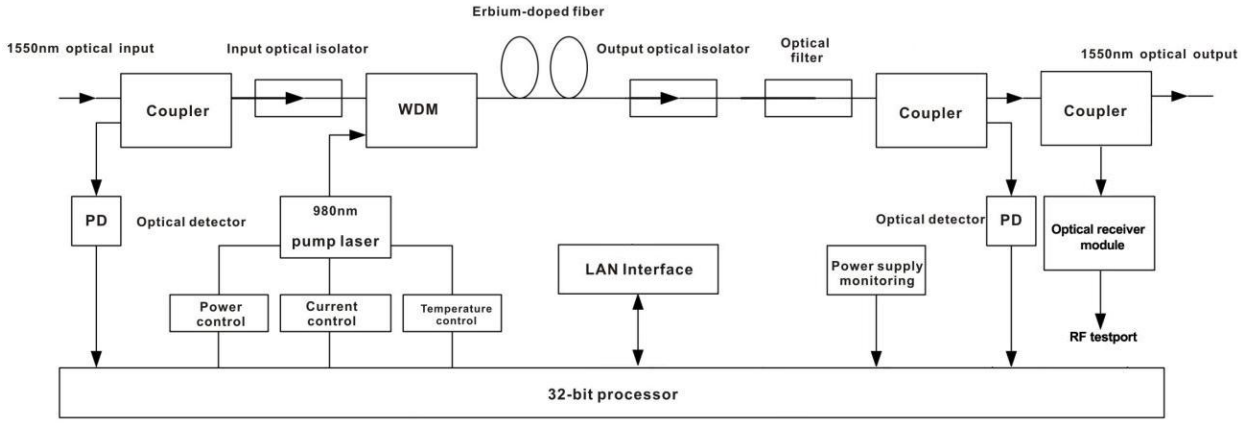
WE-1550-MINI Er-doped Optical Fiber Amplifier

1 Product Overview

WE-1550-MINI series 1550nm optical fiber amplifier is an important optical relay transmission equipment in 1550nm optical fiber communication system. It is mainly used in optical networks where FTTH and triple play services are installed in multi-residential units. This product uses high-performance erbium-doped fiber and low-noise pump laser to ensure the stable performance of the whole machine. Compact, lightweight, easy to debug and install, and it is a good choice for building a secondary optical fiber network for CATV.

2 Block Diagram

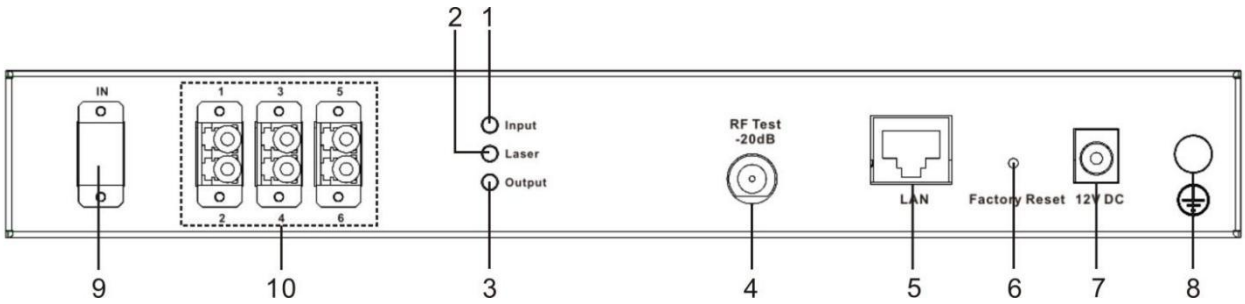


3 Technique Parameter

Item		Unit	Technique parameter	Remark
Operating wavelength		nm	1545 - 1565	
Input optical power range		dBm	-5 - +10	
Recommended optical input power		dBm	-2 - +3	
Output optical power		dBm	6 × 13.5	
Output power stability		dBm	±0.5	Pin -2~+10dBm
Noise figure		dB	≤ 5.0	Pin= 0dBm
Return loss	Input	dB	≥ 45	
	Output	dB	≥ 45	
Pump leakage power	Input	dBm	≤ -30	
	Output	dBm	≤ -30	
Optical connector type			FC，SC or LC	

