



KHz 级超窄线宽大功率 DFB 模块 1550nm 60mW



总览

这种来自 LD-PD INC 的窄线宽 DFB 激光模块具有优异的性能和优异的可靠性 (符合 Telcordia GR-486 规范)。高达 100mW 的输出功率, 极低的相对强度噪声 (RIN), 超低的相位噪声和窄线宽, 高波长稳定性和低频抖动。

我们的低噪声和窄线宽使这种半导体光学解决方案非常适合各种应用, 在这些应用中, 精度、在恶劣的现场条件下的寿命可靠性和高分辨率至关重要, 例如光纤和固态激光器。种子源、二次谐波产生 (SHG)、光学参量振荡器 (OPO)、激光光谱、激光雷达等精密计量应用。

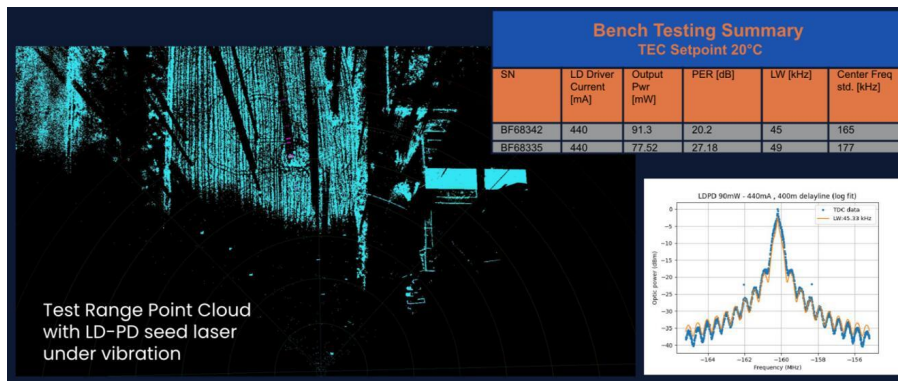
产品特点

- ☀ **单纵模**
- ☀ 超低相位噪声和相对强度噪声 (RIN)
- ☀ 对振动和噪音的敏感性低
- ☀ 窄线宽 (<100 kHz), 长相干长度
- ☀ 1530 nm-1565 nm, ITU-T DWDM 波长或定制
- ☀ 保证在使用寿命和温度范围内无模式跳变
- ☀ **波长可调**
- ☀ 在使用寿命和温度范围内具有出色的波长稳定性
- ☀ 优秀的 SMSR
- ☀ SMF 或 PMF 尾光纤选项
- ☀ 0 至 70° C 工作温度
- ☀ 符合 Telcordia GR-468 和 RoHS 认证

