Smart Architecture of Espadana

Designing, Production,Customization and Consultant Service

in Network and Fiber Optic System

Technical Specification

SAE-EDF50-LCD-NMS

C-Band DWDM Optical Amplifier- EDFA

C-Band DWDM Optical Amplifier- EDFA

Product Description

- low-noise pump laser, low distortion, wide band,high output light power
- high energy conversion efficiency, supports imported high-performance baits fiber,
- designed in Low-noise high flatness /provide adjustable output power
- adopts Power and pumped lasers of all kinds of work status, ensuring a stable optical output power,and effectively extend the working life of the pump laser.
- designed in conformity with standard Ethernet interfaces
- 19 "rack 1U high standardIEEE802.310Base-T
- The microprocessor software provide RS-232 interface used for network management, and facilitate the realization of network monitor

Full Description

SAE-EDF50-LCD-NMS is multi-channel ERBIUM-DOPED FIBER AMPLIFIER (EDFA) in Low-noise , high flatness & high stable output. The kernel component of the product is high availability pump laser and high-performance gain flattening filters. The product has high stable output, high gain flatness and high reliability by using unique APC (automatic power control) and ATC (automatic temperature control). The system's flatness and noise of **SAE-EDF50-LCD-NMS** can achieve the best optimization by the gain flattening filters of professional design. The product selection of imported high-performance baits fiber, the international famous brand low-noise pump laser, and built-in sound embedded automatic monitoring and control system, ensure the machine excellent performance indicators. The system is convenient to regulation and display, reliable,intelligent by using high stable and high precision MPU.

C-Band DWDM Optical Amplifier- EDFA

Application

- C-band C40 CH DWDM
- Other optical systems

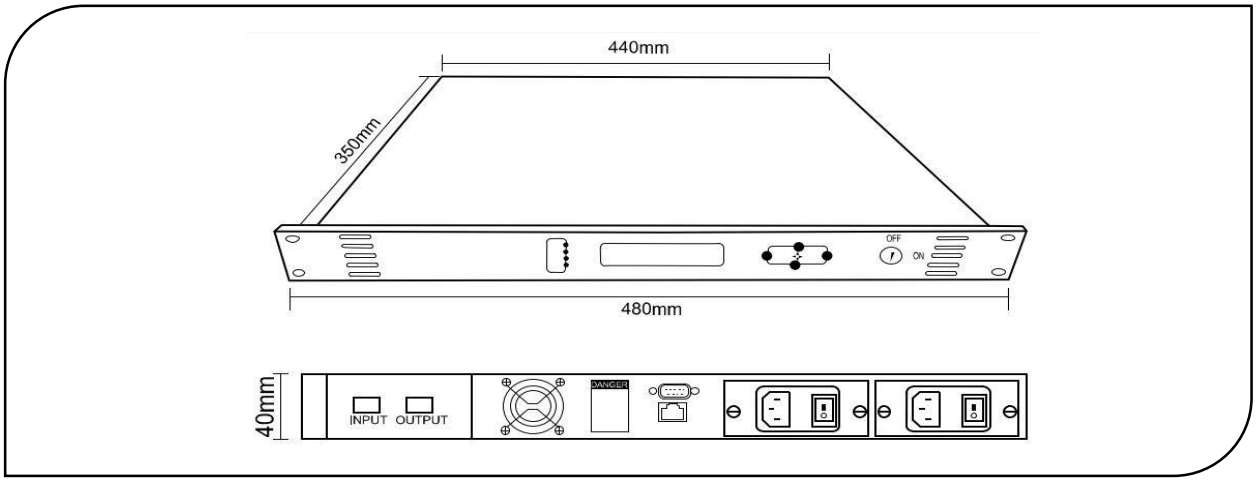
Technical Specification

Product name	SAE-EDF50-LCD-NMS				
Parameter	min	typ	max	symb	unit
performance					
Working mode	--	AGC	--	--	--
Operating Wavelength	1528	1550	1564	λc	nm
Output Power	-10	--	23	Po	dBm
Input Power	-35	--	12	Pi	dBm
Gain	8	--	25	G	dB
Noise Figure	--	4.5	6	NF	dB
Flatness	--	1	1.5	GF	dB
Power/Gain Stability	--	±0.05	±0.1	ΔPo	dB
Input Isolation	30	--	--	ISOi	dB
Output Isolation	30	--	--	ISOo	dB
Return loss	45	--	--	RL	dB
PDG	--	--	0.3	PDG	dB
PMD	--	--	0.3	PMD	ps

