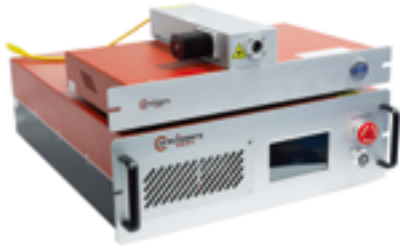


# SINGLE PASS DFG FIBER LASER

Narrow Linewidth, Low Frequency Drift, Mode-hopping Free, Active Power Stability, Excellent Beam Quality



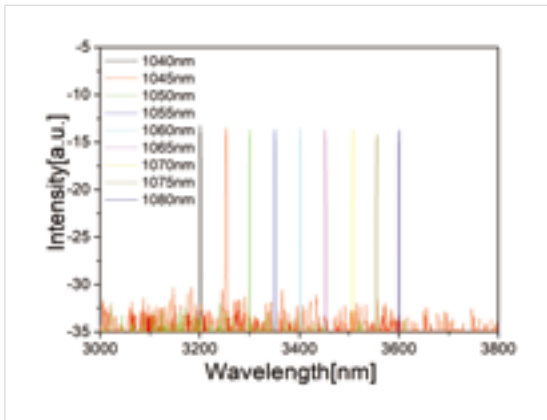
PreciLasers offers a single pass SDFG fiber laser (FL-SDFG), which uses ultra-narrow linewidth fiber DFB laser as seeds, all fiber amplifiers to boost the output power and single pass PPLN DFG module to get high power mid-infrared laser output. The DFG fiber laser could cover the output wavelengths from 2400 to 4000 nm, with narrow linewidth (less than 200 kHz in 100 us integration time) and excellent beam quality ( $M^2 < 1.1$ ). It remains mode-hopping-free and stable under wide temperature variation and high mechanical vibration, which is great for frequency locking.

### Key Features:

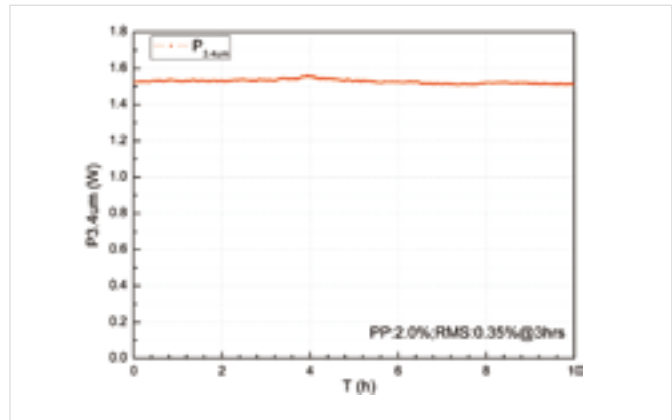
- Narrow linewidth, tunable
- Active power stability
- Stable and maintenance-free
- Good beam quality ( $M^2 < 1.1$ )
- High output power

### Applications:

- Sensing
- Laser spectroscopy
- Gas detection



Wavelength Tuning Range



Power Stability

Model	FL-SDFG-XX-YY-ZZ <sup>1</sup>		
Wavelength Range <sup>2</sup> , $\mu\text{m}$	2.4-4.0		
Output Power <sup>3</sup> , W	0.05-1.5		
Seed Laser	Precilasers' Fiber DFB Laser	Diode DFB	Wide Tunable Seed
Frequency converted	Single Pass DFG		
Tunable Range, nm	>10	>20	>400
Linewidth (100us), MHz	<0.2	50	<20
RMS Power Stability, %	<0.5 % @ 3hrs		
Beam Quality	TEM <sub>00</sub> , $M^2 < 1.1$		
PER, dB	>20		
Beam Diameter, mm	0.7-1.0		
Cooling	Water Cooling/Air Cooling		
Power Supply	50-60Hz, 100-240VAC		

1: XX: Central Wavelength, YY: Maximum Output Power, ZZ: Operation Mode  
 2: Central wavelength can be customized  
 3: High power can be customized