RF testport	dBuV	≥ 70	Channel load of 112 x QAM256 Channels, 8MHz wide, in range 110MHz-1003MHz
Bandwidth RF Test Port	MHz	45-1003	
Power supply voltage	V	DC12V	External power adapter
Consumption	W	< 10	
Operating Temperature Range	℃	-5 - +55	
Maximum operating relative humidity	%	Max 95% No Condensation	
Storage Temperature Range	℃	-30 - +70	
Maximum storage relative humidity	%	Max 95% No Condensation	
Dimension	mm	260(W) × 180(D) × 35(H)	
Weight	kg	1.5	

4 External Function Description

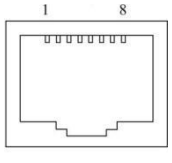


1. Optical input power indicator	Green: Optical power within the normal range Red: Optical power is too high Yellow: Optical power is too low
2. Pump working status indicator	Green: The pump laser is working normally Red: The pump laser is off
3. Optical output power indicator	Green: Normal Red: Abnormal
4. RF test port	F type
5. LAN port	
6. Reset Button	This button restores factory settings. Default IP: 192.168.177.100
7. DC12V input port	
8. Chassis ground stud	
9. Optical power input port	
10. Optical power output port	Different optical connector types can be selected, subject to the actual configuration

5.Communication Setup Descriptions

5.1 Communication Interface Description

LAN communication interface adopts RJ45 standard connector, the pin definitions as follow:

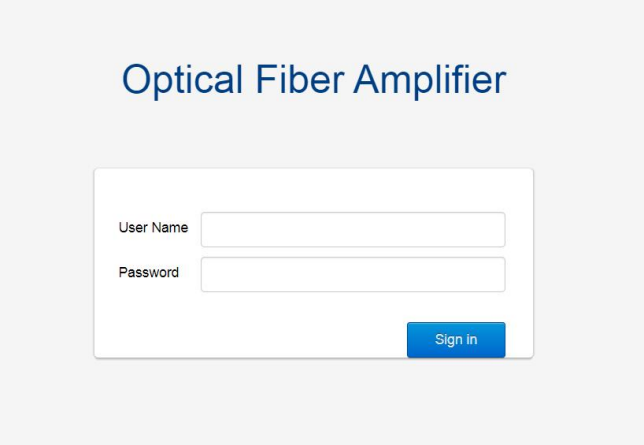


LAN

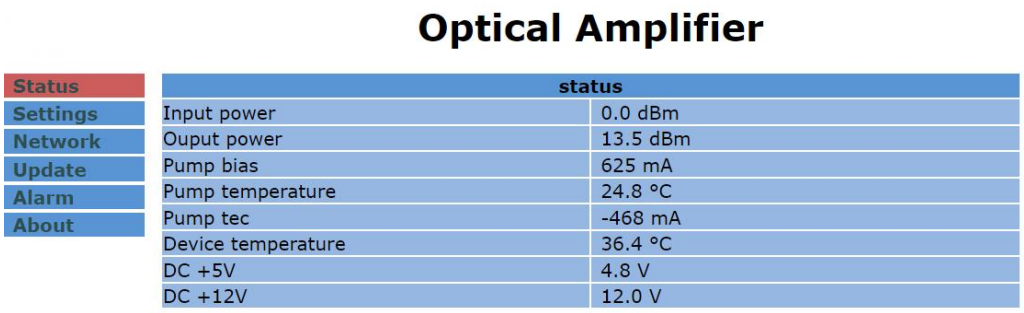
1：TX+	2：TX-	3：RX+
4：No Connect	5：No Connect	6：RX-
7：No Connect	8：No Connect	

5.2 WEB Network Management

1) Opening the IE browser and entering the equipment IP address leads to the following interface:

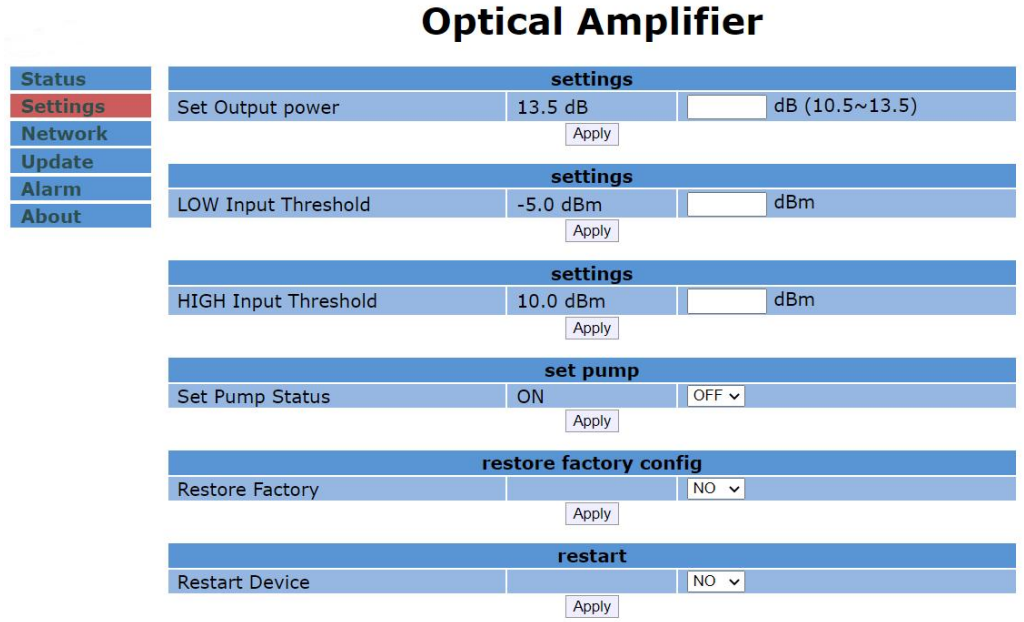


2) Enter the user name **admin** and password **123456** (factory default), to show the following interface:

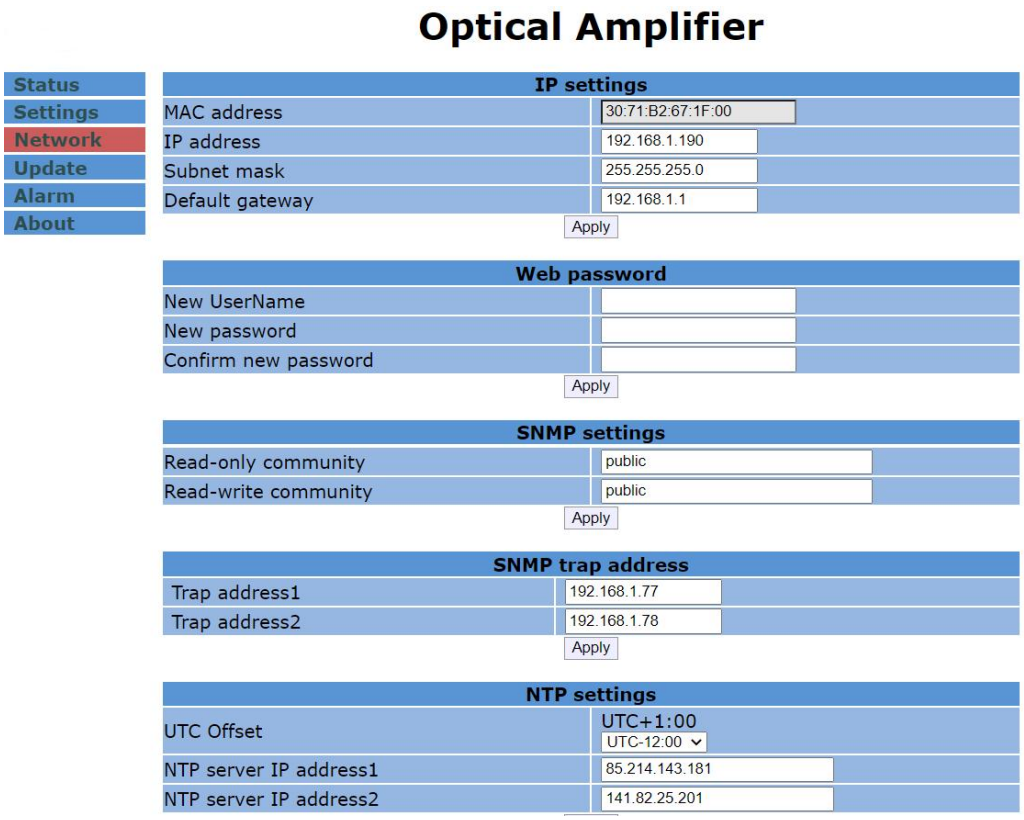


3) Click **Settings** to open the following interface:

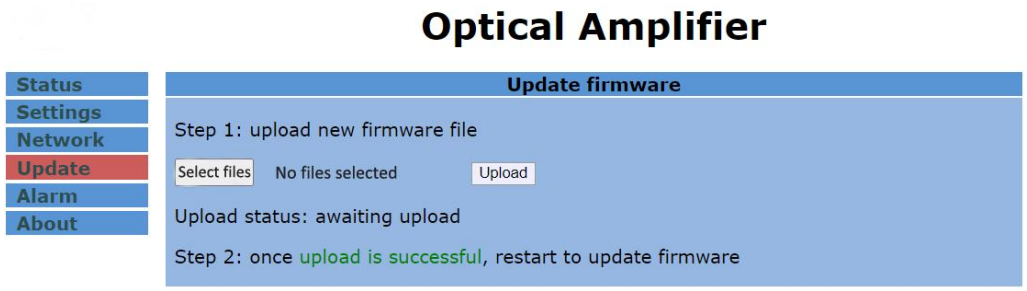
For the relevant parameters that can be changed in the settings column, modify the corresponding value or select the corresponding option, and then click Apply to confirm the modification.



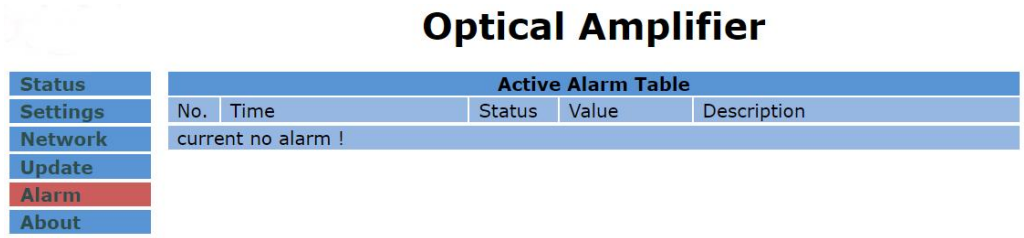
4) Click **Network** interface, which can set IP address, modify Web login password and set SNMP. As shown below:



5) Click **Update** to upgrade the firmware file. As shown below:



6) Click **Alarm** to view the alarm list. As shown below:



7 Attention

- Ensure the package is not defaced. If the equipment is damaged due to transportation or other reasons, please don't electrify to avoid worse damage.
- Before powering on, make sure that the grounding terminals of the chassis and power socket are reliably grounded, and the grounding resistance should be ＜4Ω, which can effectively protect against surges and static electricity.
- Optical amplifier is a highly technical professional equipment,its installation and debugging must be operated by professional technicians. Read this manual carefully before operating to avoid damage to equipment caused by fault operation or accident harm to the operator.
- When installing and debugging optical equipment, invisible laser beams may be emitted inside the fiber connector.Avoiding permanent harm to the body and eye, the fiber connector should not aim at the human body and human should not look

directly at the fiber connector with the naked eye!

- There must be no shielding outside the ventilation holes of the device. Poor ventilation will cause the index to decrease, and in serious cases will cause damage to the device.
- When cleaning the fiber end face, you must confirm that the optical source is turned off.
- When the fiber connector is not in use, put a dust cover to avoid dust pollution and keep the end surface of the optical fiber clean.
- When installing the fiber connector, apply appropriate force to avoid damage to the adapter. Otherwise, the output optical power may decrease.