



TP-LINK®

User's Guide

TL-SL3226P

24+2G Gigabit Managed Switch



TP-LINK®

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Checklist

Open the box and carefully unpack the TL-SL3226P. You should have all the items on the following checklist:

- One TL-SL3226P Switch
- One AC power cable
- One Serial cable
- One User's Guide (CD or Presswork)
- Two mounting brackets and screws

If any item is missing, contact the retailer where you purchased the TL-SL3226P for assistance.

Chapter 1 About this User's Guide

Thank you for purchasing TL-SL3226P 24+2G Gigabit Managed Switch. The TL-SL3226P provides powerful management functions. With the features of high-performance, easy-to use and economic, the TL-SL3226P is the ideal choice for you.

1.1 Usage

This User's Guide tells you how to use your TL-SL3226P.

1.2 Assumptions

The TL-SL3226P indicated in this User's Guide is the TL-SL3226P 24+2G Gigabit Managed Switch.

1.3 Overview of this User's Guide

- Chapter 1 About this User's Guide
- Chapter 2 Introduction. Describes the switch and its features
- Chapter 3 Installation. Helps you to get started with the basic installation of the switch
- Chapter 4 TELNET/Out-of-Band Management. Describes how to manage the switch through TELNET/Out-of-Band Management
- Chapter 5 WEB Management
- Annex A RJ-45 Plug/Connector Pin Specification
- Annex B Default Configuration of the switch

Chapter 2 Introduction

2.1 Overview of the product

TL-SL3226P switch fully complies with IEEE802.3 Ethernet standard, its standard 19-inch size and intelligent management make it suitable for small, middle and large networks.

TL-SL3226P switch provides powerful management functions, including the system, port, network, Spanning Tree protocol, IEEE802.1X protocol, VLAN, Trunk, IGMP Snooping, SNMP protocol, priority and security etc.

TL-SL3226P switch provides multiple management methods: SNMP, Web, Telnet and Console (RS232).

TL-SL3226P switch provides two independent extension slots, which support 100/1000M module card and GBIC. This modular structure protects user investment and makes the switch more versatile.

2.2 Features and Specification

2.2.1 Features

- Fully comply with IEEE802.3 standard
- Full and half-duplex for both 10Mbps and 100Mbps connections.
- Support IEEE802.3x flow control for full-duplex mode and collision-based backpressure for half-duplex mode
- Use non-blocking store-and-forward shared-memory architecture
- 24 10/100BaseT/TX RJ-45 ports with auto-MDI/MDIX
- Provide 2 independent extension slots support 100/1000M module card and GBIC
- Support the port N-Way auto-negotiation function, automatically negotiate the speed and duplex mode between two devices
- Provide 6K MAC address space
- Support MAC address learning and aging with programmable age time
- Provide IGMP snooping function
- Provide maximum 26 port-based VLAN and 256 IEEE802.1Q VLAN
- Provide maximum 7 trunk groups of up to 4 member ports within 26 ports
- Provide SNMP, Web and Telnet/Console management
- Support SNMPv1, SNMPv2c
- Support SNMP MIB-II, Ethernet-like MIB, Bridge MIB, TP-LINK Enterprise MIB
- Support RMON Statistics, History, Alarm and Event group
- Support IEEE802.1D Spanning Tree protocol
- Support IEEE802.1X Port-Based Network Access Control protocol and connect to RADIUS

- Support static priority and IEEE802.1p class of service with 2-level priority mode
- Support Static MAC address management and MAC address Binding
- Provide the configuration function of port security, broadcast storm control and port sniffer
- Provide per port egress/ingress rate control function and the minimum granularity is 64kbps
- Provide static IP address configuration and dynamic IP parameters by DHCP
- Support firmware upgrade, configuration backup and restore by TFTP

2.2.2 Specification

Standard	Compliant with IEEE802.3, IEEE802.1D, IEEE802.1Q and IEEE802.1X	
Port	24 10/100M RJ-45 ports with auto-MDI/MDIX 2 independent 100/1000M extension slots One console port (RS232)	
VLAN Mode	IEEE802.1Q VLAN mode Port-based VLAN mode	
Network Medium	10Base-T: CAT 3 or above CAT 3 UTP/STP 100Base-TX: CAT 5 UTP/STP 100Base-FX: MMF, SMF 1000Base-T: CAT 5 UTP/STP 1000Base-SX: MMF 1000Base-LX: SMF or MMF	
LED indicator	Power Each port	Power on Two indicators: Link/Act and 10/100Mbps
Dimension	440mm × 260mm × 44mm (W x H x L)	
Environment	Operating temperature: 0°C ~ 40°C Storage temperature: -20°C ~ 70°C Operating humidity: 10% ~ 90% RH Storage humidity: 5% ~ 90% RH	
Power	110-260V~ 50-60Hz	

Chapter 3 Installation

3.1 Installation

Follow these steps to install the switch:

- The surface must support at least 5kg
- The power source must be within 1.5m
- Check the power cable to make sure the connection to AC power
- Leave enough space for the ventilation

3.1.1 Desktop or Shelf Installation

1. Put the TL-SL3226P on the big and stable desktop, bottom up.
2. Attach the cushioning feet on the bottom at each corner of the device.
3. Upturn the device, put it on the desktop.

3.1.2 Rack Installation

The TL-SL3226P can be mounted in an EIA standard size 19 inch rack.

