User Manual

Content

Chapter 1 System outline

1.1 Outline

Based on WEB management allows network managers to use the browser to quickly and easily configure, control and monitor the network on any node in the network. Through the WEB network management system can be very easy to manage and maintain the system. The Web system has the functions of user login rights management, refresh device view, system management, module list, alarm management, SNMP configuration, system management, user management and log management and so on.

1.2 System advantage

1. System automatically recognizes the type of inserted card , can insert different types of cards; it can view the detailed information of each card and monitor and manage the card.
2. System can be restored single card factory settings through the WEB , system can be upgraded.
3. When viewing alarm information, the different levels are displayed in different colors. You can query the alarm information by selecting the date /time condition or the slot condition.
4 Alarms that have not been deleted or have not been acknowledged will be NEW blinking fonts in the alarm area of the function operating area - the alarm level of the current alarm

Note: This document uses the 2U system as an example. The 1U / 5U system settings are the same as the 2U system settings. Only the main interface displays different settings.

1.3 Main engine and Network connection

Use network cable to connect the network port of the host with the ETH1 or ETH2 port of the network management card. If there is a green light blinking on the ETH1 or ETH2 port, you can log in to the NMS to view the device information.

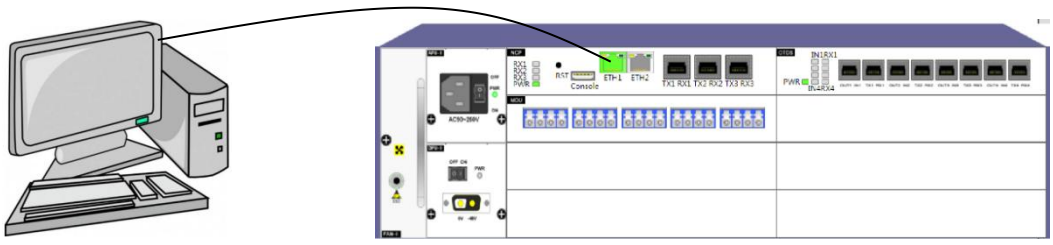


Figure 1 Main engine and Network connection

1.4 Host view each device information

host only needs to connect to the ETH1 (ETH2) port of one device. The ETH 2 (ETH 1) port is connected to the ETH 1 (ETH 2) port of another device, and then connect downwards. On this host computer, use IE to input Each device IP to view, you can view the host through the console to manage each device connected through the ETH port

Chapter 2 WEB Login

2.1 Safety Login

Run the browser and enter the address of the device to be monitored in the address bar of the browser: http://192.168.1.100 (initial IP address), a login prompt will pop up asking for the user name and password (Figure 2).

Note: Recommended browser selection 8.0 and above versions of IE browser or Google Chrome, recommended the best resolution of 1920 * 1800.

Username: webadmin

Password: admin

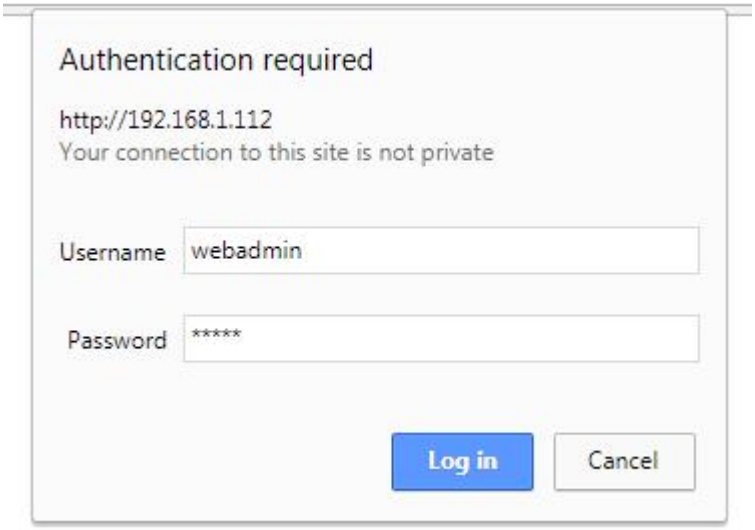


Figure 2 Login page

User name: webadmin

Password：admin

Enter the correct user name and password: 1 Click OK to enter the Web page; 2 Click Cancel to eject an unauthorized page; 3 Check "Remember my password", log in to determine the page, the next time you log in, click OK You can enter the WEB.

2.2 Refresh device view

System's device view display area has a refresh function.

1 manual refresh:

Click Refresh Now, and the device view display area will be manually refreshed (Figure 3).

2 automatic refresh:

Fill in the interface need to automatically refresh the time interval can be (Figure 3 shows):

Example 1: Set the refresh interval to 15 seconds

(1) timer refresh settings bar enter 15

(2) Click Apply

Note 1: The time range is set to 0-999 seconds;

Note 2: The system is factory set to 20 seconds.

Example 2: Setting does not automatically refresh

(1) Timer refresh settings field enter 0

(2) click the application, the system will not automatically refresh;

Example 3: The original page does not automatically refresh, set the refresh time of 12 seconds

(1) Timer refresh setting input 12

(2) click the application manually refresh the device view once, the device automatically refresh time will change to 12 seconds

Figure 3 Timing refresh

Chapter 3 Alarm management

3.1 Current Alarm

【Alarm management】: current alarm（figure 4）

3.1.1 Using current alarm information

(1) Click the location bar seventh slot, the function operation area will display the basic information page of 7-slot card

(2) Click Clear or Confirm in the operation column ,NEW will disappear

(3) If the alarm is back to normal after it is generated, it will be cleared

(4) Clear and confirm the alarm, the alarm is transferred to the historical alarm

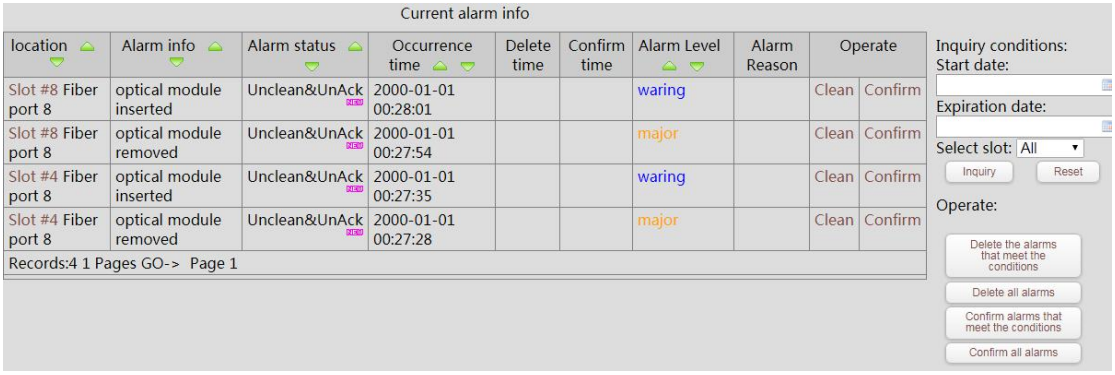


Figure 4 current alarm

Example 4: Clear or confirm the alert message on or after May 6, 2013

(1) The selection start time is May 6, 2013

(2) Directly clear or confirm the conditions to meet the alarm

(3) Current alarms on or after May 6, 2013 will be cleared or confirmed

Example 5: Clear or confirm the first slot alarm information

(1) Select the slot number as the first slot in the query conditions at the bottom right of the function operation area