产品应用

- ☀ 声学 and 地震传感
- ☀ 国防与安全
- ☀ 石油和天然气勘探与生产
- ☀ 激光雷达和遥感

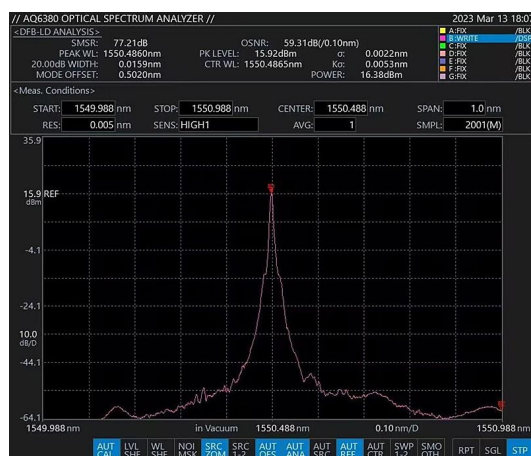
- 干涉式光纤传感
- 计量学
- 射频和微波光子学
- 相干通信



通用参数

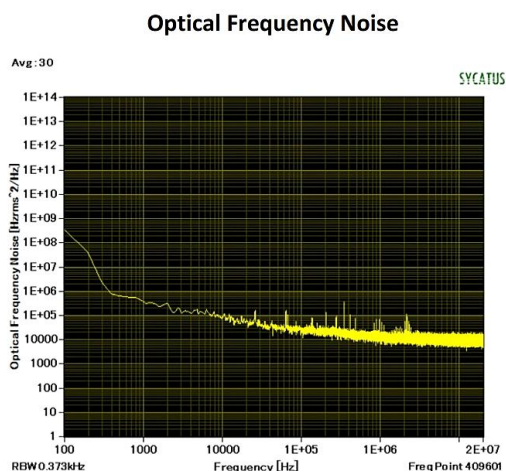
参数	Value	Unit
输出功率	10-60	mW
中心波长 (ITU 网格和自定义)	1535-1590, 1635-1685	nm
热波长调谐范围	30	pm
相对强度噪声, $\geq 500\text{KHz}$	shot noise limit	dB/Hz
偏振消光比 (保偏光纤)	≥ 20	dB
调频带宽 (高频)	DC-10	MHz
工作温度	0 ~ +70	°C
光学隔离	≥ 40	dB

测试光谱图

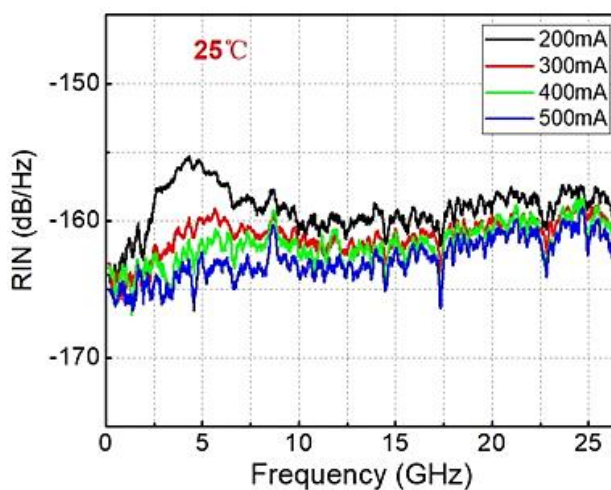




相位噪声曲线



强度噪声曲线



型号说明

SCL0-DFB-□□□□-☆-A8▽-L□□-M□-XX

□□□□: Wavelength

1018: 1018nm

1530.33: 1530.33nm

1550.12: 1550.12nm

1700: 1700nm

1735: 1735nm

1742: 1742nm



☆: Output Power

A: 10mW

B: 20mW

C:30mW

D:40mW

E:50mW

F:60mW

G:80mW

H:100mW

▽: Wavelength Tolerance

1: $\pm 1\text{nm}$

2: $\pm 2\text{nm}$

3: $\pm 10\text{nm}$

L□□:Linewidth

01: Grade 1 $\leq 100\text{KHZ}$

02: Grade 2 $\leq 200\text{KHZ}$

03: Grade 3 $\leq 500\text{KHZ}$

04: Grade 4 $\leq 3000\text{KHZ}$

M□:Modulation

0: CW

1:External Modulation

XX: Fiber and Connector Type

SA=SM Fiber+ FC/APC

SP=SM Fiber+ FC/PC

PP=PM Fiber+ FC/PC

PA=PM Fiber+ FC/APC

parameter	Grade 1	Grade 2	Grade 3	Grade 4	Unit
Linewidth	≤ 100	≤ 200	≤ 500	≤ 3000	KHz

1 级（线宽 $\leq 100\text{KHZ}$ ）表

Wavelength (nm)	Linewidth (KHZ)	Tuning Range(nm)	Power(mW)
1535	Typical 75KHZ	2-3	80-100mW
1540	Typical 75KHZ	2-3	80-100mW
1545	Typical 75KHZ	2-3	80-100mW
1550	Typical 75KHZ	2-3	80-100mW
1555	Typical 75KHZ	2-3	80-100mW