1. Attach a mounting bracket to each side of the TL-SL3226P with the screws provided.
2. Slide the TL-SL3226P into the Rack.
3. Use the screws to secure the TL-SL3226P to the Rack.

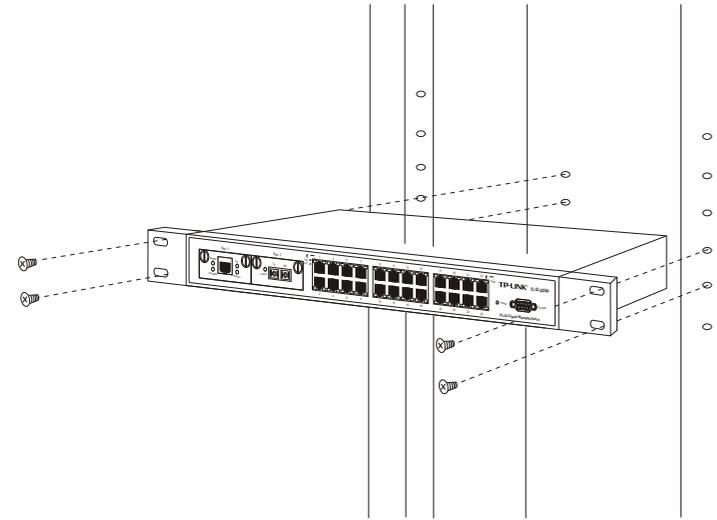


Figure 3-1 Rack Installation

3.1.3 Power On

The TL-SL3226P can be used with the power source in the range of 110 to 260VAC, 50 to 60Hz.

The internal power system of the TL-SL3226P can automatically adjust the operating power-pressure according to the power-pressure input. The POWER LED will be light when power on.



Caution:

As a precaution in the event of a power failure, unplug the switch. When the power resumed, plug the switch back in.

3.2 Connecting the Switch

3.2.1 Front Panel

There are 2 extension module slots, 24 10/100Mbps ports, one console (RS232) port and LED indicators on the front panel of the TL-SL3226P.

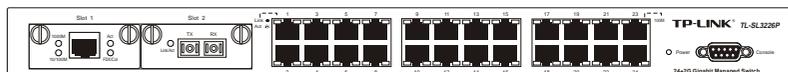


Figure 3-2 Front Panel of the TL-SL3226P

- **Module Slot**

The module slots can connect 100M/1000M module card and GBIC card.

- **24 10Base-T/100Base-TX RJ-45 ports**

All ports can auto-negotiate between 10Mbps or 100Mbps and full or half-duplex. You can configure the speed, duplex mode, flow control, broadcast storm control and security control through kinds of management way such as SNMP, Web, Telnet or Out-of-Band management.

There is one LED on each side of every port. Link/Act LED on the left is green. 100Mbps LED on the right is orange.

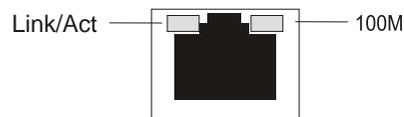


Figure 3-3 one port of the TL-SL3226P

- **Console port**

The Console port or RS232 port on the right of the front panel is the

connection port with PC when Out-of-Band management.

- **Power LED**

Located between the console port and 24 normal ports, the power LED will be always green when power on. Or else, please check the power connection.

- **100Mbps LED (Speed LED)**

When a normal port connects to 100Mbps equipment, the responding LED is orange. An unlit LED indicates a connection speed of 10Mbps.

- **Link/Act (Connection LED)**

The LEDs are lit when there is a secure connection to a device at any of the ports.

The flash LED indicates data transmission at the responding port.

3.2.2 Rear Panel

The rear panel of the TL-SL3226P contains a power connector and a port for ground connection.



Figure 3-4 the Rear Panel of the TL-SL3226P

- **Power connector**

The AC power connector is a standard three-pronged connector that

supports the power cord. Plug-in the female connector of the provided power cord into this socket, and the male side of the cord into a power outlet. Supported input voltage range from 110 to 260VAC at 50-60Hz.

• **The port for connection to the ground**

There is a port on the left of the panel for the connection to the ground.

3.2.3 Optional Extension Modules

There are two module extension slots on the front panel of the TL-SL3226P as the following figure.

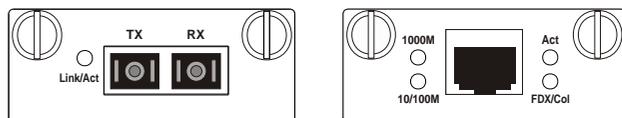


Figure 3-5 Module of the TL-SL3226P

When you install any of the modules, you must turn off the power at first. After you take out the board on the slot, put the module into the extension slot. The TL-SL3226P can auto-identify the module and configure automatically.

The TL-SL3226P can use with TL-SM201 100M series modules, TL-SM301 Gigabit series modules and TL-SM301GB GBIC cards.