(2) Directly clear or confirm the conditions to meet the alarm

(3) The current alarm information of slot 1 will be cleared or confirmed

Example 6: Clear or confirm all the current alarm information

(1) Click to clear all alarms or confirm all alarms. All current alarms are cleared or confirmed

3.1.2 check current alarm information

Example 7: Query the alarm information from January 25, 2013 to December 23, 2013

(1) Click the start date column, pop-up time selection table (Figure 5)

(2) Click to select the year as 2013, month as January, and date as 25

(3) Click the deadline bar, pop-up time selection table (Figure 5)

(4) Click to select the year as 2013, the month as December and the date as 23

(5) point inquiries, can check all the warning information between the start and end date;

Example 8: Query the alarm information after January 1, 2013

(1) Click the start date column, pop-up time selection table (Figure 5)

(2) Click to select the year as 2013, month as January, and date as January

(3) Click Query to view the current alarm information after January 1, 2013

Example 9: Query information between September 15, 2013

(1) Click on the deadline bar, pop-up time selection table (Figure 5)

(2) Click to select the year as 2013, the month as September and the date as 15

(3) point inquiry, you can view all the current alarm information after September 15, 2013;

Example 10: Querying the current alarm information of slot 1 card

(1) Select the slot number for the first slot (Figure 6)

(2) Inquire, show the alarm information related to slot 1 of the current alarm

(3) If the alarm is returned to normal after it is generated, it will be cleared;

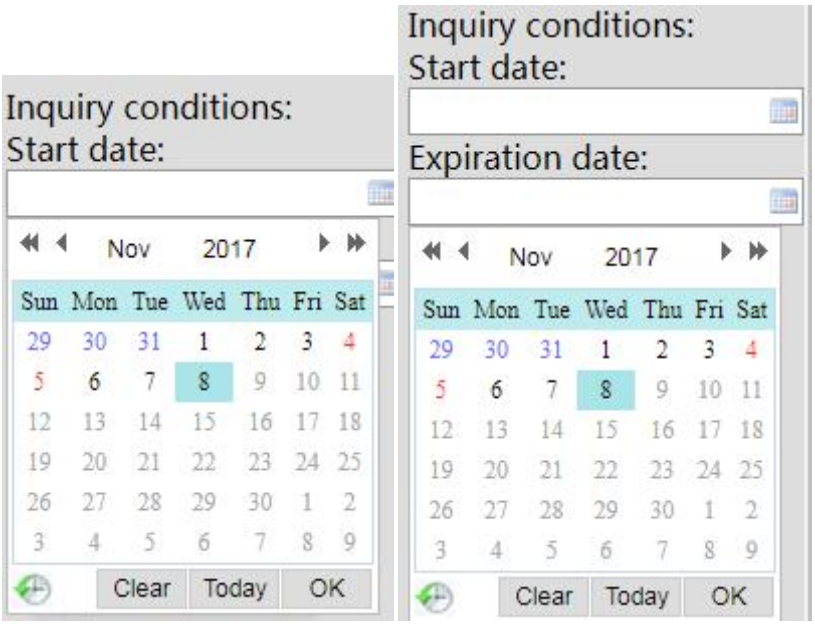


Figure 5 start date and deadline date choose

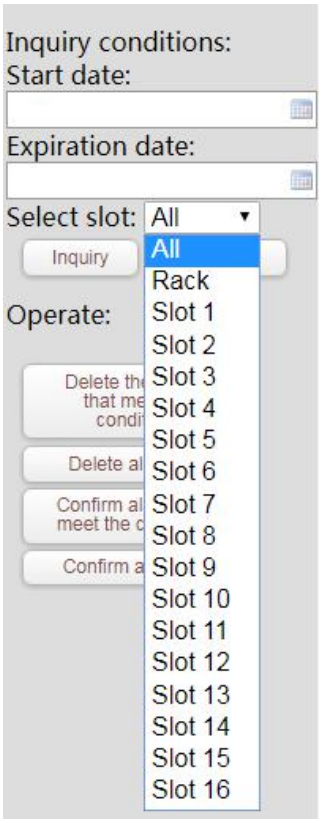


Figure 6 slot check condition

3.2 History alarm

【alarm management】: History alarm page（Figure 7）

3.2.1 Using history alarm information

(1) Click the location bar seventh slot, the function operation area will display the basic information page of 7-slot card

(2) Click , can select the history alarm information；

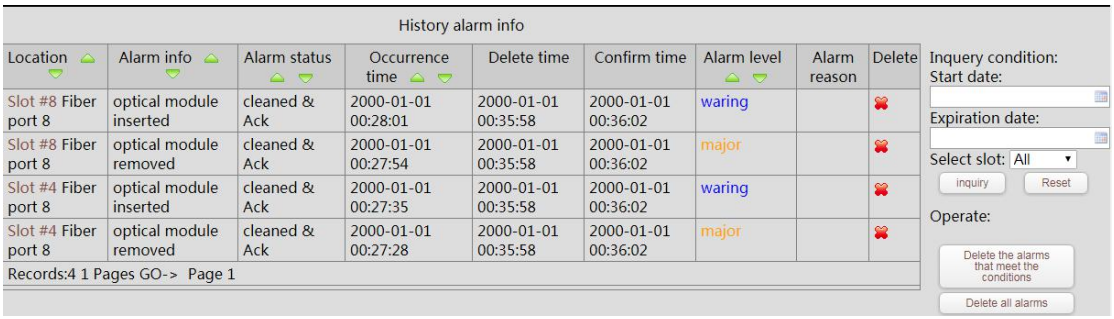


Figure 7 History alarm

Example 11: Delete the history alarm information before 0:00 on April 2, 2013
(1) select the deadline for the 2013, April, 2 days
(2) Delete the alarm meeting the conditions directly
(3) The history alarm information before 0:00 on April 2, 2013 will be deleted;
Example 12: Delete the second slot of the history alarm information
(1) Select the slot number as the second slot
(2) Delete the alarm meeting the conditions directly
(3) The history alarm information of slot 2 will be deleted.
Example 13: Delete all history alarm information
(1) Click to delete all the alarms
(2) All history alarm information will be deleted;

3.2.2 check history alarm

Check the history alarm process with the current alarm information
Note 1: When clearing / confirming / deleting alarms according to the conditions, after selecting the conditions, directly click Clear / Confirm / Delete, do not click Query, otherwise the entire current / historical alarm information will be operated;
Note 2: The current alarm and history alarm can save a total of 300 messages. If the alarm number exceeds 300, the oldest one is automatically cleared. If the new alarm is generated, the oldest one of the current alarms is cleared. If the current alarm is generated, Moving to a history alarm clears the oldest of the history alarms.

