

## Key Features

- Design with E-Y Rad-hard fibers
- Standard or PM fiber
- Bandwidth: 1050-1090 nm
- Power: 1 W with 1 mW Pin
- Optical Pin: -5 to +10 dBm
- Operating Temp; -10 to 65 C
- DC power +12 & +2.4 V
- Input and output isolators
- Internal temperature monitoring

The **CYBEL MAKO-S-AMP-1064** is space “flight proven” fiber amplifier designed to operate reliably in a space environment over wide temperature, vibrations and shock. It has been proven to deliver solid performance in ground and airborne applications as well as space. It provides as much as 1 W saturated output power.

The **MAKO-S-AMP-1064** output power is adjustable through a RS-232 computer interface.

**MAKO-S-AMP-1064** is an efficient, ultra-compact (97x78x15 mm<sup>3</sup>) and light weight (150 g), all-fiber OEM unit based on proven technology deployed in harshest orbit (GEO). This amplifier also fits new space market for LEO/MEO satellites and constellation.

## Applications

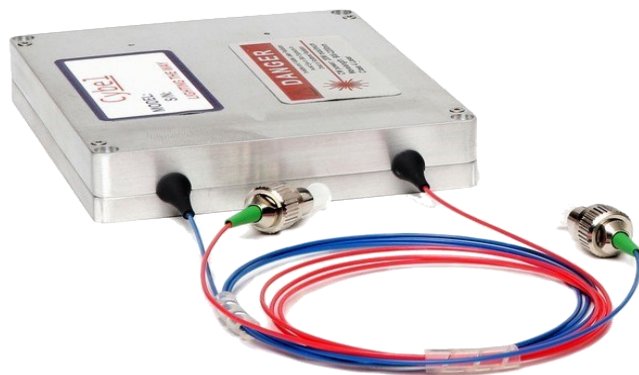
- Free space communication
- Ground & Airborne applications

## MAKO SERIES

Also available at 1550 nm wavelength with same high performance and compact footprint:

♦ **MAKO-S-AMP-1550**

## MAKO-SPACE GRADE-AMP-1064



**Dimension: 97x78x15mm<sup>3</sup>**

# MAKO-SPACE GRADE-AMP-1064

OPTICAL	Unit	Min	Max	Comments
Optical Bandwidth	nm	1050	1090	Single Mode Operation Wavelength
Input Signal Power	dBm	-5	10	
Output Signal Power	W	2		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 (M <sup>2</sup> )	M <sup>2</sup>	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, Rad-Hard fiber
Input Fiber Length	m	> 0.7		Longer Fiber at Request, Rad-Hard fiber
Output Isolation	dB	20		Optional, External to the OEM
Connectors		FC/APC		Other Connectors and Collimators Available
ELECTRICAL				
Voltage	V	2.4 & 12		
Warm up Time	min	20		
Power Consumption	W	< 15		25 °C, @Pout max = 1 W
Control Interface		RS-232		
Mode of Operation		ACC		
GENERAL				
Dimensions	mm	97x78x15		W/O heat sink
Storage Temperature	°C	-20 to 65		
Operating Case Temp.	°C	-20 to 65		
Humidity	%	5 to 95		Non condensing

## CUSTOMIZATION

The **MAKO-SPACE GRADE-AMP-1064** is an amplifier platform that can be customized to match customers' specific requirements. Please contact Cybel.

**COMPLIANCE with Regulatory Requirements:** These 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.



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