• **TL-SM201 100M Series Module**

Model No.	Standard	Interface	Network Media	Maximum Transfer Distance
TL-SM201U	100Base-TX	RJ-45	Cat 5 UTP/STP	100m
TL-SM201CM	100Base-FX	SC	50/125 um MMF 62.5/125 um MMF	2000m
TL-SM201CS-20	100Base-FX	SC	9/125 um SMF	20000m
TL-SM201CS-40	100Base-FX	SC	9/125 um SMF	40000m
TL-SM201CS-60	100Base-FX	SC	9/125 um SMF	60000m

• **TL-SM301 Gigabit series module**

Model No.	Standard	Interface	Network Media	Maximum Transfer Distance
TL-SM301U	1000Base-T	RJ-45	Cat 5 UTP	100m
TL-SM301CM	1000Base-SX	SC	50/125 um MMF 62.5/125 um MMF	550m
TL-SM301CS	1000Base-LX	SC	9/125 um SMF	10000m

Caution:

The extension slots with UTP module can support auto-negotiation and auto MDI/MDIX. These two slots are independent, never conflicting with other normal ports.

3.3 Remarks

- Pay attention to the stability when you put the TL-SL3226P. It's serious if the TL-SL3226P drops.

- The TL-SL3226P can start to work with the correct power supply. Please confirm whether the power supply is accordant to the requirements of the TL-SL3226P.
- In order to avoid the risk of the power-attach, don't open the shelf of the TL-SL3226P when it works. Don't open the shelf even without power.
- When the TL-SL3226P is connecting with the working stop, server, hub or other switches, the network cord must be less than 100m if the network cord is UTP.
- You must use Cat 3 or above UTP for 10Base-T Ethernet.
- You must use Cat 5 UTP for 100Base-TX Ethernet.
- The module decides the operating speed of the extension slot. The 100M Module can work in 100M situations, while the 1000M modules can work in 1000M networks.
- When the TL-SL3226P is working, the network cord can be put into the port or put out from the port randomly, without breaking the operating of the TL-SL3226P.
- Before clean the TL-SL3226P, please unplug the power adapter. Don't clean with liquid.
- Don't put the TL-SL3226P near water or humidity; avoid water or humidity air into the shelf.
- Avoid the dust and strong electromagnetism.

Chapter 4 TELNET/Out-of-Band Management

4.1 Introduction

Through TELNET you can realize Remote Log in to manage the Switch.

Out-of-Band Management manages the Switch locally through the console port, without occupying the bandwidth.

Though TELNET and Out-of-Band have different presentation, their management contents are same. Both of them are to configure the Switch's characters.

4.2 How to connect TELNET

Connect the management workstation to the management port on the Switch. You can directly use TELNET commend on the commend DOS prompt in the Windows Attachment.

The parameter following the TELNET commend is the IP address of the Switch which can be revised to adapt to the network. However, when you reuse TELNET to access, the parameter will be the Switch's IP address newly set.

There is limit to the users accessing times through TELNET, maximum 3 times. There is also time limit for the connection. The connection will be automatically broken if there is no operation in a limit time.

Furthermore, maximum 5 users can access to the Switch through TELNET at one time.

Remark:

Only the PC connecting to the management port can configure the Switch through TELNET or WEB.

4.3 How to connect Out-of-Band

Out-of-Band Management needs a terminal or a HyperTerminal.

First, connect the Switch's console port with the PC's console port by the console cord. Then, run HyperTerminal. Refer to the following figure to configure the HyperTerminal.

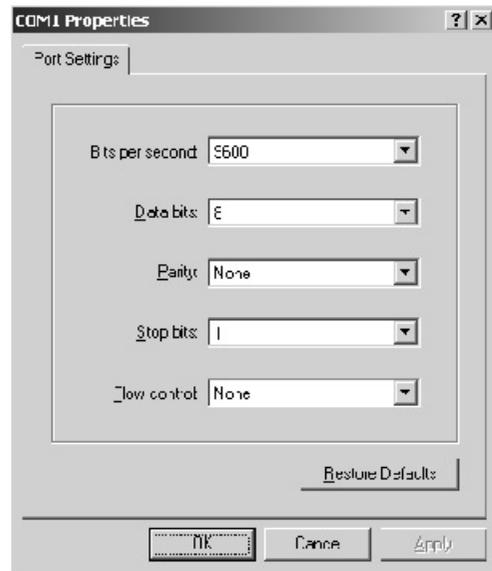


Figure 4-1 Console configuration

The speed of the console port is 9600bps. The data bit is 8 bit. There is no Parity Test and flow control. The Stop bit is 1.

If there is no HyperTerminal in the system, you can setup the HyperTerminal software from the system setup disk or download from the website such as

HyperTerminal Private Edition. The configuration way is similar with that on Windows.

4.4 The interface and operating way of TELNET/Out-of-Band

No matter through TELNET or Out-of-Band Management, the users have two rights:

- **Admin:** the control right to manage the Switch
- **Guest:** the read right for part of objects Admin visits.



Caution

Since Guest account has the read right only for some pages, there will be a prompt to remind the user no right for reversion when the Guest account want to configure the active the Switch. When the account wants to enter SNMP menu, Security menu, IEEE802.1X protocol menu, file transmission menu and reset menu of the system configuration menu, the account will be reminded no right to enter.

Because the basic content of TELNET and Out-of-band Management through the Console port is as same as each other, we introduce them together.

After you use the correct user's name and password (the default user's name and password are supervisor), you will log on the interface of TELNET/Out-of-Band Management.

