

1552 nm DFB SM Laser Diode



Description:

The PL-DFB-1552-A1 1552nm DFB laser diode module made by LD-PD is a cost effective, highly coherent laser source. The DFB laser diode chip is packaged in an industry standard hermetically sealed 14 pin butterfly package with TEC and PD Built in.

Features

- Narrow Linewidth < 2MHz
- Excellent wavelength control and stability
- Industry Standard 14 pin Butterfly package
- Mode-Hop free tuning
- Excellent reliability
- Customer specific wavelengths available

Application

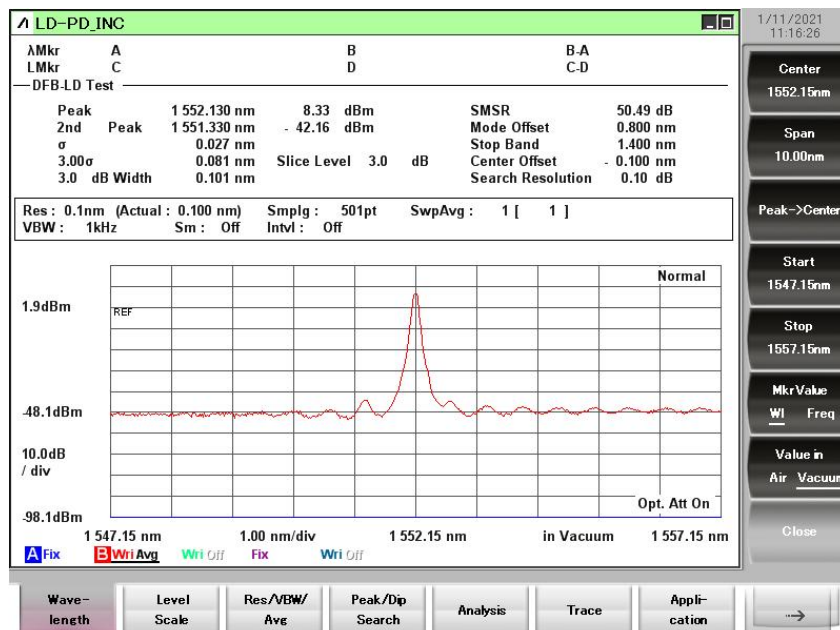
- Tunable diode laser absorption spectroscopy
- H2O Monitoring

Laser Specifications

Electrical/Optical Characteristics (Tsub=25°C, CW bias unless stated otherwise)

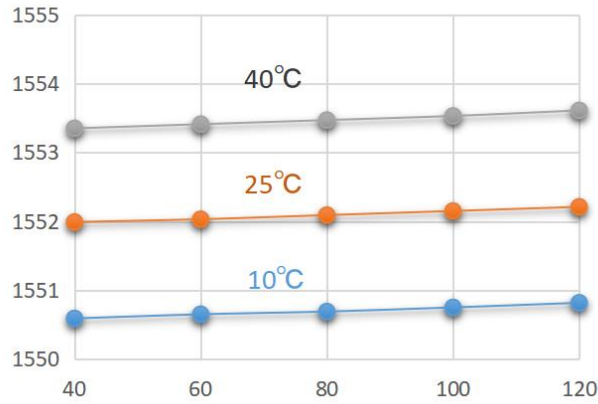
Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ	1551.5	1552	1552.5	nm
Side Mode Suppression Ratio	SMSR	30	40		dB
Threshold Current	I _{th}		20	30	mA
Operating Current	I _{op}		80	120	mA
Chip output Power	P _f	15	20	30	mW
Quantum Efficiency	η	0.08	0.12		mW/mA
Current Tuning Coefficient	$\Delta\lambda/\Delta I$		0.015		nm/mA
Temperature Tuning Coefficient	$\Delta\lambda/\Delta T$		0.12		nm/K
Forward Voltage	V _f		1.3	2	V
Thermistor Resistance	RT	9.5	10	10.5	K Ω
Thermistor Temp. Coefficient			-4.4		%/°C
Connector	FC/APC				

