



Gigabit ethernet to SDH STM-1 converter

CLI command User Manual

Model: BD-EOS-GE-STM1

V1.00

2015.8

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1 General Description

This document is intended to instruct in the basics configuration and maintenance of gigabit ethernet to SDH STM1 converter BD-EOS-GE-STM1.

Prior experience with communication knowledge will be great helpful to understand this document but is not indispensable.

2 Access mode

There are two ways involved in managing the Ethernet over SDH STM1 BD-EOS-GE-STM1. One is by RS232 interface, the other is by telnet.

The RS232 connection operates at 19200 baud, 8 data bits, 1 stop bit and no parity. Initially, the IP address, gateway, subnet mask are set in this mode.

When placed in remote, BD-EOS-GE-STM1 can be accessed through a telnet connection as well.

In this mode, the IP address, user name and password should be configured via RS232 interface.

The ethernet SDH STM-1 converter can also support telnet access across routers. In this way, the Gateway, Subnet mask, IP address should be set correctly

3 How to access the interface

3.1 BY RS232 INTERFACE

3.1.1 Set Hyper Terminal

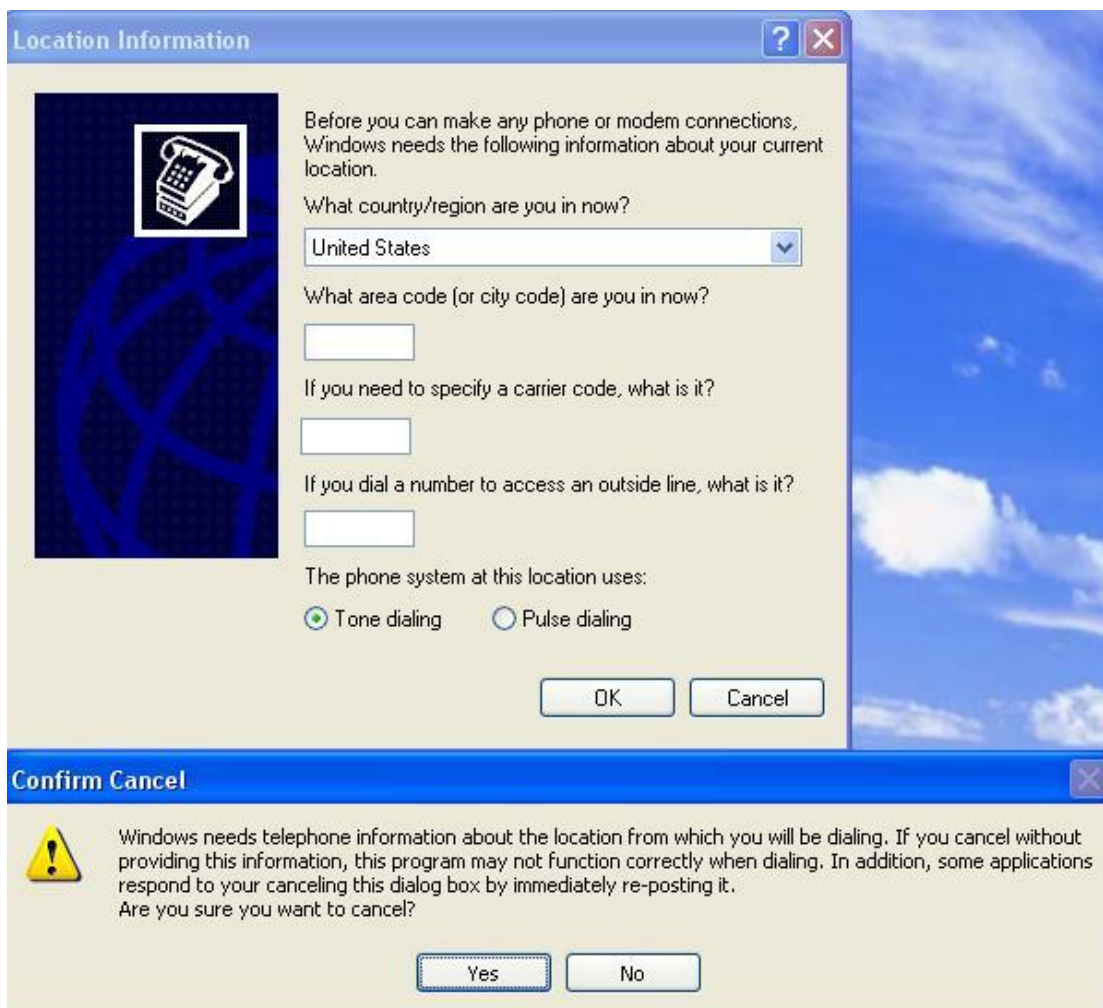


3.1.2

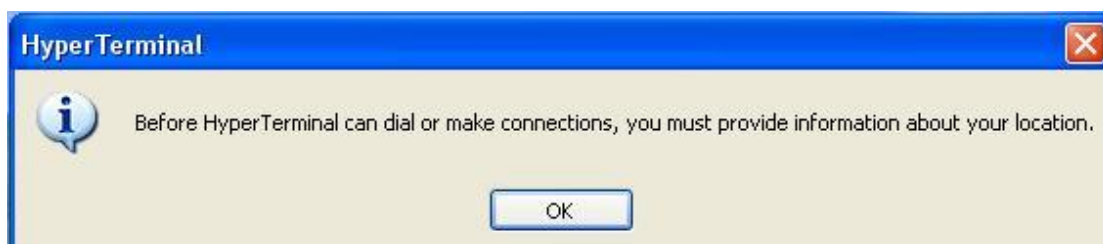
Click "Cancel"



