSW-2402RS                               Version: 1.0
-----
Overview
-----
Description | Data
-----
Switch Name | 0011
Switch MAC ID (Read Only) | 00:30:4F:30:4C:7D
Chip Model ID (Read Only) | 0x0000
Vender ID (Read Only) | 0x40414243
-----
Function Key
0|Return
```

3.3.2 MIB Counter

In this option, it shows transmit and receive counter of each port.

1 / 2: Page up / Page down

P / X: Start / Stop Polling

F: Refresh

0: Exit current action

C: clear all counter

T: Toggle Drop/CRC/Collision

B: Toggle Byte/Packet unit

```
PLANET FGSW-2402RS                               Version: 1.0
-----
MIB Counter (Read Only)
-----
Port # | Tx Counter | Rx Counter | Drop Counter
      | Unit: Packet | Unit: Packet | Unit: Packet
-----
01 | 0 | 0 | 0
02 | 0 | 0 | 0
03 | 0 | 0 | 0
04 | 0 | 0 | 0
05 | 0 | 0 | 0
06 | 0 | 0 | 0
07 | 0 | 0 | 0
08 | 0 | 0 | 0
-----
Note: Re-start polling MIB counter when you change unit (Byte/Packet).
-----
Function Key
1|2|PageUp/PageDown 0|Return F|Refresh Screen C|Clear All Counter
P|X|Start/Stop Polling T|Toggle Drop/CRC/Collision B|Toggle Byte/Packet Unit
```

3.3.3 Port Status

In this option, it displays the real-time status of each port.

0: Exit current action

1/2: Page up/ Page down

F: Refresh

```
PLANE1 FGSW-2402RS                                     Version: 1.0
-----
Port Status (Read Only) (Auto-refresh)
-----
Port # | Speed | Duplex | Link | Flow Control | Auto Negotiation | Trunk
-----|-----|-----|-----|-----|-----|-----
01     | 10M   | Half   | Down | Enable       | Enable           |
02     | 10M   | Half   | Down | Enable       | Enable           |
03     | 10M   | Half   | Down | Enable       | Enable           |
04     | 10M   | Half   | Down | Enable       | Enable           |
05     | 10M   | Half   | Down | Enable       | Enable           |
06     | 10M   | Half   | Down | Enable       | Enable           |
07     | 10M   | Half   | Down | Enable       | Enable           |
08     | 10M   | Half   | Down | Enable       | Enable           |
-----
Function Key
[1/2]PageUp/PageDown [0]Return [F]Refresh Screen
```

3.4 Configuration

There are 8 main functions in Configuration menu, which is Port, Trunking, Global, QoS, Priority Tag Insert/Remove, VLAN Global control, VLAN member Setup and Device features.

```
PLANE1 FGSW-2402RS                                     Version: 1.0
-----
Configuration Menu
-----
[1] Port
[2] Trunking
[3] Global
[4] DoS
[5] Priority Tag Insert/Remove
[6] VLAN Global Control
[7] VLAN Member Setup
[8] Device Features
-----
Function Key
[0]select menu item, press item symbol. [0]Return [F]Refresh Screen
```

3.4.1 Port

In this function, user can set up every port's status

Use I/M/J/L key to move between items

Enabled	The port can be set enable or disable mode. If the port status is in disable then this port will not receive or transmit any packet. Default: enable.
Speed advertisement	Set the port link speed and duplex mode base on auto-negotiation. Default 100M Full.
Flow Control	Enable or disable flow control. Default: Enable
Rx Bandwidth	Per port packet transmission control (128K, 256K, 512K, 1M, 2M, 4M, 8M). Default: non-control.
Tx Bandwidth	Per port packet transmission control (128K, 256K, 512K, 1M, 2M, 4M, 8M). Default: non-control.

