



SUN-EYDFA Series

1550nm Erbium-Ytterbium-Doped Fiber Amplifier

User's Manual



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I. Features

- (1) Single/dual input for choice, built in optical switch for dual input, the switching power can be set by the button in the front panel or by web snmp.
- (2) Output adjustable by buttons in the front panel or web snmp, the range is +0.5dBm~-4.0dBm
- (3) Max multi 32 ports, with built in 1310/1490/1550WDM,max total output 37 dBm
- (4) Standard RJ 45 port for remote control, we can provide output contract and web manager for choice, and also plug-in snmp hardware can be reserved for update.
- (5) With laser key to turn on/off the laser.
- (6) With RF test function.
- (7) Adopts JDSU or Oclaro Pump laser
- (8) Led displays the working condition of the machine
- (9)Dual power hot plug power supply for choice, 90V~250V AC or -48V DC

II. Installation

Before installation

1. Please check if there is damage in outside of the machine
2. Please check the spare parts is complete or not, if not complete, please contact the seller.

Installation

1. Please keep at least 1.75inches (4.5cm) space for cooling if the machine installed with other machines.
2. Please check the power supply socket and the grounding of the power supply, the grounding impedance should $\leq 4\Omega$, 220V power supply should be with three cables and the grounding cable should be in the middle, Unfitted grounding will damage the device or influence the signal quality.
3. Please make sure the power supply switch to off in the rear panel
4. Please confirm the fiber port is clean before connection the fiber.

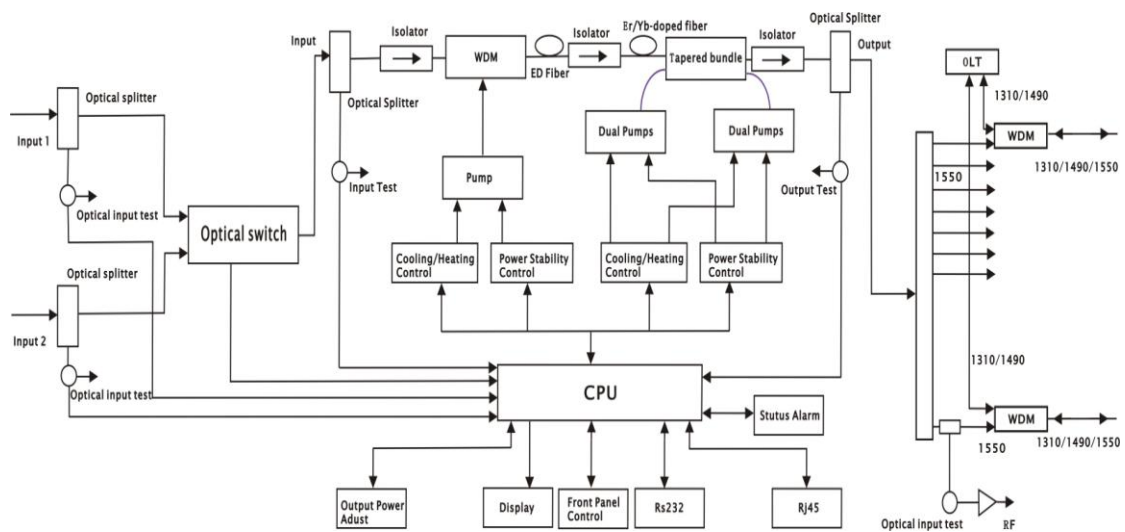
III. Set and Operation

Main Parameters

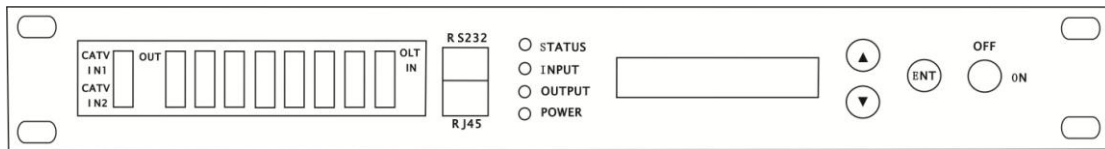
Items	Parameter									
Output (dBm)	31	32	33	34	35	36	37	38	39	40
Output (mW)	1250	1600	2000	2500	3200	4000	5000	6400	8000	10000
Input(dBm)	-8~+10									
Range of output adjustment (dBm)	Up 0.5、down 4.0									
Wavelength (nm)	1530~1565									
Output stability(dB)	<±0.3									
Optical Return Loss (dB)	≥45									
Fiber Connector	FC/APC、SC/APC									
Noise Figure (dB)	<6.0 (input 0dBm)									
Web port	RJ45 (SNMP)									
Power Consumption (W)	≤80									
Voltage (V)	220VAC (90~265)、-48DCV									
Working Temp (°C)	-0~55									
size (mm)	370(L)×486(W)×44(H) -1U 370(L)×486(W)×44(H) -2U									
NW (Kg)	6.0 (1U) 13.0 (2U)									

