High Power Ytterbium Doped Fiber Amplifier, +40 to +45 dBm

**DEVICE**
This product is a high power ytterbium doped fiber amplifier designed for applications requiring high efficiency optical amplification in the 1060 nm regime for CW 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 to supply high and stable gain across the specified range of the wavelength window.

**OVERVIEW**
- Up to +45 dBm Saturation Power
- Collimated Output
- Interlock safety feature
- High SNR
- Automatic protection systems

**FEATURES**
- SHG Application
- Medical Equipment
- Industrial lasers
- Materials processing
- Laboratory
- See next page for ordering instructions

**APPLICATIONS**
- Various power levels
- Various output options

**CUSTOMIZATION**
YDFA-4X-R

SPECIFICATIONS

Wavelength Range: 1040 nm to 1075 nm
Input Power Level: +3 dBm to +13 dBm
Input Laser Linewidth: > 200 kHz
Saturation Output Power: +40 to 45 dBm
Optical Gain: 32 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 Return Power: HI1060, FC/APC Connector
Optical Output: Collimated output with 6 to 8 mm beam diameter

OPTICAL

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

ORDER OPTIONS

YDFA-4x-R

x: specifies output power (dBm)
   e.g., 40, 42, 45...

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YDFA-4X-R

FUNCTION DIAGRAM

Signal Input

ISO

AMP 1

AMP 2

BOOSTER

Isolator/Collimator

Input Monitor PD

Pump #1

Pump #2

Booster Pumps

Mechanical Drawing

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SOFTWARE INTERFACES

RS232 Interface

YDFA-42B-R

PUMP1 CURRENT: 0769 mA
PUMP2 CURRENT: 1049 mA
PUMP1 LIMIT: 0850 mA
PUMP2 LIMIT: 1200 mA
INPUT POWER: +09.51 dBm

BOOSTER CONTROL

BOOSTER ENABLE: ON
POWER SET: 155
POWER LIMIT: 165
BOOSTER STATUS: NORMAL

FW VER: V2.2.2

OPTILAB, LLC
Model Number: YDFA-42B-R
FW Version: v2.2.2

***PUMP 1 & 2 CONTROL***
Pump 1 Current: 0769 mA
Pump 2 Current: 1049 mA
Pump 1 Limit: 0850 mA
Pump 2 Limit: 1200 mA
Input Power: +09.51 dBm

***BOOSTER CONTROL***
Enable: ON
Power Set: 155
Power Limit: 165
Status: Normal

Touchscreen

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