Chapter 4 Running

4.1 Equipment General view

Interface Area Description:
WEB page is divided into three areas (Figure 9): the left side of the public menu, the upper right side of the device view display area, the lower right side of the device information display area.
Chassis slot information is as follows:

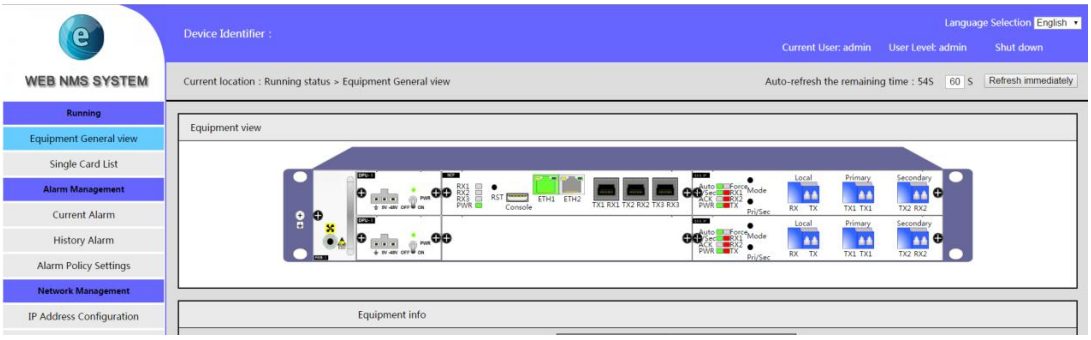
1U chassis

<table>
<tr><td rowspan="2">SLOT #7</td><td>SLOT</td><td>SLOT #1</td><td>SLOT #2</td></tr>
<tr><td>SLOT</td><td>SLOT #3</td><td>SLOT #4</td></tr>
</table>

2U chassis

SLOT #11	SLOT #9	SLOT #1	SLOT #2
		SLOT #3	SLOT #4
	SLOT #10	SLOT #5	SLOT #6
		SLOT #7	SLOT #8

NOTE: The NMC card can be inserted into slot 1 only. The leftmost slot is for fan boards. Two adjacent slots are for power supply. Other cards can be inserted into service cards. (Figure 9)



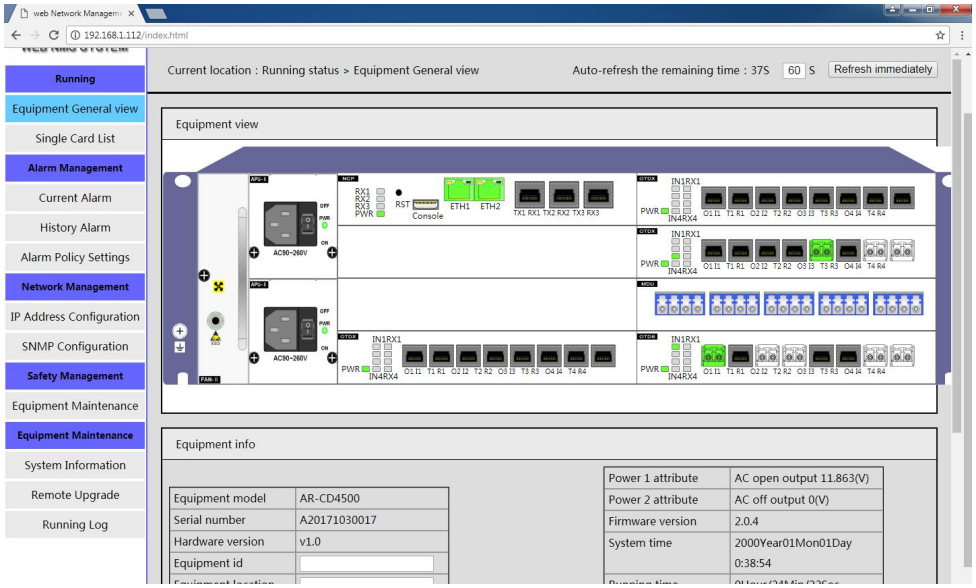


Figure 9 2U chassis main page

1. the public menu: Including the operational status, alarm management, network management, security management, equipment maintenance and other functional

modules;

Note: the following instructions related to the public menu options are enclosed in【】;

2.equipment view display area: display insert card type, module type, port and indicator status;

3.Device information display area: You can view the device model, serial number, power type, running time, network management version and other information; can write information to identify the device;

4.Unit disk: Click the unit disk name (the upper left corner of each card black white logo) to pop up the unit disk information read and set the page：

System interface refresh:

The system's device view display area has a refresh function.

1 manual refresh:

Click Refresh Now, and the device view display area will be manually refreshed (Figure 10).

2 automatic refresh:

Fill in the interface need to automatically refresh the time interval can be (Figure 10):

Example 14: Set refresh interval is 15 seconds

(1) timer refresh settings bar enter 15

(2) Click Apply

Description 1: The time range is set to 0-999 seconds;

Note 2: The system is factory set to 20 seconds.

Example 15: Settings do not refresh automatically

(1) Timer refresh settings field enter 0

(2) click the application, the system will not automatically refresh;

Example 16: When the original page does not refresh automatically, set the refresh time to 12 seconds

(1) Timing refresh setting input 30

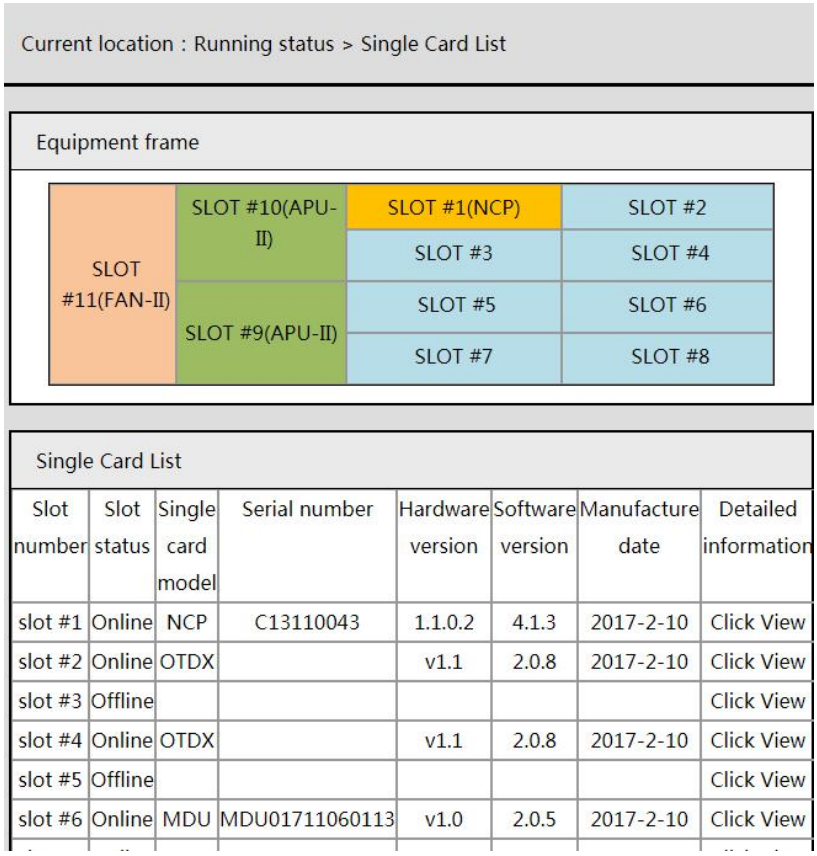
(2) Click the application manually refresh the device view once, the device automatically refresh time will change to 30 seconds;

Figure 10 Timing refresh

4.2 Single card list

As shown in Figure 11, click [List] in the menu bar on the left to enter the following interface. All the card information of the card is displayed: slot number, model number, status, version number and so on.

