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# C-Band 17dBm Booster EDFA

## User Manual

(P/N: EDFA-1C2112332)

(S/N: 2021921079)

(November 19<sup>th</sup>, 2021)





## 1 Warning

- 1) Only single mode fiber (SMF, 9/125 $\mu$ m) cable is compatible to this EDFA. Using of multimode (MM) fiber cable may cause poor performance or even damage to the EDFA.
- 2) Only FC/PC connectors are allowed.
- 3) Clean and inspect connectors and fiber ends prior to installation.
- 4) Use only industry approved methods, materials, and solutions for cleaning.
- 5) Always turn off the EDFA prior to plugging/unplugging fiber cable. Failure to do so may cause irreparable damage to the EDFA.

## 2 Summary

This booster EDFA works in C-band with 17dBm maximum output. Its front panel is shown in Figure 1.



Figure 1: Front panel of EDFA

- The module needs 110V AC power. Its on-off power switch locates on its rear panel.  
*Note: the RS-232 port on the rear panel is not functional for this model.*
- The FC/PC connectors on its front panel are for laser inputs and outputs. SMF-28 optical fiber cables are required for this model.
- The micro-USB port is for remote control.
- The Emission Button is for ON/OFF of whole unit.

*Note:*

*a. When it is OFF the USB functions are disabled.*

*b. The EDFA is designed to work between -10 ~ 60°C temperature range. Humidity should not exceed 90%. Installation is recommended in a temperature & humidity controlled, dust-free environment.*

### 3 Connection and Operation

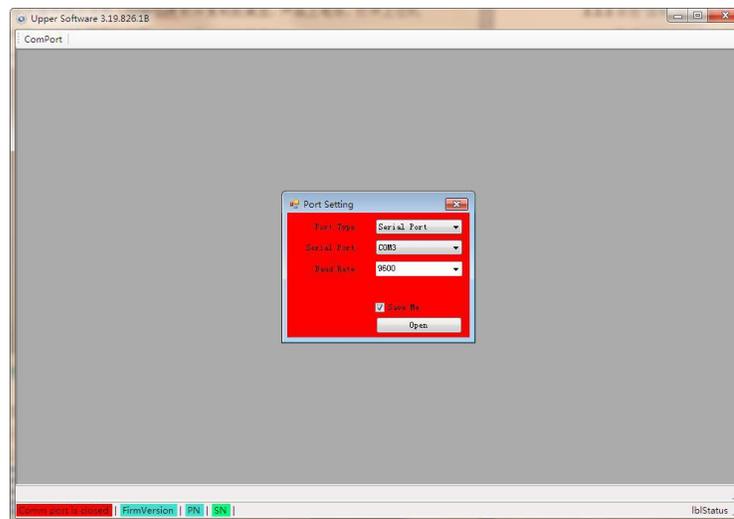
- 1) Plug the AC power cord into the receptacle on the rear panel of the module, and connect to 110V AC power source.
- 2) Clean the FC/PC connectors of SMF-28 fiber cables properly, and then connect them to the corresponding input/output ports.

*Note: ensure that the wavelength and power of the signal light are within the EDFA specifications.*

- 3) When remote control is needed connect micro-USB port to a computer by using the USB cable coming with the device.
- 4) Turn power on using the rocker switch on the rear panel of the module.
- 5) Push the Emission Button to turn on power output. The Emission Button will be lighted up when output is on. USB functions become active when Emission Button is ON.
- 6) When turn off the EDFA ensure to deactivate power output first by pushing the Emission Button to light-off, and then turn off AC power.

### 4 Software Instruction

- 1) Copy the GUI software from the USB flash drive coming with the device to host computer.
- 2) Open the software. Its interface is shown below.



*Figure 2: Remote control software: port selection*

- 3) Turn on Emission on the front panel of the EDFA to enable USB functions.
- 4) Select the serial port which the EDFA is connected to, and click Open.
- 5) To read current working parameters from the EDFA for one time click Getting button.
- 6) To automatically and continuously read working parameters from the EDFA, check Auto Getting and click Getting button.

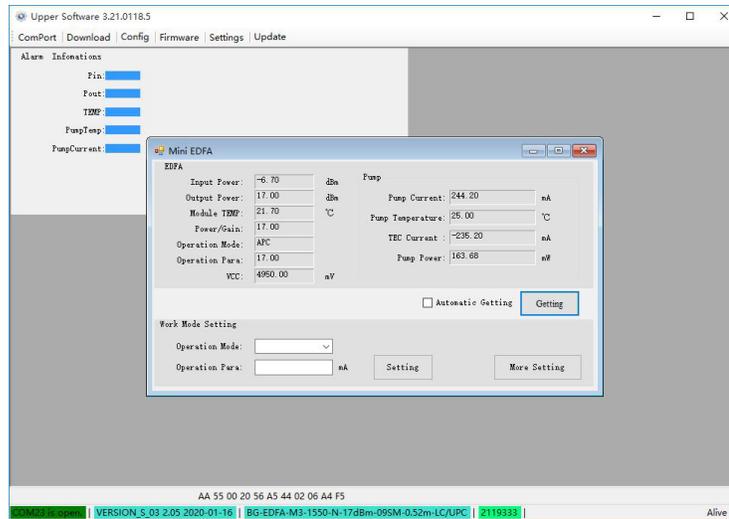


Figure 3: Remote control software: control parameters

- 7) Setting of Pump-off Threshold: when input power is below the set Pump-off Threshold the Pump will automatically turn off.
- 8) Work Mode Setting
  - ACC mode (constant current control mode): 0~400 mA
  - APC mode (constant power control mode): -8~17dBm

Select desired working mode and input current/power value, then click Setting Button to apply.

Click Read Button again to view the set value.

## 5 Trouble Shooting

Alarm	Possible Cause	Solution
Pump current alarm	Internal problem	Contact us for help
Pump temp alarm	Dirty or loose connector, or low input power	Check input source
Module temp alarm	Internal problem	Contact us for help
	High ambient temperature	Ambient temperature needs to be within the specification
Input alarm	Dirty or loose connector, or low input power	Check input source
Output alarm	High output	Check input
	Internal problem	Contact us for help
	Device disabled	Enable device