Diagram

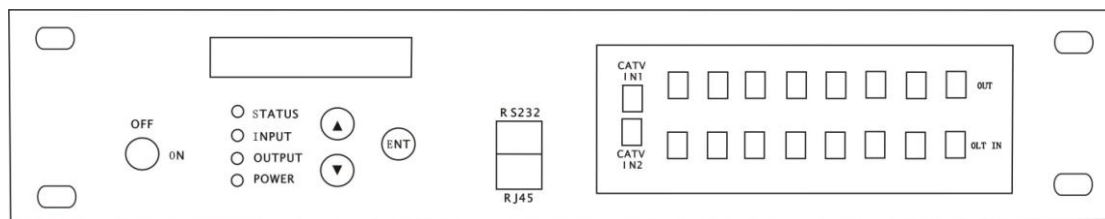
Dual inputs, With WDM



Front Panel



4 Ports、8 Ports、16Ports or With WDM



8 Ports、16Ports、32 Ports or With WDM

3.3.1 LED display

Displays the working parameter of the machine

3.3.2 STATUS Indication light

Green: Normal Condition

Red: No input or abnormal condition

3.3.3 INPUT Indication Light

Green: Normal

3.3.4 OUTPUT Indication Light

Green: Normal

3.3.5 Power Indication Light

Green: Power Connected

3.3.6 RS232

Network management for local computers

3.3.7 RJ45

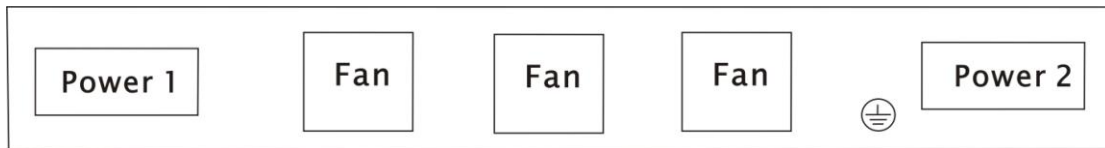
SNMP, for remote computer network management

3.3.8 Key

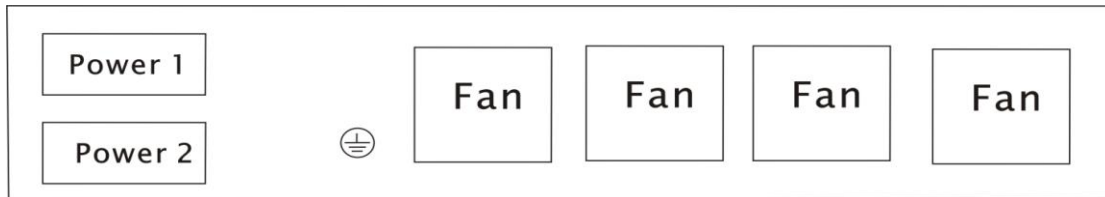
ON: Turn on the laser

OFF: Turn off the laser

Rear Panel



1U Rack



2U RACK

3.4.1 Power Switch (220V)

ON: Turn on the power

OFF: Turn off the power

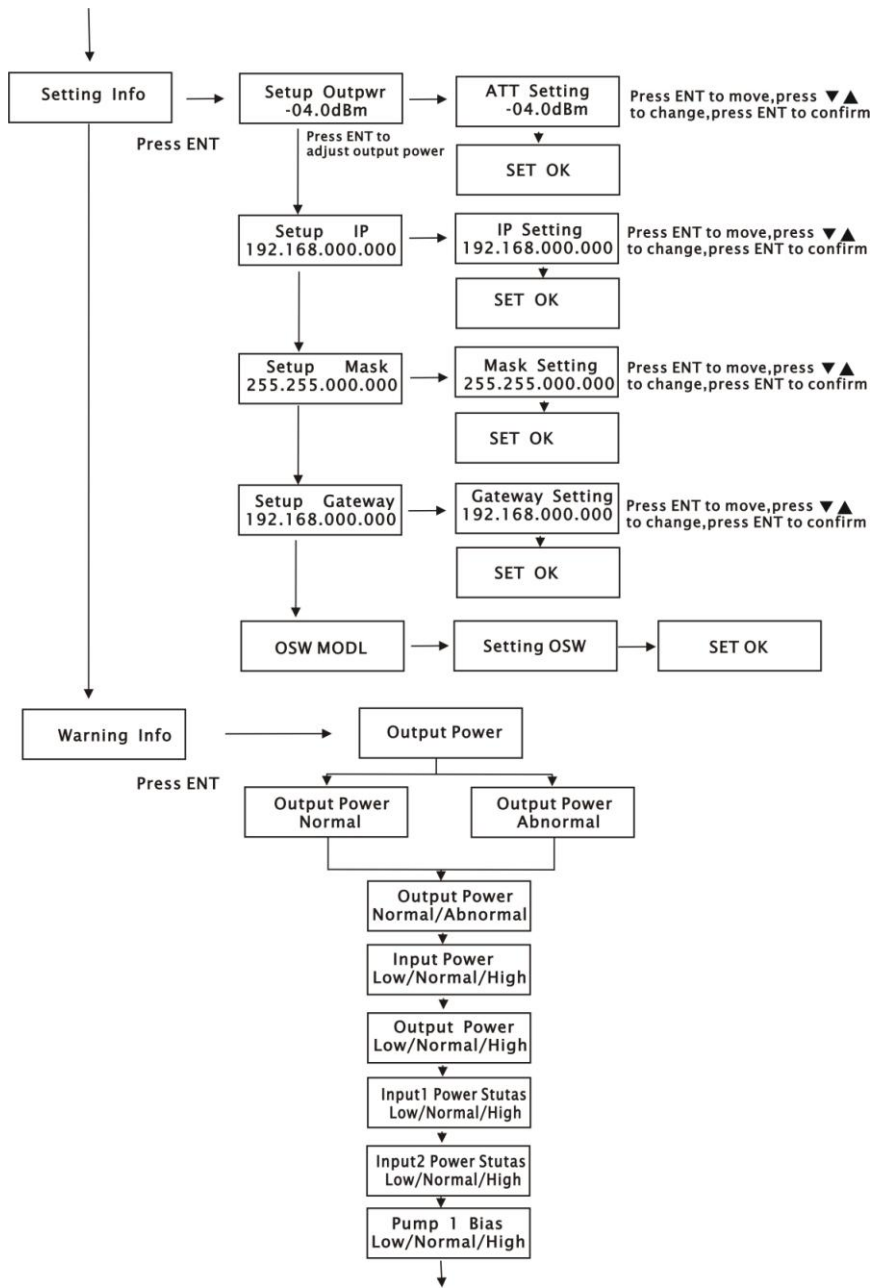
3.4.2 Power Socket

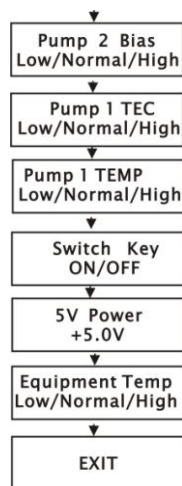
AC220V or DC-48V

Panel Operation

Please Press ▲ for forward, press ▼ to return.

