

Ultra-narrow linewidth (1kHz) single-frequency fiber laser

The laser adopts a proprietary traveling-wave cavity design and a unique frequency stabilization technology, so that the laser can maintain high-performance and stable output of single longitudinal mode, ultra-low relative intensity noise and phase noise. The low-noise control circuit ensures the high-performance and stable operation of the laser.

Characteristic:

- Spectral linewidth less than 1kHz
- 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	1540-1560 optional
Signal to noise ratio	dB	> 60
Output power	mW	20 (Note:10-1000mW multiple specifications are available)
Polarization state		-
Polarization extinction ratio	dB	> 25
Degree of polarization	-	0.99
Spectral linewidth	kHz	1 kHz
Frequency instability	MHz	< 20 (15min) < 100 (long-term)
Relative intensity noise @>1MHz	dB/Hz	<-140 dB/Hz@1MHz
Phase noise	dB	< -130
Power instability @>3h	-	<1%
Output fiber type		-
Supply voltage	-	DC 5V
产品尺寸	mm	120x80x25 (modular)
		296x260x89 (table mode)

Ordering information:

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