```

PLANNET FGSW-2402RS                               Version: 1.0
-----
Config Port
-----
Port | Enabled | Speed advertisement | Flow Control | Rx Bandwidth | Tx Bandwidth
-----|-----|-----|-----|-----|-----
01 | Enable | 100M Full | Enable | Non-control | Non-control
02 | Enable | 100M Full | Enable | Non-control | Non-control
03 | Enable | 100M Full | Enable | Non-control | Non-control
04 | Enable | 100M Full | Enable | Non-control | Non-control
05 | Enable | 100M Full | Enable | Non-control | Non-control
06 | Enable | 100M Full | Enable | Non-control | Non-control
07 | Enable | 100M Full | Enable | Non-control | Non-control
08 | Enable | 100M Full | Enable | Non-control | Non-control
-----
Function Key
-----
[1/W/J/L]Up/Down/Left/Right [1/2]PageUp/PageDown [0]Return [F]Refresh Screen
[Space]Toggle State [R]Restart Auto Negotiation [S]Save

```

After the port setting, please press "S" to save the configuration. Then press "R" to restart the Auto-Negotiation to make the setting activated right away. Be noted, the Switch support auto-negotiation, for a device do not support auto-negotiation, please remain in 100M Full, the Switch will auto-detect the optimal speed, i.e. 100Mbps Half-duplex or 10Mbps Half-duplex.

3.4.2 Trunking

In this function, user is able to enable or disable Trunking at each group. (8 trunks group base on ports)

```

PLANNET FGSW-2402RS                               Version: 1.0
-----
Enable Trunking
-----
Trunking | Enabled
-----|-----
Trunk1 (Port 01,02 ) | Disable
Trunk2 (Port 03,04 ) | Disable
Trunk3 (Port 05,06,07,08) | Disable
Trunk4 (Port 09,10,11,12) | Disable
Trunk5 (Port 13,14,15,16) | Disable
Trunk6 (Port 17,18,19,20) | Disable
Trunk7 (Port 21,22,23,24) | Disable
Trunk8 (Port 61,62 ) | Disable
-----
Function Key
-----
[1/W/J/L]Up/Down [0]Return [F]Refresh Screen [S]Save
[Space]Toggle State

```

Be noted, the Switch at the other end should also turn on the port-based trunk with the same port number to get the optimal usage of the trunk-bandwidth.

3.4.3 Global

In this function, user is able to enable/disable the global setting of the Switch's ports. Options includes, Half-duplex back Pressure flow, Broadcast Storm Filtering Control and Loop Detect

Half duplex back pressure flow	Enable or disable half duplex backpressure flow. To disable will turn off the half-duplex back pressure control and drop the packets without sending out any collision from the switch port. Default: Enable
Broadcast storm filtering control	Enable or disable broadcast storm filtering. Enable will turn on the capability to drop broadcast packets after a continuous 64 broadcast packets. Default: Disable.
Loop Detect	Enable or disable loop detect function. To turn on will loop detect the connection status. This feature is used for diagnose purpose. Default: Disable.

```
PLANET FGSW-2402RS                               Version: 1.0
-----
Global Configuration
-----
Function                               | Enabled
-----
Half Duplex Back Pressure Flow         | Enable
Broadcast Storm Filtering Control      | Disable
Loop Detect                             | Disable
-----

Function Key
[1/M]Up/Down [0]Return [F]Refresh Screen [S]Save
[Space]Toggle State
```

3.4.4 QOS

In this function, user is able to enable TOS/Diff Serv Priority, 802.1p priority; adapted flow control, Priority weight ration (high: low) and Force set high-priority port.

TOS/Diff Serv priority	Enable or disable TOS priority. Check the packets' IP TOS priority tag and base on the priority to forward the packets. Default: Disable
802.1p priority	Enable or disable 802.1p priority. Check the packet's 802.1p priority and base on the priority to forward the packets. Default: Disable.
Adapted flow control	Enable or disable priority of flow control. Check the priority and turn off the flow-control when high priority packets received. Default: Disable.
Priority weight ration (high: low)	Use M key to move down to Priority weight ration then use Space key to select the ration priority. Available weights, 1: 0; 4:1, 8:1, 16:1. Default: 16:1.
Force set high-priority port	Use M key to move down the cursor and select the ports, by Space toggle, that you would like to set base on the QoS options above.