The management interface is the menu drive. After you log on, you will in the first menu as following:

```

TP-LINK TL-SL3226P

Main Menu

>> System Configuration <<
Power Management
Network
Spanning Tree Protocol
IEEE802.1x Protocol
VLAN Management
Trunk Configuration
IGMP Snooping
SNMP Protocol
Priority
Security
Help
Logout

<Up/Down> = Move Cursor
<Enter> = Make Selection

```

Figure 4-2 Main Menu

- **Illumination:**

System Configuration includes system information such as software/hardware version, module information, switch parameter such as broadcast storm filter mode, file transmission, save and reset.

Ports Management includes port parameter (open/close flow control, port default VID, port security), port mirror (two types: direction mode mirror and flow mode mirror), port description (use character string to describe ports), port statistic (the statistic information of tag forwarding, receiving and conflicting), port situation (connection situation, port speed, duplex mode) and port bandwidth (entrance bandwidth and exit bandwidth).

Network includes address parameter (the Ethernet address of the Switch, IP address, NetMask, Gateway, etc), maximum aging time, Dynamic address

table, static address table and filter address table.

The Spanning Tree protocol includes the Switch configuration (Open/Close Spanning Tree, Network Bridge Priority) and port configuration. (Such as port priority, situation).

IEEE802.1X protocol includes Switch configuration, port configuration, force authorized table, force unauthorized table and authorized address table.

VLAN Management includes VLAN mode configuration (Port-based VLAN, IEEE802.1Q Tag VLAN and VLAN Disable), VLAN configuration and MTU VLAN team.

Trunk Configuration is to configure and check Trunk.

IGMP includes IGMP Snooping Set and IPMC Group Member Info.

SNMP protocol includes SNMP agent situation, SNMP team name table (such as access mode, situation), SNMP host table (such as IP address, team name, situation), SNMP Trap purpose table (purposed IP address, port, situation), and SNMP system event.

Priority Management includes Port priority, priority mapping, and priority configuration.

Security Configuration menu is used to configure the user managing the Switch (such as user's name, password, situation).

Help is used to check the usage of kinds of control button (such as direction button, TAB button).

The assumption of normal control button in the operating interface is as following:

<Arrow Key>= Direction Button: up, down, left, right moves cursor

<Tab> = Tab Button: move the cursor to the next stay place

<W>, <w> = W, w Button: move the cursor up

<S>, <s> = S, s Button: move the cursor down

<A>, <a> = S, s Button: move the cursor left

<D>, <d> = D, d Button: move the cursor right

<Esc> = Esc Button: exit the current menu

<Enter> = Enter Button: enter the next sub-directory or active the revision

<Space> = Space Button: switch the choice

<Backspace> = Backspace Button: delete one letter

<^U> = press U button after press Ctrl button (Ctrl + U): active the revision data

<^A> = press A button after press Ctrl button (Ctrl + A): choose all letter where the cursor locates

Remark:

The revised configuration won't be effect without activation. The effect configuration is effective before the next startup. In order to effect the configuration after next startup, you need to enter into the SAVE and RESET menu of System configuration menu to save the configuration.

4.4.1 System Configuration



Figure 4-3 System Configuration

Remarks:

- **System Information**

When you configure System Information, only System Name, System Contact and System Location can be changed. Others of System Information are only for read.

- **Module Information**

- 1) If you use modules, you can configure the responding module slot.
 - Slot 1 Port 25
 - Slot 2 Port 26
- 2) If you install modules, the module information will be showed according to the specific modules.
 - 100M UTP module: 100BASE-TX
 - 100M Fiber module: 100BASE-FX
 - Gigabit UTP module: 1000BASE-T
 - Gigabit Fiber module: 1000BASE-LX/SX

- **Switch Parameters**

- 1) Assigned Managed Port: can be any port or all ports from P1 to P26. Only the workstation connecting to the Assigned Managed Port in the Switch can manage the Switch. The default is All ports.
- 2) Broadcast Storm Filtering Mode: have six choices: 5%, 10%, 15%, 20%, and 25%.
- 3) The configuration of parameters won't be effect until you activate the changes. When you press Ctrl + U, the Switch will list “Are you sure you want to activate the changes (Y/N)?” . Y for confirmation, N for cancel.

- **File Transfer**

- 1) Transfer types are Update System, Backup Switch Config and Update Switch Config.

Update Switch System:

Through the program files using by TFTP server to update the Switch, download the program files provided by TFTP server into the Switch to realize the software update.

Backup Switch Config:

Upload the configuration files of the Switch to TFTP server to store the configuration parameters of the Switch.

Update Switch Config:

download the configuration files for the Switch from TFTP server to update the Switch configuration.

- 2) When downloading TFTP, TFTP server must have the files for updating.
- 3) You must guarantee the TFTP server in operating.
- 4) To break the download is not allowed during the TFTP download. Or else the Switch may be out of the way.

- **Save Reset**

When you reset to factory situation, all parameters except IP address can be configured to factory configuration.

4.4.2 Port Management



Figure 4-4 Port Management

Ports parameters:

In the IEEE802.1Q Tag VLAN mode, there are two pages of port parameters as figure 4-3 and figure 4-4. In the figure 4-3, when the cursor is on the Speed/Duplex, the interface as figure 4-4 will exist when you move the cursor right.

In the Port VLAN mode or VLAN Disable mode, there is only one page of port parameters as figure 4-5.

