

## CoSF-D-Tm-B-MP 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-MP is a medium power single frequency fiber laser based on Thulium-doped fiber with narrow linewidth (<15kHz) and low phase noise, low relative intensity noise (RIN). Output power ranges from 200mW to 10W. The center wavelength can be selected in the 1900nm to 2100nm range. Other wavelengths can be customized according to requirements.

### Features:

- Narrow linewidth <15kHz
- 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.		<b>CoSF-D-Tm-B-MP</b>		
Center wavelength <sup>1</sup>	nm	1900-2100nm fixed, other specify		
Output power <sup>2</sup>	W	0.2	-	10
Laser output		CW, Single frequency & Single longitudinal mode		
Beam quality	M <sup>2</sup>	-	1.1	1.2
Linewidth	kHz	-	10	15
RIN peak frequency	kHz	400	-	600
RIN peak	dBc/Hz	-	-120	-110
SMSR (50pm resolution)	dB	40	45	-
Output polarization		Linear		
Polarization extinction ratio (PER)	dB	18	20	-
Output power stability	%	-	±1	±2
Output isolation	dB	25	30	-
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 <sub>AC</sub>	100-240V, 50/60Hz		
Communication interface		RS232		
Output fiber type		Panda PM1950 or PM10/125		
Output fiber length	m	> 0.5		
Optical connector		FC/APC		
Dimension	mm	430x450x105		
Weight	kg	<10		

### Note:

1. Typical center wavelength: 1940nm, 2050nm, Other wavelengths available.

2. The output power is optional. The typical output power is 1W, 5W, 10W, Please specify.

### Ordering Information:

**CoSF-D-Tm-B-MP-<19xx>-<PW>-PMF/SMF-PZT-FA**

xxxx: Center wavelength

PW: Output power, in Watt.

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