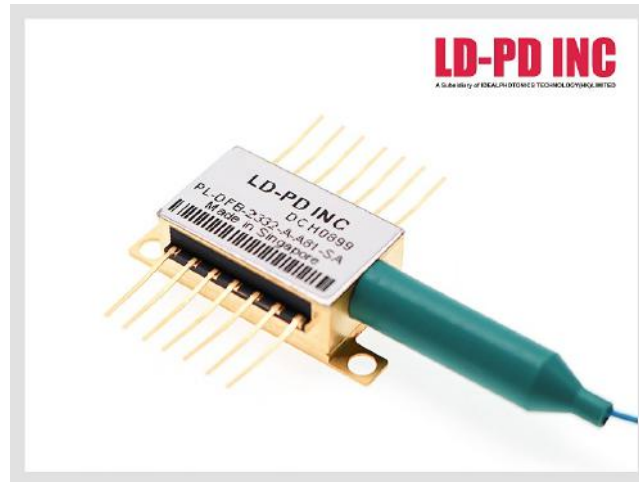


2332nm DFB Tunable Laser diode



Description

The PL-DFB-2332-A1 2332nm 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
- CO Monitoring

Laser Specifications

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

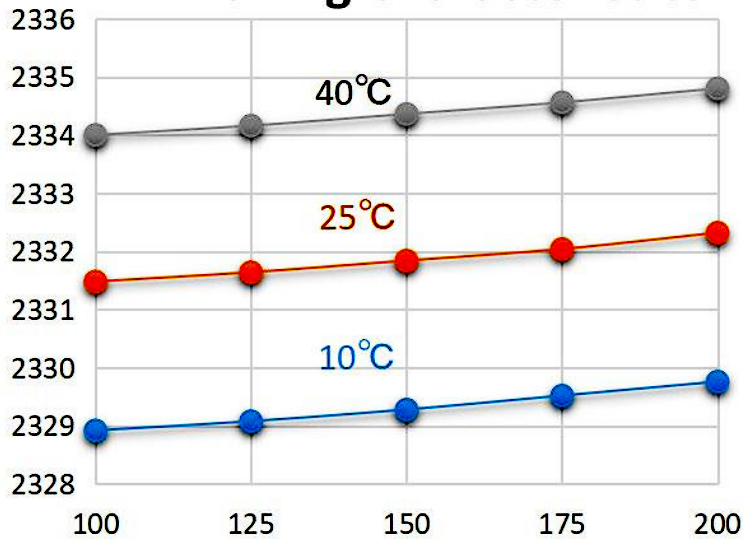
Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ	2321	2332	2333	nm
Side Mode Suppression Ratio	SMSR	30	40		dB
Threshold Current	I _{th}		20	30	mA
Operating Current	I _{op}		100	200	mA
Chip output Power	P _f	4	5	10	mW
Quantum Efficiency	η	0.08	0.12		mW/mA
Current Tuning Coefficient	$\Delta\lambda / \Delta I$		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	R _T	9.5	10	10.5	K Ω
Thermistor Temp. Coefficient			-4.4		%/°C
Connector	FC/APC				