3.1.3 Click "Yes"

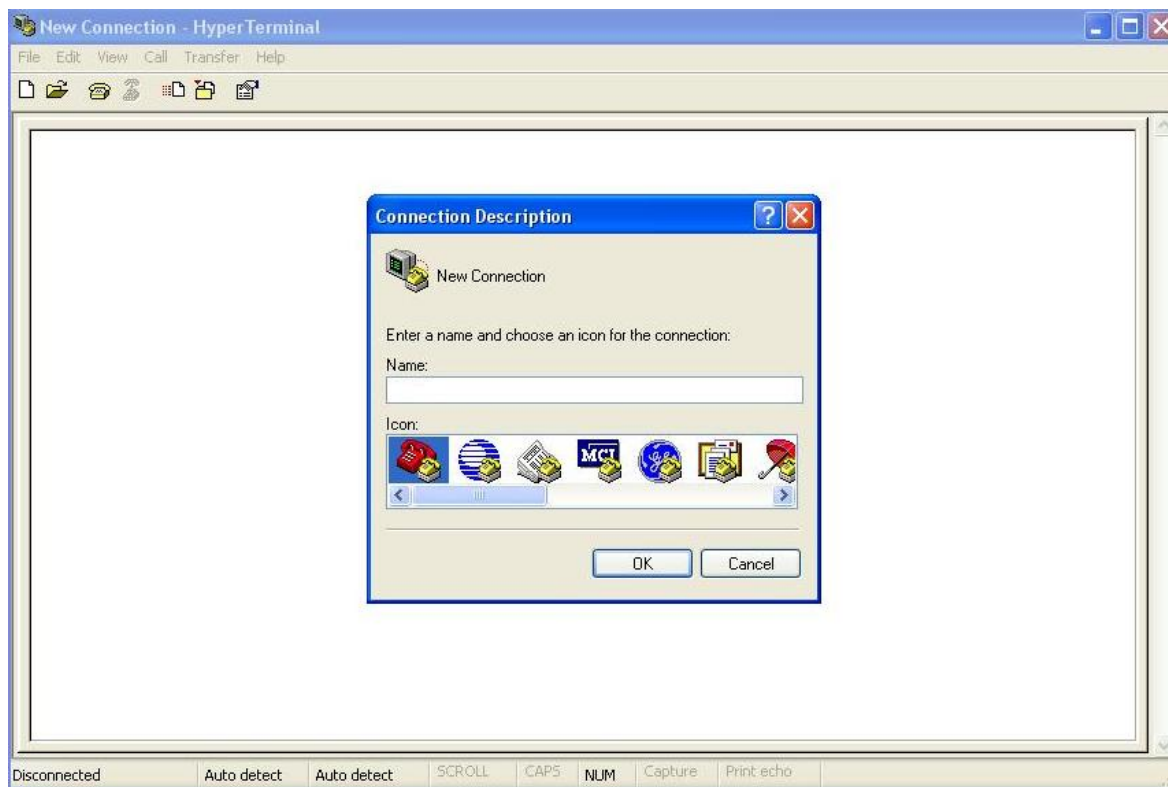


3.1.4 Click "OK"

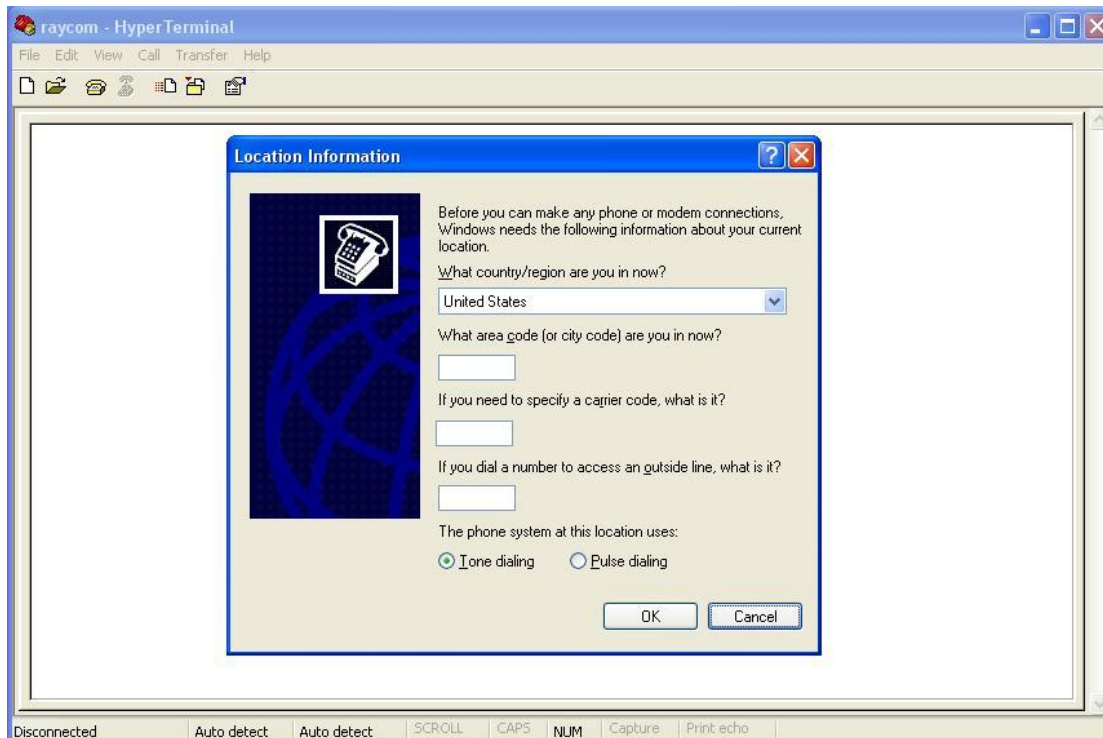


3.1.5 Name:

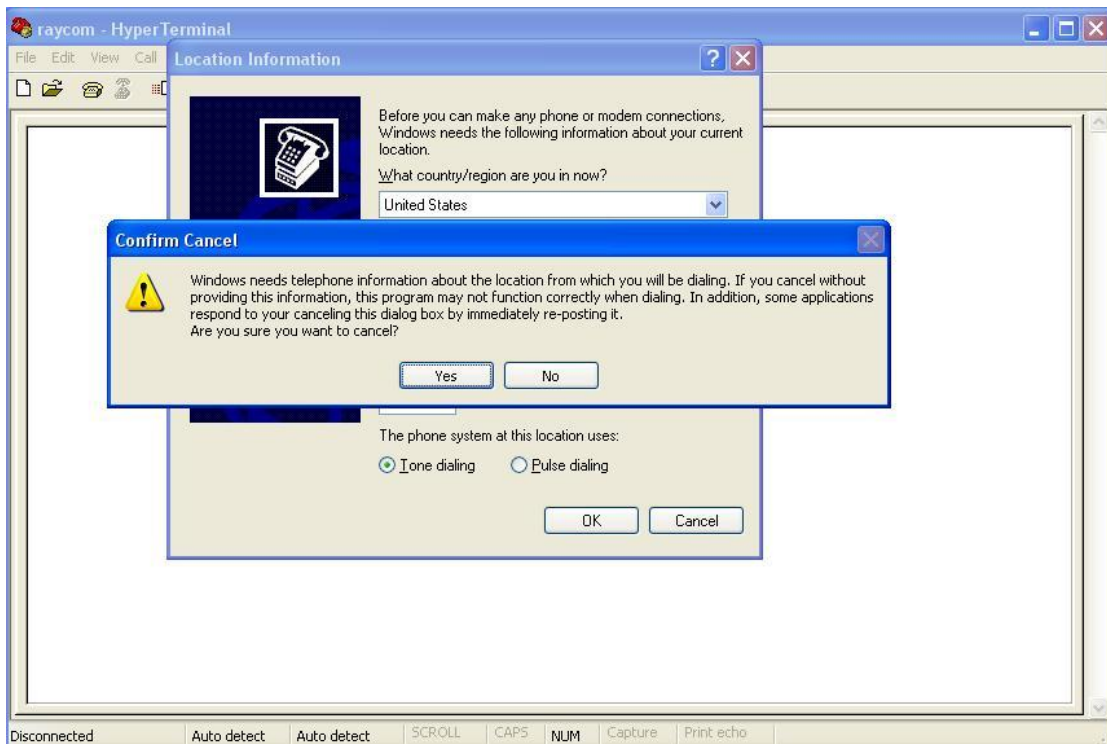
You can use number and letter as name. eg. "abc122", then point OK.



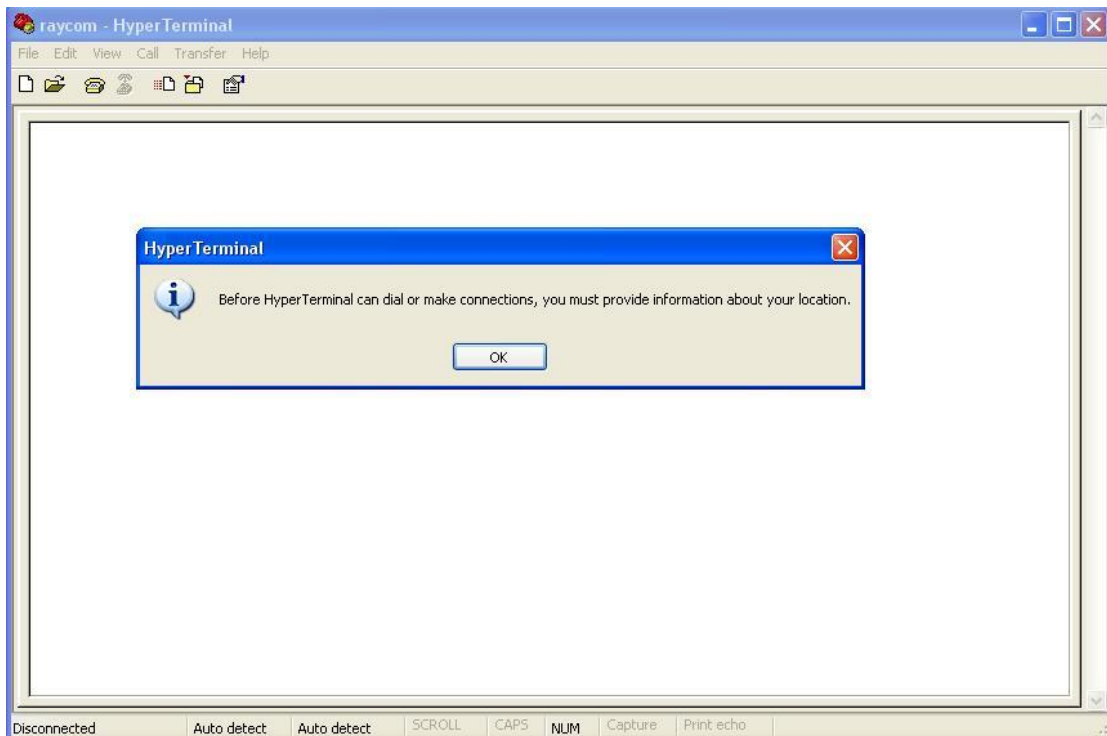
3.1.6 Click "Cancel"