The Port Security of Port 2 in the above figure is not configurable because

the IEEE802.1X protocol of Port 2 has been configured to be Enable. Please note Port Security, Trunk and IEEE802.1X protocol are mutually exclusive. In other word, when you configure one of them, other two can't be configured.

State

The port can be used when the State is Enable, while the port is prohibited when the State is Disable. The Switch will discard the packets from the port.

• Port Security

When you configure the Port Security of a port to be Enable, the port won't learn any new MAC address. Furthermore, the port only transfers the Data Tag accordant to requirements. Other Tags will be discarded. When the Port Security of a port is Disable, the port will automatically learn any new MAC address and transfer Tags received.

• Flow Control

Disable (default): The port won't produce Flow Control packets and will discard the Flow Control packets received.

Enabled: The Switch will negotiate Flow Control on the specified port according to Full-Duplex or Half-Duplex.

• Speed/Duplex

10Base-T/100Base-TX ports

Auto (default): auto-test the speed and negotiate the duplex mode with the other end.

10HD: 10Mbps, Half-Duplex

10FD: 10Mbps, Full-Duplex

100HD: 100Mbps, Half-Duplex

100FD: 100Mbps, Full-Duplex

Two independent modules

The operating mode of two independent modules is different according to different module.

There are four types of the modules:

- 1) 100M fiber module (such as TL-SM201 series)
Auto: auto-negotiation
100FD: 100Mbps, Full-Duplex
- 2) 100M Twisted-Pair module (such as TL-SM201U)
Auto: auto-negotiation
10HD: 10Mbps, Half-Duplex
10FD: 10Mbps, Full-Duplex
100HD: 100Mbps, Half-Duplex
100FD: 100Mbps, Full-Duplex
- 3) Gigabit FiberModule (such as TL-SM301CS)
Auto: auto-negotiation
1000FD: 1000Mbps, Full-Duplex
- 4) Gigabit Twisted-Pair module (such as TL-SM301U)
Auto: auto-negotiation

10HD: 10Mbps, Half-Duplex
 10FD: 10Mbps, Full-Duplex
 100HD: 100Mbps, Half-Duplex
 100FD: 100Mbps, Full-Duplex
 1000HD: 1000Mbps, Half-Duplex
 1000FD: 1000Mbps, Full-Duplex

- **Default VID**

There is this choice only in the IEEE802.1Q Tag VLAN mode. Every port on the Switch has a Default VID which is the VID for an Untag Tag received by the port.

- **Drop Untag Frm**

One of the input regulations of the Switch. When you configure it to be Enable, the Switch will discard the Untag Tags.

- **Drop Nonmbr Frm**

One of the input regulations of the Switch. When you configure it to be Enable, the Switch will discard Unmember Tags.

Port Sniffer

There are two modes of Port Sniffer, Direction-Centric Mode Sniffer and Flow-Centric Mode Sniffer.

Please note these two modes can't be Enable at the same time. When you use one of two modes, you can't use another. The Trunk member port can't

be a sniffer port. The Sniffer port should in a same VLAN with the mirrored port.

Direction-Centric Mode Sniffer

Sniffer Port: can choose any port from port 1 to port 26. but it can't included in the mirrored port. Port 25 and Port 26 can't be used if there are no modules inside.

4.4.3 Network

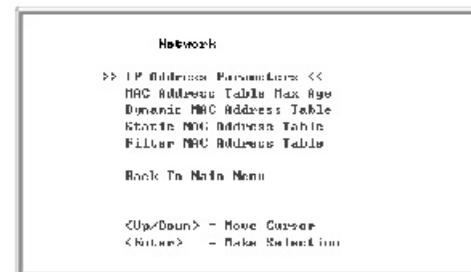


Figure 4-5 Network

Remarks

1) Max Aging Time:

Dynamic forwarding table entries, which are made up of the source and destination MAC addresses and their associated port numbers, are deleted from the table if they are not accessed within the aging time. The aging time can be from 300 to 765 seconds. A very long aging time can result in dynamic forwarding table entries that are out-of-date or no longer exist. This may cause incorrect packet forwarding decisions by the Switch. If the Aging Time

is too short however, many entries may be aged out too soon. This will result in a high percentage of received packets whose source addresses cannot be found in the forwarding table, in which case the switch will broadcast the packet to all ports, negating many of the benefits of having a switch.

Static forwarding entries are not affected by the aging time.

2) Static MAC Address

- If you set the wrong port of the address or change the port during operation, you must reset the Static MAC Address Table. Or else the address can't be used.
- After you configure the Static MAC Address the Switch can't operate normally if a equipment with this address connects to the other port of the Switch. It's better to delete the static address which won't be used when you configure the static MAC address.

