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RC953-4FExE1T1 WEB Management User Manual

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Comments and questions about how the RC953-4FExE1T1 system software works are welcomed. Please review the FAQ in the related manual, and if your question is not covered, send email by using the following web page:

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If you have comments on the RC953-4FExE1T1 specification, instead of the web page above, please send comments to:

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Preface

About This Manual

This manual introduces primary functions of the configuration management software for RC series products.

RC953-4FExE1T1 series Interface Converter supports Web management function. This user manual gives introduction of telnet and maintenance for RC953-4FExE1T1 series devices via WEB management. Web management function permits user manage device at anywhere through network, the GUI configuration method is simple and easy using, very convenient to users. User only needs web browser of IE6.0, Netscape Navigator7.0 or newer version and in support of java, this WEB management function is available.

Who Should Read This Manual

This manual is a valuable reference for sales and marketing staff, after service staff and telecommunication network designers. For those who want to have an overview of the features, applications, structure and specifications of RC953-4FExE1T1 device, this is also a recommended document.

Organization

This manual is an introduction of the WEB management system. The manual is composed of the following chapters:

Chapter 1 Web Management System Introduction

Chapter 2 Management Module Configuration

Chapter 3 Dot3OAM Module Configuration

Chapter 4 VLans Groups Module Configuration

Chapter 5 Diagnostic Module Configuration

Chapter 6 IP/MAC Module Configuration

Chapter 7 EOPDH Module Configuration

Compliance

The RC series products developed by Raisecom are strictly complied with the following standards as well as ITU-T, IEEE, IETF and related standards from other international telecommunication standard organizations:

YD/T900-1997 SDH Equipment Technical Requirements - Clock

YD/T973-1998 SDH 155Mb/s and 622Mb/s Technical conditions of optical transmitter module and receiver module

YD/T1017-1999 Network node interface for the Synchronous Digital Hierarchy (SDH)

YD/T1022-1999 Requirement of synchronous digital hierarchy (SDH) equipment function

YD/T1078-2000 SDH Transmission Network Technique Requirements-Interworking of Network Protection Architectures

YD/T1111.1-2001 Technical Requirements of SDH Optical Transmitter/Optical Receiver Modules——2.488320 Gb/s Optical Receiver Modules

YD/T1111.2- 2001 Technical Requirements of SHD Optical Transmitter/Optical Receiver Modules——2.488320 Gb/s Optical Transmitter Modules

YD/T1179- 2002 Technical Specification of Ethernet over SDH

G.703 Physical/electrical characteristics of hierarchical digital interfaces

G.704 Synchronous frame structures used at 1544, 6312, 2048, 8448 and 44 736 kbit/s hierarchical levels

G.707 Network node interface for the synchronous digital hierarchy (SDH)

G.774 Synchronous digital hierarchy (SDH) - Management information model for the network element view

G.781 Synchronization layer functions

G.783 Characteristics of synchronous digital hierarchy (SDH) equipment functional blocks

G.784 Synchronous digital hierarchy (SDH) management

G.803 Architecture of transport networks based on the synchronous digital hierarchy (SDH)

G.813 Timing characteristics of SDH equipment slave clocks (SEC)

G.823 The control of jitter and wander within digital networks which are based on the 2048 kbit/s hierarchy

G.825 The control of jitter and wander within digital networks which are based on the synchronous digital hierarchy (SDH)

G.826 End-to-end error performance parameters and objectives for international, constant bit-rate digital paths and connections

G.828 Error performance parameters and objectives for international, constant bit-rate synchronous digital paths

G.829 Error performance events for SDH multiplex and regenerator sections

G.831 Management capabilities of transport networks based on the synchronous digital hierarchy (SDH)

G.841 Types and characteristics of SDH network protection architectures

G.842 Interworking of SDH network protection architectures

G.957 Optical interfaces for equipments and systems relating to the synchronous digital hierarchy

G.691 Optical interfaces for single channel STM-64 and other SDH systems with optical amplifiers

G.664 Optical safety procedures and requirements for optical transport systems

I.731 ATM Types and general characteristics of ATM equipment

I.732 ATM Functional characteristics of ATM equipment

IEEE 802.1Q Virtual Local Area Networks (LANs)

IEEE 802.1p Traffic Class Expediting and Dynamic Multicast Filtering

IEEE 802.3 CSMA/CD Access Method and Physical Layer Instruction

Chapter 1   Web Management System Introduction

1.1 System login

To ensure login device successfully via WEB, users are required to configure both the Interface Converter and client device when processing remote supervisory and maintenance via WEB.

1.1.1   Conditions of requirements

Object	Conditions
Interface Converter	Turn on the Interface Converter, which supports WEB function.
	Configure IP address for Interface Converter, by a router, the Interface Converter can connect to user.
	Set user name and password.
Client	IE6.0, Netscape Navigator7.0 or newer version.
	Get IP address of the Interface Converter
	Get the user name and password.

NOTE: The system is in support of 5 links at most.

1.1.2   Configuration steps

Step 1: Login the Interface Converter via Console port and configure device VLAN 1 IP address correctly (VLAN 1 is the default VLAN of switch).

Example:

Raisecom#**config**

Raisecom(config)#**ip address** *10.1.2.3 255.255.255.0 1*

10.1.2.3 is IP address, 255.255.255.0 is subnet mask, 1 is vlan 1.