3.1.7 Click "Yes"

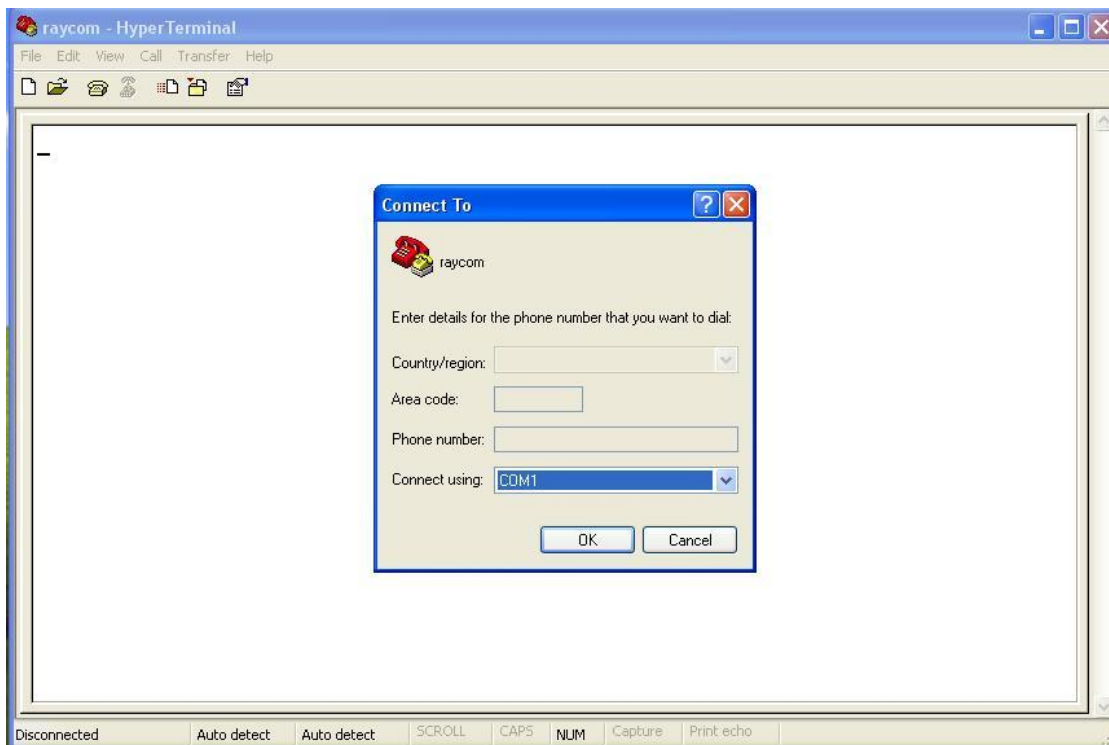


3.1.8 Click "OK"



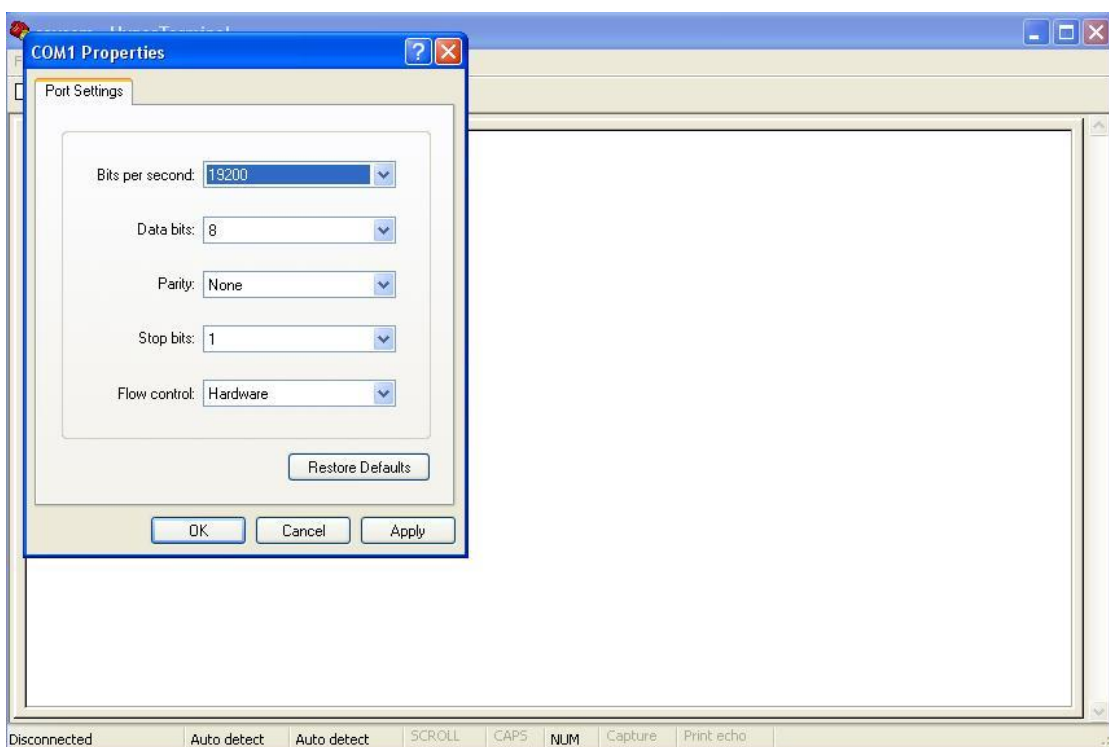
3.1.9 Choose port:

Choose the port which connects equipment with pc via serial line.click "ok"



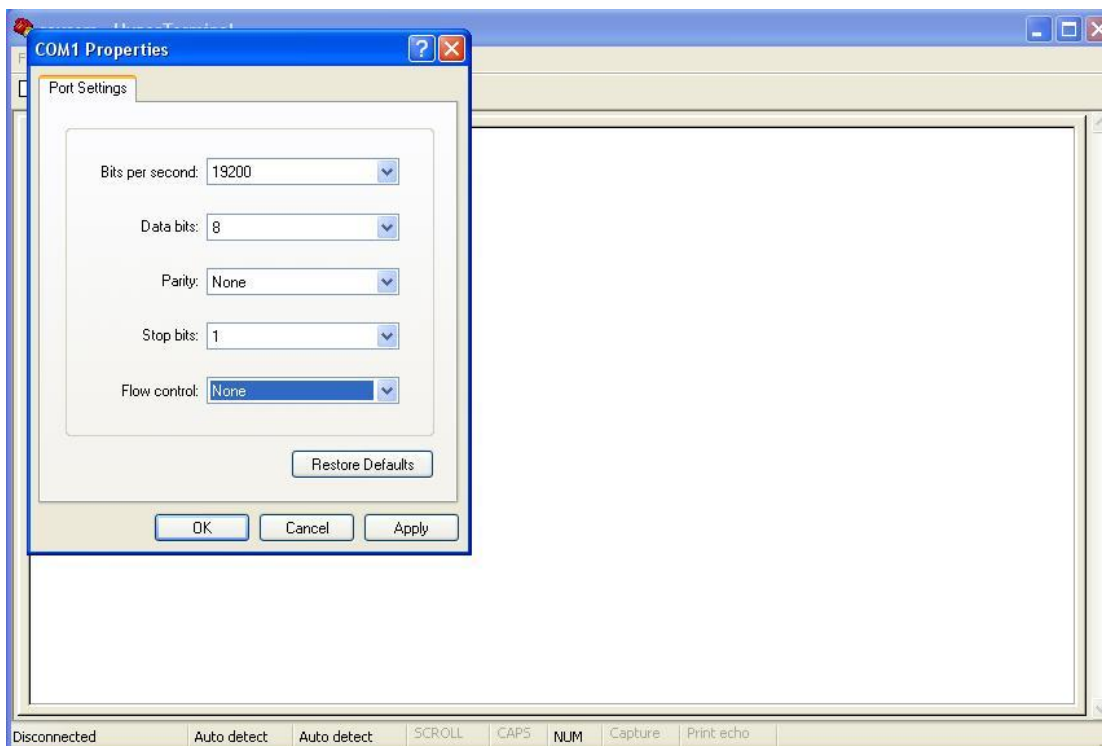
3.1.10

Choose Bits per second:19200;



3.1.11

Choose Flow control: None; click "OK"



3.1.12

The CLI interface



3.1.13

Press "Enter"



3.2 BY TELNET

You should Input the actual IP address of the device, username and password.