3.5.1 Dual inputs

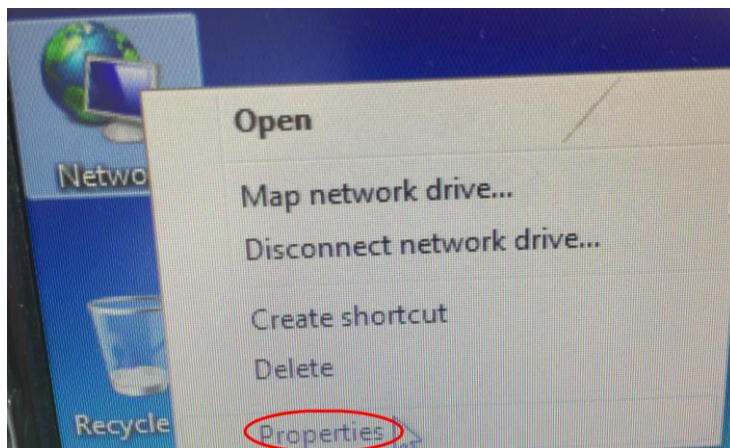


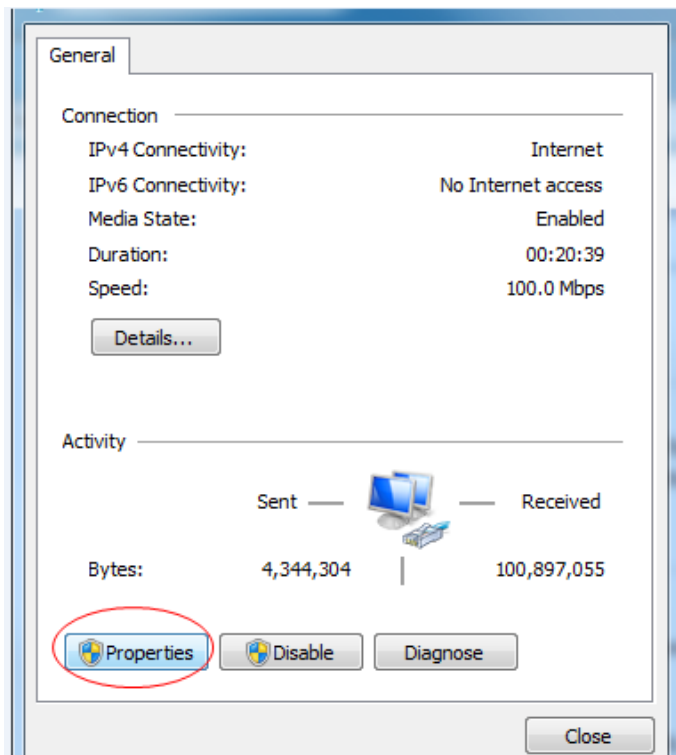
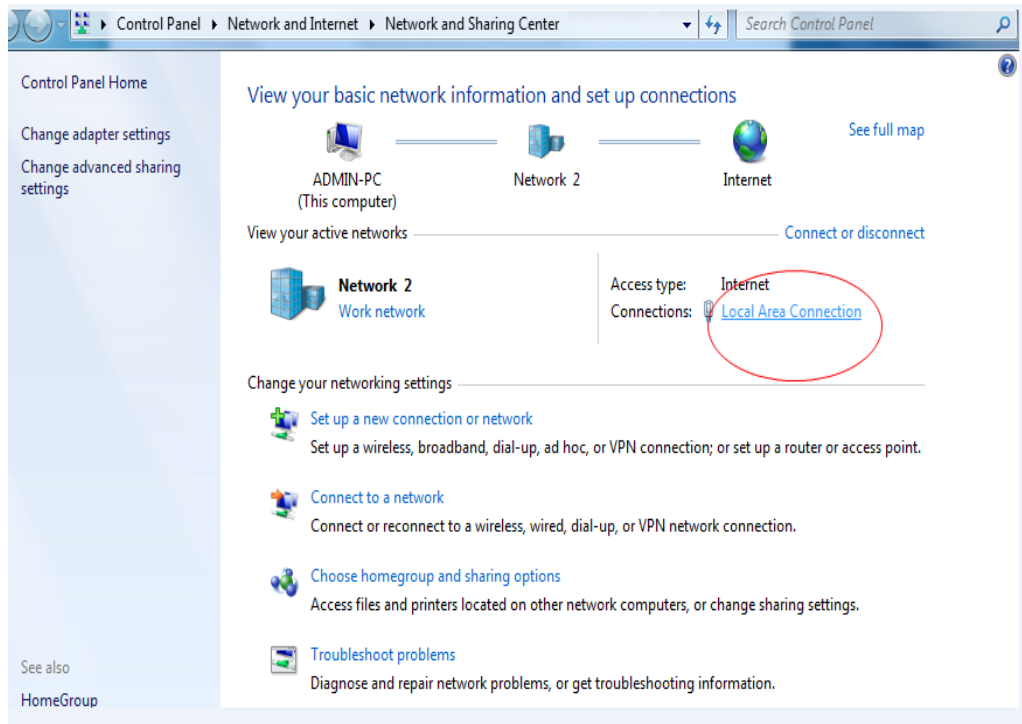