```
PLANET FDSW-2402RS                                     Version: 1.0
-----
QoS Configuration
-----
Function                               | State
-----|-----
TOS/Diff Serv. Priority                 | Disable
802.1p Priority                         | Disable
Adapted Flow Control                   | Disable
Priority Weighted Ration(High:Low)     | 16:1
-----

Force Set High-Priority Port
-----
[ IPor101 | IPor105 | IPor109 | IPor113 | IPor117 | IPor121 | IPor125 |
[ IPor102 | IPor106 | IPor110 | IPor114 | IPor118 | IPor122 | IPor126 |
[ IPor103 | IPor107 | IPor111 | IPor115 | IPor119 | IPor123 |
[ IPor104 | IPor108 | IPor112 | IPor116 | IPor120 | IPor124 |
-----

Function Key
[1/W/J/L]Up/Down/Left/Right [0]Return [F]Refresh Screen [S]Save
[Space]Toggle State
```

Be noted, the switch support dual priority per port, the QoS setting will base on the menu above to arrange each port's high/low priority.

3.4.5 Priority tag Insert/Remove

In this menu, user is able to insert or remove Priority tag each port. The option includes: Insert Tag (high priority only), Insert Tag (all frame), Remove Tag and Don't Touch.

Please also refer to VLAN section 3.4.6 and 3.4.7 for more.

Insert Tag (high priority only):	Insert priority tag into the untagged high-priority frame
Insert Tag (all frame):	Insert priority tag into the all untagged frame
Remove Tag:	Remove the VLAN tag from all tagged frame
Don't touch:	The default setting, which means no modify

```
P100T FGSW-2402RS Version: 1.0
Port Tagging Control
-----
Port | Tagging State
-----
01 | Don't touch
02 | Don't touch
03 | Don't touch
04 | Don't touch
05 | Don't touch
06 | Don't touch
07 | Don't touch
08 | Don't touch
-----
Function Key
I/M|Up/Down |1/2|PageUp/PageDown |0|Return |F|Refresh Screen |S|Save
|Space|Toggle State
```

3.4.6 VLAN Global Control

This menu is allow user to enable VLAN's global capabilities including, VLAN function, Unicast packet Inter-VLAN Leaky, ARP broadcast packet Inter-VLAN Leaky, IP Multicast packet Inter-VLAN Leaky, 802.1Q VLAN tag aware, Ingress Rule for Acceptable frame type and Ingress Rule for Ingress Filtering.

VLAN function	Enable VLAN, Default disable
Unicast packet Inter-VLAN Leaky	Enable the packet to be forward to a destination port at different VLAN. Default: disable
ARP broadcast packet Inter-VLAN Leaky	Enable ARP frame to broadcast to all switch port Default: disable
IP Multicast packet Inter-VLAN Leaky	Enable multicast to be flood to all the multicast group member. Default: disable
802.1Q VLAN tag aware	Enable 802.1Q VLAN tag. Default: disable

Ingress Rule for Acceptable frame types	To permit all frames or VLAN-tagged frames only. Default: Admin all frames
Ingress Rule for Ingress filtering	Enable filter the frame received from a port which port is not in the classified VLAN group member. Default: disable

 Notice: Ingress rule only for 802.1Q VLAN mode

```

PLANET FGSW-2402RS                                     Version: 1.0
-----
VLAN Control
-----
Function | State
-----
VLAN Function | Disable
Unicast Packet Inter-VLAN Leaky | Disable
ARP broadcast Packet Inter-VLAN Leaky | Disable
IP Multicast Packet Inter-VLAN Leaky | Disable
802.1Q VLAN tag aware | Disable
Ingress Rule for Acceptable frame types | Admin all Frames
Ingress Rule for Ingress Filtering | Disable
-----
Function Key
[1/7]Up/Down [0]Return [F]Refresh Screen [S]Save
[Space]Toggle State

```

3.4.7 VLAN Member Setup

This menu is for user to add VLAN member to each port. The Switch supports up to 32 VLAN groups for port-based VLAN and 802.1q tag VLAN.

1. Press number 7 from Configuration menu for VLAN Member setup
2. Press E to change to edit mode

3. Press A to add VLAN

Setup a PORT based VLAN:

4. Press Space key to change to port-base VLAN
5. Use L key move to the Port (VLAN member)
6. Press Space key to add VLAN group
- 7 After complete the configuration Press Enter to Update VLAN
8. Press S to save the configuration