Type 'user' for Username and password, then press enter

4 How to use CLI command

4.1 CLI Command List

device>?

Command

Description

=====

-----System basic configuration-----

?/help View the list of system commands.

showsysinfo View the system information.

reset Shutdown and reboot the system.

setip Configure the IP Address.

showip View the IP Address.

setmask	Configure the Subnet Mask.
showmask	View the Subnet Mask.
setgw	Configure the Gateway Address.
showgw	View configured Gateway Address.
setmac	Configure the MAC Address.
showmac	View the MAC Address.
setsnmpget	Configure SNMP READ/GET/GETNEXT community.
showsnmpget	View configured SNMP READ/GET/GETNEXT community.
setsnmpset	Configure SNMP WRITE/SET community.
showsnmpset	View configured SNMP WRITE/SET community.
setdefault	Set the configuration to default.
setfactorydefault	Set the configuration to factory default.
download	Download a firmware to the flash memory
settime	Configure system time.
showtime	View system time.
adduser	Add a Telnet User.
deluser	Delete a Telnet User.
showuser	View Telnet User's information.

Please press "Enter" to continue.....

-----ETH interfaces configuration and display-----

setportmode	Configure mode of Ethernet port.
setporttable	Configure the port based VLAN members of Ethernet Port.
setpvid	Configure Ethernet port VLAN ID and VLAN priority.
setvlanmode	Configure VLAN mode.
addvlan	Add new VLANs to VLAN table.
delvlan	Delete VLAN from VLAN table.
setporttag	Configure tag on the packet of Ethernet port.
showporttag	View tag information of Ethernet ports.

showvlan	View the VLAN table,including VLAN ID and VLAN members.
setqinqtpid	Configure Tag Protocol Identifier of QINQ.
setqinqport	Configure QINQ ports.
showqinq	View the configuration of QINQ.
Entrunk	Enable disable trunk function
Settrunk	Configure port member of trunk groups
Showtrunk	View trunk configuration
setmacage	Configure the MAC address table aging function.
showmacage	View the aging timer of MAC address table.
setmaclearning	Configure the MAC address learning function.
showmaclearning	View configuration of MAC learning.
Setmaclearningvid	Configure the MAC learning mode.
setmaxpacket	Configure the maximum packet size.
showmaxpacket	View maximum packet size configured.

Please press "Enter" to continue.....

setstormfilter	Enable/disable broadcast storm filtering function.
showstormfilter	View the configuration of broadcast storm filtering.
enmirror	Enable disable mirror function.
setmirror	Configure capture ports and mirror ports.
showmirror	View mirror configurations.
setethloopclose	Enable/disable Ethernet loop close.
showethloopclose	View the configuration of Ethernet loop close.
setqosmode	Configure QoS mode.
setqosschedulingmode	Configure QoS scheduling mode.
setqosweight	Configure QoS queue weight.
showqos	View the configuration of QoS.
addarstatic	Add new static MAC address to ARL table.
delarstatic	Delete static MAC address from ARL table.
setpriorityremark	Config priority remarking.

Showpriorityremark View priority remarking.

Please press "Enter" to continue.....

----- DXC UNIT -----

addxc	Create cross-connects (XC) for the device.
delxc	Delete cross-connects (XC) from the device.
delallxc	Delete the entire cross-connects of optical ports.
showxc	View the cross-connects (XC) configuration.
setprotecttime	Configure the protect recovery time .
setprotectmode	Configure the protect mode .
setprotectcmd	Configure the protect command .
showprotect	View the protect info .
setpathloop	set one path loop
showpathloop	View opta and optb loopStatus

Please press "Enter" to continue.....

----- OPT UNIT -----

setals	Configure als func.
Showals	View als configuration
manualals	Manual laser restart when ALS is enabled.
setoptenable	Configure opt enable.
setj0mode	Configure the valid J0 overhead mode of optical port.
setj0oh	Configure the content of J0 overhead.
setj0singlebyteoh	Configure the content of J0 single byte overhead.
setj1mode	Configure the valid J1 overhead mode of optical port.
setj1oh	Configure the content of J1 overhead.
setc2oh	Configure the content of c2 send overhead.
setk3send	Configure the content of k3 send overhead.
showopt	View opt oh .

Please press "Enter" to continue.....

showoptpath	View opt vc4 oh .
showoptdcccfcfg	View opt DCC configuration
setoptdcccfcfg	Config DCC configuration of one opt.
showoptdcccstatus	View opt DCC reg status
showoptalarm	View the alarm of optical port.
showalarmlevel	View the alarm level .
showoptperform	View the opt perform information .
showoptthreshold	View the opt perform threshold information .
showoptperformevent	View the opt uat and cses event information. .
clearoptperformevent	Clear the opt perform event information .
clearoptperform	Clear the opt perform information .
showsfpddminfo	View sfp ddm info .

Please press "Enter" to continue.....

----- MSTP UNIT -----

setvcg	Configure vcg func. eg.PFI,EXI.
setmacloopcut	Configure mac loop cut enable.
showvcg	View vcg func. eg.PFI,EXI.
setmacloop	Configure mac loop cut enable.
Showmacloop	view mac loop .
Showmacloopcut	view mac loop cut .
enableeth	Enable/disable Ethernet port.
seteth	Configure auto-negotiation, speed, duplex mode.
showeth	View Ethernet port configuration and working status.
setoutlinerate	Configure maximum egress bit rate of Ethernet port.
setinlinerate	Configure maximum ingress bit rate of Ethernet port.
showlinerate	View line-rate configurations.
showethperform	View all eth perform status .
cleargfpperform	clear gfp perform status .

clearethperform clear eth port perform status .

showeosalarm View the alarm of eos port.

Please press "Enter" to continue.....

【FORMAT】 :

? \n

【EXPLANATION】 :

To get a list of the commands for the system type '?' at the prompt

【PARAMETERS】 :

None

【E.g.】

For detailed command format, please key "? cmdname" or "help cmdname". See the following examples.

【FORMAT】 :

? <command>

【EXPLANATION】 :

To get further information about any command, type the ? <space> followed by command.

【PARAMETERS】 :

cmdname : Optional PARAMETERS, Type the command which needs to help.

【E.g.】

device>? setip

<FORMAT >: setip <IP address>

<EXPLANATION>: Change the IP Address of the system.

<PARAMETERS>:

IP address: IP address, e.g.<192.168.0.215>.

4.2 System Command

4.2.1 showsysinfo

【command】

showsysinfo

【FORMAT】

showsysinfo

【EXPLANATION】

View the system information.

【PARAMETERS】

None

【E.g.】

device>showsysinfo

System Hardware version: 1.0.0

System Software version: 1.0.0A3

Device NeIndex: 0

Successfully Executed!

4.2.2 reset

【command】

reset

【FORMAT】

reset

【EXPLANATION】

Perform a warm restart.

【PARAMETERS】

None

【E.g.】

device>reset

The system will reset in a few seconds! Please Wait.....

4.2.3 showip

【command】

showip

【FORMAT】

showip

【EXPLANATION】

View current IP Address of the system.

【PARAMETERS】

None

【E.g.】

device>showip

IP Address : 192.168.0.154

4.2.4 **showmac**

【command】

showmac

【FORMAT】

showmac

【EXPLANATION】

View current MAC Address of the system.

【PARAMETERS】

None

【E.g.】

device>showmac

System MAC Address: 00.13.20.E8.86.73

4.2.5 **showmask**

【command】

showmask

【FORMAT】

showmask

【EXPLANATION】

View current Subnet Mask of the system.

【PARAMETERS】

None

【E.g.】

device>showmask

Subnet mask : 255.255.255.0

4.2.6 **showgw**

【command】

showgw

【FORMAT】

showgw

【EXPLANATION】

View configured Gateway Address.

【PARAMETERS】

None

【E.g.】

device>showgw

Gateway : 192.168.0.1

4.2.7 **showsnmpget**

【command】

showsnmpget

【FORMAT】

showsnmpget

【EXPLANATION】

View configured SNMP READ/GET/GETNEXT community.