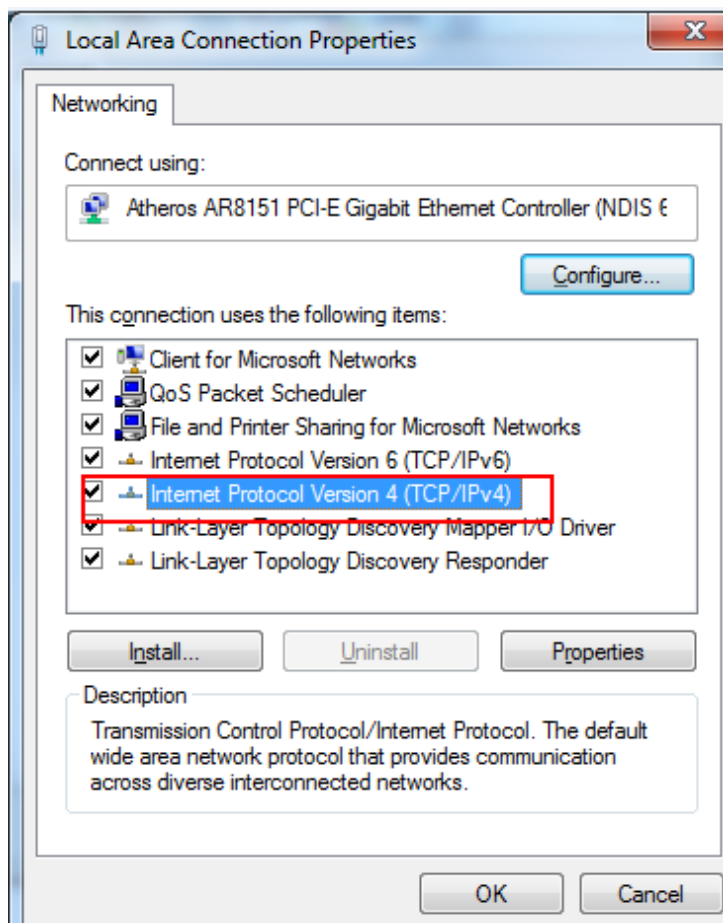
IV. Web server

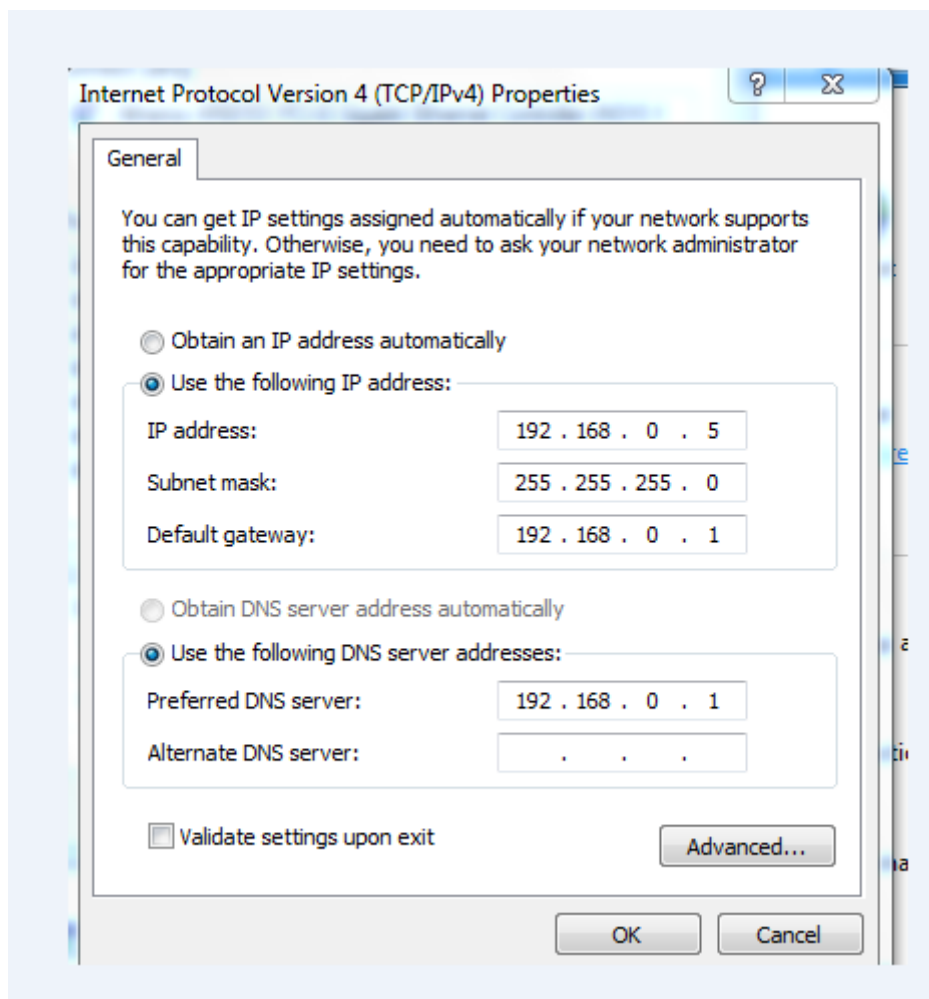
The user can use web browser to check the working condition and basic parameters of the amplifier, it supports IE, Chrome, Firefox ,opera and other main web browser. The following example are based on Opera browser.