C-Band DWDM Optical Amplifier- EDFA

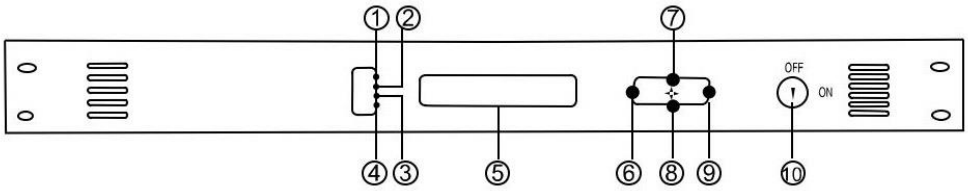
Parameter	min	typ	max	symb	unit
Consumption			10	P	W
Operation Temperature	-5℃		55	TEMP	℃
Operating relative humidity	5%		95%	ORH	Pa
Power	-48V DC or 220V AC				V
Interface	SC/UPC or others				
dimension	(W×L×H)480×350×40				MM

Product Display



C-Band DWDM Optical Amplifier- EDFA

Front panel Description



1) power indicator: when the lamp is lit when the internal switching power supply.

2) input optical power led: input optical power greater than -15dBm the lamp is lit.

3) pump working status indicator: when the light is solid red light says pump not working, inside the machine parameters are normal; the red light flashes, the machine is faulty, related reason for the failure to see the alarm on the display menu item; green light is solid pump work properly.

4) output optical power led: output optical power is greater than the -22dBm of the light

5) 160x32 dot-matrix LCD display: use to display all parameters of the machine

6) display settings menu to exit or cancel key.

7) displays the Setup menu up or incremental key

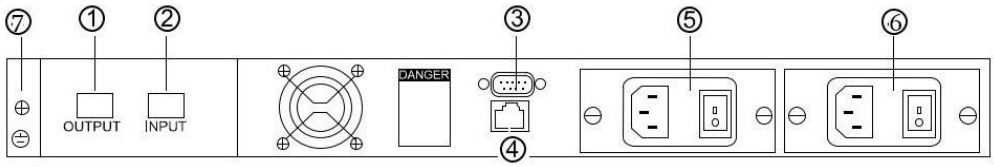
8) determines the display settings menu key

9) determines the display settings menu key

10) switch-key display pumped laser: used to control the working state pump lasers.

"ON" pump laser opening, "OFF" indicates that the pump laser off. Equipment in power before key in "OFF" position, after device self test passed, according to display a prompt, key twist and turn to the "ON" position.

Rear panel Description



1) optical signal input: common interface type specifications are both FC/APC and SC/APC.

2) optical signal output port: this interface is a device of optical signal output port, interface types FC/APC and SC/APC two of the common specifications. After the equipment normal work, this port is not visible laser beam shot, avoid the ports aligned with the body or to the naked eye, so as to avoid accidental injury.

3) RS232 interface: used to configure this computer for the network management parameters.

4) LAN interface: IEEE802.3 compliant 10Base-T interface, network management for native

5) power input AC 220V

6) power input DC 48V

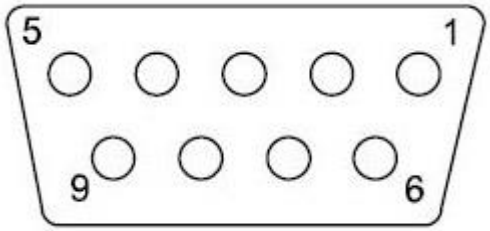
7) Ground stud of the chassis: used for the connection of the device and ground wire.

Network management description

interface description

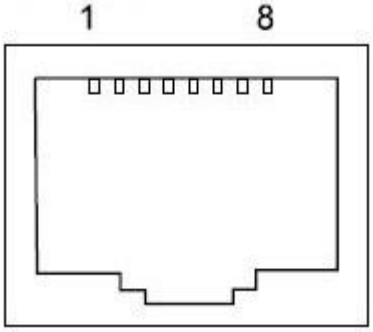
1. RS232 communication interface:

RS232 communication interface adopted by standard DB9 female ends as connectors, as follows: 1：No Connect 2:TX 3:RX 4: No Connect 5:CND 6: No Connect 7: No Connect 8: No Connect 9: No Connect



2. LAN communication interfaces:

LAN communication using standard RJ45 connectors, as follows:
1：TX+ 2：TX- 3:RX+ 4: No Connect 5: No Connect 6:RX- 7: No Connect 8: No Connect



The management and application of network interface

The transportation feature:

1 Data communication of category II transponder telemetry depends on IP network, it is widely used in LAN, MAN, INTNET, support WLAN、VPN and route。

2 Category II transponder telemetry will be needed set the only IP, mask and GW by manual when operating, we do not suggest adopting DHCP

Check an instrument(calibrate)

- **Conditions for debugging :**

1) Optical piece and transponder telemetry are powered.

2) IP resources transponder telemetry have been divided and set up Completely

3) Set up PC IP same with transponder telemetry. The IP for transponder telemetry is 192.168.0.101, the PC can be set 192.168.0.2.

Username: admin Password:123456

4) Take off the internet cable of transponder telemetry, connect PC and transponder telemetry with own internet cable, for the internet cable, we can use straight line or cross line. Note: For special PC, it can be only use cross line.