# 1550nm Erbium-Doped Fiber Amplifier


## Product Overview

SOA1550 series EDFA, its core components adopt the world's top brand pump laser and erbium-doped fiber. The optimized optical design and production process ensure the best optical performance. The perfect electronic controlled modes of APC (automatic power control), ACC (automatic current control) and ATC (automatic temperature control) circuits are adopted to ensure high stability and reliability of the output power, at the same time, it also guarantees excellent optical path index.

MPU (microprocessor) with high stability and precision is adopted in the system. The optimized thermal structure design , good ventilation and heat dissipation design ensure the long life and high reliability of the device. Based on the powerful network management function of TCP / IP protocol, network monitoring and head-end management can be carried out for the status of multiple node equipment through RJ45 network management interface, supporting multiple power supply redundancy configurations , which improved the practicability and reliability of the device.

## Features

1.It adopts the world's top brand pump laser and erbium-doped fiber.

2.Perfect APC, ACC and ATC optical circuit design ensures low noise, high output and high reliability of the device in the whole operating band (1530 ~ 1563nm).

3.It has the function of automatic protection of low input or no input. When the input optical power is lower than the set value, the laser will automatically shut down to protect the safety of the laser.

4.Output adjustable , adjustment range: 0~-4dBm.

5.Max output reaches 27dBm.

6.Fully automatic case temperature control and intelligent fans, the fans start to work when the case temperature reaches 35 ℃.

7.Built-in dual power supply, automatically switched and hot plug in/out supported.

8.The operating parameters of the whole device are controlled by microprocessor, and the LCD status display on the front panel has many functions such as laser status monitoring, parameter display, fault alarm, network management, etc.; once the operating parameters of the laser deviate from the allowed range set by the software, the system will alarm promptly.

9. Standard RJ45 interface is provided, supporting SNMP and WEB remote network management.

## Main Technical Index

| Category | Items | Unit | Index | | | Remarks |
|---|---|---|---|---|---|---|
| | | | Min. | Typ. | Max. | |
| Optical Parameters | CATV Operating Wavelength | nm | 1530 | | 1565 | |
| | Optical Input Range | dBm | -10 | | +10 | |
| | Output Power | dBm | 13 | | 27 | 1dBm interval |
| | Output Adjustment Range | dBm | -4 | | 0 | Adjustable, each step 0.1dB |
| | Output Power Stability | dBm | | | 0.2 | |
| | No. of COM Ports | | 1 | | 4 | Specified by User |
| | Noise Figure | dB | | | 5.0 | Pin：0dBm |
| | PDL | dB | | | 0.3 | |
| | PDG | dB | | | 0.3 | |
| | PMD | ps | | | 0.3 | |
| | Remnant Pump Power | dBm | | | -30 | |
| | Optical Return Loss | dB | 50 | | | |
| | Fiber Connector | | SC/APC | | | FC/APC、LC/APC |
| General Parameters | Network Management Interface | | SNMP,WEB supported | | | |
| | Power Supply | V | 90 | | 265 | AC |
| | | | -72 | | -36 | DC |
| | Power Consumption | W | | | 15 | 、24dBm,dual power supply |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Operating Temp | ℃ | -5 | | +65 | Fully automatic case temp control |
| | Storage Temp | ℃ | -40 | | +85 | |
| | Operating Relative Humidity | % | 5 | | 95 | |
| | Dimension | mm | 370×483×44 | | | D、W、H |
| | Weight | Kg | 5.3 | | | |

## Main Applications

1.CATV System

2.FTTH、FTTx PON、Triple-play

3. IP/QAM data business.

4. Network upgrading and capacity expansion based on existing optical fiber resource.