Step 2: Building configuration environment. Just connect Ethernet interface of PC with the Ethernet interface under VLAN 1 of Interface Converter via network. If the PC and Ethernet switch are not in one LAN, a router is required for connecting the PC and Ethernet switch VLAN 1 interface.
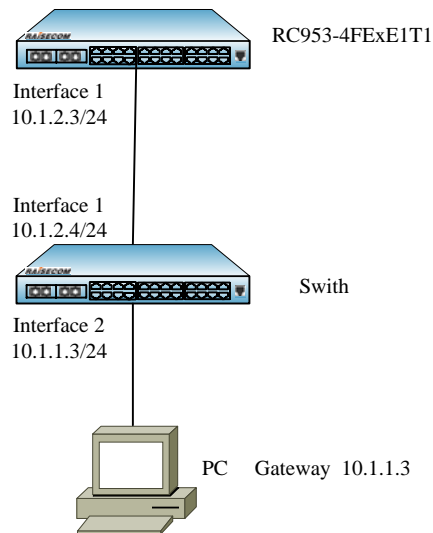
Example:

Figure 1-1 Configure Static Routing

As figure 1-1 shows, RC953-4FExE1T1 is in subnet 10.1.2.0/24, and PC is in subnet 10.1.1.0/24. Steps for configuring static routing:

！Enable ip route on RC953-4FExE1T1 and configure static routing:

Raisecom(config)# **ip route** *10.1.1.0 255.255.255.0 10.1.2.4*

Raisecom(config)# **ip route** *10.1.4.0 255.255.255.0 10.1.3.4*

！Enable ip routing on Switch and configure default gateway:

Raisecom(config)# **ip routing**

Raisecom(config)# **ip default-gateway** *10.1.2.3 255.255.255.0*

！Configure default gateway as 10.1.1.3 on host A.

Step 3: Open web browser on PC, and input http://10.1.2.3/ in the address bar. 10.1.2.3 is IP address of Interface Converter. Input user name and password in the open window and then click **<OK>** to enter WEB management interface of RC953-4FExE1T1.

1.2 Framework construction of Web interface

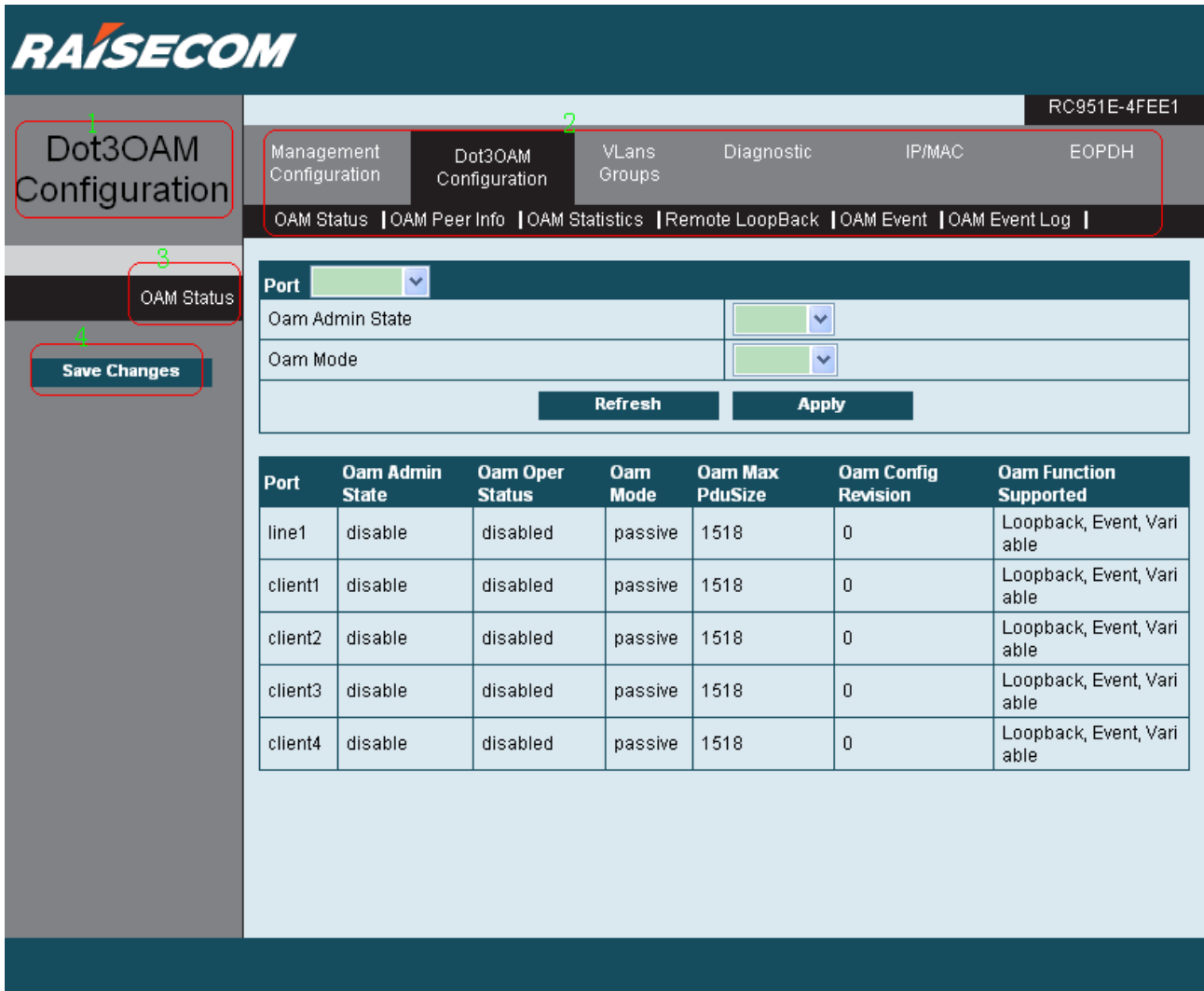### 1.2.1 Compose of interface framework

Figure 1-2 Framework Construction of Web Interface

1. Display titles of configuration management modules being selected at present. The different color in part 2 is the selected module.
2. Guiding area of the interface, containing a 2-layer guiding tree.
   The upper part is area of all configuration management modules. The color changes once user move the cursor to the module area and showing the configuration page TABs under this module.
   The lower part is all configuration page TABs under current selected module. Click each TAB and the displaying area shows relevant configuration management information of the page.
3. The current selected configuration TAB title corresponding to a selected guiding node page at the bottom of part 2.
4. Save current configuration information and the configuration keeps effective even reboot system.

