Ultra-narrow Linewidth (1KHz) Single Frequency Fiber Laser

Product Description

The laser adopts a proprietary traveling wave cavity design, with unique frequency stabilization technology, so that the laser maintains a single longitudinal mode, ultra-low relative intensity noise and phase noise high-performance stable output, the module adopts a proprietary anti-vibration and noise reduction design, with a stable low-noise control circuit to ensure the laser high-performance stable operation.

Features

- Spectral linewidth less than 1 kHz
- High edge-mode rejection ratio
- High frequency stability, no mode jumping
- Low relative intensity noise

Applications

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

Performance Parameter

Indicators	Unit	Typical Value
Central Wavelength Range	nm	1540~1560 available
Signal-to-noise Ratio	dB	> 60
Output Power	mW	20
Polarization State	-	
Polarization Extinction Ratio	dB	> 25
Polarization	-	0.99
Spectral Line Width	kHz	1kHz
Frequency Instability	MHz	<20 (15min) <100 (long-term)
Relative Intensity Noise @>1MHz	dB/Hz	<-140dB/Hz@1MHz
Phase Noise	dB	< -130
Power Instability @>3h	-	<1%
Output Fiber Type	-	
Electricity Supply	-	DC 5V
Product Size	mm	120x80x25 (Module)
		296x260x89 (Desktop)

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Ordering information

	Wavelength (nm)	Output Power (mW)	Output Fiber	Connector Type	Module Size
UNFSRL	1550	30 20 10	SMF：Single-mode fiber random polarization output PMF:Polarization-protected fiber, line bias output	FC/APC FC/PC	M4：120x80x25 B=Benchtop

Example：UNFSRL – 1550-20-PMF-FC/APC-M4

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