【PARAMETERS】

None

【E.g.】

device>showsnmpget

SNMP get community : public

4.2.8 **showsnmpset**

【command】

showsnmpset

【FORMAT】

showsnmpset

【EXPLANATION】

View configured SNMP WRITE/SET community.

【PARAMETERS】

None

【E.g.】

device>showsnmpset

SNMP set community : private

4.2.9 **showuser**

【command】

showuser

【FORMAT】

showuser

【EXPLANATION】

View Telnet User's information.

【PARAMETERS】

None

【E.g.】

device>showuser

```
USER_ID          PASSWORD
-----
user             user
```

4.2.10 **setip**

【command】

setip

【FORMAT】

setip <IP Address>

【EXPLANATION】

Change the IP Address of the system.

【PARAMETERS】

<IP-address>:IP address, e.g. 192.168.0.215.

【E.g.】

device>setip 192.168.0.215

IP Address : 192.168.0.215

4.2.11 **setmac**

【command】

setmac

【FORMAT】

setmac < MAC Address>

【EXPLANATION】

Change MAC Address of the system.

【PARAMETERS】

< MAC Address> : MAC Address, e.g.<00.25.04.11.22.33>.

【E.g.】

```
device>setmac 00.25.04.11.22.33
```

Setting MAC Address: 00.25.04.11.22.33

New MAC Address will be active after system reset.

Executed Successfully.

4.2.12

setmask

【command】

```
setmask
```

【FORMAT】

```
setmask <Subnet Mask>
```

【EXPLANATION】

Change Subnet Mask of the system...

【PARAMETERS】

<Subnet Mask> : Subnet Mask, e.g.<255.255.255.0>.

【E.g.】

```
device>setmask 255.255.255.0
```

Subnet mask : 255.255.255.0

Executed Successfully.

4.2.13

setgw

【command】

```
setgw
```

【FORMAT】

```
setgw <Gateway Address>
```

【EXPLANATION】

Change Gateway of the system.

【PARAMETERS】

<Gateway Address> : Gateway Address, e.g.<192.168.0.1>.

【E.g.】

```
device>setgw 192.168.0.4
```

Gateway : 192.168.0.4

Executed Successfully.

4.2.14

setsnmpget

【command】

setsnmpget

【FORMAT】

```
setsnmpget <community>
```

【EXPLANATION】

Configure SNMP READ/GET/GETNEXT community.

【PARAMETERS】

<community>:1-31 Alpha-numeric Characters (case sensitive)..

【E.g.】

```
device>setsnmpget READ
```

SNMP get community : READ

Executed Successfully.

4.2.15

setsnmpset

【command】

setsnmpset

【FORMAT】

```
setsnmpset <community>
```

【EXPLANATION】

Configure SNMP WRITE/SET community.

【PARAMETERS】

<community>: 1-31 Alpha-numeric Characters (case sensitive).

【E.g.】

```
device>setsnmpset write
```

SNMP set community : write

Executed Successfully.

4.2.16 **adduser**

【command】

adduser

【FORMAT】

adduser <UserName> <Password>

【EXPLANATION】

Add a Telnet User.

Please note that username and password are case sensitive.

【PARAMETERS】

<UserName>: a string(1-31Bytes), User login name.

<Password>: a string(1-31Bytes), User login password.

【Note】

You can add six users at most by using this command.

【E.g.】

```
device>adduser me me
```

```
USER_ID          PASSWORD
```

```
-----
```

```
me                me
```

```
Executed Successfully.
```

4.2.17 **deluser**

【command】

deluser

【FORMAT】

deluser <UserName> <Password>

【EXPLANATION】

Delete a user from TELNET.

【PARAMETERS】

<UserName>: a string(1-31Bytes) , User login name.

<Password>: a string(1-31Bytes) , User login password.

【E.g.】

device>deluser me me

Executed Successfully.

4.2.18 **setdefault**

【command】

setdefault

【FORMAT】

setdefault

【EXPLANATION】

Configure the system settings in default

(Excluding IP Address, Subnet Mask, Gateway, SNMP SET
and SNMP GET / GETNEXT configuration).

【PARAMETERS】

None

【E.g.】

device>setdefault

Success to set the config as default setting, please reset the system!

4.2.19 **setfactorydefault**

【command】

setfactorydefault

【FORMAT】

setfactorydefault

【EXPLANATION】

Configure the system in factory default configurations
(including IP Address, Subnet Mask, Gateway Address and SNMP settings).

【PARAMETERS】

None

【E.g.】

device>setfactorydefault

Success to set the config as factory setting, please reset the system!

4.2.20 download

【command】

download

【FORMAT】

download <host> <username> <usrpwd> <type> <filename>

【EXPLANATION】

Download a firmware to the flash memory.

The command needs the service of FTP.

【PARAMETERS】

<host>:<IP address>,The IP address of Fileserver(FTP server).

<username>: a string, User login name.

<usrpwd>: a string,User login password.

<type>: <SOFT> <FPGA> <DATA> firm type.

<filename>:a string,The filename to be download.

4.2.21 Settime

【command】

Settime

【FORMAT】

settime<year><month><day><hour><minute><second>\n\

【EXPLANATION】

Configure system time.

【PARAMETERS】

<year>: 2000-2105.\n\

<month> : 1-12.\n\

<day> : 1-31.\n\

<hour> : 0-23.\n\

<minute> : 0-60.\n\

<second> : 0-60.\n\

Note: System time will be restored to 2000-01-01 00:00:00 after system reset.

4.2.22 **showtime**

【command】

showtime

【FORMAT】

showtime

【EXPLANATION】

View system time.

【PARAMETERS】

None

4.3 ETH commands

4.3.1 **setportmode**

【command】

setportmode

【FORMAT】

setportmode <Eth-ID> <mode>

【EXPLANATION】

Configure mode of Ethernet port..

【PARAMETERS】

<Eth-ID>:1-7, LAN port:1-4, WAN port:5-6,IMP port:7

<mode>:access|trunk|hybrid

【E.g.】

device>setportmode 3 access

Executed Successfully.

4.3.2 **setporttable**

【command】

setporttable

【FORMAT】

setporttable <Eth-ID> <port-members>

【EXPLANATION】

Configure the port based VLAN members of Ethernet Port.

【PARAMETERS】

<Eth-ID>:1-7, LAN port:1-4, WAN port:5-6,IMP port:7

<port-members>:1-7 e.g(1,2,5:vlan members include 1,2 and 5)

【E.g.】

device>setporttable 1 5

Executed Successfully.

4.3.3 setpvid

【command】

setpvid

【FORMAT】

setpvid <Eth-ID> <VLAN-ID> <VLAN-priority>

【EXPLANATION】

Configure Ethernet port VLAN ID and VLAN priority.

【PARAMETERS】

<Eth-ID>:1-7, LAN port:1-4, WAN port:5-6,IMP port:7

<VLAN-ID>: 1-4094

<VLAN-priority>: 0-7

【E.g.】

device>setpvid 2 222 2

Executed Successfully.

4.3.4 setvlanmode

【command】

Setvlanmode

【FORMAT】

setvlanmode <vlanMode>

【EXPLANATION】

Configure VLAN mode.

【PARAMETERS】

<vlanMode>: disable|802.1q|qinq

4.3.5 addvlan

【command】

addvlan

【FORMAT】

addvlan <VLAN-ID> <VLAN-members>

【EXPLANATION】

Add a new 802.1Q Based VLAN to VLAN table.

【PARAMETERS】

<VLAN-ID>: 1-4094

e.g. 1-100\n\

e.g. 1,2,3\n\

e.g. 1,2,3,5-100\n\

<VLAN-members>: 1-7 e.g.(1,2,5:vlan members include 1,2 and 5)\

4.3.6

delvlan

【command】

delvlan

【FORMAT】

delvlan <VLAN-ID>

【EXPLANATION】

Delete a VLAN.

【PARAMETERS】

<VLAN-ID>: 1-4094

e.g. 1-100\n\

e.g. 1,2,3\n\

e.g. 1,2,3,5-100\n\

4.3.7

setporttag

【command】

setporttag

【FORMAT】

setporttag <Eth-ID> <VIDs> <tag-mode>

【EXPLANATION】

Configure tag on the packet of Ethernet port.