The white area at right-bottom is displaying area of page. Click each guiding node and its related web page will display in this area.

1.2.2   Guiding system of interface

1.2.2.1   Management Configuration

Figure 1-3 Page Guiding Structure of Management Module

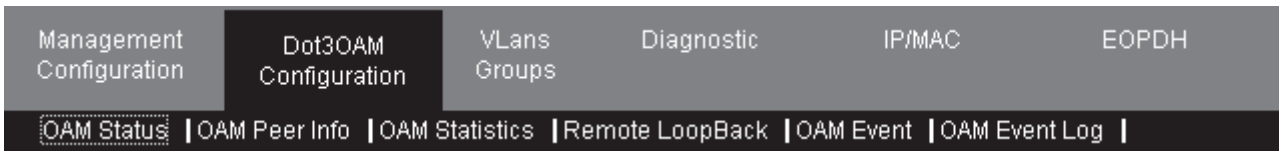| Guiding node	Description
Management Configuration	
Device Config	This page display the running configuration and information loaded by automation when system starting up. It can also update the automatically loading configuration information when system starting up.
System	This page displays device name, ROS version, Bootstrap version, hardware version, system MAC, device starting time, etc. information.
Port Config	This is status and basic configuration page of port.
Port Statistics	Display statistics information of ports
Port Fault	This page contains two size-fixed tables, which are used to configure port fault management.
Password	Modify Web administrator password
Radius Config	related configuration of Radius Server, assigning server IP, server port and key.

1.2.2.2   Dot3OAM Configuration

Figure 1-4 Page Guiding Structure of Dot3OAM Module

Guiding node	Description
Dot3OAM Configuration	
OAM Status	Change and display port OAM status
OAM Peer Info	Display status of OAM peer information
OAM Statistics	Display port OAM statistics information
Remote LoopBack	Change and display port OAM LoopBack status
OAM Event	Change and display port OAM event
OAM Event Log	Display OAM event log

1.2.2.3 VLans Groups

Figure 1-5 Page Guiding Structure of VLans Groups Module

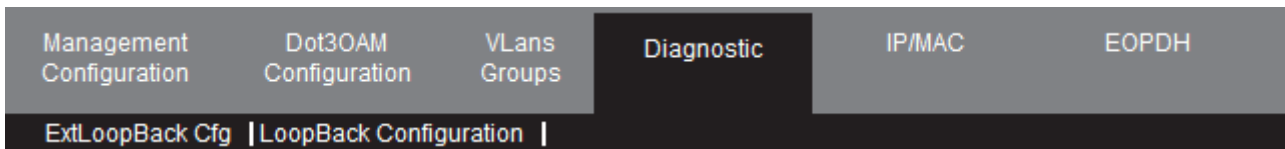| Guiding node	Description
VLans / Multicast Groups	
VLAN Global Config	This is the global configuration interface of VLAN
Current VLANs	Display port configuration status of VLAN
Static VLANs	This page is for creating, deleting, modifying and vlan port attribution setting of VLAN table.
VLAN Ports	Function of this page is to change and display port VLAN configuration attribution.

1.2.2.4 Diagnostic

Figure 1-6 Page Guiding Structure of Diagnostic Module

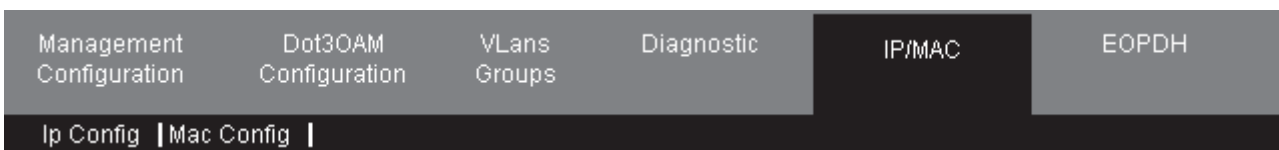| Guiding node	Description
Diagnostic	
ExtLoopBackCfg	This page is to configure parameters for port loopback
LoopBack Configuration	This is the page for setting port loopback status and loop holding time

1.2.2.5 IP/MAC module

Figure 1-7 Page Guiding Structure of IP/MAC Module

Guiding node	Description

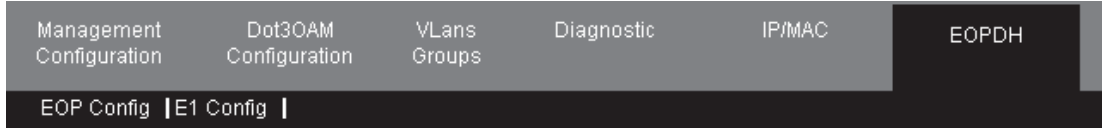| IP/MAC	
IP Config	IP interface and IP address setting and displaying
Mac ACL Config	Set static mac address and display all mac addresses inside the device

1.2.2.6　EoPDH

Figure 1-8 Page Guiding Structure of EOPDH Module

Guiding node	Description
EOPDH	
EOP Config	EOPDH related configuration and status
E1 Config	Setting and displaying E1 interface

1.3　Password modification

Users had better modify password after login system for the first time. Move the cursor to Management Configuration area and click the Password guiding node at the lower part. Then input old password and new password at the displaying area (as Figure shows below). Click **<Apply>** at last. The passwords cannot exceed 16 characters in length and old password need to pass verification. Once the old password failed to pass verification, a caution box will appear and so does inputting inconsistent new passwords.

