

COA3000 Series Erbium Doped Fiber Amplifier



Product Overview

COA3000 Series EDFA adopts high-reliability imported pump laser, isolator, wavelength division multiplexer, and other components of top manufacturers to guarantee high-reliability of the complete machine. Adopting advanced design technology and manufacturing technique, C-Data's EDFA close-to-the-limit low noise and high pump efficiency. It has multiple functions to fulfill the requirement of trunk transmission system, such as detection of input optical signal, lock and monitoring of output power, failure alarm of pump laser and optical amplifier module, etc.

COA3000 EDFA can be used in HFC system of CATV and SDH system of Telecom. It can provide preamplification, line amplifier and power amplifier. In multiple network applications, it has good operation record, high stability and reliability.

With the help of internal single-chip computer and external desktop PC computer, we can monitor and manage all the internal parameters and status of COA3000 in front panel or PC. It also have other advantages, such as adjustable output optical power, APC function of circuit, and operating performance of the whole system can reach the best status any time.

COA3000 has SNMP agent with remote network management interface (RJ45) and local monitoring interface (RS232). It can comprehensively reflect operation status of equipment, and has complete logging and alarm function.

Power module of COA3000 adopts new-generation switching power circuit with the function of double powers, hot backup and hot plug. It has high switching efficiency and small ripple. So it can stably work for years under heavy load. And it has low heat generation, low heat radiation requirement and adaptability of temperature to, which guarantees high reliability of transmission system route.

Features

- High performance and stability pump laser and international famous brand core electrical components
- Low NF noise parameter, typical input: 4.5dB@0dBm
- New pump laser temperature control circuit
- Pump laser over-circuit protect function
- Output power: 6dBm ~ 24dBm
- Adjustable output optical power (up 0.5dBm and down 4dBm dynamic adjust range)

- APC function, internal input/output isolator
- Low power drive S series (-15dBm ~ +4dBm), suitable for super-trunk and long-distance transmission
- Specific internal thickening aluminum floor and shell heat radiation design, life time is 1.5 to 2 times than fan cooling.
- Double-power and hot-plug, balance load operation, low power load and seamless switching when failure greatly increase life time
- Equipping SNMP helps realize remote network management and local monitoring.
- Operation status LCD display – optical power, bias current, laser temperature and cooling current

Performance

| Optical Equipment Characteristics | Unit | Index | | | Remark |
|--------------------------------------|------|--------------------------|-----------------|---------|----------|
| Gain Medium | - | Erbium Doped Fiber | | | |
| Pump Source Wavelength | nm | 980nm, 1480nm | | | |
| System Performance (Power Amplifier) | | Minimum | Typical | Maximum | |
| Operation Wavelength | nm | 1530 | 1550 | 1565 | |
| Input Power | dBm | -10 | | +10 | "H" Type |
| | | -15 | | +4 | "S" Type |
| Output Power | dBm | | 6, 13 ~ 24 | | |
| Noise Factor (NF) | dB | | 4.5 (0dB Input) | 8.0 | |
| Polarized related Gain | dB | | | 0.5 | |
| Polarization Sensitivity | dB | | | 0.2 | |
| Reversed ASE Power | dBm | | | -30 | |
| Input Optical Reflection | dB | | | -45 | |
| Output Optical Reflection | dB | | | -45 | |
| Input Pumping Power Leakage | dBm | | | -30 | |
| Output Pumping Power Leakage | dBm | | | -30 | |
| Mechanical Parameters | | | | | |
| Dimension | mm | 44(H)×482(L)×350(W) | | | |
| Weight | Kg | 6.0 | | | |
| Installation | - | 19" EIA (1U) | | | |
| Connector | - | SC/APC | | | |
| Other Parameters | | | | | |
| Voltage | V | AC 90V~264V/50Hz | | | |
| Power | W | <20 | | | |
| Operating Temperature | °C | -5~+55 | | | |
| Storage Temperature | °C | -30~+70 | | | |
| Operating Humidity | - | 20~95% , No Condensation | | | |
| Storage Humidity | - | 10~95% , No Condensation | | | |

Order Information

| Product Name | Product Model | Descriptions |
|---------------------------------|---------------------------|---|
| Erbium Doped Fiber Amplifier | COA3000-17-H-NM-SA-3-1-01 | Input-10~+10dBm, SNMP network management, optical power 17dBm can cut 4dB output, double powers 220V/AC, SC/APC interface, Single pump 980nm. |
| | COA3000-18-H-NM-SA-3-1-01 | Input-10~+10dBm, SNMP network management, optical power 18dBm can cut 4dB output, double powers 220V/AC, SC/APC interface, Single pump 980nm. |
| | COA3000-19-H-NM-SA-3-1-01 | Input-10~+10dBm, SNMP network management, optical power 19dBm can cut 4dB output, double powers 220V/AC, SC/APC interface, Single pump 980nm. |
| | COA3000-20-H-NM-SA-3-1-01 | Input-10~+10dBm, SNMP network management, optical power 20dBm can cut 4dB output, double powers 220V/AC, SC/APC interface, Single pump 980nm. |
| | COA3000-21-H-NM-SA-3-1-01 | Input-10~+10dBm, SNMP network management, optical power 21dBm can cut 4dB output, double powers 220V/AC, SC/APC interface, Single pump 980nm. |
| | COA3000-22-H-NM-SA-3-1-01 | Input-10~+10dBm, SNMP network management, optical power 22dBm can cut 4dB output, double powers 220V/AC, SC/APC interface, Single pump 980nm. |
| | COA3000-23-H-NM-SA-3-2-01 | Input-10~+10dBm, SNMP network management, optical power 22dBm can cut 4dB output, double powers 220V/AC, SC/APC interface, Double pump 980nm. |