

Iodine-stabilized Laser

Based on Precilasers' narrow-linewidth 633/532nm laser and all-fiber iodine frequency-stabilized module, the 633/532nm frequency-stabilized laser can output narrow-linewidth laser output with good long-term stability, which can be applied to fields such as industrial precision measurement.

Features

- Narrow Linewidth
- Linear Polarization
- High Power
- Active Power Stabilization
- Excellent Beam Quality
- Never Mode-hop
- Resistant to high and low temperature and vibration working environment

Application

- Precision Measurement



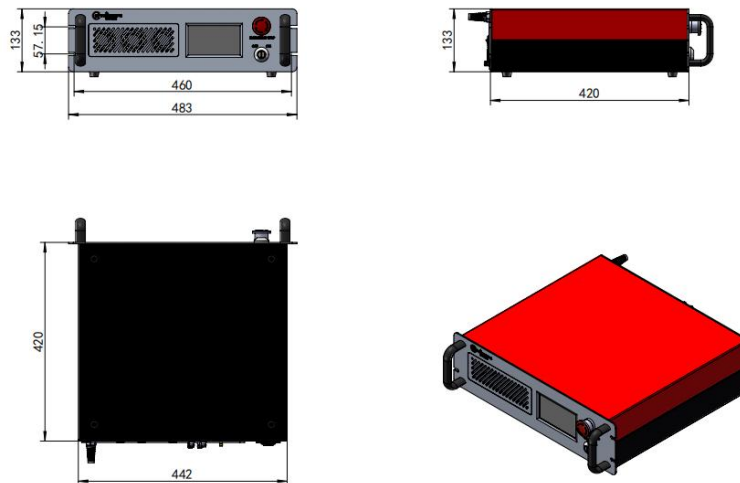
| Specification | | | |
|-----------------------------------------------|----------------------------------------------------------------------|---------------------------|-------------------|
| Partnumber | FL-SF-X-Y ⁽¹⁾ -MTS | | |
| Center Wavelength | 532nm | 633.0068nm ⁽²⁾ | |
| Output Power | >10mW | >100mW | >10mW >100mW |
| Linewidth (100 us integration) ⁽³⁾ | <20kHz | | |
| Frequency Stability | Iodine molecule frequency stabilization, 10ppb@1hrs, <1ppb@30s | | |
| Long Term Power Stability | <0.75% @3hrs, RMS | | |
| Output Mode | Single-mode polarization-maintaining fiber output, FC/APC Connectors | | |
| Beam Quality | $M^2 < 1.1$ | | |
| Polarization Extinction Ratio | >20dB, Linear | | |
| Cooling | Air Cooling | | |
| Temperature | 15-30°C | | |
| Power Supply | 100-240V, AC, 50/60Hz | | |
| Power Consumption | <100W | | |
| Weight | <35kg | | |

(1) X: laser wavelength, unit: nm, Y: laser power, unit: W, for example, output power 0.1W: FL-SF-633-0.1-MTS,

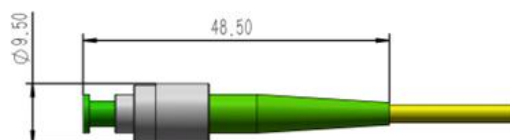
(2) For other central wavelengths, please contact us by email

(3) Measurement of fiber delay by self-heterodyne beat frequency method

❖ Product Dimensions

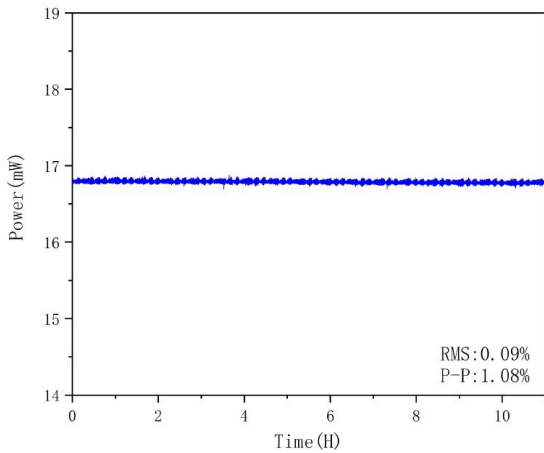


Air-cooled product size

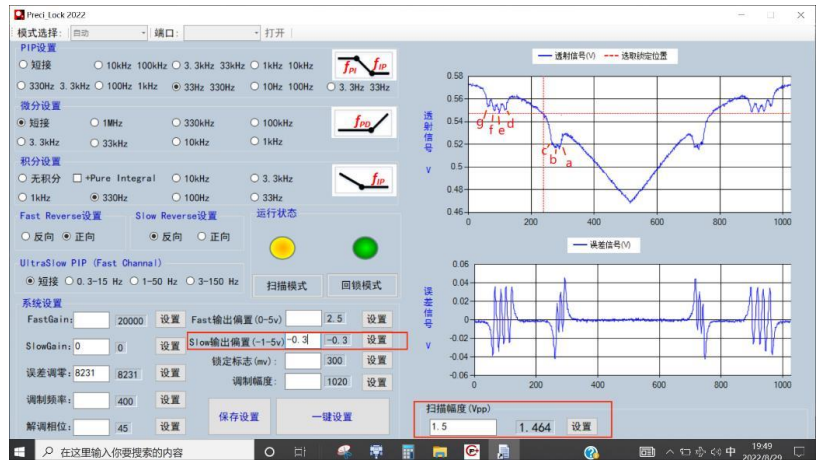


Polarization-maintaining fiber output size

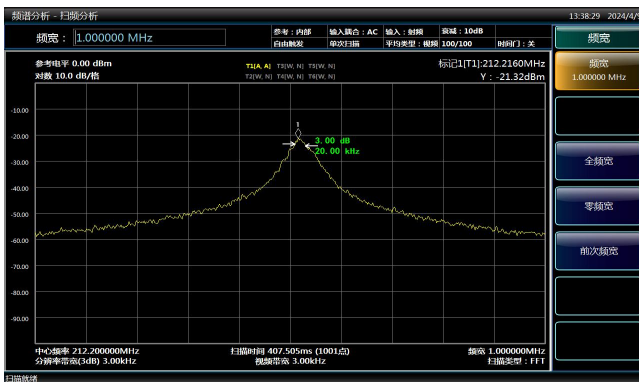
❖ Performance(typical value)



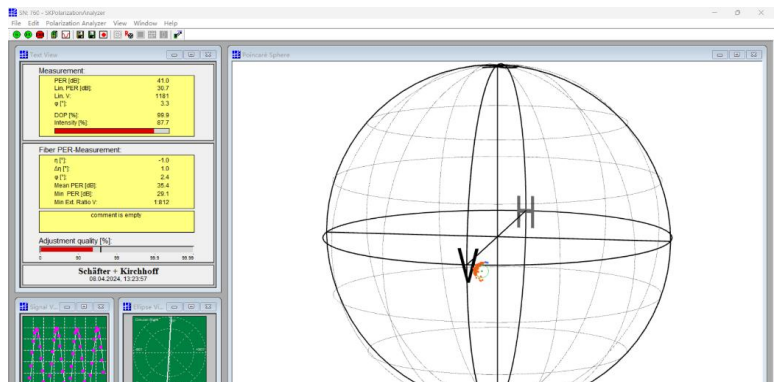
633nm output power stability test, RMS value is 0.09%, P-P value is 1.08%.



Frequency stabilization interface, can lock to different absorption peaks



Linewidth test, beat frequency linewidth is 20kHz



Optical fiber output PER>23dB



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