

## MERCURY-AMP-1550

### Space Grade 1550nm, 2W Fiber Amplifier

### Key Features

- Design with E-Y Rad-hard fibers
- Standard or PM fiber
- Bandwidth: 1545-1565 nm
- Power: up to 2 W
- Optical Pin: -5 to +10 dBm
- Operating Temp; -20 to 65 C
- DC power +12 V
- Input and output isolators
- Internal temperature monitoring

### Applications

- Free space communication
- Design for LEO and GEO applications

## MERCURY SERIES

Also available at 1064 nm wavelength with same high performance and compact footprint:

◆ MERCURY-AMP-1064

The **CYBEL MERCURY-AMP-1550**, is a fiber amplifier engineered for reliable operation in space environments, demonstrating resilience to wide temperature variations, vibrations, and shock. It has proven its performance excellence in ground, airborne, and space applications, offering up to 2 W of saturated output power.

The **MERCURY-AMP-1550** output power is adjustable through a USB-C computer interface.

**MERCURY-AMP-1550** is an efficient, ultra-compact (97x78x20 mm<sup>3</sup>) and light weight (250 g), all-fiber either standard or polarization maintaining OEM unit specifically designed for LEO and GEO applications.

## MERCURY-SPACE GRADE-AMP-1550



**Dimensions: 97x78x20 mm<sup>3</sup>**

# MERCURY-AMP-1550 Specifications

OPTICAL	Unit	Min	Max	Comments
Optical Bandwidth	nm	1545	1565	Single Mode Operation Wavelength
Input Signal Power	mW	1	10	
Output Signal Power	W	2		With Pin=0 dBm(1 mW)
Output Power Tunability	%	5 - 100		At Pout = 2 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		
Connectors		FC/APC		Other Connectors and Collimators Available
ELECTRICAL				
Voltage	V	12		
Warm up Time	min	20		
Power Consumption	W	< 25		25 °C, @Pout max = 2 W
Control Interface		USB-C		
Mode of Operation		ACC&APC		
GENERAL				
Dimensions	mm	97x78x20		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 **MERCURY-AMP-1550** 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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