As above paragraph says click **<Apply>** to modify password, but the new password will be ineffective after device power off and reboot. To save the new password in flash and have the new password effective after system rebooting, users must click **<Save Changes>** on the left after clicking **<Apply>**.

Figure 1-9 Password Modification

Guiding node	Description
Old Password	Input old password and check correctness of it.

New Password	Input new password
Re-Type Password	Input new password again
Apply	Apply password modification information: 1: Apply successfully: refresh the interface 2: Apply failure: appear caution box of failing to set the node; prompt incorrect older password if the input one is incorrect. 3: Apply failure: appear caution box of failing to set the node; prompt input new password again if the input ones are inconsistent or illegal.

1.4 Save configuration

There are to methods for saving configuration:

1. Click **<Apply>** to save configuration, and the configuration contents will loss after device power off and reboot.
2. Click the button **<Save Changes>** on the left can save the configuration and keep configuration effective even device power off and reboot.

Chapter 2   Management Module Configuration

Page Guiding Structure of Management Module:

2.1 Device Config

This page display the running configuration and information loaded by automation when system starting up. It can also update the automatically loading configuration information when system starting up. Click button <**Apply**> to complete configuration of configuring contents in configuration table as automatically loading information when startup. After <**Apply**>, the Current Start Up Configuration contents become the set contents if user input correct contents.

Config Device

| Erase | Save | Reboot |

Current Start Up Configuration

```
!ROS Version ROS_4.11.1209.RC951E-4FEE1.1.20100322
!command in view_mode
!
!command in config_mode first-step
!
!command in enable_mode
!
!command in service_mode
!
!command in port_mode
!
!command in vlan configuration mode
!
!command in config_mode
ip address 192.168.4.28 255.255.255.0 1 line 1 client 1-4
!
!command in e1 port mode
!
!command in eop port mode
!
!NEVER change the NOTATION
!end
```

System Current Configuration

```
!ROS Version ROS_4.11.1252.RC951E-4FEE1.3.20100409
!command in view_mode
!
!command in config_mode first-step
!
!command in enable_mode
!
!command in service_mode
!
!command in port_mode
!
!command in vlan configuration mode
!
!command in config_mode
ip address 192.168.4.28 255.255.255.0 1 line 1 client 1-4
!
!command in e1 port mode
!
```

Update Start Up Configuration

| Apply | Refresh |

Figure 2-1 Device Config page

TAB	Description
Config Device	Configure device table title, including three buttons

Erase	Erase configuration, erase the contents of Current Start Up Configuration in FLASH; this operation equals to the command **erase** in commands line.
Save	Save configuration, save System Current Configuration into Start Up Config file; this operation equals to the command **write** in commands line.
Reboot	Reboot Ethernet switch and device, equals to command **reboot** in commands line. System will prompt confirm information for reboot.
Current Start Up Configuration	The table Current Start Up Configuration is used to display Current Start Up Configuration contents in FLASH.
System Current Configuration	The table System Current Configuration is used to display the running configuration of current system.
Update Start Up Configuration	Configuration contents inputting table
Apply	Set contents in configuration table
Refresh	Refresh the page, and get current system information.

2.2 System

This page display device name, ROS version, Bootstrap version, hardware version, system MAC, device starting time, etc. information.

Product Name:	RC951E-4FEE1
Ros Version:	ROS_4.11.1252.RC951E-4FEE1.3.20100409
Bootstrap Version:	Bootstrap_3.1.2.RC953.0.20091013
Hardware Version:	Rev.A.1
System Up Time:	0-Days 0-Hours 29-Minutes 49-Seconds
System MacAddress:	000e.5ee7.889a
Temperature(Celsiur scale):	30
3300mv(mv):	3300
1200mv(mv):	1238
CPU utilization in 1 second(%):	0%
CPU utilization in 1 minute(%):	0%
	Refresh

Figure 2-2 System page

TAB	Description
Product Name	Display device name
Ros Version	Display ROS version
Bootstrap Version	Display Bootstrap version
Hardware Version	Display Hardware version
System Up Time	Display system start up time

System MacAddress	Display system MAC address
Temperature (Celsius scale)	Display system temperature
3300mv (mv)	Display current value of 3.3V voltage
1200mv (mv)	Display current value of 1.2V voltage
CPU utilization in 1 second (%)	Display CPU utilization per second
CPU utilization in 1 minute (%)	Display CPU utilization per minute

2.3 Port Statistics

Port:line1			
In All Bits	0	Out All Bits	768
CRC Align Errors	0	Drop Events	0
Undersize Pkts	0	Oversize Pkts	0
Fragments	0	Jabbers	0
Collisions	0	In Octets	0
Out Octets	96	In UcastPkts	0
Out UcastPkts	0	In MulticastPkts	0
Out MulticastPkts	0	In BroadcastPkts	0
Out BroadcastPkts	1		

Port:client1			
In All Bits	0	Out All Bits	0
CRC Align Errors	0	Drop Events	0
Undersize Pkts	0	Oversize Pkts	0
Fragments	0	Jabbers	0
Collisions	0	In Octets	0
Out Octets	0	In UcastPkts	0
Out UcastPkts	0	In MulticastPkts	0
Out MulticastPkts	0	In BroadcastPkts	0
Out BroadcastPkts	0		

Port:client2			
In All Bits	0	Out All Bits	0
CRC Align Errors	0	Drop Events	0
Undersize Pkts	0	Oversize Pkts	0
Fragments	0	Jabbers	0
Collisions	0	In Octets	0
Out Octets	0	In UcastPkts	0
Out UcastPkts	0	In MulticastPkts	0
Out MulticastPkts	0	In BroadcastPkts	0
Out BroadcastPkts	0		