4.4.4 Spanning Tree protocol

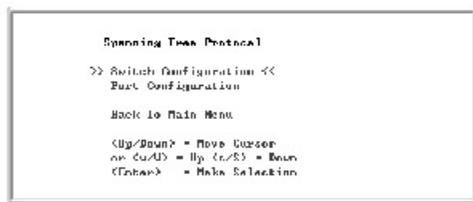


Figure 4-6 Spanning Tree protocol

Remarks:

- 1) There are limits as following:

Priority: 0 - 65535
 Hello Time: 1 - 10
 Maximum Age Timer: 6- 40
 Forward Delay Timer: 4 - 30

Max. Age ≤ 2 x (Forward Delay - 1 second)

Max. Age ≥ 2 x (Hello Time + 1 second)

- 2) When the Spanning Tree changes from Disable to Enable, the port will be blocked for a while which is two times of the Forward Delay. After revision, you must TELNET the Switch again.
- 3) There are limits to the Port Priority and Port Cost.
 Port Priority: 0 255 (can configure 1 and 255)
 Port Cost: 1 65535 (can configure 1 and 65535)

4.4.5 IEEE802.1X protocol

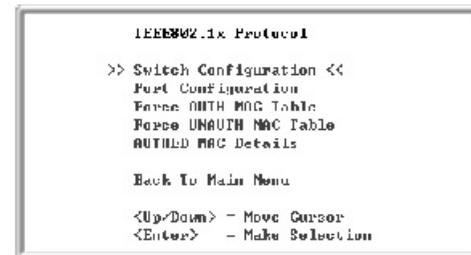


Figure 4-7 IEEE802.1X protocol

Remarks:

- 1) The following MAC address can't be set into the Force AUTH MAC

Table.

- Static MAC Address
- Filter MAC Address
- Force UNAUTH MAC Address
- Authorized MAC Address

2) No matter which port the MAC Address of the Force UNAUTH MAC Table relates to, the Switch won't transfer its' packets. The following MAC address can't be set into the Force UNAUTH MAC Table:

- Static MAC Address
- Filter MAC Address
- Force UNAUTH MAC Address
- Authorized MAC Address

4.4.6 VLAN Management



Figure 4-8 VLAN Management

Remarks:

1) When the VLAN mode has been changed, the Switch will reboot automatically.

2) When you configure the MTU VLAN and effect it, all original VLAN and Trunk configuration will be cancelled.

4.4.7 Configure Trunk

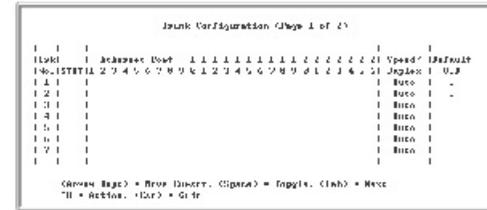


Figure 4-9 Configure Trunk (Page 1 of 2)

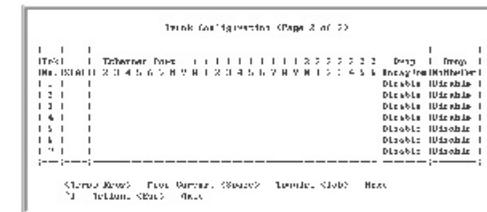


Figure 4-10 Configure Trunk (Page 2 of 2)

Remarks:

- 1) Trunk Configuration Regulation:
 - The Switch supports 7 Trunk. 24 normal ports can only form Trunk with the normal ports. Two modules with same model can form a Trunk. But the module slot can't form Trunk with the normal ports. There must be from 2 to 4 ports to be a Trunk.
 - The Trunk will be treated as a logistic port after you set a Trunk.

- 2) When you configure a Trunk, the ports added to the Trunk will be deleted from all VLANs no matter whether you create a Trunk or add the port to a Trunk. If you delete any port or delete the whole Trunk, the original port in the Trunk can't reset to any VLAN. In the beginning of creating a Trunk, the Trunk is not along to any VLAN. You must configure it to the required VLAN according to the requirements.

Chapter 5 WEB Management

5.1 Introduction

The TL-SL3226P offers an embedded Web-based (HTML) server allowing users to manage the Switch from anywhere on the network through a standard browser, such as Microsoft Internet Explorer.

The Web-based management module and the Console program (and Telnet) are different ways to access the same internal switching software and configure it. Thus, all settings encountered in Web-based management are the same as those found in the console program.

5.2 Connection of WEB Management

5.2.1 Getting Start

The first step in getting started in using Web-based management for your Switch is to secure a browser such as Microsoft Internet Explorer (Simply called IE). Furthermore, the browser must support Javascript Script. For the best effect, we suggest you to use IE5.0 or above version and 800x600 or above system.

Before getting start, you must finish some preparing steps. We choose IE 5.0 in Windows 2000 to be an example.

The First Step:

Tool in the IE menu → **Internet options** → the following screen

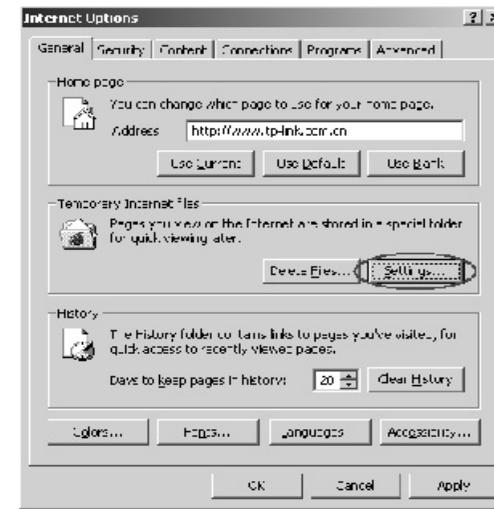


Figure 5-1 Internet Options

The Second Step:

Press **Settings** → the following screen:

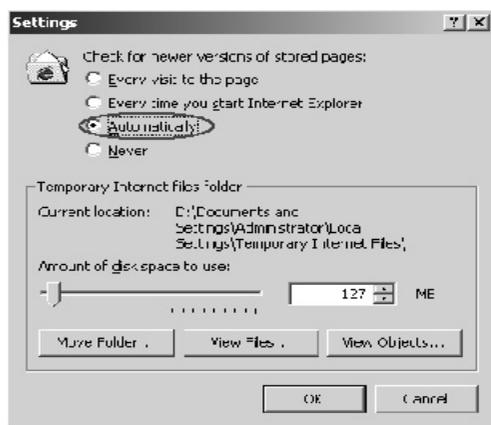


Figure 5-2 Settings

Please choose **Automatically**, then press **OK**.