Click the right side of the details, you can pop-up single card details.



Slot number	Slot status	Single card model	Serial number	Hardware version	Software version	Manufacture date	Detailed information
slot #1	Online	NCP	C13110043	1.1.0.2	4.1.3	2017-2-10	Click View
slot #2	Online	OTDX		v1.1	2.0.8	2017-2-10	Click View
slot #3	Offline						Click View
slot #4	Online	OTDX		v1.1	2.0.8	2017-2-10	Click View
slot #5	Offline						Click View
slot #6	Online	MDU	MDU01711060113	v1.0	2.0.5	2017-2-10	Click View

Figure 11 single card list

Chapter 5 Network Management

5.1 IP address configuration

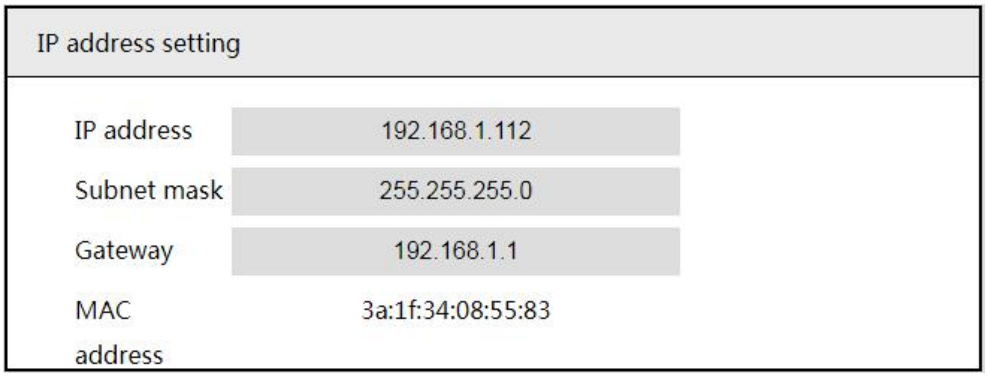


Figure 12 IP address configuration

Click the [IP address configuration] in the main interface menu bar, enter the IP address setting interface as shown in Figure 12. The default IP address of the device is 192.168.1.100, and the user can modify it according to actual needs , Click "Save Settings" after the modification is completed.

5.1 SNMP configuration

Configure the SNMP read and write, can read and write information.
[SNMP configuration]: SNMP community name configuration page (shown in Figure 13), after the modification is complete, click "Save Configuration" button

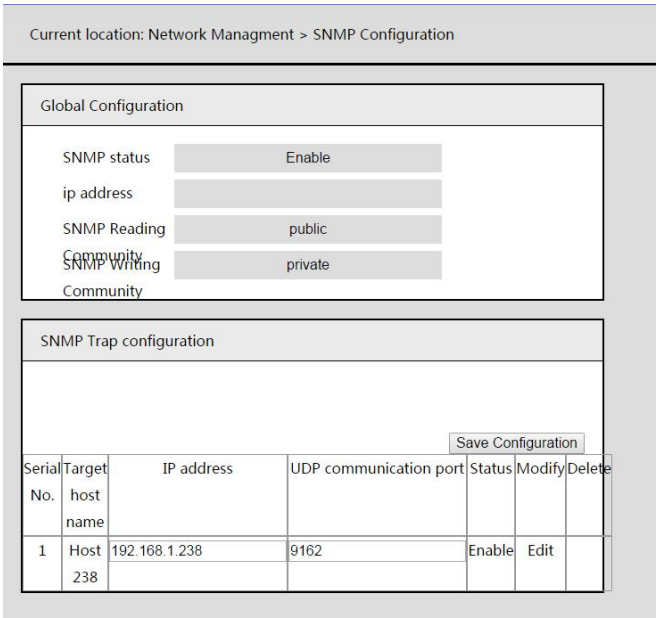


Figure 13 SNMP group name configuration

Chapter 6 Safety Management

Security management includes view, add, modify user account information: such as modifying the administrator password, add / delete ordinary users, change the password and so on. (Figure 14)

User list

Serial No.	User name	User level	Creation time	Contact	Modify password	Delete
1	webadmin	Administrators	2017 2-10		Edit	Delete
2	guest	Normal user	2017 2-10		Edit	Delete

Figure 14 User information

Chapter 7 Equipment Maintenance

7.1 Restore factory settings

Click [Restore Factory Settings] in the main interface menu bar [Equipment Maintenance] to enter the factory reset interface as shown in Figure 15. The list shows each board by

slot, click "Restore Factory Settings" on the right side of the table, You can restore the card to the factory setting

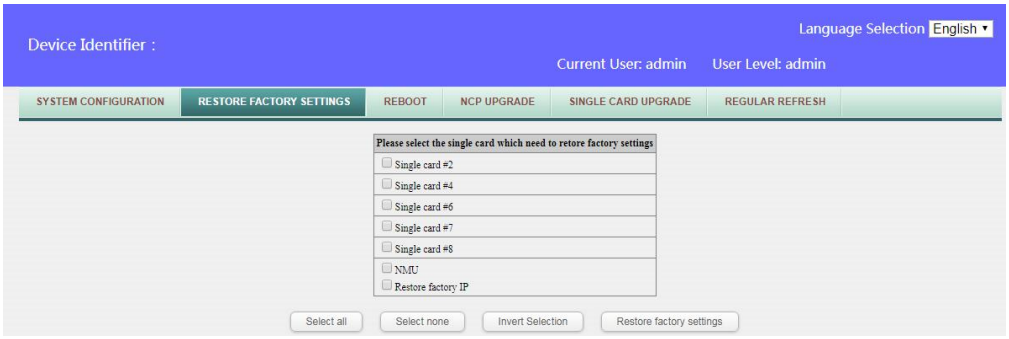


Figure 15 Restore factory settings

7.2 Remote Upgrade

Click [Remote Upgrade] in the menu bar of [Equipment Maintenance] on the main interface to enter the remote upgrade interface as shown in Figure 16. The list shows the status, model and software version of each card by slot. Click the right Box, select the need to upgrade the board, and then click "click Add Trap Address", and finally click "click upgrade" to the selected card for remote upgrade.