Spectrum

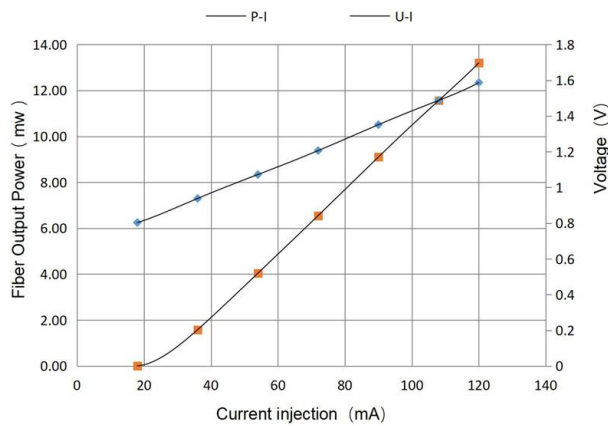


Wavelength Tunability

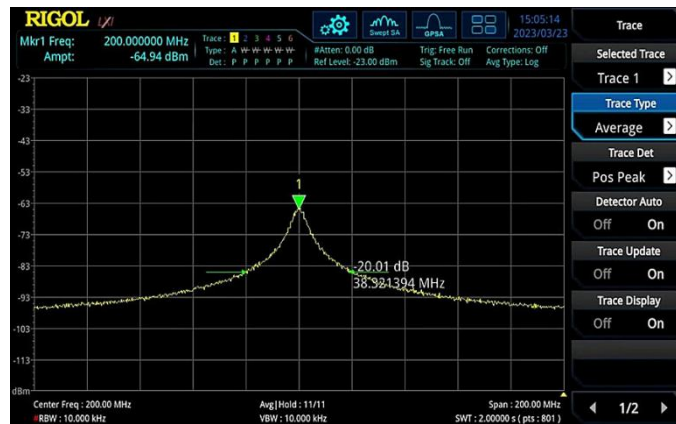
Tuning Characteristics



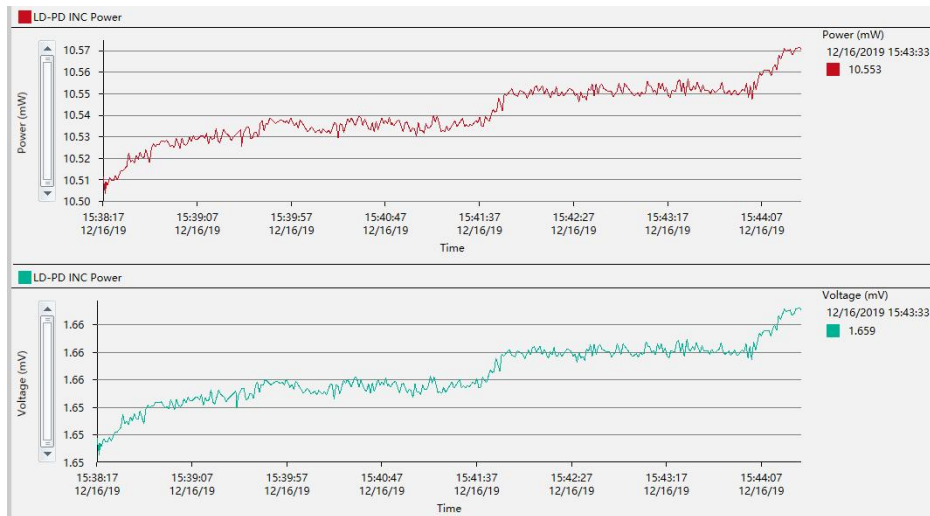
L-I Curve



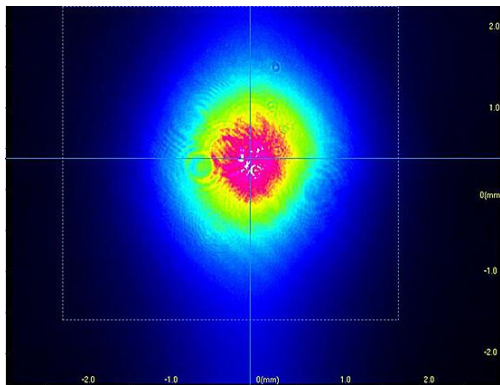
DFB Linewidth Testing Result



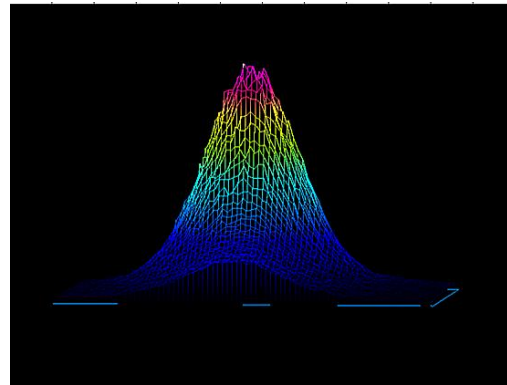
Power Stability



Beam Quality



2D



3D

Ordering Info

PL-DFB-□□□□-☆-A8▽-XX

□□□□: Wavelength

1392: 1392nm

1512: 1512nm

1567: 1567nm

1557.4: 1557.4nm

1653.7: 1653.7nm

☆: Output Power

A: 10mW

B: 20mW

C: 30mW

▽: Wavelength Tolerance

1: ± 1 nm

2: ± 2 nm

XX: Fiber and Connector Type

SA=SMF-28E+ FC/APC

SP=SMF-28E+ FC/PC

PP=PM Fiber+ FC/PC

PA=PM Fiber+ FC/APC