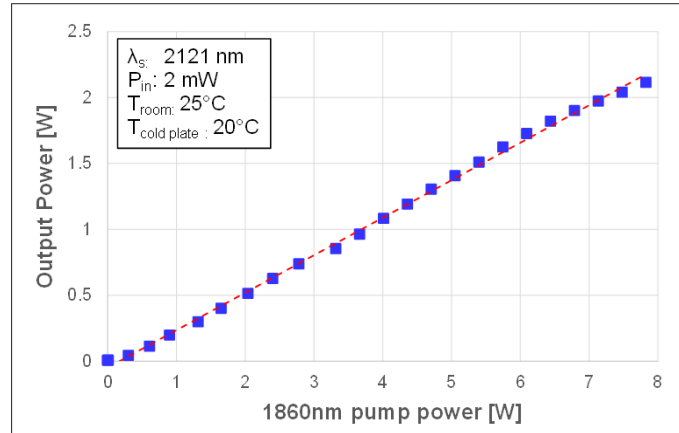


# Cybel Calipso 2121 Fiber Amplifier

## Key Features

- Output power up to 2 W
- Central wavelength: 2121 +/- 1 nm
- Single frequency
- PER: > 20 dB
- Standard or PM fiber
- Analog panel control & USB
- Output beam ( $M^2 \approx 1.1$ )
- Control Modes: ACC and APC
- RS 232 or USB interface



Output power vs pump power

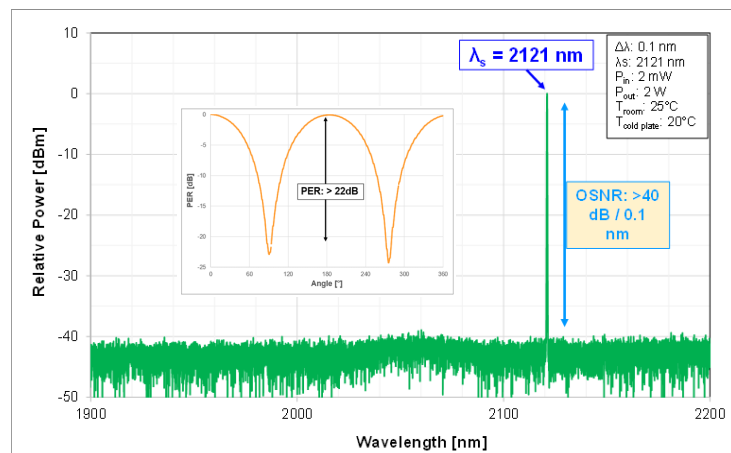
## Description

**Cybel's Calipso** is a state-of-the-art fiber amplifier specifically designed to amplify narrow linewidth wavelengths for precise hydrogen molecule detection. It delivers up to 2 W of output power with high polarization extinction ratio. This amplifier can be continuously tuned across the absorption line at 2121.8 nm, ensuring accurate  $H_2$  measurements. Available in a MOPA design, which incorporates a narrow linewidth (2 MHz) laser with the fiber amplifier for enhanced performance.

**The Calipso** is housed in a 19-inch, 2U rack-mountable benchtop unit and can be controlled either from an analog front port or via a USB communication panel, offering flexibility and ease of integration into various setups. An OEM version is also available.

## Applications

- Hydrogen Sensing
- Environmental Monitoring
- LIDAR
- Defense and Security
- Spectroscopy



Spectrum at 2 W output

# Cybel Calipso 2121 Specifications

OPTICAL	Unit	Min	Max	Comments
Central Wavelength	nm	2121		Single Mode Operation Wavelength
Input Signal Power	dBm	0	10	
Output Signal Power	W	2		With Pin=0 dBm(1 mW)
Output Power Tunability	%	5 - 100		At Pin=0 dBm(1 mW)
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	≥ 40		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		
Connectors		FC/APC		Other Connectors and Collimators Available
ELECTRICAL				
Voltage	V	110-220		@ 60-50 Hz
Warm up Time	min	20		
Power Consumption	W	<100		25 °C, @Pout max = 2 W
Control Interface		USB		
Mode of Operation		ACC		APC Optional
GENERAL				
Dimensions	inch	19		2U Rackmount Benchtop
Storage Temperature	°C	0 to 60		
Operating Case Temp.	°C	15 to 35		

## CUSTOMIZATION

**The Calipso** 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.

