

# CONNET LASER TECHNOLOGY

## **C-band High Power Optical Fiber Amplifier**



## **Product Description:**

The MARS series C-band high power optical fiber amplifiers of Connet employ the high-power, high-performance multi-mode pump source inside and adopt the double cladding fiber amplification technology in the integrated design of all-fiber structure. The output power can be 1~20W. The MARS series optical fiber amplifiers are the integral Turn-Key system with the microprocessor inside for controlling. With a clear interface and easy control, the LCD on the front panel can give a real-time display of the operating state of the pump current and temperature. The LCD can also offer the warning messages.

Due to the extensive experience in handling the double cladding fiber, Connet conducts the proper optimal optical structure design for the high power fiber amplifiers to achieve the high efficiency output. The unique thermal treatment technology guarantees that the optical fiber amplifier can be operated stably for a long time. The high-speed response protection circuit monitors the power of the input and the output signals automatically so that it can cut off the operation of the high power pump in case of the falling off of the input signal to ensure the safety of the whole system.

#### **Applications:**

- · Non-linearity research
- · High power amplifying
- · Fiber optic sensing
- · Optical fiber communication
- · Research & development

#### Features:

- · High output power
- · Low noise
- · High stability, high reliability
- · LCD display interface



## **Specifications:**

| Parameter                                   | Unit            | Specification                    |             |              |              |
|---|-----------------|----------------------------------|-------------|--------------|--------------|
| Part no.                                    |                 | MFAS-EY-C-1                      | MFAS-EY-C-5 | MFAS-EY-C-10 | MFAS-EY-C-20 |
| Operating wavelength                        | nm              | 1540~1565                        |             |              |              |
| Input power                                 | dBm             | -3~+10                           |             |              |              |
| Output power @0dBm Input power <sup>1</sup> | W               | 1                                | 5           | 10           | 20           |
| Noise figure @0dBm Input power              | dB              | <5.5                             |             |              |              |
| Input/output isolation                      | dB              | 30                               |             |              |              |
| Output power stability (8hrs) <sup>2</sup>  | %               | ±1                               |             |              |              |
| Input power monitoring                      |                 | Yes                              |             |              |              |
| Output power monitoring                     |                 | Yes                              |             |              |              |
| Output power tunable                        |                 | Yes                              |             |              |              |
| Input fiber type                            |                 | SMF 9/125um NA=0.13              |             |              |              |
| Output fiber type                           |                 | SM fiber or LMA fiber            |             |              |              |
| Output fiber length                         | m               | >1                               |             |              |              |
| Optical connector                           |                 | FC/APC (other options available) |             |              |              |
| Output power tunable range                  | %               | 10~100                           |             |              |              |
| Operating temperature                       | °C              | 0~+50 0~+30                      |             |              |              |
| Storage temperature                         | °C              | -40~+85                          |             |              |              |
| Power supply                                | V <sub>AC</sub> | 100~240                          |             |              |              |
| Power consumption (Max)                     | W               | 100                              |             |              |              |
| Dimension <sup>3</sup>                      |                 | 19" 2U 19" 3U                    |             |              |              |

## **Specifications:**

- $\cdot$  Output power is optional, the typical power is 1W, 5W, 10W, 20W
- · The output power stability is measured under 25°C after 30 minutes' warm-up.
- · Module package is available.

### **Ordering Information:**

- · MFAS-EY-C-B-<PW>: SM
- · MFAP-EY-C-B-<PW>: PM
- · B: Benchtop
- · PW: Output power in W, e.g.: 0.5-0.5W, 1-1W, 5-5W, 10-10W