The Third step:

Choose **Security** → User-defined.

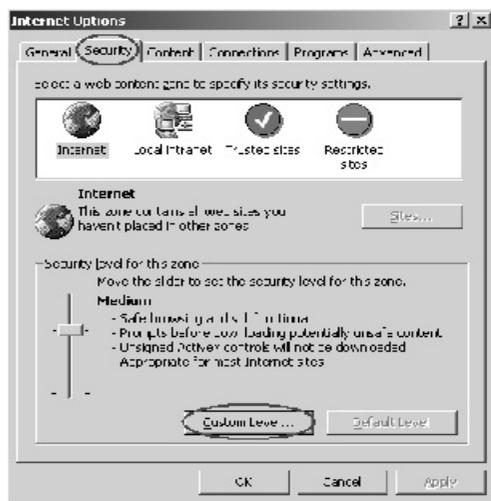


Figure 5-3 Security

The Forth Step:

Choose **Enable** in the **Active Scripting** or choose **Reset to** → **Medium**, press **Reset** and press **OK**.

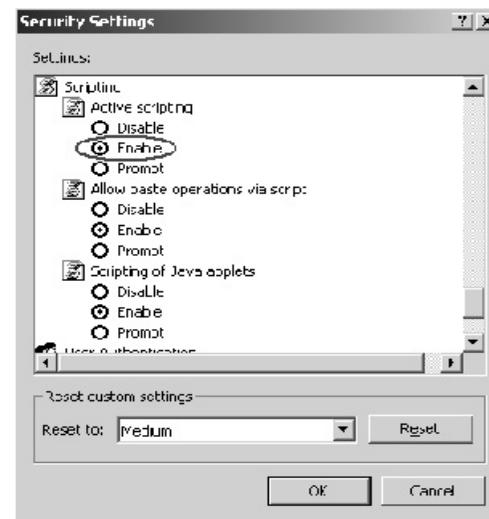


Figure 5-4 Security Settings

The Fifth step:

Press the right button of the mouse, choose **Properties** in the menu existed. The following screen will exist.

Choose **Settings**, set **800x600**, press **Apply** or **OK**

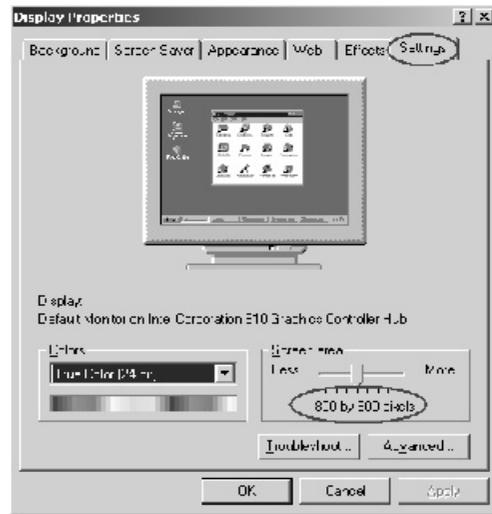


Figure 5-5

5.2.2 Connection

We propose the IP address of the Switch is 192.168.0.2, you can input `http://192.168.0.2/` in the IE to connect the Switch. Then press **Enter**, the following screen will exist.

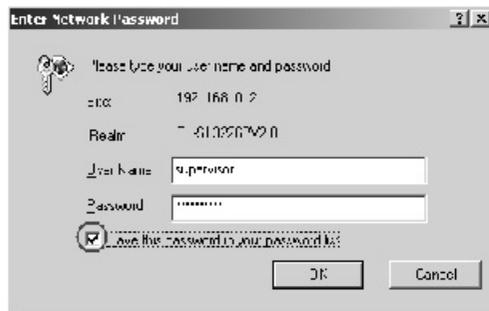


Figure 5-6

Input the user's name and password (the default user's name and password are supervisor. Furthermore, the default user has managing right.) Press OK to the page of WEB management.

! Caution

The default user's name and password are set in factory. You can revise and add user's names and passwords in the Security Configuration. You must have management right when you revising such configuration. If you reset the Switch to factory configuration, all users' names and passwords set before will disappear. There is only default user's name and password.

Like TELNET, WEB has two managing rights, Manager's right and user's right.

Annex A RJ-45 Plug/Connector Pin Specification

When connecting the Switch to another switch, a bridge or a hub, a normal cable is necessary. Please review these products for matching cable pin assignment. The following diagram and table show the standard RJ-45 receptacle/connector and their pin assignments for the switch-to-network adapter card connection, and the normal cable for the Switch-to-switch/hub/bridge connection.