1. Pls find the IP add in the machine, normally it is 192.168.1.XXX, set the IP add of the PC in the same range as following steps:

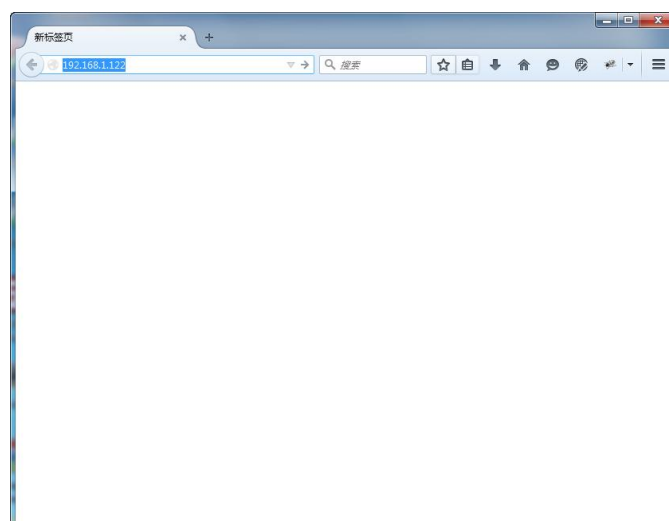




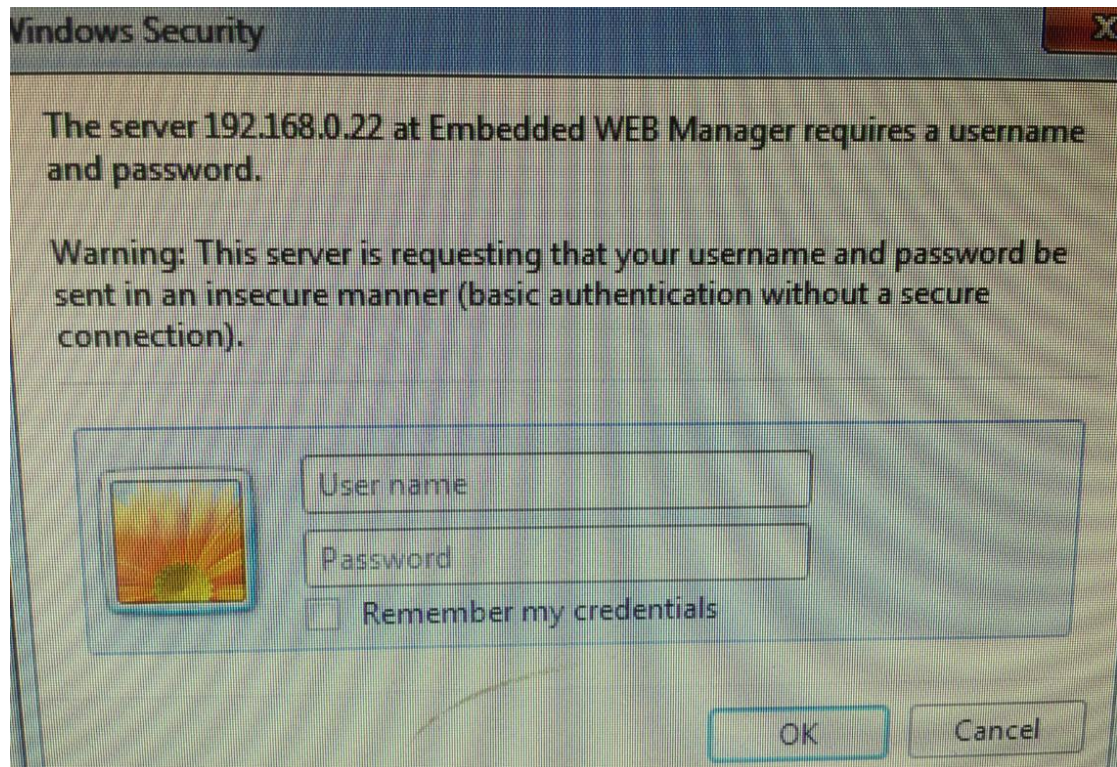




2 .Open web browser, input the IP add, For example: 192.168.0.22



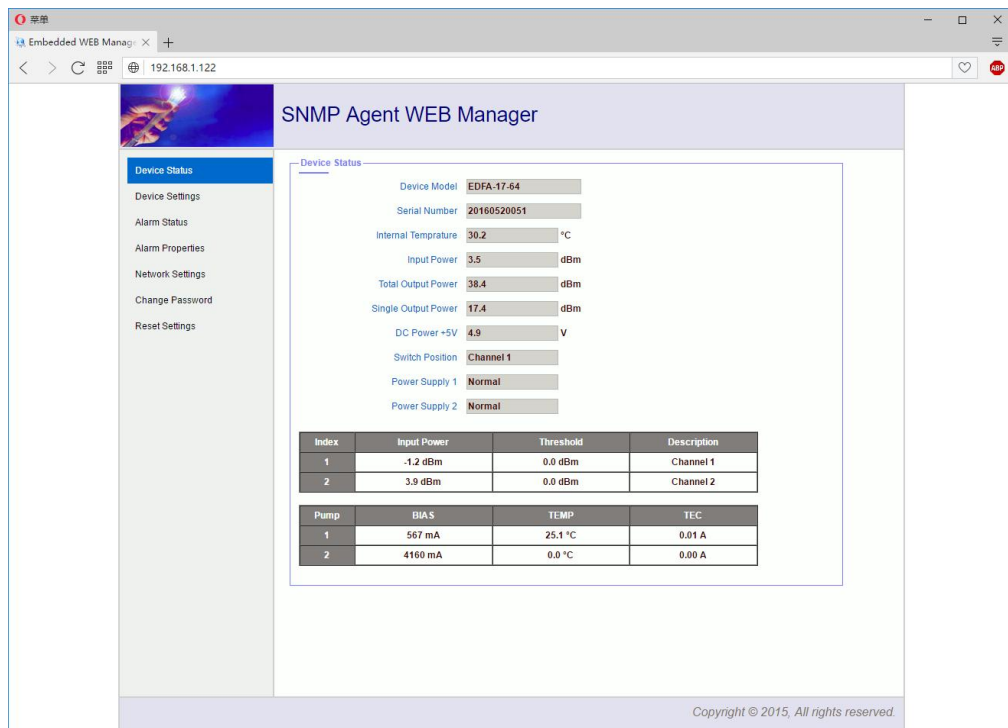
Then login version



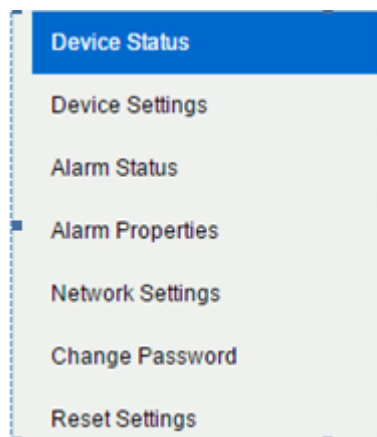
User Name: admin

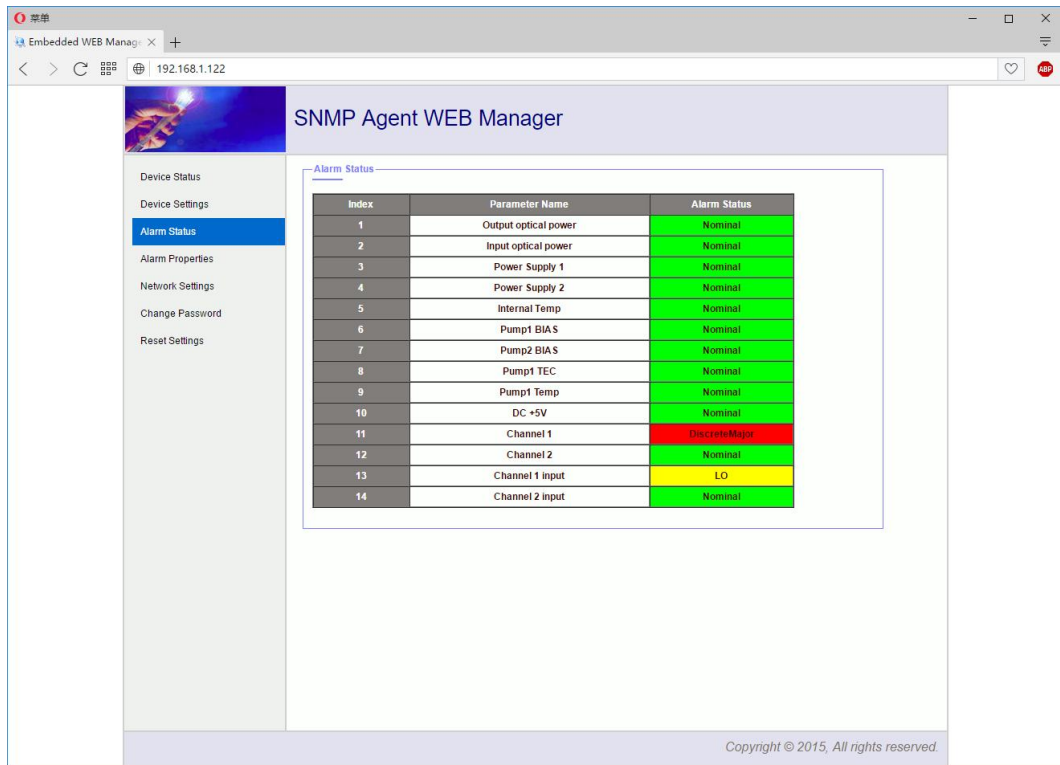