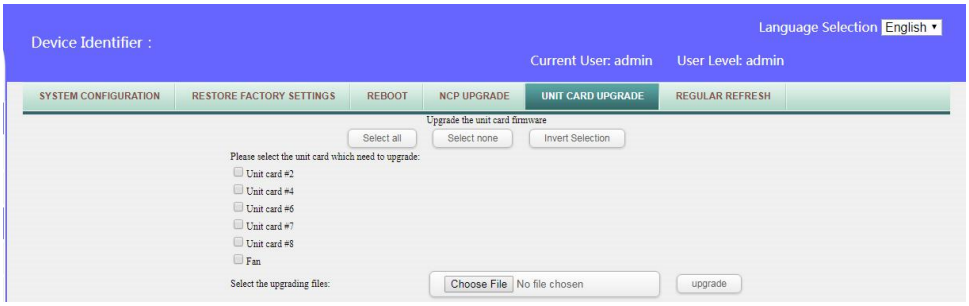


Figure 16 Remote upgrade

7.3 Running log

Click [Running log] in the menu bar of [Equipment Maintenance] on the main interface to enter the remote upgrade interface as shown in Figure 17.The table lists the daily operations on the equipment: operation object, operation content, operation time, method and so on. Users can check one by one as needed and delete operation log

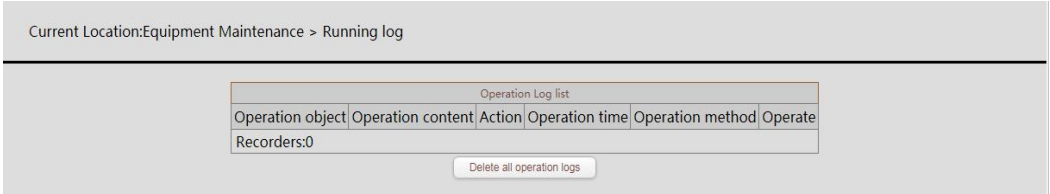


Figure 17 Running log

Chapter 8 Common card configuration

8.1 OTU/OEO

Click on the card model identification in the main interface device view (as shown in the red circle in Figure 18) to enter the card information viewing interface (Figure 19).

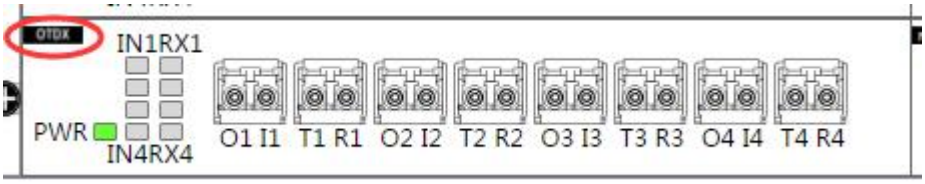


Figure 18 choose card

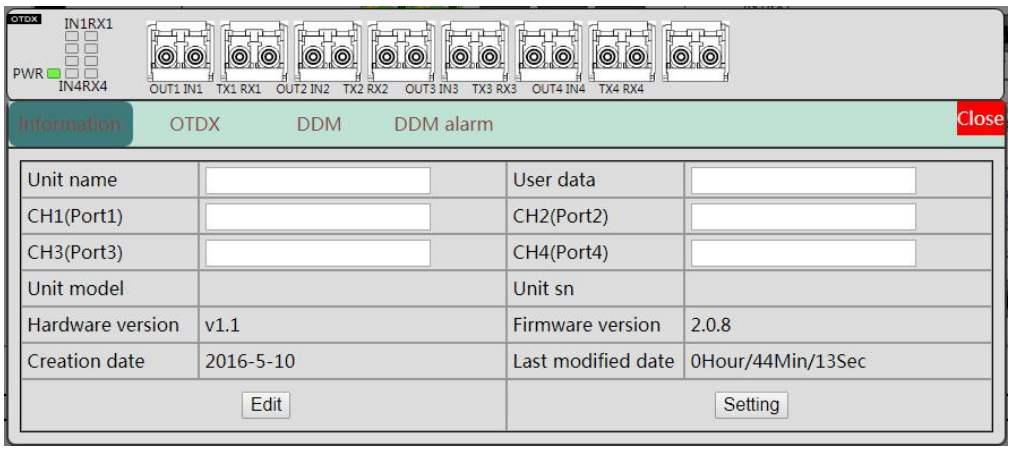
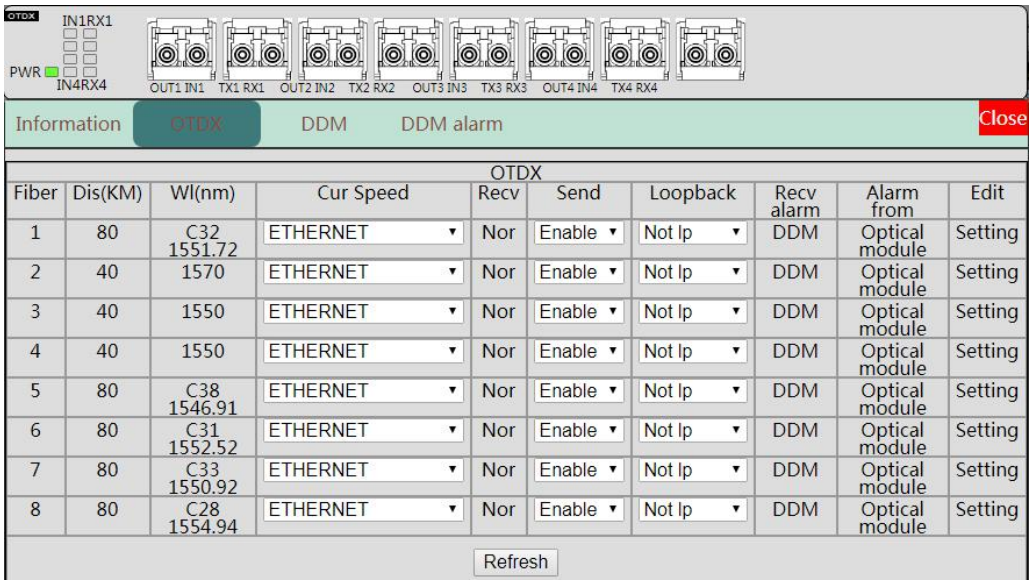