Port:client3			
In All Bits	0	Out All Bits	0
CRC Align Errors	0	Drop Events	0
Undersize Pkts	0	Oversize Pkts	0
Fragments	0	Jabbers	0
Collisions	0	In Octets	0
Out Octets	0	In UcastPkts	0
Out UcastPkts	0	In MulticastPkts	0
Out MulticastPkts	0	In BroadcastPkts	0
Out BroadcastPkts	0		

Port:client4			
In All Bits	0	Out All Bits	652,712
CRC Align Errors	0	Drop Events	0
Undersize Pkts	0	Oversize Pkts	0
Fragments	0	Jabbers	0
Collisions	0	In Octets	18,081
Out Octets	81,589	In UcastPkts	110
Out UcastPkts	122	In MulticastPkts	0
Out MulticastPkts	125	In BroadcastPkts	31
Out BroadcastPkts	3		

Refresh

Figure 2-3 Port Statistics page

TAB	Description
Port	Port name, one table for each port
In All Bits	Display port received bits
CRC Align Errors	Display port received CRC Align error packets
Undersize Pkts	Display packets with size under 64 bytes received by port
Fragments	Display packets with size under 64 bytes received by port and the packets have FCS or Alignment errors
Collisions	Display collision times
In Octets	Display port received bytes
In UcastPkts	Display port received unicast packets
In MulticastPkts	Display port received multicast packets
In BroadcastPkts	Display port received broadcast packets
Out All Bits	Display port send bits
Drop Events	Display packets dropping events
Oversize Pkts	Display packets with size over 1518 bytes received by port
Jabbers	Display packets with size over 1518 bytes received by port, and the packets have FCS or Alignment errors.
Out Octets	Display port send bytes
Out UcastPkts	Display port send unicast packets
Out MulticastPkts	Display port send multicast packets
Out BroadcastPkts	Display port send broadcast packets

2.4 Port Config

This is status and basic configuration page of port, including Operate State, Link State, factual Speed-Duplex, speed-duplex setting, flow-control setting, flow-control state, MAC learning enable, port type, port description, port ingress rate limit setting and display, port egress rate limit setting and display.

Figure 2-4 Port Configure page

TAB	Description
Port (Configuration table)	Choose a port to configure, refresh the page if selected port changes.
Admin State	Choose management state of configured device port.
Flow Control	Set port flow control state
Description	Port description information
Limit Port Ingress Rate	Port ingress speed rate limit
Set Speed-Duplex	Set port speed and duplex
MAC-learning	Set port MAC learning state
Limit Port Egress Rate	Port egress rate limit
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table
Port (Display table)	Display port ID
Operate State	Display port actual working state
Speed-Duplex	Display port speed and duplex state
Send FlowControl	Display port send flow control state
Receive FlowControl	Display port receive flow control state
Port Type	Display port type

2.5 Port Fault

This page contains two size-fixed tables, which are used to configure port fault management.

Upper table: configure fault-pass through setting and state of Line1, Line1 port fault return setting, Line1 port SD, FEFI state.

Lower table: display electrical port fault pass-through state.
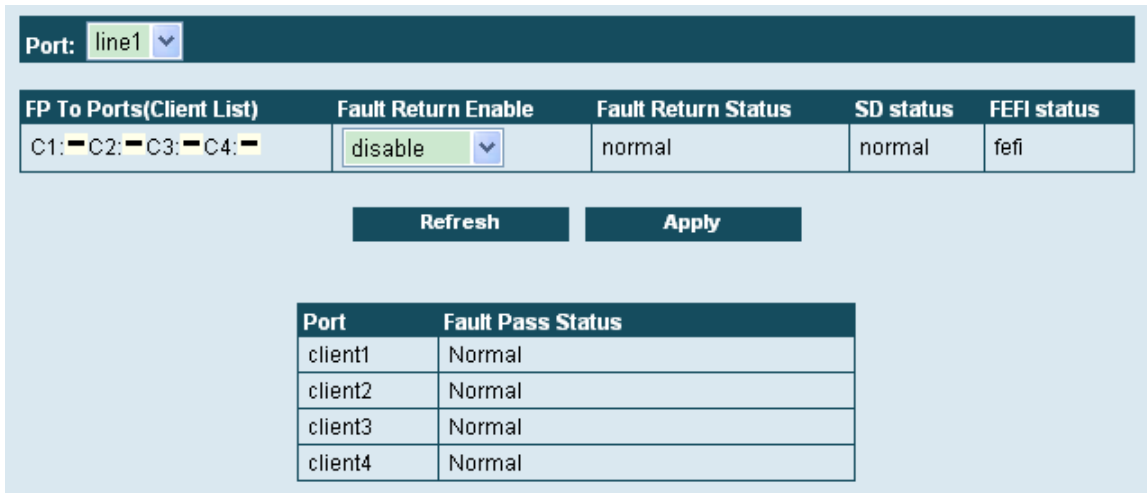
Figure 2-5 Port Fault page

TAB	Description
FP To Ports (Client List)	Set object port of optical port fault pass-through through dynamic icon. Configure and display node state of specified index, the <**Apply**> button can set current selected value. Two kinds of icon, click once and the Icon changes to the next icon. Thereinto, D: set the port as object port of optical fault pass-through, corresponding object port fault pass-through state is down. —: the port is not object port of optical port fault pass-through, corresponding object port fault pass-through state is normal. For example, set corresponding icon as D for object port client2of optical fault pass-through, refresh page after successfully <**Apply**>, icon setting successfully and display object port of fault pass-through; meanwhile, the fault pass-through state of object port is: client2 fault pass-through down, other ports are normal.
Fault Return Enable	Fault Return enable state setting
Fault Return Status	Display Fault Return enable state
SD status	Display SD state
FEFI status	Display FEFI state
Fault Pass Status	Display Fault Pass state, see "FP To Ports(ClientList)" description
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table

2.6 Password

Refer to section 1.3.

