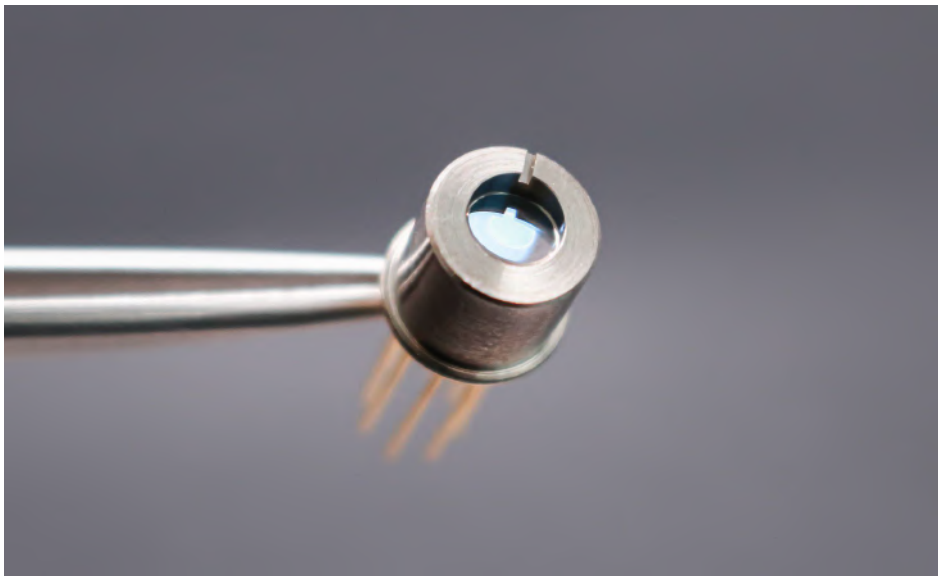
2000nm DFB Tunable Laser diode (TO39 Package)



Description

The PL-DFB-2000-A-A81 2000nm 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 TO39 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
- Gas Monitoring

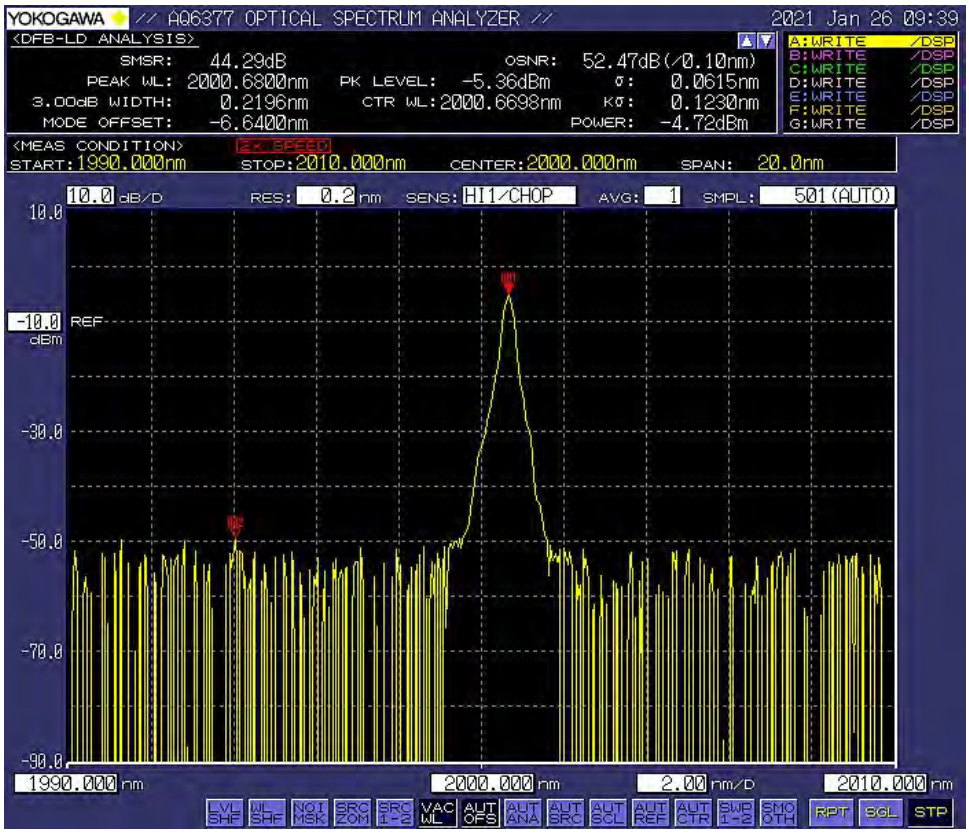
Headquarters:288,Woolands Loop,#04-00,Singapore 738100
(+65) 3158 8759 (+65) 3158 8700 info@ld-pd.com www.ld-pd.com

