Narrow-Linewidth Fiber Laser ORION-2000

Key Features

- Narrow linewidth: ≈10 kHz
- Aval. Wavelengths: 1730–2120 nm
- Temp. tuning: ±0.4 nm
- Amplified power up to 5 W
- Single-mode beam, M^2: 1.1
- Standard or all-PM versions
- 19" 2U Rackmount benchtop



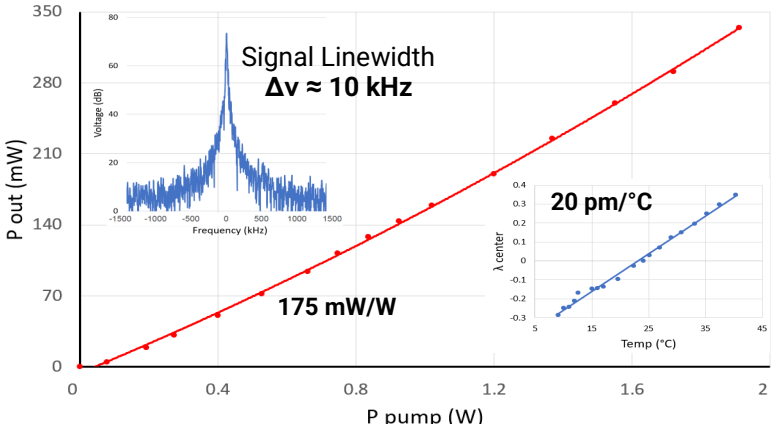
ORION-2000: Rackmount Benchtop

Description

The Cybel **ORION-2000** Benchtop is a single-frequency DFB fiber laser with an approximately 10 kHz linewidth for precision sensing, spectroscopy, and interferometry. Available at selected wavelengths from 1730 to 2120 nm, it offers ±0.4 nm temperature-controlled tuning and up to 5 W of amplified CW output. The 19" 2U benchtop unit is available in standard and all-PM configurations.

Applications

- Precision interferometry
- High-resolution spectroscopy
- Gas absorption sensing
- Coherent lidar seeding
- Fiber amplifier seeding



Amplified Pout for 2039 nm ORION Laser

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Benchtop Specifications ORION-2000

Parameter	Unit	Min	Max	Comments
OPTICAL				
Operation wavelength	nm	2000		Available 1730–2120 nm on request
Spectral linewidth	kHz	< 10		Gaussian estimation by DFB-FBG Design
DFB-FBG Output power	mW	Up to 10		Depending on selected wavelength
Amplified output power	W	5		
Wavelength Temp. Tuning	nm	± 0.4 nm		
Power tunability	%	10 to 100		
Power stability	%	3		Measure RMS
Polarization		Random or linear		For linear PER > 15 dB
Beam quality	M^2	< 1.1		
Output Isolation	dB	> 25		
Output fiber length	cm	70		Other lengths available
Output termination		FC/APC or Collimator		Armored cable available on request
ELECTRICAL				
Voltage	V	110 - 220		@60/50 Hz
Control interface		RS-232		USB & Touchscreen
Mode of operation		ACC		
GENERAL				
Dimensions	Inch	19		2U Rack-mount benchtop
Storage Temperature	°C	0 to 60		
Operating Case Temp.	°C	10 to 35		

CUSTOMIZATION

The **ORION** is a laser 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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