

852nm Single Frequency Fiber Laser



Description:

Connet 852nm Single Frequency Fiber Laser is based on the technology of the mature 1.9um and 1.5um distributed feedback Bragg grating (DFB) type low-noise single frequency fiber lasers. Connet has the independent intellectual property rights on this technology. The nonlinear frequency conversion technology is adopted to achieve the stable 852nm single frequency laser output with the linear polarization, single longitudinal mode, and the ultra-narrow linewidth. Comparing with the traditional TA type semiconductor laser, CoSF-852-B has the narrower linewidth and the lower phase noise and frequency noise, and better beam quality.

Features:

- Single Frequency, Single Longitudinal Mode, Linear Polarization Output
- Narrow Linewidth (<20kHz)
- Mode-hop Free
- Low Noise
- Output Power in Optical Fiber Type: 200mW

Applications:

- Cesium Atom Cooling
- Cesium Atomic Clock
- Rydberg Inspire
- Quantum Measurement
- Cold Atomic Physics



Specifications:

Parameter	Unit	Specification		
		Min	Typ.	Max
Part no.		CoSF-FC-852		
Center Wavelength	nm	852+/-0.2		
Output Power	mW	-	100	200
Laser Emission		CW, Single frequency, Single longitudinal mode		
Beam Quality	M ²	-	1.05	1.1
Linewidth	kHz	-	-	20
SMSR	dB	30	40	-
Output Polarization		Linear		
Polarization Extinction Ratio (PER)	dB	18	20	-
Output Power Stability (PP)	%	-	±1	±2
Output Power Tunable Range	%	30	-	100
Wavelength Thermal Tuning Range	nm	0.3	0.4	-
Wavelength Tunable Resolution	pm	-	0.1	-
PZT Wavelength Modulation		Optional		
PZT Modulation Frequency (Linear)	kHz	DC	-	20
PZT Modulation Wavelength Range	GHz	-	10	15
Operating Temperature	°C	0	-	40
Storage Temperature	°C	-20	-	60
Operation Voltage	V _{AC}	100-240		
Communication Interface		RS232		
Output Fiber Type		PM780		
Output Fiber Length	m	> 0.5		
Output Fiber Connector		FC/APC		
Dimension	mm	510x480x150		

Ordering Information:

- CoSF-FC-852-<P>-<PW>-PZT-FA/COL
- P: package, B for benchtop, M for module
- PW: output power 0050: 50mW
- PZT: PZT fast modulation (optional)
- FA: FC/APC connector COL: Free Space Output