

1550nm Optical Amplifying Module WOS-WE-1550-4K-1X20

1 Product Overview

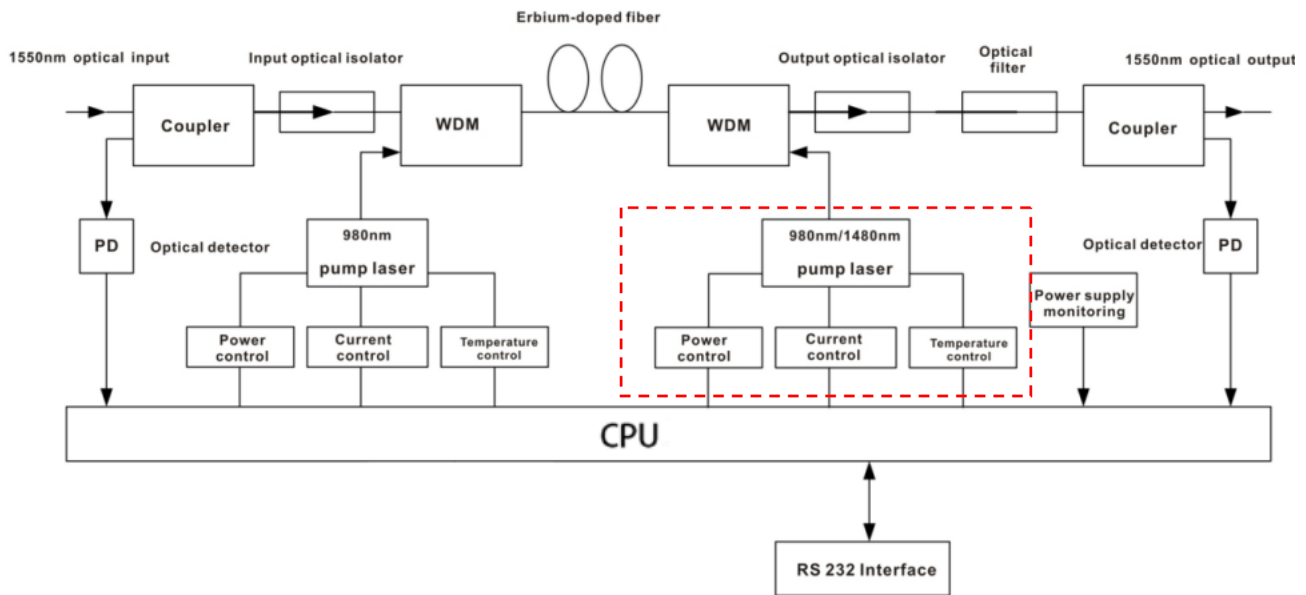
Optical fiber amplifier (EDFA) is an important optical transmission device in 1550nm optical fiber communication system. This module uses imported high-performance Er-Yb Co-doped fiber, low-noise pump laser and well-designed embedded automatic monitoring system to ensure the excellent index. Each EDFA module contains optical power detection components on input and output ports to automatically adjust the laser pump and keep the output power stable. The internal control circuit accurately maintains the output power and temperature of the laser; the parameters can be set and displayed through SNMP, Web Interface and CMM management unit.



2 Performance Characteristics

- Support hot swap.
- Optical power input and output status indicator.
- Electromagnetic compatibility.
- Adjustable attenuator for output from 0~3 dB, 0.1dB stepping.
- Pump temperature, bias current, and cooling current are detected in real time.
- Optical signal output is optional.

3 Block Diagram



4 Technical Parameters

Item	Unit	Technique Parameter	
EDFA			
Operating bandwidth	nm	1545 - 1561	ITU Grid Ch. 31 39
Input optical power range	dBm	+5 - +10	
Output optical power	dBm	≥ 20	
Output power stability	dBm	≤ ±0.3	
Noise figure	dB	≤ 5.5	Input power: 5dBm
Return loss	dB	≥ 40	
Pump leaks to the input	dB	≤ -30	
Pump leaks to the output	dB	≤ -30	
Polarization Dependent	dB	< 0.4	
Polarization Mode	Ps	< 0.5	
Optical connector type		SC/APC	
Other			
Storage temperature	C°	-30 - +70	
Operating temperature	C°	-5 - +45	
Operating relative humidity		Max 85% no condensation	
Power Consumption	W	< 12	
Weight	Kg	1	

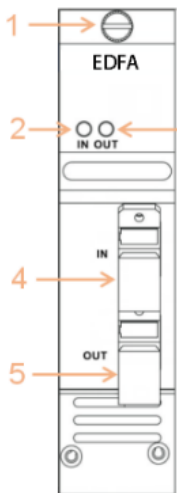
5 Operation Instructions of the Display Menu

Once the module is installed, the corresponding slot in the display menu will highlight.

After entering the submenu, the following parameters can be seen:

InPower	XX.XdBm	Input optical power
InputPowerLo	XX.XdBm	Alarm threshold of the low input optical power, can be set
OutPower	XX.XdBm	Output optical power
OptATT	X.XdB	Output optical power attenuation, 0~4dB, 0.1dB stepping
Pump1 Temp	XX.X□	Pump 1 internal temperature
Pump1 Bias	XXmA	Pump 1 bias current
Pump1 TEC	XXmA	Pump 1 cooling current
PumpCtrl	ON	Pump switch, "ON" is on, "OFF" is off
DevTemp	XX.X□	Module internal temperature
SN		Serial number
Version		Version number
WorkTime		Total operating hours of the equipment

6 Structure Description



No.	Item	Note
1	Module fixing screw	Used to fix the module
2	Optical power input indicator	Green: between the low threshold and +10dBm Red: lower than the low threshold or more than +10dBm
3	Optical power output indicator	Green: within rated output power range from -2dB to +1dB Red: outside rated output power range from -2dB to +1dB
4	Optical power input	
5	Optical power output	

7 Installation

- This module can be installed in slots from 1-16 and can be fully configured.
- Check if the pins on the rear of the module are bent.
- Install the module in place along the guide and tighten the screws.

- When the module is installed and powered, the optical output port must be connected to a fiber or other optical receiving device before the optical input is connected.

First connect the input, then the output, or the output fiber tip may be burned.

- Avoid direct observation and contact with the fiber tip. You must confirm the equipment is off when cleaning the port.



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