Laser Specifications

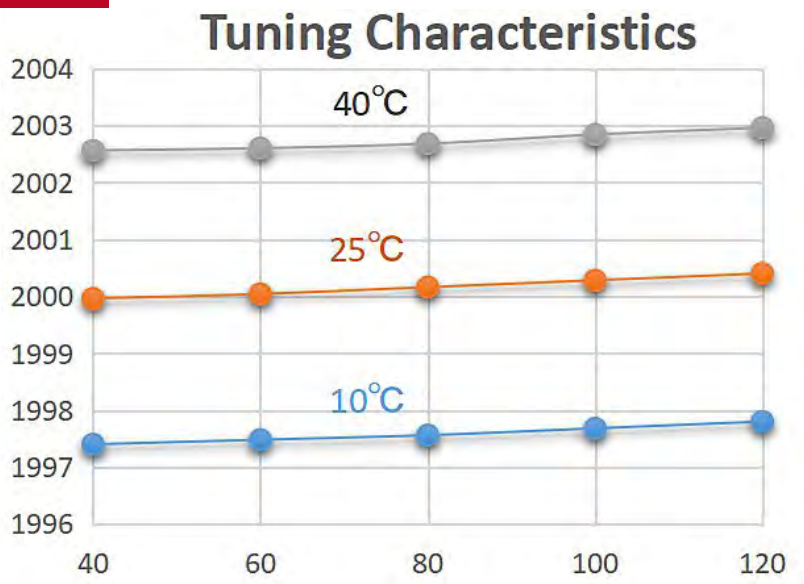
Electrical/Optical Characteristics(Tsub=25°C, CW bias unless stated otherwise)

Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ	1999	2000	2001	nm
Side Mode Suppression Ratio	SMSR	30	40		dB
Threshold Current	Ith		20	30	mA
Operating Current	Iop		80	120	mA
Chip output Power	Pf	2	3	5	mW
Quantum Efficiency	η	0.08	0.12		mW/mA
Current Tuning Coefficient	Δλ/ΔI		0.015		nm/mA
Temperature Tuning Coefficient	Δλ/ΔT		0.12		nm/K
Forward Voltage	Vf		1.3	2	V
Thermistor Resistance	RT	9.5	10	10.5	KΩ
Thermistor Temp. Coefficient			-4.4		%/°C
Connector	FC/APC				