Figure 19 card basic information

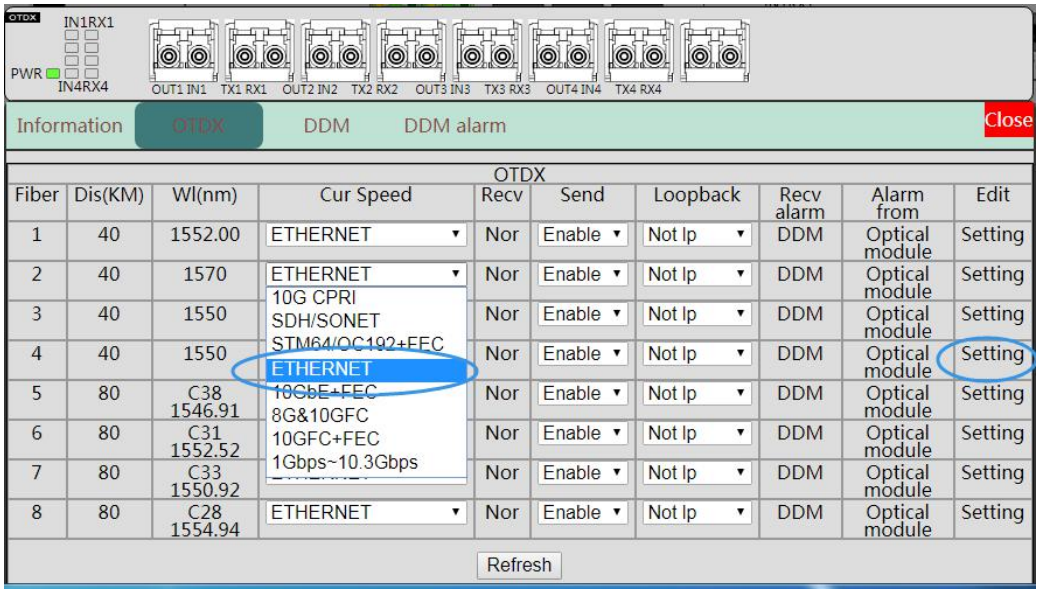
Continue to click OTU Information to view the port module wavelength, transmission distance, rate type, receive / transmit status, and self / non-self (Figure 20).



Fiber	Dis(KM)	Wl(nm)	Cur Speed	Recv	Send	Loopback	Recv alarm	Alarm from	Edit
1	80	C32 1551.72	ETHERNET	Nor	Enable	Not lp	DDM	Optical module	Setting
2	40	1570	ETHERNET	Nor	Enable	Not lp	DDM	Optical module	Setting
3	40	1550	ETHERNET	Nor	Enable	Not lp	DDM	Optical module	Setting
4	40	1550	ETHERNET	Nor	Enable	Not lp	DDM	Optical module	Setting
5	80	C38 1546.91	ETHERNET	Nor	Enable	Not lp	DDM	Optical module	Setting
6	80	C31 1552.52	ETHERNET	Nor	Enable	Not lp	DDM	Optical module	Setting
7	80	C33 1550.92	ETHERNET	Nor	Enable	Not lp	DDM	Optical module	Setting
8	80	C28 1554.94	ETHERNET	Nor	Enable	Not lp	DDM	Optical module	Setting

Figure 20 module port information

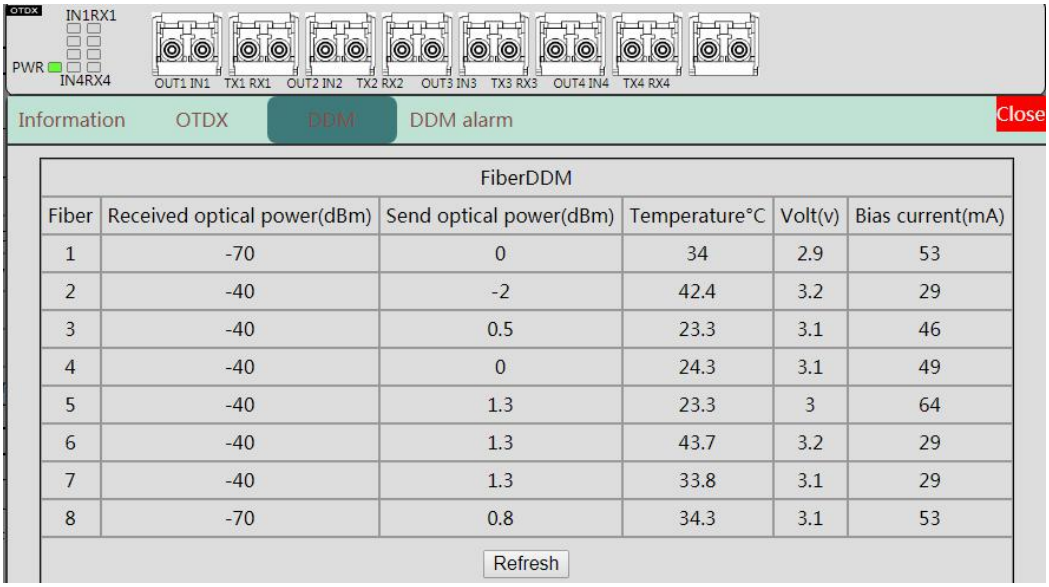
Users can modify the module rate type according to the actual application: Select the desired rate in the pull-down menu, and then click "Settings" on the right (Figure 21).



Fiber	Dis(KM)	Wl(nm)	Cur Speed	Recv	Send	Loopback	Recv alarm	Alarm from	Edit
1	40	1552.00	ETHERNET	Nor	Enable	Not lp	DDM	Optical module	Setting
2	40	1570	ETHERNET	Nor	Enable	Not lp	DDM	Optical module	Setting
3	40	1550		Nor	Enable	Not lp	DDM	Optical module	Setting
4	40	1550		Nor	Enable	Not lp	DDM	Optical module	Setting
5	80	C38 1546.91		Nor	Enable	Not lp	DDM	Optical module	Setting
6	80	C31 1552.52		Nor	Enable	Not lp	DDM	Optical module	Setting
7	80	C33 1550.92		Nor	Enable	Not lp	DDM	Optical module	Setting
8	80	C28 1554.94	ETHERNET	Nor	Enable	Not lp	DDM	Optical module	Setting

Figure 21 modify rate

Click "DDM Information" to view the real-time DDM information of each port module: send and receive optical power, temperature, voltage and bias current. To monitor the working status of the optical module in real time (Figure 22).