【PARAMETERS】

<Eth-ID>: 1-7, LAN port:1-4, WAN port:5-6 IMP port:7.

<VIDs>:1-4094,Vlan IDs to set

<tag-mode>:tag|untag.

4.3.8 **showporttag**

【command】

showporttag

【FORMAT】

showporttag

【EXPLANATION】

View tag information of Ethernet ports

【PARAMETERS】

None

4.3.9 **showvlan**

【command】

showvlan

【FORMAT】

showvlan

【EXPLANATION】

View the VLAN table , including VLAN ID and VLAN members..

【PARAMETERS】

None

4.3.10 **setqinqtpid**

【command】

setqinqtpid

【FORMAT】

setqinqtpid<value>

【EXPLANATION】

Configure Tag Protocol Identifier of QINQ.

【PARAMETERS】

<value>:0x0000-0xffff.

【E.g.】

device>setqinqtpid 0x0021

Executed Successfully.

4.3.11 **setqinqport**

【command】

setqinqport

【FORMAT】

setqinqport <port-members> <portMode>

【EXPLANATION】

Configure QINQ ports.

【PARAMETERS】

<port-members>:1,2,3,4,5,6 e.g(1,2,5:vlan members include 1,2 and 5)

<portMode>:uplink |customer

uplink:Configure the ports as Uplink ports

customer:Configure the ports as customer ports.

Note: 'Uplink' and 'customer' are used to make a distinction between

802.1q tag and qinq tag when QINQ Tag Protocol Identifier=0x8100.

'Customer' will consider the 0x8100 tag as 802.1q tag,

'uplink' will consider the 0x8100 tag as qinq tag.

【E.g.】

device>setqinqport 3 customer

Executed Successfully.

4.3.12 **showqinq**

【command】

showqinq

【FORMAT】

showqinq

【EXPLANATION】

View the configuration of QINQ.

【PARAMETERS】

None

【E.g.】

device>showqinq

QINQ status : enable

QINQ TPID : 0x0021

Uplink port : none

Customer port : 1,2,3,4,5,6

4.3.13 **entrunk**

【command】

entrunk

【FORMAT】

entrunk<option>

【EXPLANATION】

Enable|disable trunk function.

【PARAMETERS】

<option> : enable | disable

4.3.14 **settrunk**

【command】

settrunk

【FORMAT】

settrunk<TrunkGroupID><port-members>

【EXPLANATION】

Configure port member of trunk groups

【PARAMETERS】

<TrunkGroupID>:1-4

<port-members>:1-7|none e.g(1,2:group members include 1,2).

1-7, LAN port:1-4, WAN port:5-6 IMP port:7.

4.3.15 **showtrunk**

【command】

showtrunk

【FORMAT】

showtrunk

【EXPLANATION】

View trunk configuration

【PARAMETERS】

None

4.3.16 **setmacage**

【command】

setmacage

【FORMAT】

setmacage <time>

【EXPLANATION】

Configure the MAC address lookup table aging function.

【PARAMETERS】

<time> : disable|1-300 (Seconds).

MAC address table age time,

disable:MAC aging function disable.

1-300:MAC aging function enable, age time=1-300s.

【E.g.】

device>setmacage 12

Set MAC learning enable,ageing time : 12s.

Executed Successfully.

4.3.17 **showmacage**

【command】

showmacage

【FORMAT】

showmacage

【EXPLANATION】

View the aging timer of MAC address lookup table.

【PARAMETERS】

None

【E.g.】

device>showmacage

MAC learning enable,aging time : 12s.

4.3.18 **setmaclearning**

【command】

setmaclearning

【FORMAT】

setmaclearning <option>

【EXPLANATION】

Configure the MAC address learning function.

【PARAMETERS】

<option> : enable | disable.

4.3.19 Showmaclearning

【command】

showmaclearning

【FORMAT】

showmaclearning

【EXPLANATION】

View configuration of MAC learning.

【PARAMETERS】

None

【E.g.】

device>showmaclearning

MAC learning :enable.

4.3.20 setmaxpacket

【command】

setmaxpacket

【FORMAT】

setmaxpacket <packet size>

【EXPLANATION】

Configure the maximum packet size

【PARAMETERS】

<packet size>:1522|2048

1522:All frames will be dropped if the frame length is larger
than 1522 bytes.

2048:All frames will be dropped if the frame length is larger \n\
than 2048 bytes.

Note:Jumbo packets (10240 bytes)can only be received or \n\

forwarded to 1000BASE-T linked ports.\

4.3.21 **showmaxpacket**

【command】

showmaxpacket

【FORMAT】

showmaxpacket

【EXPLANATION】

View maximum packet size configured.

【PARAMETERS】

None

4.3.22 **setmaclearningvid**

【command】

Setmaclearningvid

【FORMAT】

setmaclearningvid <option>

【EXPLANATION】

:Configure the MAC learning mode

【PARAMETERS】

enable,learning with MAC only\n\

disable,learning with MAC+VID\

4.3.23 **setstormfilter**

【command】

setstormfilter

【FORMAT】

setstormfilter<option>

【EXPLANATION】

Enable/disable broadcast storm filtering function.

【PARAMETERS】

<option>:enable | disable.

【E.g.】

[device>setstormfilter enable](#)

[Set Ethernet storm filter :enable.](#)

Executed Successfully.

4.3.24 **showstormfilter**

【command】

showstormfilter

【FORMAT】

showstormfilter

【EXPLANATION】

View the configuration of broadcast storm filtering function.

【PARAMETERS】

None

【E.g.】

device>showstormfilter

Ethernet Storm filter:enable.

4.3.25 **setqosmode**

【command】

setqosmode

【FORMAT】

setqosmode<QoSMode>

【EXPLANATION】

Configure QoS mode.

【PARAMETERS】

<QoSMode>:disable|COS|DSCP

disable:disable QoS function.

COS:Port based QoS enable,802.1p QoS enable,TOS/DSCP QoS enable.

DSCP:Only TOS/DSCP QoS enable.

4.3.26 **setqosschedulingmode**

【command】

setqosschedulingmode

【FORMAT】

setqosschedulingmode<SchedulingMode>

【EXPLANATION】

Configure QoS scheduling mode.

【PARAMETERS】

SchedulingMode>:4WRR|1HQP-3WRR

4WRR:All queues are weighted round robin.

1HQP-3WRR:queue4 is strict priority, queue3-1 are weighted round robin.

Priority7-6 are mapped to TX queue 4

Priority5-4 are mapped to TX queue 3

Priority3-2 are mapped to TX queue 2

Priority1-0 are mapped to TX queue 1

4.3.27

setqosweight

【command】

setqosweight

【FORMAT】

setqosweight<QueueID><weight>

【EXPLANATION】

Configure QoS queue weight.

【PARAMETERS】

<QueueID>:1-4.

<weight>:1-31,The value of 1 allows the queue to send

one packet for every round; the value of 4 allows the

queue to send four packets for every round. It is

suggested that the weight of each queue be $Q4 > Q3 > Q2 > Q1$.

Priority7-6 are mapped to TX queue 4

Priority5-4 are mapped to TX queue 3

Priority3-2 are mapped to TX queue 2

Priority1-0 are mapped to TX queue 1

4.3.28 **showqos**

【command】

showqos

【FORMAT】

showqos

【EXPLANATION】

View the configuration of QoS.

【PARAMETERS】

None

【E.g.】

device>showqos

QoS mode : COS

Scheduling mode : 4WRR

Queue1 weights : 1

Queue2 weights : 2

Queue3 weights : 4

Queue4 weights : 8

4.3.29 **enmirror**

【command】

enmirror

【FORMAT】

enmirror<option>

【EXPLANATION】

Enable|disable mirror function.

【PARAMETERS】

<option>: enable | disable.

4.3.30 **setmirror**

【command】

setmirror

【FORMAT】

setmirror <CapturePort> <IngressMirrorPorts> <EgressMirrorPorts>

【EXPLANATION】

Configure capture ports and mirror ports, 1-7, LAN port:1-4, WAN port:5-6, IMP por:7

【PARAMETERS】

<CapturePorts>: Mirror capture port, only one port can be configured as capture port.

<IngressMirrorPorts>: Ingress mirror ports, 1-7|none.