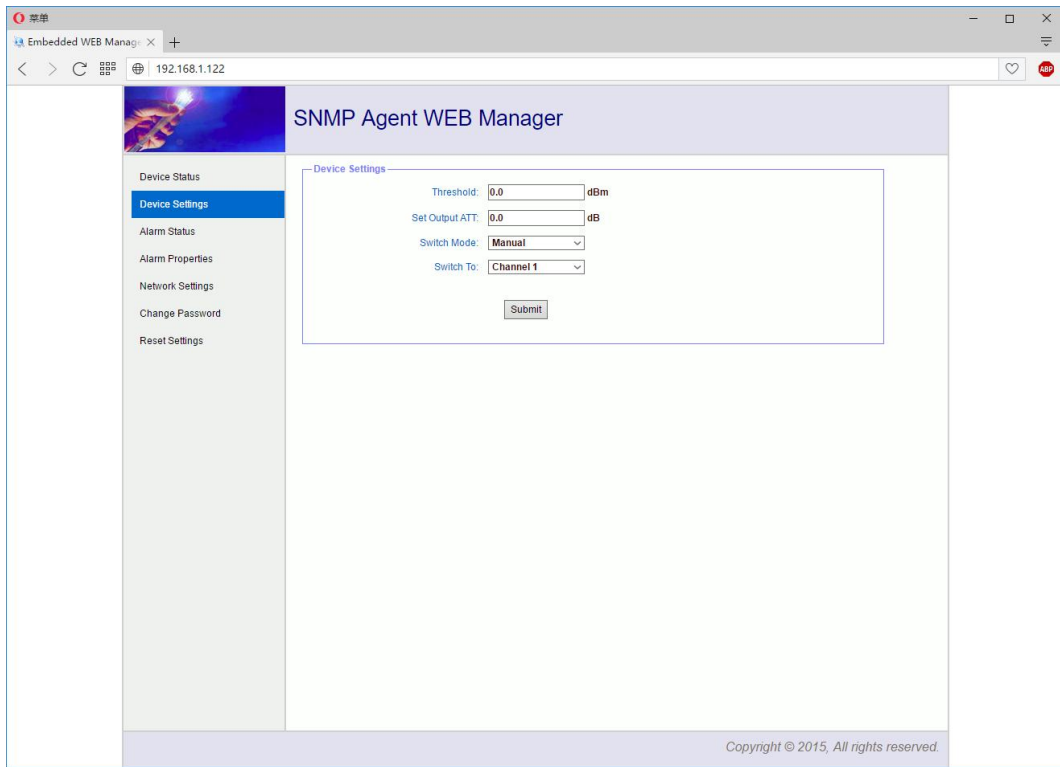
Password: 123456

3.The working condition version:



4.4 Items guide on the left, click to enter:





The screenshot shows the 'SNMP Agent WEB Manager' interface with the 'Alarm Properties' tab selected. The left sidebar contains navigation options: Device Status, Device Settings, Alarm Status, Alarm Properties (highlighted), Network Settings, Change Password, and Reset Settings. The main content area displays two tables for alarm configuration.