1560	Typical 75KHZ	2-3	80-100mW
1565	Typical 75KHZ	2-3	80-100mW
1570	Typical 75KHZ	2-3	80-100mW
1575	Typical 75KHZ	2-3	80-100mW
1580	Typical 75KHZ	2-3	80-100mW
1585	Typical 75KHZ	2-3	80-100mW
1590	Typical 75KHZ	2-3	80-100mW
1635	Typical 95KHZ	2-3	80-100mW
1640	Typical 95KHZ	2-3	80-100mW
1650	Typical 95KHZ	2-3	80-100mW
1660	Typical 95KHZ	2-3	80-100mW
1670	Typical 95KHZ	2-3	80-100mW
1680	Typical 95KHZ	2-3	80-100mW

我们可以提供中心波长在 1535-1590nm 和 1635-1685nm 之间的任何窄线宽 DFB 模块

二级 (线宽 $\leq$ 200KHZ) 表

Wavelength (nm)	Linewidth (KHZ)	Tuning Range(nm)	Power(mW)
1260	Typical 170KHZ	2-3nm	40-60mW
1270	Typical 170KHZ	2-3nm	40-60mW
1280	Typical 170KHZ	2-3nm	40-60mW
1290	Typical 170KHZ	2-3nm	40-60mW
1300	Typical 170KHZ	2-3nm	40-60mW
1310	Typical 170KHZ	2-3nm	40-60mW
1320	Typical 170KHZ	2-3nm	40-60mW
1520	Typical 150KHZ	2-3nm	40-50mW
1530	Typical 150KHZ	2-3nm	40-50mW
1540	Typical 150KHZ	2-3nm	40-50mW
.....*	Typical 150KHZ	2-3nm	40-50mW
1700	Typical 150KHZ	2-3nm	40-50mW
1735	Typical 150KHZ	2-3nm	40-50mW



1742	Typical 150KHZ	2-3nm	40-50mW
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我们可以提供中心波长在 1520-1700nm 之间的任何窄线宽 DFB 模块

4 级（线宽 $\leq$ 3MHZ）表

Wavelength (nm)	Linewidth (MHZ)	Tuning Range(nm)	Power(mW)
760	Typical 3MHZ	2-3nm	10-20mW
972	Typical 3MHZ	2-3nm	40-60mW
976	Typical 3MHZ	2-3nm	40-60mW
980	Typical 3MHZ	2-3nm	40-60mW
1018	Typical 3MHZ	2-3nm	40-60mW
1030	Typical 3MHZ	2-3nm	40-60mW
1038	Typical 3MHZ	2-3nm	40-60mW
1050	Typical 3MHZ	2-3nm	40-60mW
1064	Typical 3MHZ	2-3nm	40-60mW
1083	Typical 3MHZ	2-3nm	40-60mW
1120	Typical 3MHZ	2-3nm	40-60mW
.....	Typical 2MHZ	2-3nm	20-30mW
1700	Typical 2MHZ	2-3nm	20-30mW
1735	Typical 2MHZ	2-3nm	20-30mW
1742	Typical 2MHZ	2-3nm	20-30mW
1814	Typical 3MHZ	2-3nm	2-3mW
1850	Typical 3MHZ	2-3nm	2-3mW
1854.1	Typical 3MHZ	2-3nm	2-3mW
1908	Typical 3MHZ	2-3nm	2-3mW
1910	Typical 3MHZ	2-3nm	2-3mW
1920	Typical 3MHZ	2-3nm	2-3mW
1940	Typical 3MHZ	2-3nm	2-3mW
1945	Typical 3MHZ	2-3nm	2-3mW
1947	Typical 3MHZ	2-3nm	2-3mW
1950	Typical 3MHZ	2-3nm	2-3mW



1960	Typical	3MHZ	2-3nm	2-3mW
1970	Typical	3MHZ	2-3nm	2-3mW
1980	Typical	3MHZ	2-3nm	2-3mW
1984	Typical	3MHZ	2-3nm	2-3mW
2000	Typical	3MHZ	2-3nm	2-3mW
2004	Typical	3MHZ	2-3nm	6-8mW
2040	Typical	3MHZ	2-3nm	2-3mW
2327	Typical	3MHZ	2-3nm	2-3mW
2330	Typical	3MHZ	2-3nm	2-3mW

Note:

1. 我们可以提供 1018-1700nm 的任何波长的 DFB 模块

尺寸 mm