<EgressMirrorPorts>: Ingress mirror ports, 1-7|none

4.3.31 **showmirror**

【command】

showmirror

【FORMAT】

showmirror

【EXPLANATION】

View mirror configurations.

【PARAMETERS】

None.

【E.g.】

MirrorEn : disable

Capture port :

Ingress mirror ports :

Egress mirror ports :

Successfully Executed!

4.3.32 **setpriorityremark**

【command】

setpriorityremark

【FORMAT】

setpriorityremark<802.1pMappingEn><VidRemarkingEn><DARemarkingEn> <SARemarkingEn>

【EXPLANATION】

Config priority remarking.

【PARAMETERS】

<802.1pMappingEn>:enable |disable,

<VidRemarkingEn>:enable |disable,

<DARemarkingEn>: enable |disable,

<SARemarkingEn>: enable |disable,

4.3.33 **showpriorityremark**

【command】

showpriorityremark

【FORMAT】

showpriorityremark

【EXPLANATION】

View priority remarking.

【PARAMETERS】

None

4.3.34 **addarlstatic**

【command】

addarlstatic

【FORMAT】

addarlstatic<MAC-address><Eth-ID><MAC-Priority-EN> [MAC-Priority]

【EXPLANATION】

Add new static MAC address to ARL table

【PARAMETERS】

<MAC-address>:MAC Address, e.g.<00.25.04.11.22.33>.

<Eth-ID>:1-7, LAN port:1-4, WAN port:5-6 IMP port:7

<MAC-Priority-EN>: enable |disable,

[MAC-Priority]: 0-7. Needed when MAC-Priority-EN is enable.

4.3.35 **delarlstatic**

【command】

delarlstatic

【FORMAT】

delarlstatic<MAC-address>

【EXPLANATION】

Delete static MAC address from ARL table.

【PARAMETERS】

<MAC-address>:MAC Address, e.g.<00.25.04.11.22.33>.

4.3.36 **setneaddr**

【command】

setneaddr

【FORMAT】

setneaddr<NEIndex>

【EXPLANATION】

Set NEIndex of the system

【PARAMETERS】

<NEIndex>:NEIndex, e.g. 0, 1 , 45.

4.4 DXC commands

4.4.1 addxc

【command】

addxc

【FORMAT】

addxc <dstVcgld><dxctype> <workbusld> [backbusld]

【EXPLANATION】

Create cross-connects (XC) for the device.

【PARAMETERS】

<dstVcgld>: vcg1 | vcg2 \r\n\

<dxctype>: 1+1 | 2+0\r\n\

<workbusld>: opta|optb\r\n\

[backbusld]: Needed when dxc Type is 1+1. opta|optb

4.4.2 delxc

【command】

delxc

【FORMAT】

delxc <vcgld>

【EXPLANATION】

Delete cross-connect (XC) from the device.

【PARAMETERS】

<vcgld>: vcg1 | vcg2

"

4.4.3 delallxc

【command】

delallxc

【FORMAT】

delallxc

【EXPLANATION】

Delete all cross-connects of optical ports.

【PARAMETERS】

None

【E.g.】

device>delallxc

Executed Successfully.

4.4.4 showxc

【command】

showxc

【FORMAT】

showxc

【EXPLANATION】

View the cross-connect (XC) configuration and working status.

【PARAMETERS】

None

4.4.5 setprotecttime

【command】

setprotecttime

【FORMAT】

setprotecttime [time]

【EXPLANATION】

Configure the protect recovery time

【PARAMETERS】

< time>: 5-12 minutes

4.4.6 setprotectmode

【command】

setprotectmode

【FORMAT】

setprotectmode <vcgld> <protectmode>

【EXPLANATION】

Configure the protect mode

【PARAMETERS】

<vcgld>: vcg1 | vcg2

<protectmode> : 1-2

1: revertive ; 2:non-revertive .

"

4.4.7 setprotectcmd

【command】

setprotectcmd

【FORMAT】

setprotectcmd <vcgld> <protectcmd>

【EXPLANATION】

Configure the protect the protect command

【PARAMETERS】

<vcgld> : vcg1 | vcg2

<protectcmd>

0: invalid ;

1: protect clear ,

2: protect lock ;

3: force switch to work ;

4: force switch to protect ;

5: manual switch to work ;

6: manual switch to protect ;

4.4.8 setpathloop

【command】

setpathloop

【FORMAT】

setpathloop <workSrc> <loop>

【EXPLANATION】

set one path loop

【PARAMETERS】

<workSrc> : opta|optb

<loop> : enable | disable

4.4.9 showpathloop

【command】

showpathloop

【FORMAT】

showpathloop

【EXPLANATION】

View opta and optb loopStatus

【PARAMETERS】

None

4.4.10 showprotect

【command】

showprotect

【FORMAT】

showprotect

【EXPLANATION】

View the protect info .

【PARAMETERS】

None

4.5 Optical commands

4.5.1 setals

【command】

setals

【FORMAT】

setals <enable> <alsmode>

【EXPLANATION】

Enable/Disable Auto Laser Shut, and configure Auto Laser Shut work mode, when ALS is enabled.

【PARAMETERS】

<enable>:enable|disable.

<alsmode>:12.5s|100s .

4.5.2 showals

【command】

showals

【FORMAT】

showals

【EXPLANATION】

View als configuration

【PARAMETERS】

None

4.5.3 manualals

【command】

manualals

【FORMAT】

manualals <opt>

【EXPLANATION】

Manual laser restart when Auto Laser Shut is enabled

【PARAMETERS】

<Opt>: opta|optb|opteth.

4.5.4 setoptenable

【command】

setoptenable

【FORMAT】

setoptenable <optID> <enbale>

【EXPLANATION】

Configure opt enable .

【PARAMETERS】

<optID>: opta|optb.

<enbale>: enable|disable.

4.5.5 **setj0mode**

【command】

setj0mode

【FORMAT】

setj0mode <optID> <bytemode> <crcmode>

【EXPLANATION】

Configure the mode of optical port's J0 overhead.

【PARAMETERS】

<optID>: opta|optb.

<bytemode>: byte|string. byte: 1 byte mode , string : 16 bytes mode

<crcmode>: enable|disable

4.5.6 **setj0oh**

【command】

setj0oh

【FORMAT】

setj0oh <optID> <type> <mode> <ohcontent>

【EXPLANATION】

Configure the content of J0 overhead

【PARAMETERS】

<optID>: opta|optb.

<type>: send|expect.

<mode>: byte|string. byte: byte mode , string : string mode

<ohcontent>: char or Hex value , in the range of 0x00-0xff.the max num is 16 bytes or

char

4.5.7 **setj0singlebyteoh**

【command】

setj0singlebyteoh

【FORMAT】

setj0singlebyteoh <optID> <type> <ohcontent>

【EXPLANATION】

Configure the content of J0 single byte overhead

【PARAMETERS】

<optID>: opta|optb.

<type>: send|expect.

<ohcontent>: 0x00-0xff .

4.5.8 **setj1mode**

【command】

Setj1mode

【FORMAT】

setj1mode <optID><vc4Index> <crcmode>

【EXPLANATION】

Configure the mode of optical port's J1 overhead.

【PARAMETERS】

<optID>: opta|optb.

<vc4Index> : 1-4

<crcmode>: enable|disable

4.5.9 **setj1oh**

【command】

Setj1oh

【FORMAT】

setj1oh <optID> <vc4Index> <type> <mode> <ohcontent>

【EXPLANATION】

Configure the content of J1 overhead

【PARAMETERS】

<optID>: opta|optb.

<vc4Index> : 1-4 .

<type> : send | expect .

<mode>: byte|string. byte: byte mode , string : string mode .

<ohcontent>: char or Hex value, in the range of Hex 0x00-0xff

4.5.10 setc2oh

【command】

Setc2oh

【FORMAT】

setc2oh <optID> <vc4Index> <type> <value>

【EXPLANATION】

Configure the content of c2 send overhead

【PARAMETERS】

<optID>: opta|optb.

<vc4Index> : 1-4.

<tyep> : send | expect

<value>: Hex value, in the range of Hex 0x00-0xff

4.5.11 setk3send

【command】

Setk3send

【FORMAT】

setk3send <optID> <vc4Index> <k3send>

【EXPLANATION】

Configure the content of k3 send overhead

【PARAMETERS】

<optID>: opta|optb.