Index	Parameter Name	HHH	HI	LO	LOLO	Deadband	Action
1	Output optical power (dBm)	<input checked="" type="checkbox"/> 27.0	<input checked="" type="checkbox"/> 26.0	<input checked="" type="checkbox"/> 11.0	<input checked="" type="checkbox"/> 10.0	0.5	Set
2	Input optical power (dBm)	<input checked="" type="checkbox"/> 10.0	<input checked="" type="checkbox"/> 8.0	<input checked="" type="checkbox"/> -3.0	<input checked="" type="checkbox"/> -10.0	0.2	Set
3	Internal Temp (°C)	<input checked="" type="checkbox"/> 85	<input checked="" type="checkbox"/> 70	<input checked="" type="checkbox"/> 5	<input checked="" type="checkbox"/> 0	2	Set
4	Pump1 BIAS (mA)	<input checked="" type="checkbox"/> 900	<input checked="" type="checkbox"/> 800	<input checked="" type="checkbox"/> 100	<input checked="" type="checkbox"/> 80	20	Set
5	Pump2 BIAS (mA)	<input checked="" type="checkbox"/> 15000	<input checked="" type="checkbox"/> 10000	<input checked="" type="checkbox"/> 100	<input checked="" type="checkbox"/> 80	20	Set
6	Pump1 TEC (A)	<input checked="" type="checkbox"/> 2.00	<input checked="" type="checkbox"/> 1.50	<input checked="" type="checkbox"/> -1.50	<input checked="" type="checkbox"/> -2.00	0.10	Set
7	Pump1 Temp (°C)	<input checked="" type="checkbox"/> 35.0	<input checked="" type="checkbox"/> 30.0	<input checked="" type="checkbox"/> 20.0	<input checked="" type="checkbox"/> 15.0	1.0	Set
8	DC +5V (V)	<input checked="" type="checkbox"/> 6.5	<input checked="" type="checkbox"/> 6.0	<input checked="" type="checkbox"/> 4.0	<input checked="" type="checkbox"/> 3.5	0.2	Set
9	Channel 1 input (dBm)	<input checked="" type="checkbox"/> 10.0	<input checked="" type="checkbox"/> 7.5	<input checked="" type="checkbox"/> 3.5	<input checked="" type="checkbox"/> -10.0	0.2	Set
10	Channel 2 input (dBm)	<input checked="" type="checkbox"/> 10.0	<input checked="" type="checkbox"/> 7.5	<input checked="" type="checkbox"/> 3.5	<input checked="" type="checkbox"/> -10.0	0.2	Set

Index	Parameter Name	Control	Action
1	Power Supply 1	EnableMajor	Set
2	Power Supply 2	EnableMajor	Set
3	Channel 1	EnableMajor	Set
4	Channel 2	EnableMajor	Set

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The screenshot shows the 'SNMP Agent WEB Manager' interface with the 'Network Settings' tab selected. The left sidebar is the same as in the previous screenshot. The main content area displays network configuration fields.