2.7   Radius Config

This is a page of fixed size and is used to configure and display radius.

Figure 2-6 Radius Config page

TAB	Description
Radius Server Address	Configure IP address for Radius Server
Radius Server Port	Configure Radius Server port, if doesn't assign, it is 1812 by default
Radius Auth Key	Configure the key for Radius Server exchange

Chapter 3   Dot3OAM Module Configuration

Page Guiding Structure of Dot3OAM Configuration Module:

3.1   OAM Status

This page is a size-fixed table for changing and displaying port OAM status.

Figure 3-1 OAM Status page

TAB	Description
Port (Configuration table)	Choose a port to configure, refresh the page if selected port changes.
Oam Admin State	Choose OAM administrate state for configured device port.
Oam Mode	Configure port OAM mode
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table
Port (Display table)	Display port ID
Oam Admin State	Display port OAM administrate status

Oam Oper Status	Display port OAM Oper state
Oam Mode	Display port OAM mode
Oam Max PduSize	Display port OAM maximal PDU size
Oam Config Revision	Display port OAM configuration version
Oam Function Supported	Display port OAM supported state

3.2 OAM Peer Info

This page is a size-fixed table for displaying status of OAM peer information.

Figure 3-2 OAM Peer Info page

TAB	Description
Port	The port ID that is connected with peer device
Oam Peer MAC	Peer MAC address
Oam Vendor OUI	Peer vendor OUI
Oam Vendor Info	Peer vendor information
Oam Peer Mode	Peer OAM working mode
Oam Peer Max OamPdu Size	Peer maximal OAM PDU frame size
Oam Peer Config Revision	Peer OAM configuration version
Oam Peer Functions Supported	Peer OAM supported functions
Refresh	Refresh page, get current system information value.

3.3 OAM Statistics

This page is a size-fixed table for displaying port OAM statistics information. One table for each port, as figure 3-3 shows. Tables of client1-client3 are omitted in the figure.

Port:line1	
Oam Information Tx	0
Oam Information Rx	0
Oam Unique Event Notification Tx	0
Oam Unique Event Notification Rx	0
Oam Duplicate Event NotificationTx	0
Oam Duplicate Event NotificationRx	0
Oam Loopback Control Tx	0
Oam Loopback Control Rx	0
Oam Variable Request Tx	0
Oam Variable Request Rx	0
Oam Variable Response Tx	0
Oam Variable Response Rx	0
Oam OrgSpecific Tx	0
Oam OrgSpecific Rx	0
Oam Unsupported Codes Tx	0
Oam Unsupported Codes Rx	0
Oam Frames Lost Due To Oam	0

^^

Port:client4	
Oam Information Tx	0
Oam Information Rx	0
Oam Unique Event Notification Tx	0
Oam Unique Event Notification Rx	0
Oam Duplicate Event NotificationTx	0
Oam Duplicate Event NotificationRx	0
Oam Loopback Control Tx	0
Oam Loopback Control Rx	0
Oam Variable Request Tx	0
Oam Variable Request Rx	0
Oam Variable Response Tx	0
Oam Variable Response Rx	0
Oam OrgSpecific Tx	0
Oam OrgSpecific Rx	0
Oam Unsupported Codes Tx	0
Oam Unsupported Codes Rx	0
Oam Frames Lost Due To Oam	0

Refresh

Figure 3-3 OAM Statistics page

TAB	Description
Port	Corresponding port id of table
Oam Information Tx	Sending OAM information frames
Oam Information Rx	Receiving OAM information frames
Oam Unique Event Notification Tx	Sending Unique event notification frames

Oam Unique Event Notification Rx	Receiving Unique event notification frames
Oam Duplicate Event NotificationTx	Sending repeated event notification frames
Oam Duplicate Event NotificationRx	Receiving repeated event notification frames
Oam Loopback Control Tx	Sending OAM loopback control frames
Loopback Control Rx	Receiving OAM loopback control frames
Variable Request Tx	Sending OAM variable request frames
Variable Request Rx	Receiving OAM variable request frames
Variable Response Tx	Sending OAM variable response frames
Variable Response Rx	Receiving OAM variable response frames
OrgSpecific Tx	Sending OAM organization specific frames
OrgSpecific Rx	Receiving OAM organization specific frames
Unsupported Codes Tx	Sending CODE type unsupported OAM frames
Oam Unsupported Codes Rx	Receiving CODE type unsupported OAM frames
Oam Frames Lost Due To Oam	Frames discarded by OAM multiplexer
Refresh	Refresh page, get current system information value.

3.4   Remote LoopBack

This page can change and display port OAM LoopBack status.

Figure 3-4 Remote LoopBack page

TAB	Description
Port (Configuration table)	Choose a port to configure, refresh the page if selected port changes.

Oam Loopback Status	Configure OAM loopback state
Oam Loopback React	Configure port OAM loopback response mode, ignore or deal with received OAM loopback command.
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table
Port (Display table)	Display port ID
Oam Loopback Status	Display port OAM loopback state
Oam Loopback React	Display port OAM loopback response mode

3.5 OAM Event

Change and display port OAM event.

Figure 3-5 OAM Event configuration page

Figure 3-6 OAM Event display page

TAB	Description
Port (Configuration table)	Choose a port to configure, refresh the page if selected port changes.
Oam Err Frame Period Window	Configure port OAM error frame period window, input range: 1-600, unit: 0.1s
Oam Err Frame Period Threshold	Configure port OAM error frame period threshold, input range: 0-65535
Oam Err Frame Period EvNotif Enable	Configure port OAM error frame period notification enable
Oam Err Frame Window	Configure port OAM error frame period window, input range: 10-600, unit: 0.1s
Oam Err Frame Threshold	Configure port OAM error frame threshold, input range: 0-65535
Oam Err Frame EvNotif Enable	Configure port OAM error frame notification enable
Oam Err Frame Secs Summary Window	Configure port OAM error frame second window, input range: 100-9000, unit: 0.1s
Oam Err Frame Secs Summary Threshold	Configure port OAM error frame second threshold, input range: 0-65535
Oam Err Frame Secs EvNotif Enable	Configure port OAM error frame second notification enable
Oam Dying Gasp Enable	Configure port OAM Dying Gasp enable
Oam Critical EventEnable	Configure port OAM Critical Event enable
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table
Port (Display table)	Entry meaning of displaying table for different ports please refer to description in configuration table. Figure 3-6 just shows table of port line1, other ports are omitted.

