

Key Features

- >40 dB small signal gain
- CW power : 10 mW to 1 W
- Low ASE:<1 % at 0 dBm input
- Low power consumption: < 15 W
- Gaussian beam profile: $M^2 \approx 1$
- Compact & rugged design
- Operation Temp: 10 to 40 °C
- SM/PM versions

Applications

- Frequency conversion
- Seed laser
- Range finding
- Remote sensing

MAKO SERIES

Also available at different
standard wavelengths with same
high performance and compact
footprint:

- ♦ MAKO-AMP 1030
- ♦ MAKO-AMP 1064
- ♦ MAKO-AMP 1550
- ♦ MAKO-AMP 2000

The **CYBEL MAKO-AMP-HBT-1900** is a compact fiber amplifier for use with wavelengths between 1850 and 2020 nm. The amplifier provides a high small signal gain (>40 dB) and an output power from 10 mW to a 1 W. The amplifier output has a near-Gaussian profile ($M^2 \approx 1$).

The **MAKO-AMP-HBT-1900** output power is adjustable through a simple digital interface.

The **MAKO-AMP-HBT-1900** is a high efficiency and maintenance free fiber amplifier. This TDFA 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 such as, automatic current control (ACC) and automatic power control (APC) modes are controlled from USB port. OEM package is available.



Turn-Key Rack Mount Benchtop

MAKO-AMP-HBT-1900 Specifications

OPTICAL	Unit	Min	Max	Comments
Optical Bandwidth	nm	1850	2020	Single Mode Operation Wavelength
Input Signal Linewidth	MHz	< 2		
Input Signal Power	mW	1	20	
Output Signal Power	W	10m	1	With Pin=0 dBm(1 mW)
Output Power Tunability	%	5 - 100		At Pout = 1 W
Output mode, MFD	μm	10-11		
Polarization Ext. Ratio (PER)	dB	≥ 20		PM Version
Output Beam Quality (M²)	M²	1.1		
Signal to Noise Ratio (OSNR)	dB	≥ 45		OSA Res. = 1 nm
Output Power Variation (RMS)	%	+/- 3		After 20 Min. Warm-up
Output Fiber Length	m	> 0.7		Longer Fiber at Request
Input Fiber Length	m	> 0.7		Longer Fiber at Request
Output Isolation	dB	20		Optional, External to the OEM
Connectors		FC/APC		Other Connectors and Collimators Available
ELECTRICAL				
Voltage	V	110-220		@ 60-50 Hz
Warm up Time	min	20		
Power Consumption	W	<500		25 °C, @Pout max = 1 W
Control Interface		RS-232		
Mode of Operation		ACC		
GENERAL				
Dimensions	inch	9.5		2U Rackmount Benchtop
Storage Temperature	°C	-10 to 65		
Operating Case Temp.	°C	0 to 60		
Humidity	%	5 to 95		Non condensing

CUSTOMIZATION

The **MAKO-AMP-HBT** is an amplifier platform that can be customized to match Customers' specific requirements. Please contact Cybel.

COMPLIANCE with Regulatory Requirements: These benchtop 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.



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