Spectrum

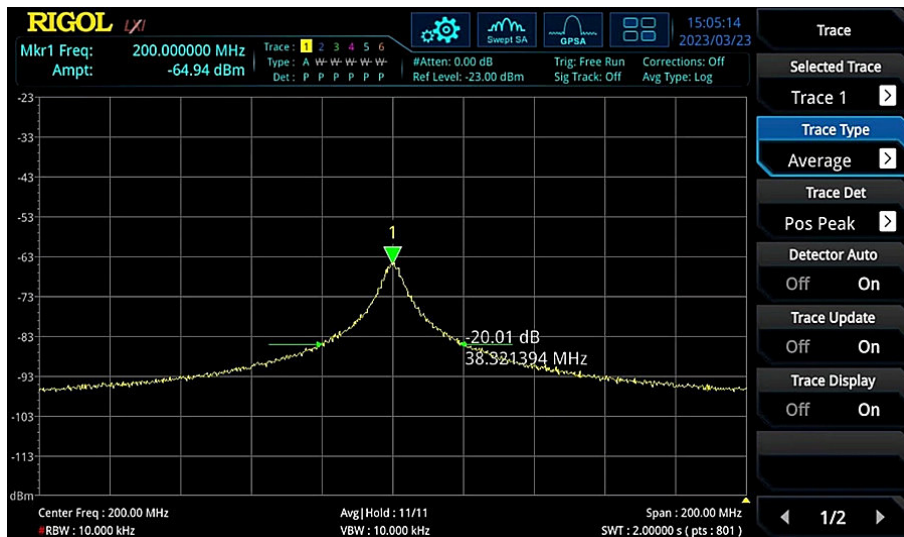


Tuning Characteristics

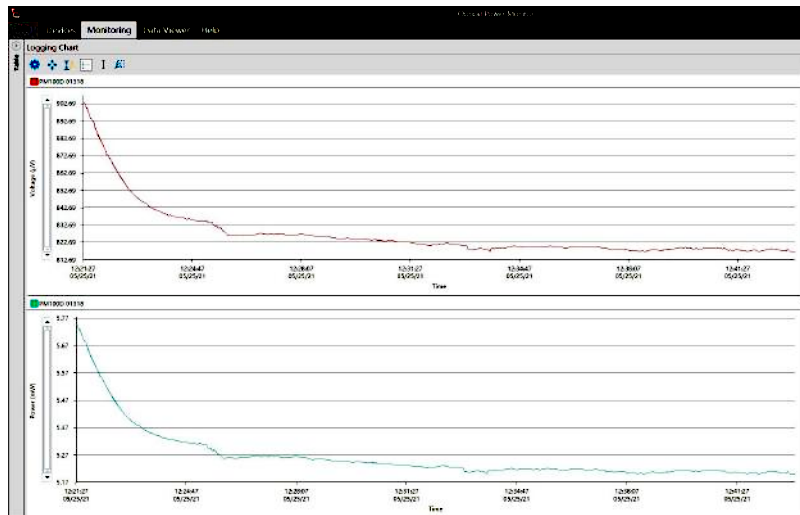
Tuning Characteristics



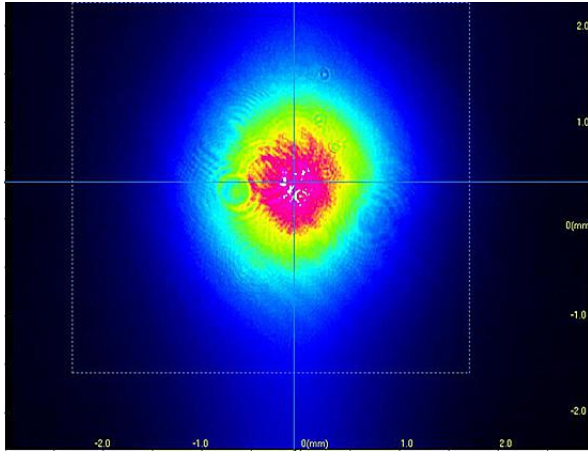
Tuning Characteristics



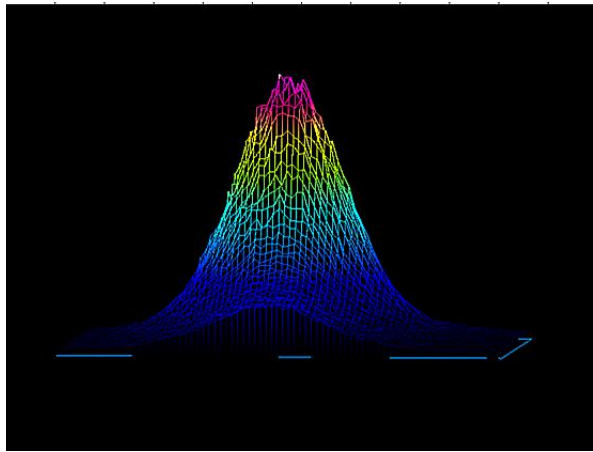
Power Stability



Tuning Characteristics

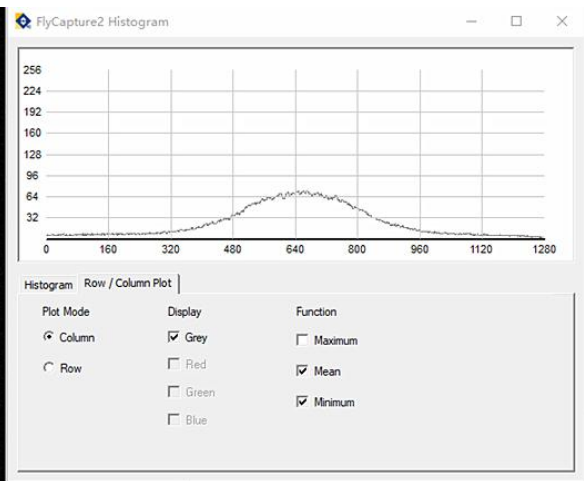
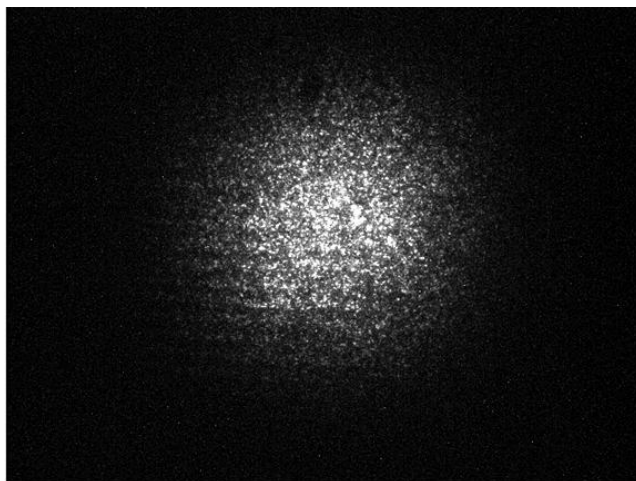


2D

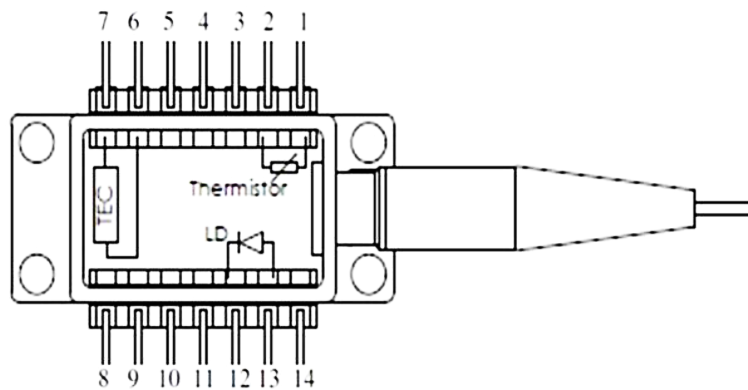


3D

Camera Analysis



Dimensions and Pin definitions



1	Thermistor	8	Not Used
2	Thermistor	9	Not Used
3	Not Used	10	Not Used
4	Not Used	11	Not Used
5	Not Used	12	Laser Diode Cathode (-)
6	TEC (+)	13	laser Diode Anode (+)
7	TEC (-)	14	Not Used

Absolute Maximum Ratings

Item	Unit	Min	Typ	Max
Case Temperature	°C	-5	25	70
Chip Temperature	°C	+10	25	40
Operating Current	mA	0	100	200
Forward Voltage	V	0.8	1.2	1.8
TEC Current	A	-	-	1.2
Reverse Voltage (LD)	V	-	-	2.0
Reverse Voltage (PD)	V	-	-	20

Ordering Info

PL-DFB-□□□□-☆-A8▽-XX

□□□□:Wavelength

1512: 1512nm

1653.7: 1653.7nm

2332: 2332nm

☆ :Output Power

A: 5mW

B: 10mW

▽:Wavelength Tolerance

1: ±1nm

2: ±2nm

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