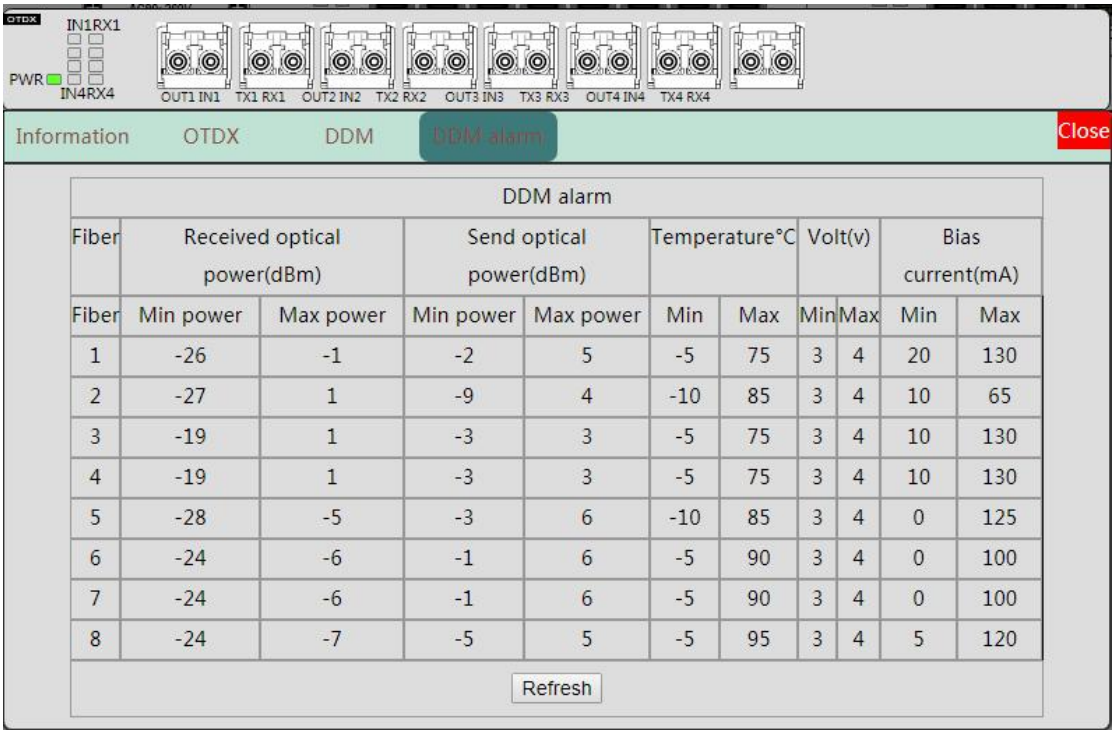
FiberDDM

Fiber	Received optical power(dBm)	Send optical power(dBm)	Temperature°C	Volt(v)	Bias current(mA)
1	-70	0	34	2.9	53
2	-40	-2	42.4	3.2	29
3	-40	0.5	23.3	3.1	46
4	-40	0	24.3	3.1	49
5	-40	1.3	23.3	3	64
6	-40	1.3	43.7	3.2	29
7	-40	1.3	33.8	3.1	29
8	-70	0.8	34.3	3.1	53

Refresh

Figure 22 check DDM information

Click “DDM Alarm threshold” to view the real-time DDM alarm threshold of each port module



DDM alarm

Fiber	Received optical power(dBm)		Send optical power(dBm)		Temperature°C		Volt(v)		Bias current(mA)	
Fiber	Min power	Max power	Min power	Max power	Min	Max	Min	Max	Min	Max
1	-26	-1	-2	5	-5	75	3	4	20	130
2	-27	1	-9	4	-10	85	3	4	10	65
3	-19	1	-3	3	-5	75	3	4	10	130
4	-19	1	-3	3	-5	75	3	4	10	130
5	-28	-5	-3	6	-10	85	3	4	0	125
6	-24	-6	-1	6	-5	90	3	4	0	100
7	-24	-6	-1	6	-5	90	3	4	0	100
8	-24	-7	-5	5	-5	95	3	4	5	120

Refresh

Figure 23 check DDM alarm threshold

8.2 OLPA

Click on the main board device view card type identification (blue circle in Figure 24 below), you can enter the card information view interface (Figure 25).

Figure 24 choose card

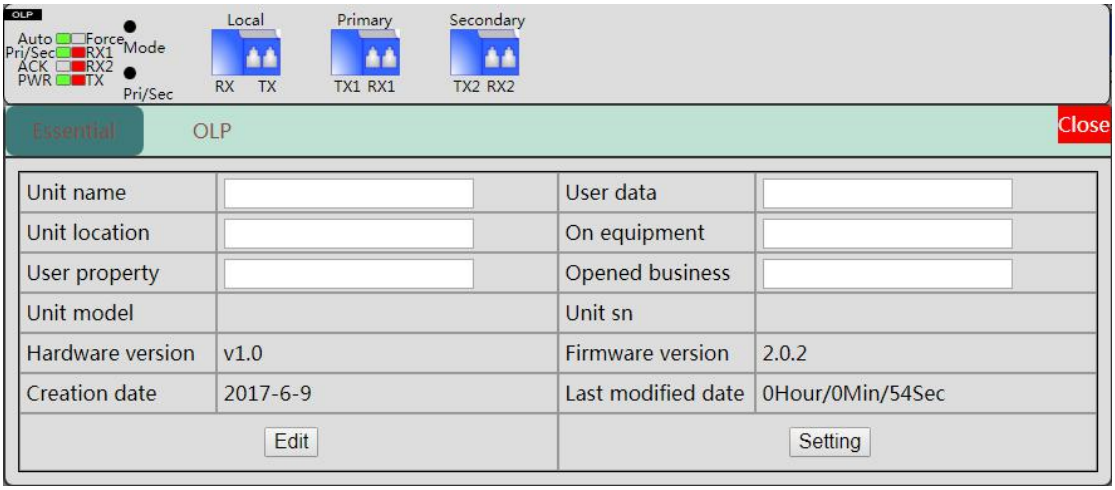


Figure 25 card basic information

Continue to click "OLP Information" to check the port received optical power, current working mode, working route, working wavelength, switching time, threshold value, etc. (Figure 26). Users can set the parameters according to the actual line. After setting, click on the right side of the "Settings" button, pop-up settings can be successful).

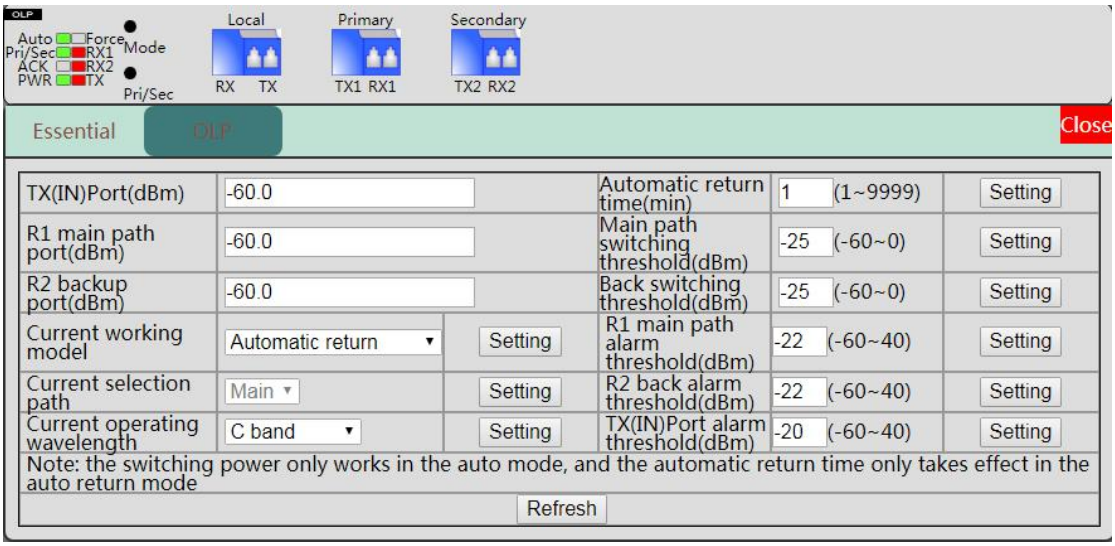


Figure 26 module configuration window

8.3 EDFA

Click on the card model identification (see Figure 27, blue circle below) in the main interface device view to enter the card information view interface (Figure 28).

