



## External Resonant SHG Fiber Laser



### The product description

Erbium group offers external resonant SHG fiber laser FL-RSHG, which uses ultra-narrow linewidth fiber DFB laser as seed, all fiber amplifiers to boost the output power and external resonant SHG cavity to get high power visible or UV lasers. The output laser wavelengths cover from 253 to 795 nm with a SHG efficiency of up to 80% and output power of up to 30W.

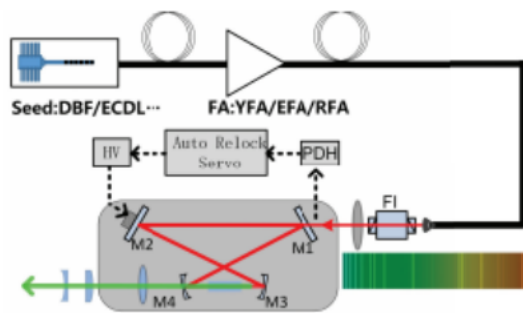
The product has the properties of high output power, optional narrower linewidth (less than 20 kHz in 100 us integration time), tunable and optional low relative intensity noise.

### Key Features:

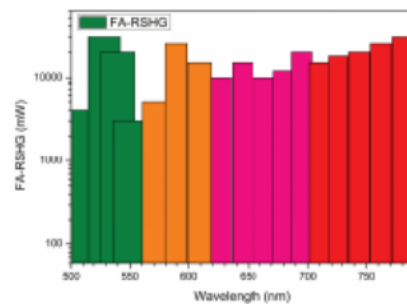
- Narrow Linewidth, tunable
- High output power
- Low intensity noise
- Good Beam Quality ( $M^2 < 1.1$ )

### Applications:

- Pump laser for Ti:Sapphire
- Pump laser for OPO
- Optical Lattice
- Optical tweezer



Laser Configuration

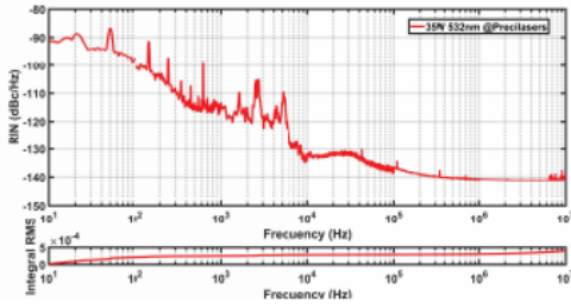


Wavelength-Power

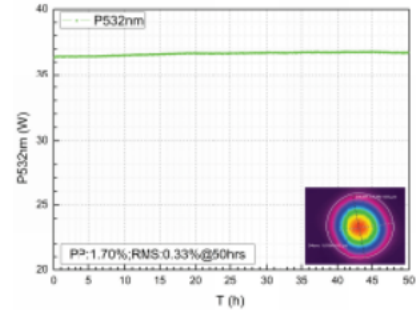
Erbium group offers external resonant SHG fiber laser FA-RSHG-532, which uses ultra-narrow linewidth fiber DFB laser as seed, all fiber Yb-doped amplifier to boost the output power and external resonant SHG cavity to get high power, narrow linewidth, low intensity noise and high efficiency 532 nm laser.

This laser has the characteristics of large output power, narrow linewidth (Lorentz linewidth <10 kHz), low intensity noise, and has been used in customers' optical lattice experiments.





Relative Intensity Noise



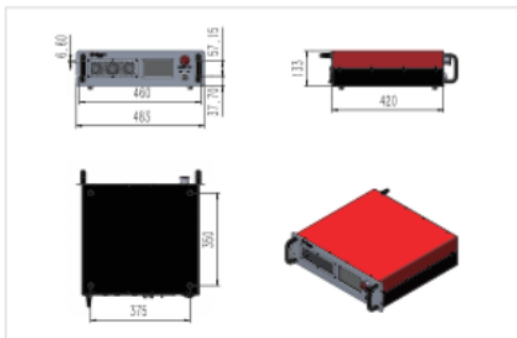
Beam Profile and Power Stability

## Technical indicators

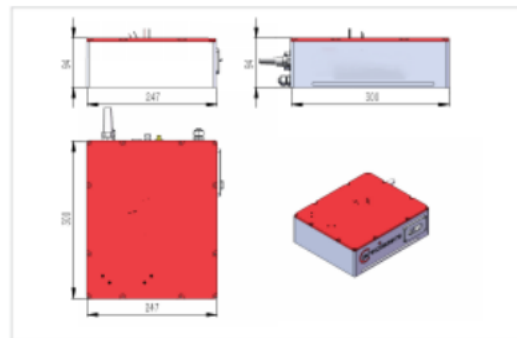
| Model                         | FL-RSHG-532-YY-ZZ <sup>1</sup>         |                                     |
|-------------------------------|--|-------------------------------------|
| Output Power <sup>2</sup> , W | 35                                     |                                     |
| Seed Laser                    | Precilasers' Fiber DFB Laser           | Low Noise Diode Laser               |
| Amplification                 | Low Noise Fiber Amplifier              |                                     |
| Frequency converted           | External Resonant SHG                  |                                     |
| Tuning Range, GHz             | >400                                   | 10                                  |
| Linewidth, kHz                | <20                                    | <200                                |
| RMS Power Stability, %        | < 0.5% @3hrs                           |                                     |
| Relative Intensity Noise      | RMS Integration: <0.1%(10Hz-10MHz)     | RMS Integration: <0.05%(10Hz-10MHz) |
| Beam Quality                  | TEM <sub>∞</sub> , M <sup>2</sup> <1.1 |                                     |
| PER, dB                       | >20                                    |                                     |
| Beam Diameter, mm             | 0.7-1.0                                |                                     |
| Cooling                       | Water Cooling/Air Cooling              |                                     |
| Power Supply                  | 50-60Hz, 100-240VAC                    |                                     |

1:YY: Maximum Output Power, ZZ: Operation Mode  
2: Power can be customized

## Structure size



1064 nm fiber laser



532 nm SHG Module