3.6 OAM Event Log

This page displays port OAM events log information.

This page gives different entries according to different conditions, the table size is changeable. For the entries of Oam Event Log Window, Oam Event Log Threshold, Oam Event Log Value, the following lines display only when values of node Oam Event Log Type are erroredSymbolEvent, erroredFramePeriodEvent, erroredFrameEvent, erroredFrameSecondsEvent.

Oam Event Log Index	13
Oam Event Log Timestamp	0-Days 0-Hours 1-Minutes 58-Seconds
Oam Event Log Oui	0x01:80:c2
Oam Event Log Type	linkFault
Oam Event Log Location	local
Oam Event Log Event Total	1

Refresh

Figure 3-7 OAM Event Log display page

TAB	Description
Oam Event Log Timestamp	Display port OAM event timestamp
Oam Event Log Oui	Display port OAM event OUI
Oam Event Log Type	Display port OAM event type
Oam Event Log Location	Display port OAM event location
Oam Event Log Window	Display port OAM event window
Oam Event Log Threshold	Display port OAM event threshold
Oam Event Log Value	Display port OAM event errors
Oam Event Running Total	Display port OAM event error statistic
Oam Event Log Event Total	Display port OAM event statistic
Refresh	Refresh page, get current system information value.

Chapter 4   VLans Groups Module Configuration

Page Guiding Structure of VLans Groups Module:

4.1   VLAN Global Config

Figure 4-1 VLAN Global Config page

TAB	Description
VLAN Double Tagging TPID	Display core tag TPID of current VLAN Display range: identical to display of command line; hexadecimal integer. Input range: hexadecimal integer 0000~FFFF
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table

4.2   Current VLANs

Display port configuration status of VLAN.

Figure 4-2 Current VLANs page

TAB	Description

VID	Vlan ID
Line1	Vlan member state of port line1 Like Figure 4-2 shows: -: the port is not in VLAN M: the port is member of VLAN U: the port is VLAN member port and untagged
client1-client4	Vlan member state of port client1-client4
Refresh	Refresh page, get current system information value.

4.3 Static VLANs

This page is for creating, deleting, modifying and displaying VLAN table.
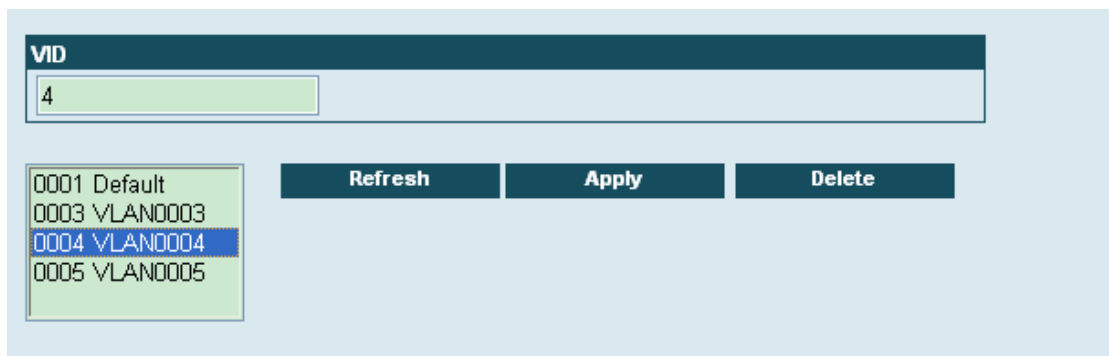
Figure 4-3 Static VLANs page

TAB	Description
VID	Create new VLAN, input VLANID according to command line mode, for example: 3, 5, 6-10 and single VLANID. Input requirement: the input characters must be single number, or complying with format like this: 3, 5, 6-10. Rules: only number, English comma, English hyphen, range of each number is 1-4094, there must be number before and after a symbol. System will prompt information if input illegal condition.
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table.
Delete	Delete vlan table entry.

The box at left-bottom indicates display current existing VLAN list, choose a VLAN ID in the box and the configuration table will display the VLAN ID of it.

4.4 VLAN Ports

Function of this page is change and display port VLAN configuration attribution.

Figure 4-4 VLAN Ports page

TAB	Description
Port (Configuration table)	Choose a port to configure, refresh the page if selected port changes.
Switch Port Mode	Configure port VLAN mode
Access Pvid Override	If configure as enable, change vlan id of all received packets to be Access VLAN ID
Access Mode VLAN	Set port Access VLAN ID.
Administrative Access Egress VLANs	Set port permitted egress VLAN in Access mode.
Operational Access Egress VLANs	Display operational access egress VLAN.
Trunk Native Mode VLAN	Set port Native VLAN in Trunk mode.
Administrative Trunk Allowed VLANs	Set port Trunk mode permitted VLAN.
Operational Trunk Allowed VLANs	Display operational Trunk mode permitted VLAN.
Administrative Trunk Untagged VLANs	Set port Trunk mode permitted UNTAG VLAN.
Operational Trunk Untagged VLANs	Display operational Trunk mode permitted UNTAG VLAN.
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table

Chapter 5   Diagnostic Module Configuration

Page Guiding Structure of Diagnostic Module:

