

532nm Single Frequency Fiber Laser

Description:

Connet 532nm Single Frequency Fiber Laser is one narrow linewidth frequency-doubled single frequency fiber laser. The laser consists of two parts: 1064nm high power narrow linewidth single frequency fiber laser and high efficiency frequency doubling unit. These two parts are connected by optical fiber. The standard polarization-maintaining fiber is normally adopted for output. The output beam quality is excellent and the product is easy to operate.



Based on the built-in 1064nm single frequency fiber laser, the 532nm single frequency fiber laser can achieve the real single frequency, single longitudinal mode and linear polarization output. The frequency doubling unit adopts the Periodically Polarized Lithium Niobate (PPLN) Technology. The 532nm laser maintains the low-noise performance of 1064nm single frequency fiber laser. The output power of the 532nm single frequency fiber laser can be up to 1W.

Features:

- Single Frequency, Single Longitudinal Mode, Linear Polarization Output
- Narrow Linewidth (<20kHz)
- Long Coherence Length
- Linear Polarization Output, High PER
- Fiber Optic Output or Collimator Output
- Small sized package, suitable for system integration

Applications:

- Underwater Laser Communication
- Underwater Remote Sensing
- LIDAR
- Other Scientific Research



Specifications:

Parameter	Unit	Specification		
		Min	Typ.	Max
Part no.		CoSF-FC-532-B		
Center Wavelength	nm	532 (Other wavelengths specified)		
Seed Laser Linewidth	kHz	-	15	20
Seed Laser Linewidth((Ring Cavity optional)			1	
Output Power@532nm	mW	100	-	1000
Beam Quality	M ²	-	1.05	1.1
RIN Peak Frequency	kHz	800	1000	1200
RIN Peak	dBc/Hz	-	-105	-100
RIN @10MHz	dBc/Hz	-	-140	-130
SMSR (50pm resolution)	dB	50	55	-
Output Polarization		Linear		
Polarization Extinction Ratio (PER)	dB	20	23	-
Output Power Stability	%	-	1	3
Wavelength Thermal Tuning Range	nm	-	0.4	-
PZT Wavelength Modulation	kHz			100
PZT Modulation Frequency (Linear)	kHz	DC	10	20
PZT Modulation Wavelength Range	GHz	-	>10	>15
Output Fiber Type		PM460 or Free Space Output		
Output Fiber Length	m	>0.5m		
Output Fiber Connector		FC/APC		
Operation Voltage	V _{AC}	220		
Communication Interface		RS232		
Operating Temperature	°C	0	-	40
Storage Temperature	°C	-20	-	60
Dimension	mm	510x480x150		

Ordering Information:

- CoSF-FC-532-<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