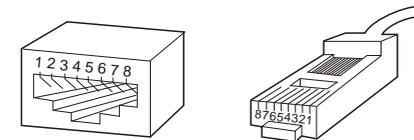


Figure A-1. The standard RJ-45 receptacle/connector

RJ-45 Connector pin assignment

Connector pin assignment		
Contact	MDI-II Signal	MDI-X Signal
1	TX+ (transmit)	RX+ (receive)
2	TX- (transmit)	RX- (receive)
3	RX+ (receive)	TX+ (transmit)
4	Not used	Not used
5	Not used	Not used
6	RX- (receive)	TX- (transmit)
7	Not used	Not used
8	Not used	Not used

Table A-1. The standard Category 3 cable, RJ-45 pin assignment

The following Figure shows the facture of the Straight Cable and the Cross Cable.

Straight Cable

The Switch (Uplink port) or NIC connects to the switch/hub/other equipments (normal ports).

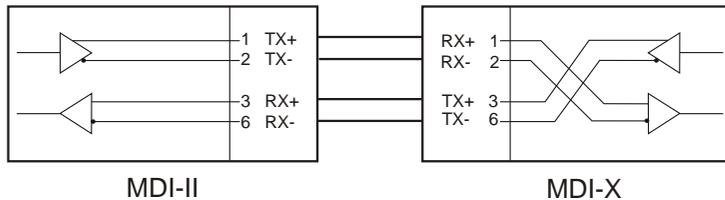


Figure A-3 Straight Cable

Cross Cable

The Switch (normal port) connects to the switch/hub/other equipments (normal port).

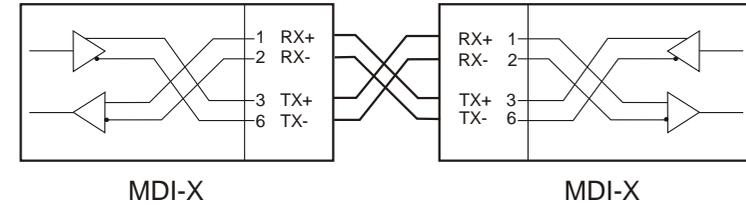


Figure A-4 Cross Cable

Usually, the Straight Cable is required to connect to the switch (Uplink Port) or NIC.

Annex B Default Configuration of the switch

System Configuration	System Information	System Name	TL-SL3226PVXX
		System Position	New Location
		Contact	Administrator
	Switch Parameter	Assigned Managed Port	All Ports
		Broadcast Storm Filtering Mode	OFF
		File transfer	Transfers Type: Update System File File Name: sl3226p.bin TFTP Server: 0.0.0.0
Ports Management	Port Parameters	State	Enable
		Port Security	Disable
		Flow Control	Enable
		Speed/Duplex	Auto
		Drop Untag Frm	Disable
		Drop NonMbr Frm	Disable
		Default VID	1

Ports Management	Direction-centric Mode Sniffer	Sniffer Direction	Disable
		Sniffer Port	1
		Monitored Port Mask	N/A
	Flow-centric Mode Sniffer	State	Disable
		Sniffer Port	1
		Destination Port	1
	Source Port	1	
	Port Description	N/A	
	Port Statistics	0	
	Port BandWidth	Ingress Control	Disable
Egress Control		Disable	
Network	IP Address Parameters	DHCP	Disable
		IP Address	192.168.0.1
		Subnet Mask	255.255.255.0
		Default Gateway	0.0.0.0
	MAC Address table Max Age	Max Age	300
		Static MAC Address Table	N/A
Filter MAC Address	N/A		
Spanning Tree	Switch Configuration	Spanning Tree	Disable
		Bridge Priority	32768
		Bridge Hello Time	2
		Bridge Hello Age	20
		Forward Delay	15
	Port Configuration	Priority	128 (all ports)
		Path Cost	19 (all ports)
IEEE802.1x Protocol	Switch Configuration	802.1x State	Disable
		Authentication Method	PAP Authentication
		Auth Server IP	0.0.0.0
		Backup Auth Server IP	0.0.0.0
		Auth Server Port	1812
		Auth Server Key	N/A
		Acct Server IP	0.0.0.0
		Backup Acct Server IP	0.0.0.0
		Acct Server Port	1813
		Acct Server Key	N/A
		Re-Auth Enable	Disable
Re-Auth Period (s)	3600		

IEEE802.1x Protocol	Port Configuration	State	Disable (all ports)
		Force AUTH MAC Table	N/A
		Force UNAUTH MAC Table	N/A
VLAN Management	VLAN Mode Configuration	IEEE802.1q Tag VLAN	
	VLAN Configuration	All ports are in one VLAN whose VID is 1, Untag	
Trunk Configuration	No Trunk		
IGMP Snooping	IGMP Snooping set	IGMP Snooping State	Disable
		IGMP Snooping Age Time	120
SNMP Protocol	Agent status	SNMP Agent Status	Enable
	Community	Community Name	Public
		Access Mode	Read/Write
	Host	N/A	
	Trap	N/A	
	Event	None (all items)	
Priority	Port Priority	Priority Mode	802.1p (all ports)
	Priority Class Mapping Table	Priority Class Mapping	Low
		Priority Config	High Priority Class Weight
	Low Priority Class Weight		1
	Delay Bound Mode		OFF
	Low Priority Delay Bound Control		Disable
	Low Priority Delay Bound Time		0
Security	Security Configuration	User Name	Supervisor
		Password	Supervisor
		User Type	Admin
		State	Enable