Management Configuration	Dot3OAM Configuration	VLans Groups	Diagnostic	IP/MAC	EOPDH

ExtLoopBack Cfg | LoopBack Configuration |
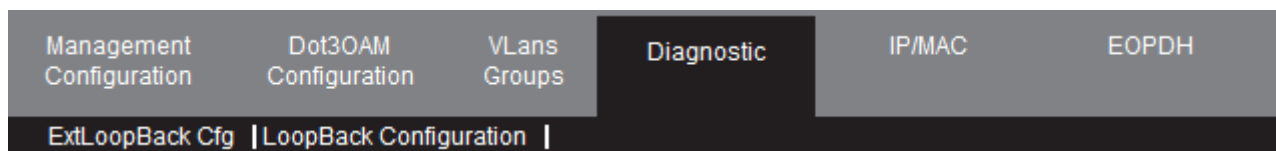
5.1   ExtLoopBack Cfg

Set port loopback parameters in this page.

Port:			
loopback dmac-swap:			
loopback cvlan:	0	loopback svlan:	0
loopback smac:		loopback dmac:	
Refresh		Apply	

Figure 5-1 ExtLoopBack Cfg page

TAB	Description
Port	Choose a port to configure, refresh the page if selected port changes.
loopback dmac-swap	Enable/disable Loopback group broadcast destination MAC address transfer.
loopback cvlan	Configure Loopback CVLAN specification, inputting range: 1-4094
loopback smac	Configure Loopback SMAC specification
loopback dmac	Configure Loopback DMAC specification
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table

5.2   LoopBack Configuration

Set port loopback state and loopback holding time.

Figure 5-2 LoopBack Configuration page

TAB	Description
Port	Choose a port to configure, refresh the page if selected port changes.
Loopback Time	Port loopback holding time, inputting range: 0-30, unit: Minute. 0: loopback all the time.
Loopback Mode	Port loopback state enable setting
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table

Chapter 6   IP/MAC Module Configuration

Page Guiding Structure of IP/MAC Module:

6.1   IP Config

This page is to set and display IP address of IP interface.

Figure 6-1 IP Config page

TAB	Description
Interface	Choose an IP interface for configuration
IP Address	Configure IP address
NetMask	Configure network mask
Vlan ID	Association vlan
Refresh	Refresh page, get current system information value.
Apply	set contents in configuration table
Delete	Delete corresponding IP interface address from the device configuration table.

6.2   MAC Config

This page is to configure static MAC and display all MAC addresses in the device.

Mac Address			
VLAN ID	0		
Port	0		
	Refresh	Apply	Delete

MAC address count	36

Mac Address	VLAN ID	Port	Flag
001a.a013.f93f	1	21	Hit
000e.5e00.c6c1	2	21	Hit
001e.c942.d594	1	21	Hit
000e.5e00.548d	2	21	Hit
000e.5e02.b060	1	21	Hit
0023.ae7e.4224	1	21	Hit
000e.5e00.93ac	1	21	Hit
000e.5e38.0f61	2	21	Hit
000e.5e03.4003	1	21	Hit
000e.5e02.b060	2	21	Hit

Figure 6-2 Mac Config page

TAB	Description
Mac Address	Configure mac address, in format of xxxx.xxxx.xxxx, this mac address should not be a multicast or broadcast address.
Vlan ID	Association vlan
Port	Association Port
Refresh	Refresh page, get current system information value.
Apply	Set content in configuration table
Delete	Delete corresponding static MAC configuration from device configuration table.

Chapter 7   EOPDH Module Configuration

Page Guiding Structure of EOPDH Module:
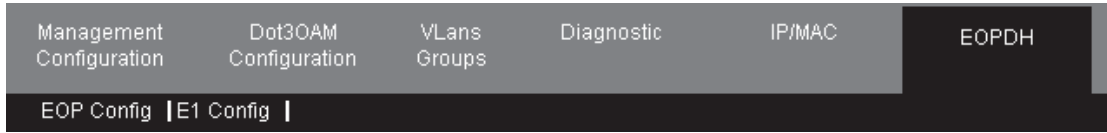
7.1   Configuration in GFP mode

7.1.1   EOP Config

This page is to display related configuration and status of EOPDH.

Figure 7-1 EOP Config page

TAB	Description
Encapsulation mode	Configure EOPDH encapsulation mode
VCAT	Enable/disable VCAT

LCAS	Enable/disable LCAS
VLI	Enable/disable VLI
GFP scrambling	Enable/disable GFP scrambling
GFP FCS	Enable/disable GFP FCS
SDRAM	Configure SDRAM size
System E1 clock	Configure E1 system clock
VCG member list	Configure VCG member list
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table

7.1.2 E1 Config

This page is to set and display E1 interface.

Figure 7-2 E1 Config page

TAB	Description
Port	Configure EOPDH encapsulation mode
Auto CRC	Configure CRC auto-negotiation function
Local loopback	Enable/disable E1 interface local external loopback
Loopback detection	Enable/disable E1 interface loopback detection
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table

7.2   Configuration in HDLC mode

7.2.1   EOP Config

This page is to display related configuration and status of EOPDH.

Figure 7-3 EOP Config page

TAB	Description
Encapsulation mode	Configure EOPDH encapsulation mode
Virtual channel error-shutdown	Enable/disable Error auto-shutdown function
Virtual channel member list	Configure virtual channel member list
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table

7.2.2   E1 Config

This page is to set and display E1 interface.

Figure 7-4 E1 Config page

TAB	Description
Port	choose an E1 interface for configuration
Clock mode	Configure clock mode
Auto CRC	Configure CRC auto-negotiation function
Local loopback	Enable/disable E1 interface local external loopback
Loopback detection	Enable/disable E1 interface loopback detection
Refresh	Refresh page, get current system information value.
Apply	Set contents in configuration table