

提供小于 30 Hz 的超精细瞬时动态光谱线宽和超低相位/频率噪声



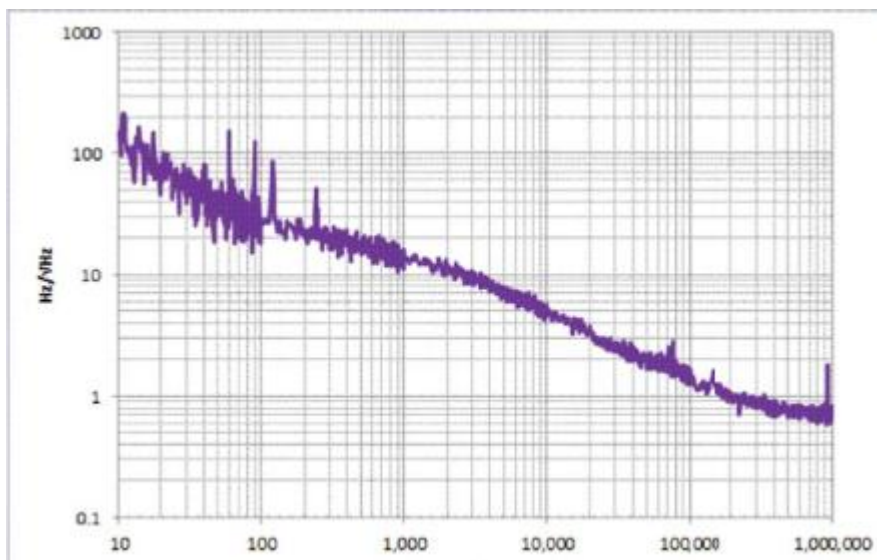
主要特点

- 超窄瞬时动态线宽
- 超低相位/频率噪声
- 1530-1565nm 全覆盖
- 宽温度调谐范围
- 低振动敏感
- 低残余放大调制
- 波长稳定
- 紧凑型封装
- 集成驱动器/控制器
- USB 或 RS232 控制接口

产品介绍

OEwaves 超窄线宽激光模块包含一个专用的驱动器/控制器和 OEwaves 激光光源，它基于 High quality factor (Q) Whispering Gallery Mode (WGM) 微谐振器。激光波长可以扩展到 C 波段的各个波长。

OEwaves 超窄线宽激光模块的独特技术选用合适的商用激光二极管，通过来自 High Q WGM 微谐振器的谐振光学反馈实现自注入锁定。这种单片集成方法以及微尺度质量和体积使激光对环境振动几乎不敏感。



应用领域

- 干涉式光学传感
- LIDAR
- B-OTDR 温度与应变
- 气体传感
- 光学计量与光谱学
- 声谱传感
- 油气勘探
- 相干通信
- 测试与测量

Specifications

Parameters	OE4020	Notes
Wavelength	1530-1565nm	Single Mode CW; Vacuum
Instantaneous Linewidth	30 Hz	Lorentzian; 10 us
Dynamic Linewidth	30 Hz	
Output Power	10 mW	
Frequency Noise	50 Hz/ $\sqrt{\text{Hz}}$ 20 Hz/ $\sqrt{\text{Hz}}$ 1 Hz/ $\sqrt{\text{Hz}}$	100 Hz Offset 1 kHz Offset 1 MHz Offset
Short Term Stability	10^{-10} @ 1s	At constant case temperature
Frequency Stability	+/- 15 MHz/day	At constant case temperature
Signal to Noise Ratio	60 dB	
Thermal Tuning Range	30~50 GHz	Mode hop free
Thermal Tuning Rate	200 MHz/s	Mode hop free
Side-Mode Suppression Ratio	50 dB	
Relative Intensity Noise	-150 dBc /Hz	10 MHz
Operating Temperature	+20 to +40 $^{\circ}\text{C}$	Case temperature
Storage Temperature	-10 to +50 $^{\circ}\text{C}$	Case temperature
Monitor/Control Interface	USB	
Package	2.3'' x 6'' x 1''	Including driver electronics
Fiber Pigtail	PM 18 dB PER	PANDA
Optical Connector	FC/APC	
Options		
Extended Tuning Range	TBD	Consult Factory
Frequency Modulation	DC-100kHz	10 MHz/V; > +/- 200MHz Range
Extended Output Power	TBD	Consult Factory
Connector	FC/PC, SC/APC	
Monitor/Control Interface	RS232	