729nm Single Frequency Fiber Laser

Description:

Connet 729nm Single Frequency Fiber Laser is based on the technology of the mature 1.9um and 1.1um 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 729nm 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-729-B has the narrower linewidth and the lower phase noise and frequency noise, and better beam quality.

Features:

- Ultra-narrow linewidth<50kHz
- Low noise
- Output Power>20mW
- Linear Polarization Output, High PER

Applications:

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

Connet Laser Technology Co., Ltd. www.connet-laser.com Phone: 021-61270268 E-mail: info@connet-laser.com

Specifications:

Parameter	Unit	Specification		
		Min	Typ.	Max
Part no.		**CoSF-729-B-FA**		
Center Wavelength	nm	729±0.2		
Wavelength Thermal Tuning Range	nm	0.3	0.4	0.5
Wavelength Adjustable Accuracy	pm	-	0.1	-
PZT Fast Wavelength Modulation Function		Optional		
PZT Modulation Wavelength Range	GHz	-	10	20
PZT Modulation Frequency	kHz	-	DC-20	100
Output Power	mW	20	-	100
Laser output		CW, Single frequency & Single longitudinal mode		
Beam Quality	M^2	-	1.05	1.1
Linewidth	kHz	-	20	50
SMSR	dB	30	40	-
Output Polarization		Linear		
Polarization Extinction Ratio (PER)	dB	20	23	-
Output Power Stability(8 hours)	%	-	±1	±2
Output Power Tunable Range	%	30	-	100
Operating Temperature	℃	15	-	35
Storage Temperature	℃	0	-	50
Operation Voltage	V_{AC}	220V 50-60Hz		
Output Fiber Type		PM780-HP		
Output Fiber Length	m	0.8	1.0	1.2
Output Fiber Connector		FC/APC		
PM Fiber Alignment Method		Slow axis parallel		
Dimension	mm	430x450x105		

Ordering Information:

- CoSF-FC-729-<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