

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-B-<P>-FA/CoL
- P: output power in mW
- FA: FC/APC connector COL: Free Space Output