

# YDFA-45-R



## DEVICE

# High Power Ytterbium Doped Fiber Amplifier Up to +45dBm, Rackmount

## OVERVIEW

The Optilab YDFA-45-R is a high-gain three staged single mode optical amplifier unit designed for applications requiring high efficiency optical amplification in the 1060 nm regime in both CW and pulse mode operations. It consists of three-stage amplifiers, delivering over 35 dB gain and up to +45 dBm saturation power at 1060 nm. It is a self-contained, turn-key rackmount designed with front panel touch screen to control high and stable gain across the specified range of the wavelength window.

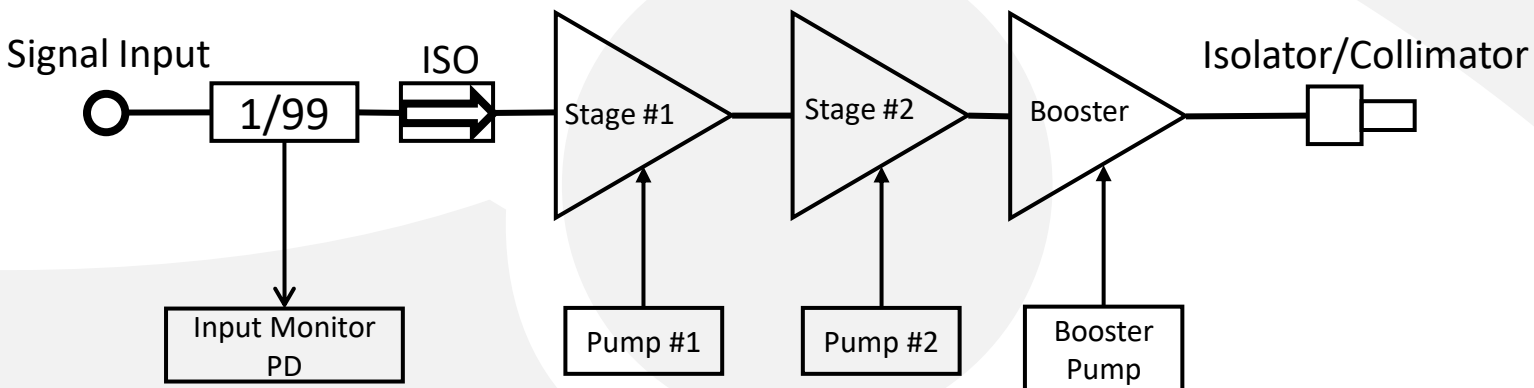
## FEATURES

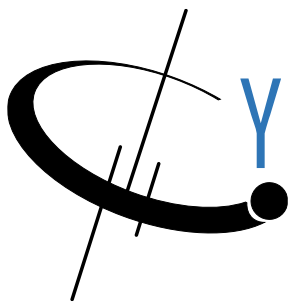
- Up to +45 dBm Saturation Power
- Collimated Output
- Interlock safety feature
- High SNR
- Automatic protection systems
- Gain up to 45 dB

## USE IN

- SHG Application
- Medical Equipment
- Industrial lasers
- Materials processing
- Laboratory

## FUNCTION DIAGRAM





# YDFA-45-R

## SPECIFICATIONS

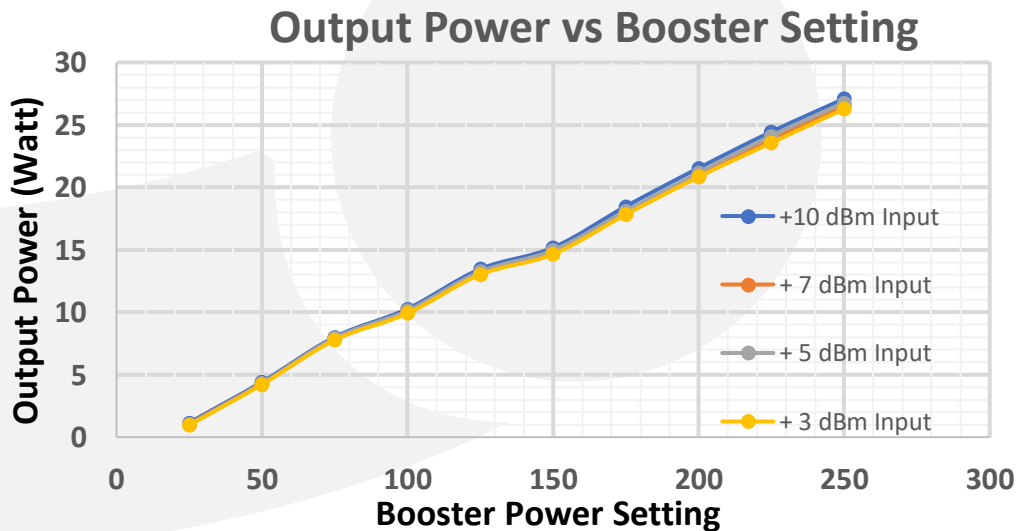
### GENERAL

|                                  |  |
|----------------------------------|--|
| Wavelength Range                 | 1040 nm to 1075 nm<br>(Other Range Available upon Request) |
| Input Power Level                | +3 dBm to +13 dBm  |
| Input Laser Linewidth            | > 200 kHz  |
| Saturation Output Power          | Up to +45 dBm  |
| Optical Gain                     | 45 dB @ -10 dBm input                                      |
| Optical Return Loss              | 30 dB min.   |
| Input / Output Optical Isolation | 27 dB min.   |
| Output Power Stability           | 0.2 dB over 8 hours  |
| Optical Input fiber type         | HN1060<br>High Power Connector or Collimator               |
| Optical Output                   | Collimated output with 6 to 8 mm beam diameter             |

