

## Ultra-narrow linewidth (3kHz) single-frequency fiber laser

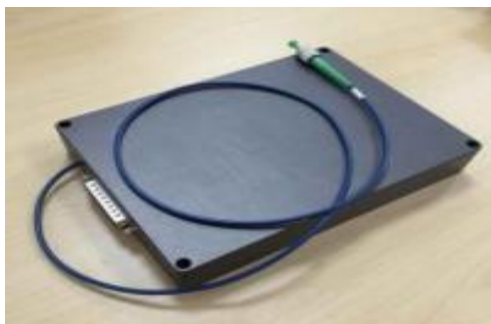
The laser adopts the advanced active fiber DFB short straight cavity structure, and the GHz FSR ensures the stable output of the single longitudinal mode of the laser. The module adopts the proprietary shockproof and noise reduction design, and cooperates with the stable and low-noise drive circuit to ensure the high-performance and stable operation of the laser.

### Characteristic:

- Spectral linewidth less than 3kHz
- High side mode rejection ratio
- High frequency stability, no mode hopping
- Low relative intensity noise

### Application:

- Distributed optical fiber sensing
- Coherent optical communication
- Fiber optic hydrophone
- Lidar



Parameter index	Unit	Numerical value
Central wavelength range	nm	1550
Side mode rejection ratio	dB	> 50
Output power	mW	20 (Note:10-1000mW multiple specifications are available)
Polarization state	Random polarization / linear polarization	
Polarization extinction ratio	dB	> 23
Degree of polarization	%	99
Spectral linewidth	kHz	3kHz
Frequency instability	MHz	< 20 ( 15min)    < 100 (long-term)
Relative intensity noise @>1MHz	dB/Hz	< - 120dB/Hz@ 1MHz
Phase noise @10kHz	dB	< - 110
Power instability @>3h	-	< 1%
Output fiber type	Single mode fiber SMF-28e or Polarization maintaining fiber PM1550	
Supply voltage	VDC	5
Product size	mm	120x80x30 (modular)
		296x260x89 (table mode)

**Ordering information:**

	<b>Wavelength(nm)</b>	<b>Output power(mW)</b>	<b>Output fiber type</b>	<b>Connector form</b>	<b>Module size</b>
<b>UNDFBL</b>	1550	100	SMF: Random polarization output of single-mode fiber	FC/APC	M4: 120x80x25 B= Benchtop
		•	PMF: Polarization maintaining fiber, line polarization output	FC/PC	
		•			
		•			
		30			
20					
10					