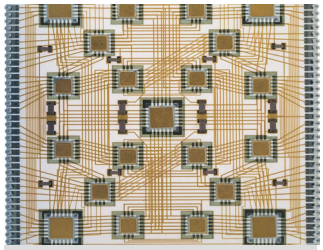
Technical Document



ZyXEL Release Notes

Layer2 Management Switch
ES-2008-SC
Firmware Version 1.17
13. Jan.2006

Introduction:

Layer 2 Managed Switch

The Switches provides 8 switched auto-sensing 10/100 Mbps RJ-45 Ethernet ports (8TP Management Switch) plus one 100Base-FX fiber port (ES-2008-SC Management Switch). The Switch will automatically detect the speed of the device that you plug into it to allow you to use both 10 and 100Mbps device. The 10Mbps bandwidth will accommodate 10Mbps workgroup hubs while simultaneously providing the 100Mbps bandwidth needed to accommodate multimedia applications. In addition, each RJ-45 port supports Auto MDI/MDIX function.

The ES-2008-SC Management Switch couples with one 100Base-FX fiber port. There are 4 types of fiber connectors available for the convenience of your connectivity on the Switch. These fiber connectors are SC/MT-RJ/VF-45 (multi-mode) and SC (single-mode). However, the fiber port can be used to connect to a remote side up to 2 Kilometers (single-mode) or 15~60 kilometers (SC single-mode) away.

The ES-2008-SC Management Switch series are compact desktop size switches, which are ideal solutions for SOHO (Small Office or Home Office) network user. It provides wire-speed, Fast Ethernet switching function that allows high-performance, low-cost connection. The Switches feature a store-and-forward switching and it can auto-learn and store source address on an 8K-entry MAC address table.

Hardware Comparison List

N/A

Firmware Specification:

Status	Version No.	Type	Release Date
Current Version	1.17	Customer	13/Jan/2006
Previous Version	1.15	Customer	01/Nov/2005
Previous Version	1.11	Customer	02/25/2005
Previous Version	1.10	Customer	01/21/2005
Previous Version	1.09	Customer	01/07/2005
Previous Version	1.08	Customer	11/27/2003
Previous Version	1.07	Customer	10/08/2003

Hardware Compatibility

It is recommended that the firmware v1.17 should to install on new board EPCB00421.

Supported Functionality Comparison List:

Features	New PCB Support
802.1Q - VLAN tagging	YES
Port Base VLAN Support (up to 4096 groups)	YES
Protocol VLAN Support	YES
IEEE 802.1d Spanning Tree protocol	YES
IEEE 802.3ad LACP Support	YES
IEEE 802.1ad Port Trunk Support	YES
GVRP Support	YES
GVRP Information	YES
IGMP Snooping	YES
TFTP Backup/restore Configuration	YES
Local Management via TELNET	YES
Static MAC Address	YES
Broadcast Storm Filter	YES
TFTP download & X modem upgrade	YES

SNMP v1	YES
Port Mirroring	YES
Port Security	YES
802.1P QOS support	YES
Secure IP	YES

INSTALLATION AND CONFIGURATION NOTES:

In general, the ES-2008-SC will be shipped to you pre-configured with this version of firmware. If you would like to upgrade an existing ES-2008-SC**,** please follow the TFTP download instructions that are included with your firmware image upgrade kit.

Firmware upgrade (TFTP)

Use the “TFTP Update Firmware” page to upgrade the firmware (software programmed on a FLASH) to the most up to date version.

To upgrade the firmware of procedure

1. Execute TFTP of software and select firmware of path.
2. Enter TFTP Server IP address.
3. Enter firmware of name “image.bin”.
   Click the Apply button to begin the upgrade process. After the upgrade is complete, remember to reset the device.

Note:

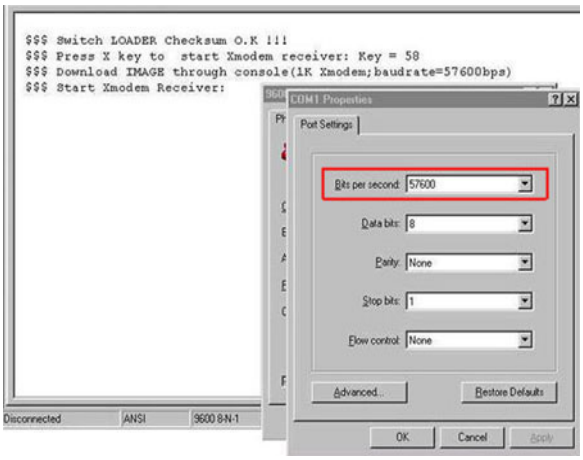
If the upgrade has failed, will use X modem upgrade.