<vc4Index> : 1-4.

<k3send>: Hex value, in the range of Hex 0x00-0xff

4.5.12 showopt

【command】

showopt

【FORMAT】

showopt

【EXPLANATION】

View option

【PARAMETERS】

None

4.5.13 showoptpath

【command】

Showoptpath

【FORMAT】

Showoptpath

【EXPLANATION】

View option vc4 .

【PARAMETERS】

None

4.5.14 showoptdcccfg

【command】

showoptdcccfg

【FORMAT】

showoptdcccfg

【EXPLANATION】

View option DCC configuration

【PARAMETERS】

None

4.5.15 setoptdcccfg

【command】

setoptdcccfg

【FORMAT】

setoptdcccfg <optID> <dccEnable> <dccMode>

【EXPLANATION】

Config DCC configuration of one option.

【PARAMETERS】

<optID>: opta|optb

<dccEnable>: enable|disable

<dccMode>: standard|unstandard

4.5.16 **showoptdcregstatus**

【command】

showoptdcregstatus

【FORMAT】

showoptdcregstatus

【EXPLANATION】

View opt DCC reg status

【PARAMETERS】

None

4.5.17 **showoptalarm**

【command】

Showoptalarm

【FORMAT】

Showoptalarm

【EXPLANATION】

View the alarm of optical port

【PARAMETERS】

None

4.5.18 **showalarmlevel**

【command】

Showalarmlevel

【FORMAT】

Showalarmlevel

【EXPLANATION】

View the alarm level .

【PARAMETERS】

None

4.5.19 **showoptperform**

【command】

showoptperform

【FORMAT】

showoptperform<opt> <recordID>

【EXPLANATION】

View the opt perform information

【PARAMETERS】

<opt> : opta|optb.

<recordId> : 0 , the current 15min. information.

: 1-16, 1st 15 min. interval to 16th 15 min.

interval history information.

: 17, current 24 hours information.

: 18, history 24 hours information.

4.5.20

showoptthreshold

【command】

showoptthreshold

【FORMAT】

showoptthreshold

【EXPLANATION】

View the opt perform threshold information .

【PARAMETERS】

None

4.5.21

showoptperformevent

【command】

showoptperformevent

【FORMAT】

showoptperformevent <opt> <recordID>

【EXPLANATION】

View the opt uat and cses event information.

【PARAMETERS】

<opt> : opta|optb.

<recordId> : : 1-12.

4.5.22 **clearoptperformevent**

【command】

clearoptperformevent

【FORMAT】

clearoptperformevent <opt> <recordID>

【EXPLANATION】

Clear the opt performance event information.

【PARAMETERS】

<opt> : opta|optb.

<type>: cses|uat .

<recordId> : 1-12.

4.5.23 **clearoptperform**

【command】

clearoptperform

【FORMAT】

clearoptperform <opt> <recordID>

【EXPLANATION】

Clear the opt performance information.

【PARAMETERS】

<opt> : opta|optb.

<recordId> : 0 , the current 15min. information.

 : 1-16, 1st 15 min. interval to 16th 15 min.

 interval history information.

 : 17, current 24 hours information.

 : 18, history 24 hours information.

4.5.24 **showsfpddminfo**

【command】

showsfpddminfo

【FORMAT】

showsfpddminfo

【EXPLANATION】

View sfp ddm info .

【PARAMETERS】

None

4.6 MSTP commands

4.6.1 **setvcg**

【command】

setvcg

【FORMAT】

setvcg <VCGID> <PFI> <EXI> <HSCRD_SEND> <PSCRD_SEND> <HSCRD_REC>
<PSCRD_REC>

【EXPLANATION】

Configure vcg func. eg.PFI,EXI.

【PARAMETERS】

<VCGID> : 1: vcg1 2: vcg2
<PFI> : enable|disable.
<EXI> : linear|null.
<HSCRD_SEND>: enable|disable.
<PSCRD_REC>: enable|disable.
<HSCRD_REC>: enable|disable.
<PSCRD_REC>: enable|disable.

4.6.2 **setmacloopcut**

【command】

setmacloopcut

【FORMAT】

setlcas <VCGID> <enable>

【EXPLANATION】

Configure mac loop cut enable.

【PARAMETERS】

<VCGID> : 1:vcg1 2: vcg2
<enable> : enable|disable.

4.6.3 **showvcg**

【command】

showvcg

【FORMAT】

showvcg

【EXPLANATION】

View vcg func. eg.PFI,EXI.

【PARAMETERS】

none

4.6.4 **setmacloop**

【command】

setmacloop

【FORMAT】

setmacloop <enable>

【EXPLANATION】

Configure mac loop enable.

【PARAMETERS】

<enable> : enable|disable.

4.6.5 **showmacloop**

【command】

showmacloop

【FORMAT】

showmacloop

【EXPLANATION】

View mac loop status

【PARAMETERS】

none

4.6.6 **showmacloopcut**

【command】

showmacloopcut

【FORMAT】

showmacloopcut

【EXPLANATION】

View mac loop cut configuration

【PARAMETERS】

none

4.6.7 enableeth

【command】

enableeth

【FORMAT】

enableeth <Eth-ID> <option>

【EXPLANATION】

Enable/Disable Ethernet port.

【PARAMETERS】

<Eth-ID>:LAN port:1-4

<option>:enable|disable.

4.6.8 seteth

【command】

seteth

【FORMAT】

seteth <Eth-ID><auto><flow>[speed][duplex]

【EXPLANATION】

Configure auto-negotiation, speed, duplex mode, and flow control of Ethernet ports. Auto, speed, duplex are not effective for WAN ports.

【PARAMETERS】

<Eth-ID>: LAN port:1-4, WAN port : 5-6

<auto>:enable | disable.

<flow>:enable | disable.

[speed]: 10 | 100 | 1000.

[duplex]: full|half.

4.6.9 **showeth**

【command】

showeth

【FORMAT】

showeth

【EXPLANATION】

View Ethernet port configuration and working status.

【PARAMETERS】

none

4.6.10 **setoutlinerate**

【command】

setoutlinerate

【FORMAT】

setoutlinerate<Eth-ID><RateControlEn><Rate>

【EXPLANATION】

Configure maximum egress bit rate of Ethernet port.

【PARAMETERS】

<Eth-ID>:1-6 , LAN port:1-4 , WAN port : 5-6

<RateControlEn>:enable|disable.

<Rate>:0.62-1000,Egress line rate(Mbps).

Actual frequency step is 0.62Mbps if rate is equal or lesser than 1Mbps,

Actual frequency step is 1Mbps if rate is equal or lesser than 100Mbps,

Actual frequency step is 8Mbps if rate is greater than 100Mbps,The system
will select equal or closest lesser value, e.g(100, 110, 120).

4.6.11 **setinlinerate**

【command】

setinlinerate

【FORMAT】

setinlinerate<Eth-ID><RateControlEn><Rate>

【EXPLANATION】

Configure maximum ingress bit rate of Ethernet port.

【PARAMETERS】

<Eth-ID>:1-6 , LAN port:1-4 , WAN port : 5-6

<RateControlEn>:enable|disable.

<Rate>:0.62-1000,Egress line rate(Mbps).

Actual frequency step is 0.62Mbps if rate is equal or lesser than 1Mbps,

Actual frequency step is 1Mbps if rate is equal or lesser than 100Mbps,

Actual frequency step is 8Mbps if rate is greater than 100Mbps,The system will select equal or closest lesser value, e.g(100, 110, 120).

4.6.12 **showlinerate**

【command】

showlinerate

【FORMAT】

showlinerate

【EXPLANATION】

View line-rate configurations.

【PARAMETERS】

None

4.6.13 **cleargfperform**

【command】

cleargfperform

【FORMAT】

cleargfperform <gfpld>

【EXPLANATION】

clear gfp perform status .

【PARAMETERS】

<gfpld>: 1

4.6.14 **clearethperform**

【command】

clearethperform

【FORMAT】

clearethperform <portId>

【EXPLANATION】

clear eth port perform status .

【PARAMETERS】

portId: (0: Clear all eth port perform. 1-7: Clear single eth port perform.)

4.6.15 **showeosalarm**

【command】

showeosalarm

【FORMAT】

showeosalarm

【EXPLANATION】

View the alarm of eos port.

【PARAMETERS】

None