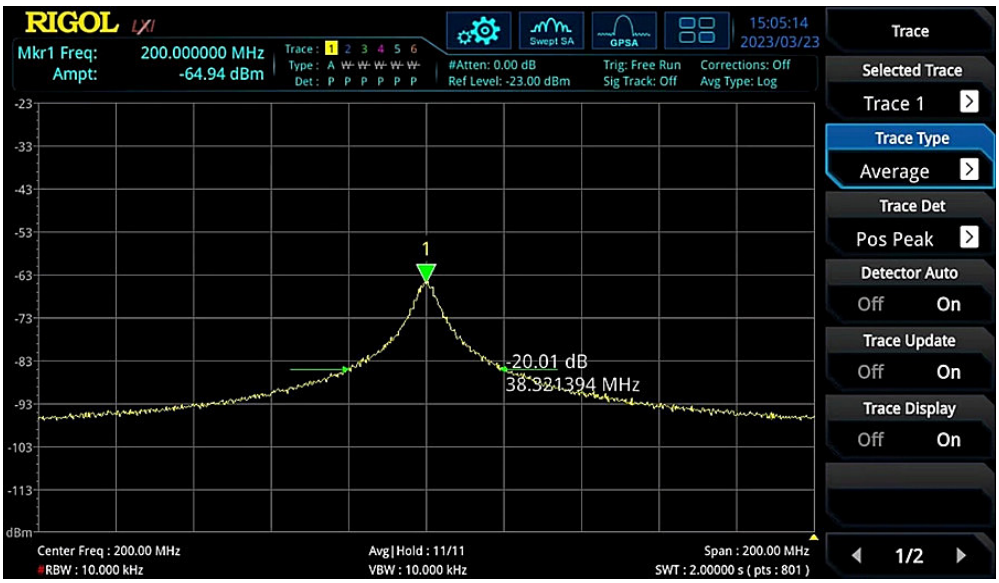
Spectrum



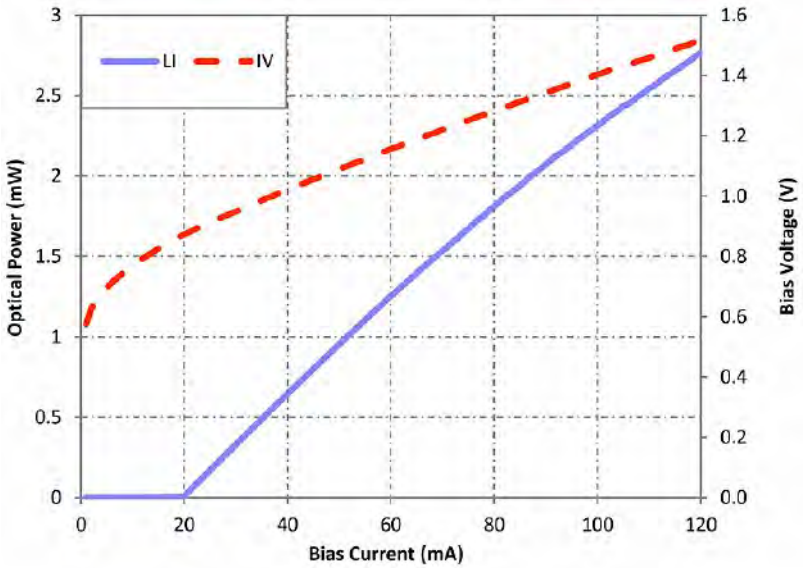
Tuning Characteristics



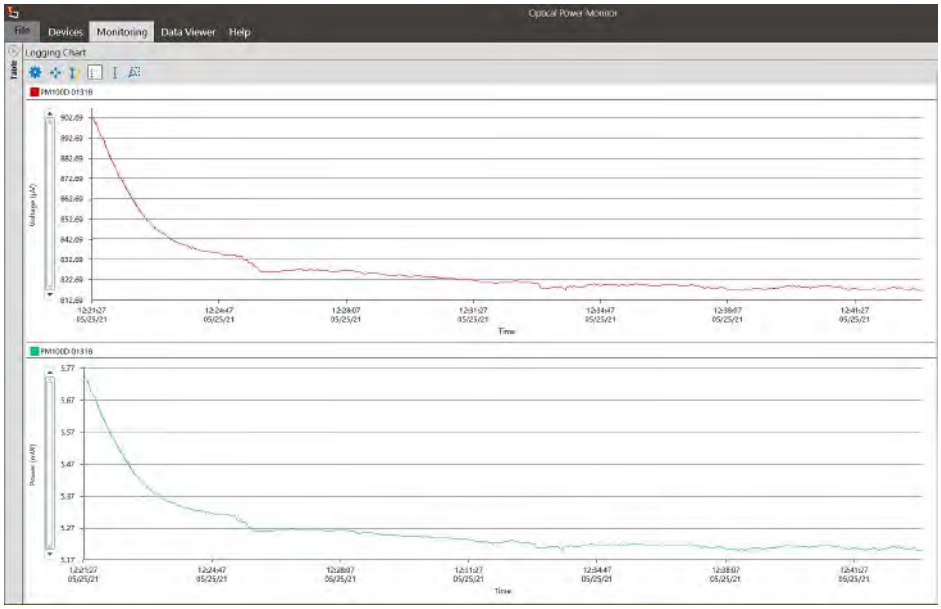
DFB Linewidth Testing Result



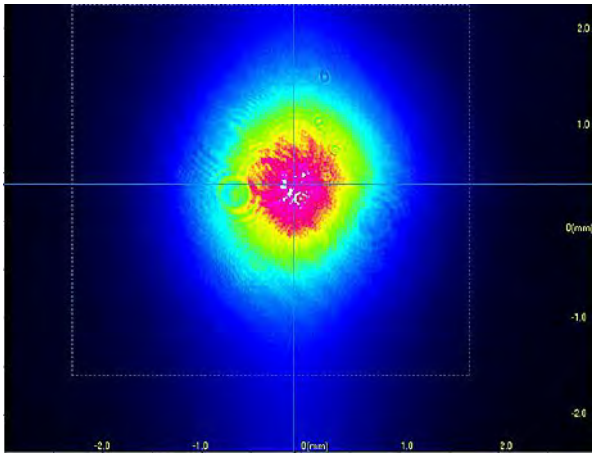
L-I Curve



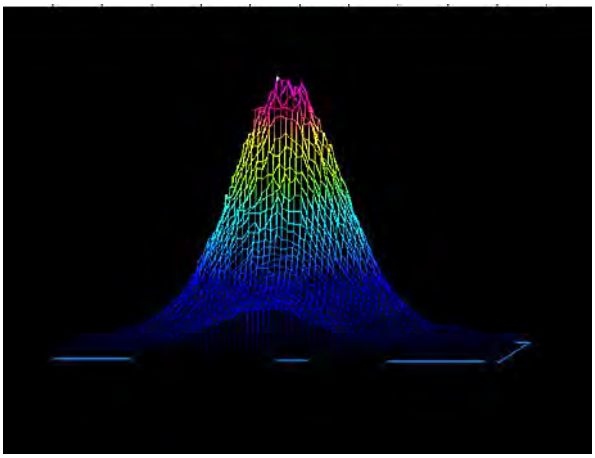
Camera Analysis



Beam Quality

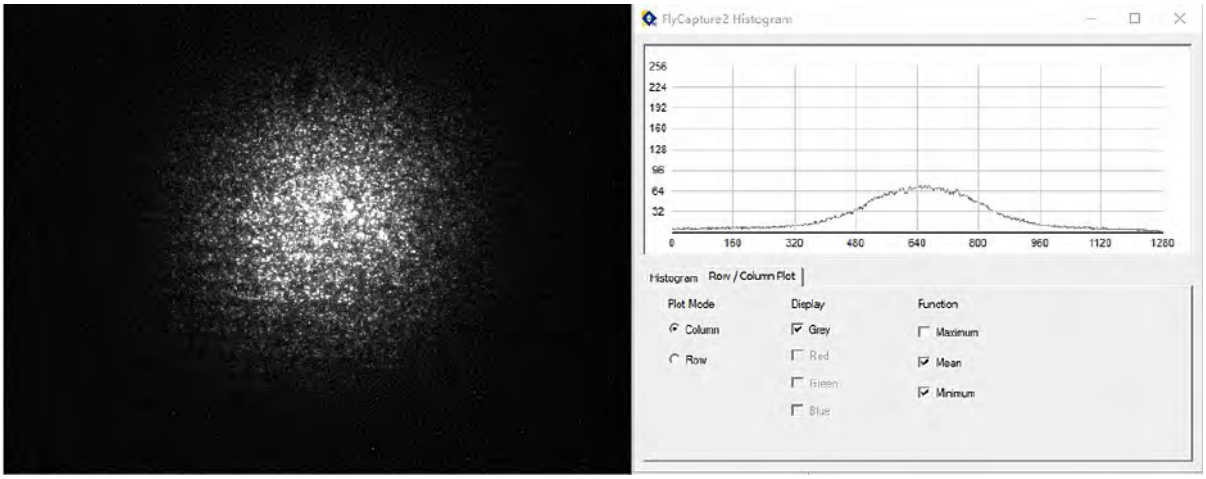


2D