Device MAC: 00 : B9 : A0 : 12 : 47 : 32

Update Identifier: DA138TG02

Static IP Address: 192 . 168 . 1 . 122

Subnet Mask: 255 . 255 . 255 . 0

Default Gateway: 192 . 168 . 1 . 1

Trap Address 1: 255 . 255 . 255 . 255

Trap Address 2: 0 . 0 . 0 . 0

Trap Address 3: 0 . 0 . 0 . 0

Trap Address 4: 0 . 0 . 0 . 0

Trap Address 5: 0 . 0 . 0 . 0

Trap Address 6: 0 . 0 . 0 . 0

Trap Address 7: 0 . 0 . 0 . 0

Trap Address 8: 0 . 0 . 0 . 0

Read Community: public

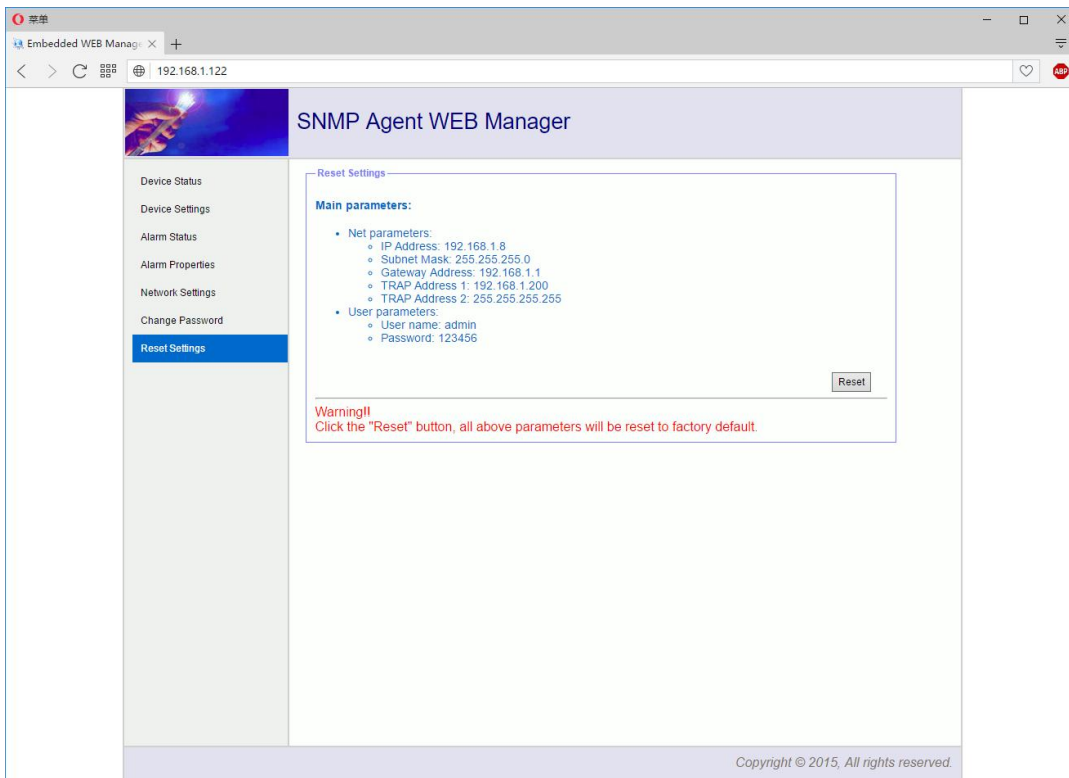
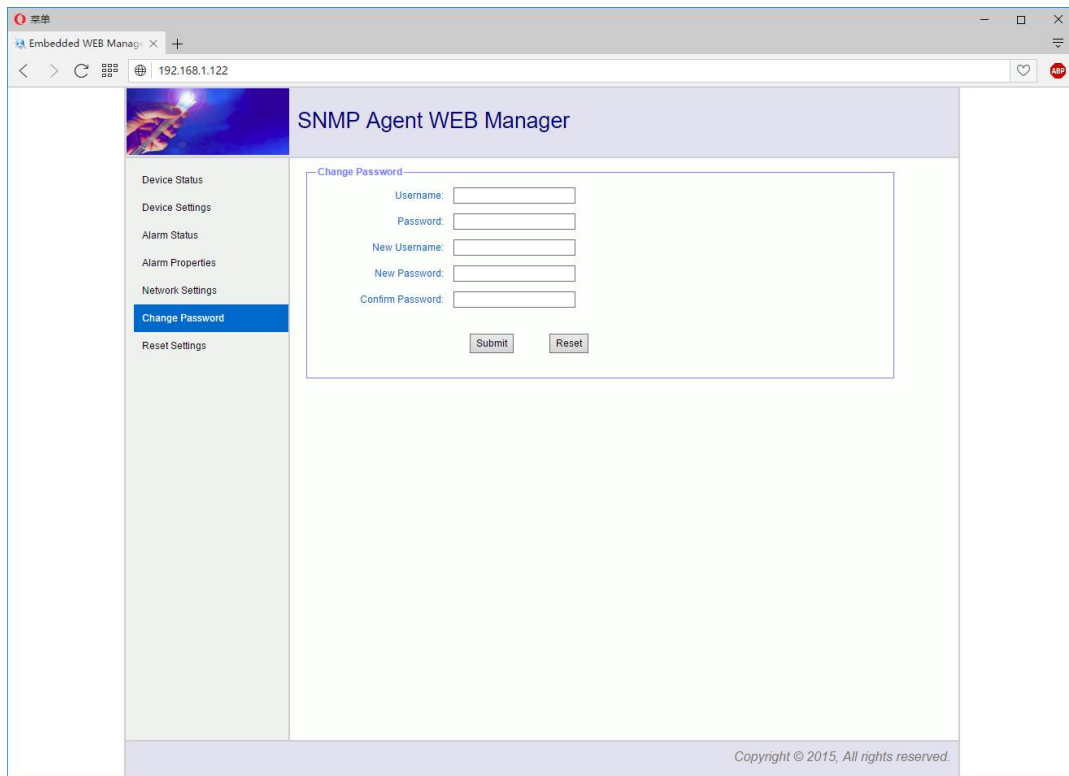
Write Community: public

Trap Community: public

SNMP Version: V1

Save

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V. Notes

1. The main component of the amplifier laser is sensitive to the static electricity, so please keep the amplifier away from the static electricity. Furthermore, please keep it away from caustic things. Please keep the amplifier in temperature between -25°C and 65°C.
2. Please make sure the power is earthed.
3. Please don't now attempt to look into the optical connectors when power applied, eye damage may result.
4. Please don't block up the heating dispersion hole and keep the machine aired.
5. Please don't unfold the machine or remove any parts of the machine.
- 6. Please don't insert the patch cord when the power is on**
- 7. Please don't test the EDFA more than 5 times.**

VI. Solution to some ordinary problem

1. Power supply light STATUS: green
LED light LASER: red
VFD display: NO LASER INPUT
Reason: No 1550nm optical input
Solution: Input 1550nm optical signal
2. In LED n it displays the right optical power, but not enough by test meter
Reason: 1. the optical meter is not very correct
2. the input optical power is out of the requested value(-3~10dB)
3. too big loss in the test pigtail
4. There is dust in the connectors
Solution:
Use absolute alcohol to wash the all the connects and the test point of



optical meter

Note:

1. **Don't use Chinese optical meter to test EDFA.**
2. **Don't test EDFA with pigtail again and again, it will hurt the fiber connector and make the factual power become smaller.**

VII. Warranty Term

SUN-EYDFA Series optical amplifiers are covered by **TWO YEAR LIMITED WARRANTY**, which starts from the initial date of your purchase. We provide its customer whole-life technical supports. If warranty is expired, repair service only charges parts (if required). In the event that a unit must be returned for service, before returning the unit, please be advised that:

1. Warranty mark pasted on the housing of unit must be in good conditions.
2. A clear and readable material describes model number, serial number and troubles should be offered.
3. Please pack the unit in its original container. If the original container is no longer available, please pack the unit in at least 3 inches of shock absorbing material.

NOTE: we **do not** assume responsibility for damage caused by improper packing of returned unit(s).

The following situation is not covered by warranty:

1. The unit fails to perform because of operators' faults.
2. Warranty mark is modified, damaged and/or removed.
3. Damage caused by Force Majeure.
4. The unit has been unauthorized alteration and/or repaired.
5. Other troubles caused by operators' faults.

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