### MECHANICAL

|                       |                                   |
|-----------------------|-----------------------------------|
| Operating Temperature | +5 °C to +40 °C                   |
| Storage Temperature   | -10 °C to +70 °C                  |
| Power Supply          | 100 to 240 VAC, 50 to 60 Hz       |
| Control               | Pump laser current, enable switch |
| Monitoring            | Pump laser current, input power   |
| Remote control        | RS232 via USB port                |
| Dimensions            | 3U rackmount                      |

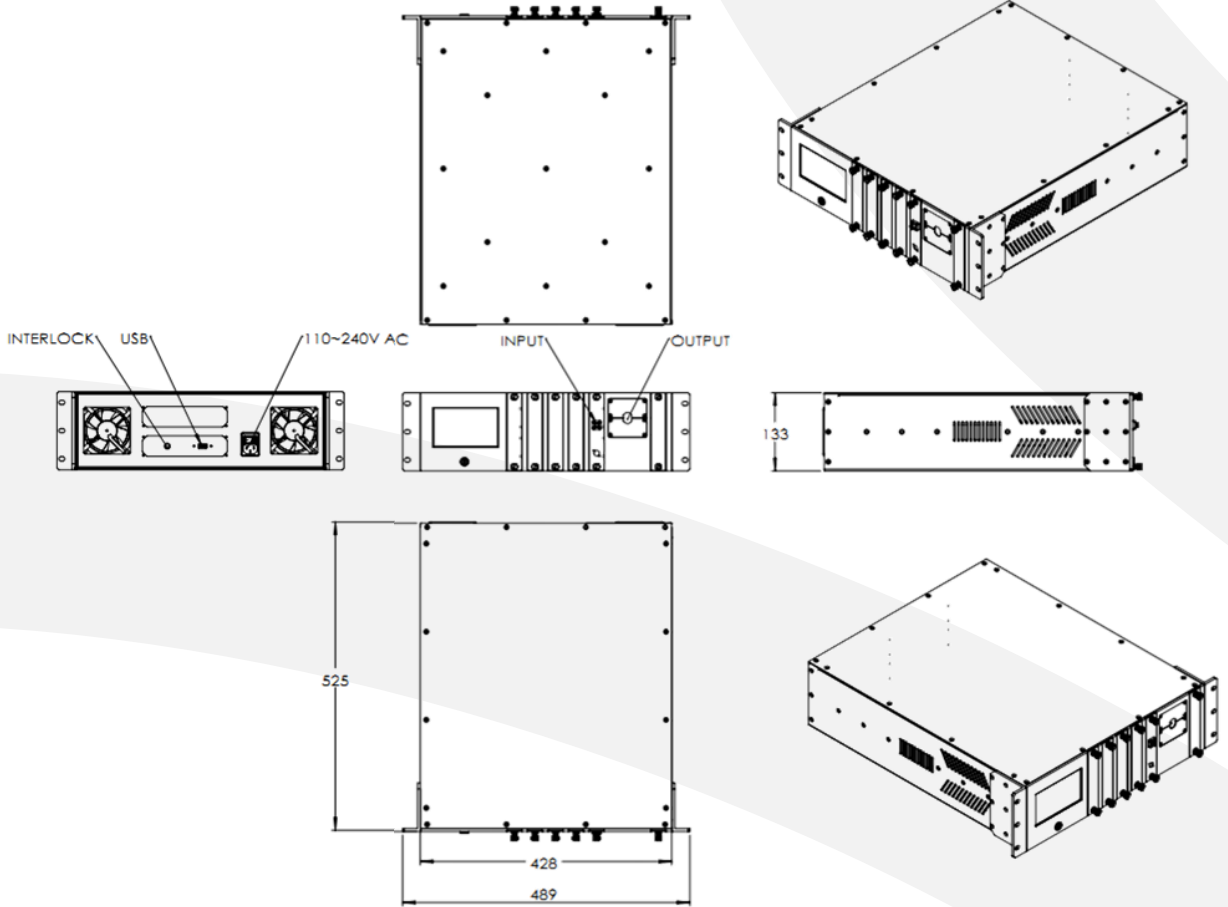
### SAMPLE TEST DATA





# YDFA-45-R

MECHANICAL  
DRAWING



ORDERING OPTIONS

**YDFA-XX-R**

**XX** Output Power Level: 41, 43, 45 dBm