```

PLANET FGSW-2402RS                               | Edit Mode | Version: 1.0
VLAN | Port Base VLAN | VLAN | Port (VLAN member)
Entry | or          | ID   | 010101010101011111111111111121212121616
No.   | 802.1Q VLAN |     | 1121314151617181901121314151617181901121314112
01 | Port Base VLAN | NA | |V|V| | | | | | | | | | | | | | | | | | |
02 | Port Base VLAN | NA | |V|V| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
Function Key
|L|N|J|L|Up/Down/Left/Right |1/2|PageUp/PageDown |0|Return |F|Refresh Screen
|E|Edit Mode |Enter|Update VLAN |A|Add VLAN |D|Del VLAN |Space|Toggle/Edit State
Find minimum unused VLAN entry... Add VLAN02!!

```

Setup a 802.1Q VLAN:

Follow from Step 1 to Step 3 above

4. Press Space key to change to 802.1Q mode
5. Use L key move to the right hand side
6. Move to VLAN ID then Press Enter to add VLAN ID
7. Move to the Port Press Space key to add VLAN group
8. After complete the configuration Press Enter to Update VLAN
9. Press S to save the configuration

```

PLANET FGSW-2402RS                               | Edit Mode | Version: 1.0
VLAN | Port Base VLAN | VLAN | Port (VLAN member)
Entry | or          | ID   | 010101010101011111111111111121212121616
No.   | 802.1Q VLAN |     | 1121314151617181901121314151617181901121314112
01 | 802.1Q VLAN | 11 | |V|V| | | | | | | | | | | | | | | | | | |
02 | 802.1Q VLAN | 11 | |V|V| | | | | | | | | | | | | | | | | | |
03 | Port Base VLAN | NA | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
Enter VLAN ID (1, 4094) ==> 2
Function Key
|L|N|J|L|Up/Down/Left/Right |1/2|PageUp/PageDown |0|Return |F|Refresh Screen
|E|Edit Mode |Enter|Update VLAN |A|Add VLAN |D|Del VLAN |Space|Toggle/Edit State
Find minimum unused VLAN entry... Add VLAN03!!

```

After the setup of port's VLAN above, the Switch will base on global VLAN setting (section 3.4.6) and VLAN tag priority insertion (section 3.4.5) and the VLAN setting here to filter/forward the packets to each switching port. Please also consult your network administrator for the detailed VLAN plan of the network.

3.4.8 Device Feature

This function is allow user to enable IGMP Snooping and display the IP multicast router port


```

PLANET FGSW-2402RS                                     Version: 1.0
-----
Diagnostics (Read Only) (Auto-refresh)
-----
Fault Information | VLAN ID | Port (VLAN member)
-----
Trunk Link Warning | Trunk1(P01_02) |>1 | Trunk5(P13_14_15_16)|>1 |
                  | Trunk2(P03_04) |>1 | Trunk6(P17_18_19_20)|>1 |
                  | Trunk3(P05_06_07_08)|>1 | Trunk7(P21_22_23_24)|>1 |
                  | Trunk4(P09_10_11_12)|>1 | Trunk8(G1_62) |>1 |
-----
Network Loop Fault | P01 P02 P03 P04 P05 P06 P07 P08 P09 P10 P11 P12 P13
Port Detected      | | | | | | | | | | | | | | | | | | | | | | | | | | | |
                  | P14 P15 P16 P17 P18 P19 P20 P21 P22 P23 P24 G01 G02
                  | | | | | | | | | | | | | | | | | | | | | | | | | | | |
-----
Note: [X]>1 Detected some port link down, that belonged to the trunk group.
      >2 Some port loop detected.
-----
Function Key
[F]Refresh Screen [0]Return

```

3.7 Password

This function is allow user to modify username and password. The factory default Username is "admin" without password

Press number 5 from the main menu to select password

Press 1 to modify the username

Press 2 to modify the password

```

PLANET FGSW-2402RS                                     Version: 1.0
-----
Main Menu
-----
(1) Status
(2) Configuration
(3) Security
(4) Diagnostics
(5) Password
(6) Reboot Switch
(7) Logout
-----
Function Key
[1]Change Username [2]Change Password [0]Return

```

3.8 Reboot switch

In this function, it provides two different reboot functions which is to reset the switch to Default and restart switch

Press number 6 from main menu to select reboots

Press D to reset the switch to default setting and reboot.

Press R to restart switch right away.

