

CoSF-D-TM-B-HP Narrow Linewidth Single Frequency Fiber Laser



Description:

Connet CoSF-D is a low-noise Single Frequency Fiber Laser based on Distributed Feedback Bragg Grating (DFB) technology. It has independent intellectual property rights and achieves a stable single-frequency laser output with single longitudinal mode, linear polarization, and narrow linewidth. CoSF-D has very low phase and frequency noise and low relative intensity noise (RIN). Connet uses unique packaging technology to ensure low-noise DFB single frequency fiber lasers with excellent wavelength stability.

CoSF-D-Tm-B-HP is high power single frequency fiber laser based on Thulium-doped fiber with narrow linewidth (<50kHz) and low phase noise, low relative intensity noise (RIN). Output power ranges from 20W to 50W. The optional wavelength range is 1900-2100nm. The standard wavelength is 1940nm, 2050nm. Other wavelengths can be customized according to requirements.

Features:

- Narrow linewidth <50kHz
- Low relative intensity noise (RIN)
- Stable single frequency, single polarization output
- No mode-hopping
- High reliability

Applications:

- Frequency conversion
- Coherent LiDAR
- Laser spectroscopy
- Gas absorption measurement
- Other scientific research



Specifications:

Parameter	Unit	Specification		
		Min	Typ.	Max
Part no.		CoSF-D-TM-B-HP		
Center wavelength ¹	nm	1900-2100nm fixed, other specify		
Output power ²	W	20	-	50
Laser output		CW, Single frequency & Single longitudinal mode		
Beam quality	M ²	1.1	-	1.3
Linewidth	kHz	-	-	50
RIN peak frequency	kHz	400	/	600
SMSR (50pm resolution)	dB		30	-
Output polarization		Linear		
Polarization extinction ratio (PER)	dB	18	20	-
Output power stability	%	-	±1	±2
Wavelength thermal tuning	nm		0.6	0.8
PZT wavelength modulation		Optional		
Modulation frequency (linear)	kHz	DC	10	20
Modulation wavelength range	GHz	-	8	10
Operating temperature	°C	+15	-	+40
Storage temperature	°C	-20	-	+60
Power supply	V _{AC}	100-240V, 50/60Hz		
Cooling		Air / Water		
Communication interface		RS232		
Output fiber type		Panda PM LMA		
Output fiber length	m	> 0.5		
Optical connector		FC/APC or collimator		
Dimension	mm	430x450x150		
Weight	kg	<20		

Note:

1. Typical center wavelength: 1940nm, 2050nm. Other wavelengths available.
2. The output power is related to wavelength. The typical output power is 20W, 30W, 50W. Please specify.

Ordering Information:

CoSF-D-TM-B-HP- <19xx> - <PW> - PMF/SMF-PZT-FA

PW: Output power, in Watt.

Options: 1. SMF output 2. Monitoring output 3. PZT fast modulation