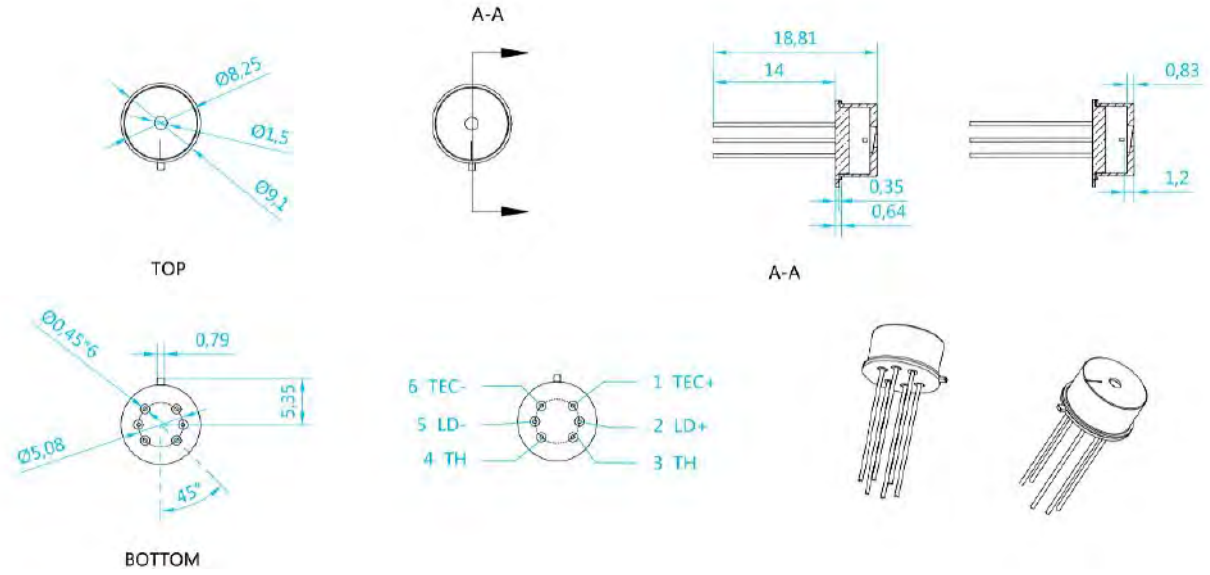
3D

Camera Analysis



Dimensions and Pin definitions

Uinte (mm)



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	120
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▽-TO39
□□□□: Wavelength
1530: 1530nm
1653.7: 1653.7nm
*****
2000: 2000nmO
☆ : Output Power
A: 2mW
B: 5mW
▽: Wavelength Tolerance
1: ±1nm
2: ±2nm