```
PLANET FGSW-2402RS                               Version: 1.0
-----
Main Menu
-----
[1] Status
[2] Configuration
[3] Security
[4] Diagnostics
[5] Password
[6] Reboot Switch
[7] Logout

Function Key
[0]Default [R]Restart [0]Return
```

3.9 logout

Logout the switch

Press number 7 from the main menu will logout to the switch.

```
PLANET FGSW-2402RS                               Version: 1.0
-----
Main Menu
-----
[1] Status
[2] Configuration
[3] Security
[4] Diagnostics
[5] Password
[6] Reboot Switch
[7] Logout

Function Key
[ ] to select menu item, press item symbol, [F]Refresh Screen
```

After Press number 7 you can see logout screen as below. If you press enter again, the Switch will prompt login screen again.

```
Logout!
```



Chapter 4

TROUBLESHOOTING

This chapter contains information to help you solve problems. If Switch is not functioning properly, make sure the Ethernet Switch was set up according to instructions in this manual.

The Link LED is not lit

Solution:

Check the cable connection and duplex mode of the Switch. Port 1 to Port 24 of the switch support 10/100Mbps auto-negotiation, the connected end should also support auto-negotiation, if not, it will work at 10 Half or 100 Half.

The cable distance is within 100meters Cat. 3 or above EIA568 cable with 2-pair or 4-pair.

For port 25, 26 of the switch, it will vary on the module installed. For 1000Base-T interface, Cat.5/5e cable with 4-pair below 100 meters is required. For 1000Base-SX, multi-mode 62.5/125 or 50/125µm below 220/550 meters. And 10/125 or 9/125µm single mode cable 10km is allowed.

Some stations cannot talk to other stations located on

The other port

Solution:

The address table may contain older information than of the address table of that node. Please power down to refresh the address information.

Performance is bad

Solution:

Check the full duplex status of the Ethernet Switch. If the Ethernet Switch is not at the same duplex mode, then the performance will be poor.

Console can not display

Solution:

Check the connection between the PC and the Switch. Please use the supplied console cable to connect the two ends firmly.

Then check the COM port (1 or 2) and baudrate of the terminal program, it should be 19200, n, 8, 1.

If you are using HyperTerminal, please exit the program and restart again. Then power off, and power on the Switch. The Switch should prompt the login screen.

In many cases, 10Base-T LANs can quickly and easily upgrade to 100Base-TX networks.



A.1 Switch's RJ-45 Pin Assignments

1000Mbps, 1000Base T

Contact	MDI	MDI-X
1	BI_DA+	BI_DB+
2	BI_DA-	BI_DB-
3	BI_DB+	BI_DA+
4	BI_DC+	BI_DD+
5	BI_DC-	BI_DD-
6	BI_DB-	BI_DA-
7	BI_DD+	BI_DC+
8	BI_DD-	BI_DC-

Implicit implementation of the crossover function within a twisted-pair cable, or at a wiring panel, while not expressly forbidden, is beyond the scope of this standard.

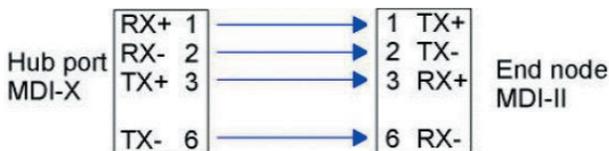
A.2 10/100Mbps, 10/100Base-TX

Contact	MDI	MDI-X
1	1	3
2	2	6
3	3	1
6	6	2

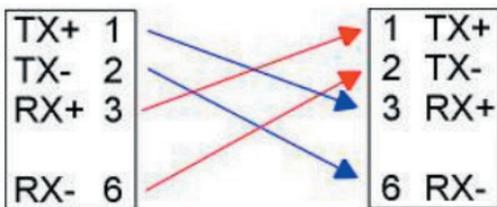
The TP ports of the Switch supports Auto-MDI detection, if the connected device is MDI-device like Ethernet Adapter, the Switch all auto adjust the contact to MDI-X. In contrast, if the connected end is MDI-X, the Switch will adjust to MDI.

A.3 Cable Specification

Straight through cable



Cross over cable



A.4 RJ-45 Pin assignment

