

## MANTARAY-BT-1064

### High power YDFA Fiber Amplifier

### Key Features

- Output power up to 10W
- Bandwidth from 1050 to 1100nm
- Large dynamic range: >20dB
- Single mode beam quality:  $M^2 \approx 1$
- Turnkey Benchtop
- Standard or All-PM design
- High polarization extinction ratio
- USB interface
- Operation Temp: 10 to 40°C

### Applications

- Frequency Doubler
- Optical Fiber Telecom
- Fiber Sensing
- Test and Measurement
- Coherent Beam Combining

### Cybel Benchtop Products

- ◆ STINGRAY-BT-1550
- ◆ MISTRAL-BT 20W-2051
- ◆ MAESTRO-BT-20W-2000
- ◆ MAGNI-NL-BT-10W-1950
- ◆ ASTROLIGHT-BT-5W-1950
- ◆ HELIOS-BT-10W-2100

The CYBEL MANTARAY BT-1064 SERIES is a 1 micron high power amplifier (YDFA) designed for amplification over a broad wavelength bandwidth from 1050nm to 1100nm. This fiber amplifier is a single mode, single frequency amplifier that delivers up to 10W of saturated power with near diffraction limited out a beam (i.e.  $M^2 < 1.1$ ). This amplifier can be customized for specific wavelength (i.e. 1030, 1080 & 1100nm) for a large range of applications.

The MANTARAY-BT-1064 is a high efficiency and maintenance free fiber amplifier. This YDFA comes as a turn key benchtop instrument with either a standard or an all polarization maintaining (PM) fiber, and provides the user with stable and reliable performance. Output power and monitoring of key operating parameters with an automatic current control (ACC) mode are controlled from USB port. An OEM Skyline package is available.



# MANTARAY-BT-1064 Specifications

OPTICAL	Unit	Value	Comment
Wavelength	nm	1050 to 1100	Other wavelength band available
Input signal power	dBm	0 to 15	Other range available
Input signal linewidth	GHz	>10	
Output power	W	1 to 10	High Output power available
ASE output power	mW	200	@Pout=10W
Output tunable range	%	10-100	CW
Polarization ext. ratio	dB	≥ 17	PM version
Beam quality (M <sup>2</sup> )	M <sup>2</sup>	<1.1	
Output isolator	dB	30	Optional-Collimator
In/out fiber length	m	1	Armored cable, optional
In/out Fiber		Single mode, low bend loss	FC/APC connector
Monitor fiber length	m	1	Optional-Armored cable
<b>ELECTRICAL/MECHANICAL</b>			
Voltage	V	110-220	19 " benchtop unit-rack mount
Warm-up Time	min	15	
Supply power consumption	W	150	@Pout max=10W
Dimensions	inc	19	
Control interface		USB	2U Rack-Mount Benchtop Available
Control mode		ACC	Automatic shut-off with LOS (loss of signal or min preset input power level)
<b>ENVIRONMENTAL</b>			
Operating temperature	°C	10 to 40	
Storage temperature	°C	-20 to 65	
Operating relative humidity	%	0 to 95	Non-condensing

## CUSTOMIZATION

The **MANTARAY-BT-1064** is an amplifier platform that can be customized to match Customers' specific requirements. Please contact Cybel.

**COMPLIANCE with Regulatory Requirements:** These BENCHTOP and OEM products are Class 4 lasers as designated by the Center for Device and Radiology Health (CDRH). As such they are intended only in integration into other equipment and do not comply with CDRH requirement. It is the customer responsibility for CDRH certification of the full system that incorporates this industrial laser.



1195 Pennsylvania Ave  
Bethlehem, PA 18018  
Phone: 610-691-7012

Sales: [contact@cybel-llc.com](mailto:contact@cybel-llc.com)

Website: [www.cybel-llc.com](http://www.cybel-llc.com)