Firmware upgrade (X modem)

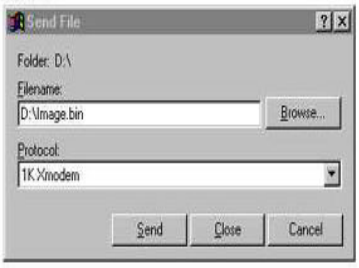
Use the RS-232 cable to upgrade the firmware (software programmed on a FLASH) to the

most up to date version.

```
$$$ Switch LOADER Checksum O.K !!!
$$$ Press X key to  start Xmodem receiver:
$$$ Download IMAGE through console(1K Xmodem;baudrate=57600bps)
$$$ Start Xmodem Receiver:
```




```
$$$ Switch LOADER Checksum O.K !!!
$$$ Press X key to  start Xmodem receiver: Key = 58
$$$ Download IMAGE through console(1K Xmodem;baudrate=57600bps)
$$$ Start Xmodem Receiver:
```




```
$$$ Switch LOADER Checksum O.K !!!
$$$ Press X key to  start Xmodem receiver: Key = 78
$$$ Download IMAGE through console(1K Xmodem;baudrate=57600bps)
$$$ Start Xmodem Receiver: CCCCC
$$$ Download IMAGE ....O.K !!!
$$$ Update firmware ..........................................
..............................................................
..............................................................
..............................................................
.............................
$$$ Update firmware ....O.K !!!
$$$ Note: console baudrate of new image is 9600bps..
$$$ Reboot .....
```

To upgrade the firmware of procedure

1. Press X key to start upgrading for X modem.
2. First, disconnect terminal and modify baud rate to 57600bps, then do the connection again
3. Select “send file” under “transfer” menu from menu bar.
4. Pressing “browse” button
5. Select “1K Xmodem” of protocol and press “Send button”.

6. After successfully upgraded the new firmware, please modify baud rate to 9600bps.

FIRMWARE CHANGES AND ENHANCEMENTS:

MODIFICATIONS:

The following Known Issues have been fixed in this release of firmware.

1. Fix the following issues.

Bug Fact & Example：

To duplicate this issue, please follow the steps shown below:

(1) Log into switch @ 192.168.1.1.

(2) Go to SNMP configuration and add a community string for RW (Read Write access).

(3) Go to IP Security configuration and add 192.168.1.50 (IP address of my PC).

(4) Run SNMPc and MIB browser of it, GET NEXT at
OID 1.3.6.1.2.1.16.1.1.1.2(RMON MIB- statistics),the switch will hang

(5) Reboot the switch

(6) If disable IP Security, the problem will still occur.

(7) If disable IP Security and change the Secure IP to the default setting 0.0.0.0, then the problem will not occur anymore.

2.ES-2008sc has a bug about admin password cannot be set over 8 characters in console or telnet mode. But it can support up to 10 characters in web mode.

KNOWN RESTRICTIONS AND LIMITATIONS:

1. Trunk and STP can’t work at the same time.

COMPLIANCE SUPPORT:

Compliance Level	Compliant
Year 2000	YES*

Known Anomalies: **N/A**

IEEE STANDARDS SUPPORT:

Standard	Title
IEEE 802.1d	Transparent Bridging Specifications (ISO/IEC 10038)
IEEE 802.1p	Traffic Class Expediting and Dynamic Multicast Filtering
IEEE 802.1Q	Virtual Bridged Local Area Networks
IEEE 802.2	Local Area Networks, Logical Link Control (LLC)
IEEE 802.3	CSMA/CD 9 (ISO/IEC 8802-3)
IEEE 802.3 i	10Base-T (ISO/IEC 8802-3, clause 14)
IEEE 802.3 u	100Base-TX (ISO/IEC 8802-3, clause 25)
IEEE 802.3 u	100Base-FX (ISO/IEC 8802-3, clause 26)
IEEE 802.3 x	Flow Control

IETF STANDARDS MIB SUPPORT:

RFC No.	Title	Groups Supported
1157	Simple Network Management Protocol (SNMP)	Version 1
1213	MIB-II	System, Interfaces, IP, ICMP, UDP, Transmission, SNMP
1493	Bridge MIB	Spanning tree
1757	Remote Network Monitoring MIB	Ethernet statistics, Ethernet history, Alarm, Event
2674	VLAN MIB	P-Bridge, Q-Bridge

PRIVATE ENTERPRISE MIB SUPPORT:

Title	Version No.
ES-2008-SC.MIB	V1.00

SNMP TRAP SUPPORT:

RFC No.	Title
RFC 1215	Cold Start trap Link down/up trap Authentication Failure trap

PRIVATE ENTERPRISE TRAP SUPPORT:

N/A

GLOBAL SUPPORT:

For information regarding the latest firmware available, recent release note revisions, or you require additional assistance requirement, please visit the **ZyXEL** Support web site.