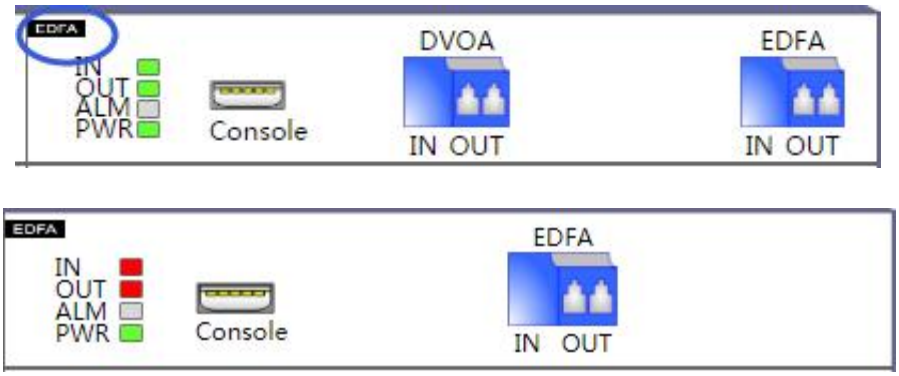
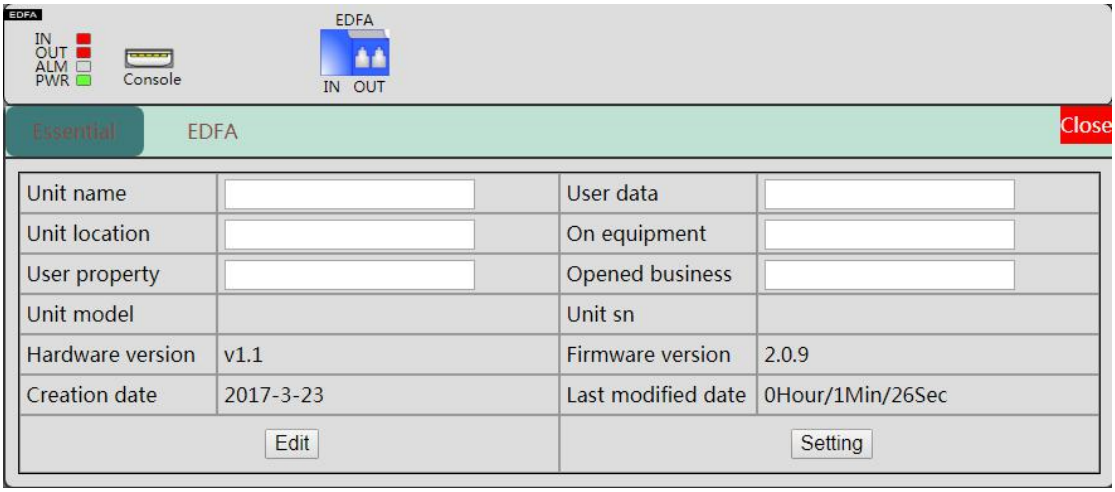


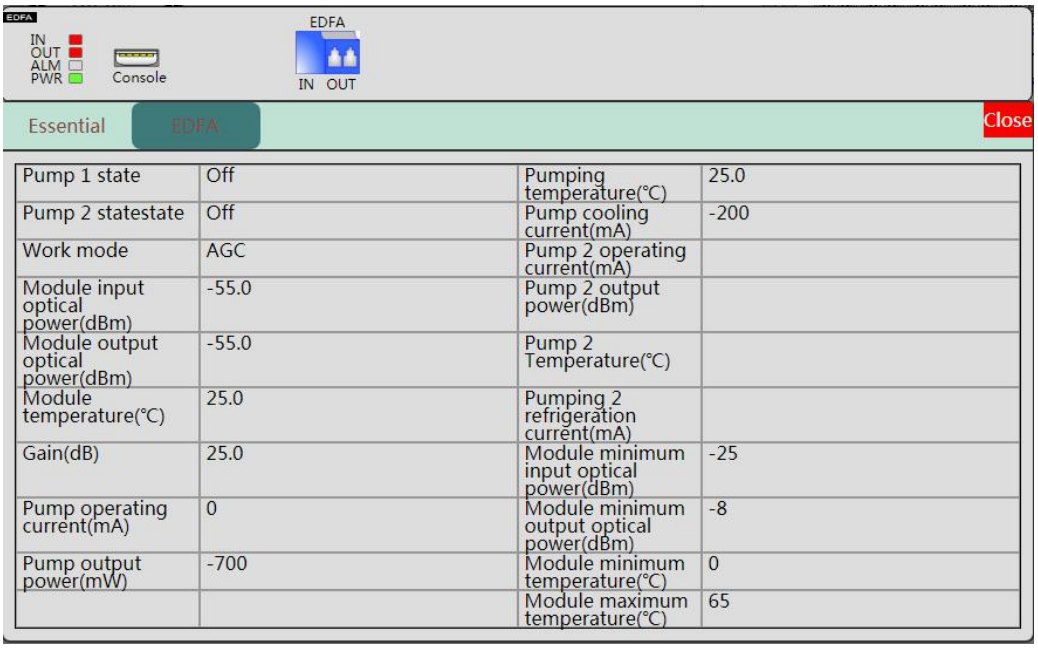
Figure 27 choose card



Unit name		User data	
Unit location		On equipment	
User property		Opened business	
Unit model		Unit sn	
Hardware version	v1.1	Firmware version	2.0.9
Creation date	2017-3-23	Last modified date	0Hour/1Min/26Sec
Edit		Setting	

Figure 28 card basic information

Continue to click "EDFA Information" to view the EDFA module information in the unit tray (mainly including the module's current input / output optical power, etc., Figure 29).



Pump 1 state	Off	Pumping temperature(℃)	25.0
Pump 2 statestate	Off	Pump cooling current(mA)	-200
Work mode	AGC	Pump 2 operating current(mA)	
Module input optical power(dBm)	-55.0	Pump 2 output power(dBm)	
Module output optical power(dBm)	-55.0	Pump 2 Temperature(℃)	
Module temperature(℃)	25.0	Pumping 2 refrigeration current(mA)	
Gain(dB)	25.0	Module minimum input optical power(dBm)	-25
Pump operating current(mA)	0	Module minimum output optical power(dBm)	-8
Pump output power(mW)	-700	Module minimum temperature(℃)	0
		Module maximum temperature(℃)	65

Figure 29 EDFA module information

Click DVOA Information to view the DVOA module information (mainly including the current input / output optical power of the module and the current attenuation optical power of the module, etc.) in the unit tray (see Figure 30). Because the optical attenuator is added to the input port of the EDFA module, the input value of the EDFA module is controlled by adjusting the attenuation value of the attenuator (changing the output value of the EDOA module by adjusting the attenuation value of the DVOA to change the input value of the EDFA module DVOA output and EDFA input is docking)), users use, according to the actual line of the parameters set (after setting, click the right side of the "Settings" button, the pop-up settings can be successful).