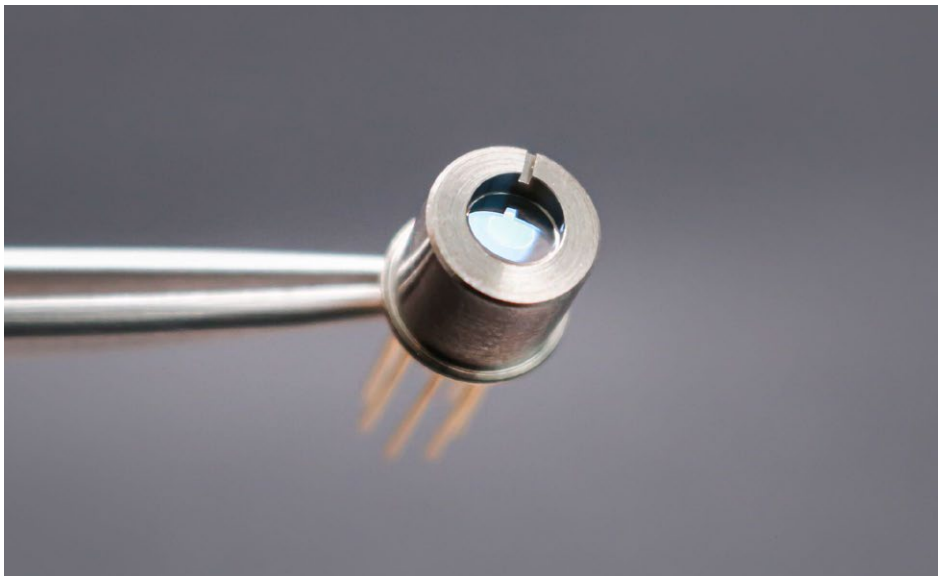
1469nm DFB Tunable Laser Diode (TO39 Package)



Description:

The PL-DFB-1469-A-A81 1469nm 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
- Excellant reliability
- Customer specific wavelengths available

Application:

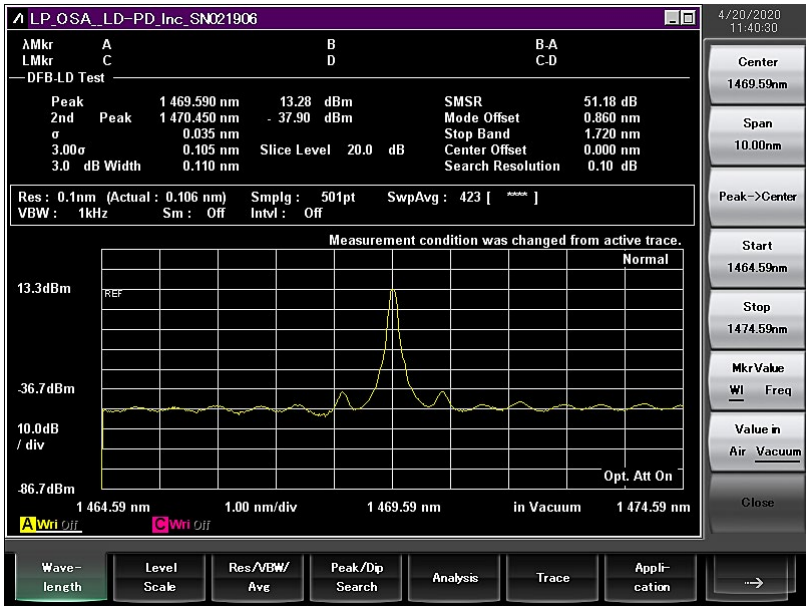
- Tunable diode laser absorption spectroscopy
- Gas Monitoring

Laser Specifications:

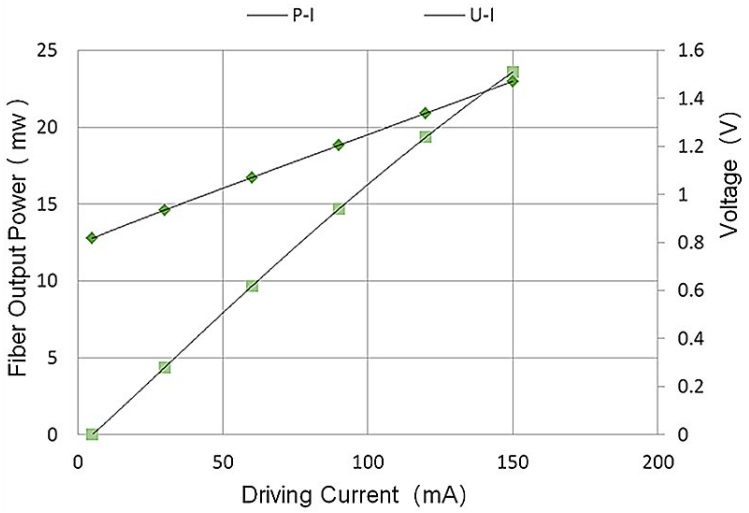
Electrical/Optical Characteristics (Tsub=25°C, CW bias unless stated otherwise)

Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ	1468.5	1469	1469.5	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	10	15	30	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

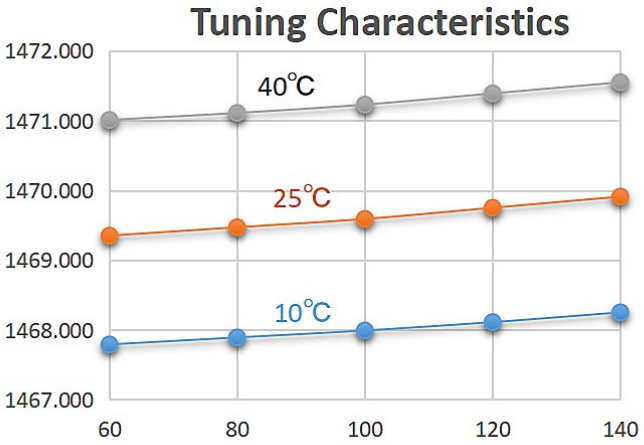
Spectrum:



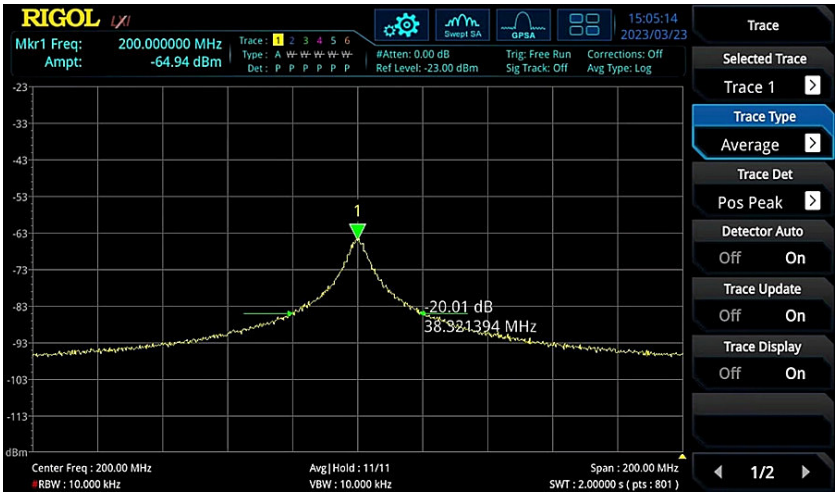
L-I Curve:



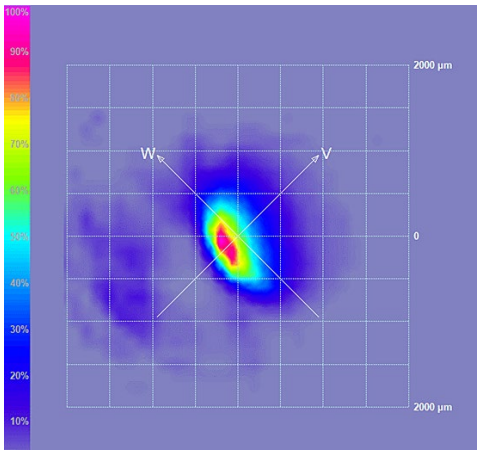
Tuning Characteristics:



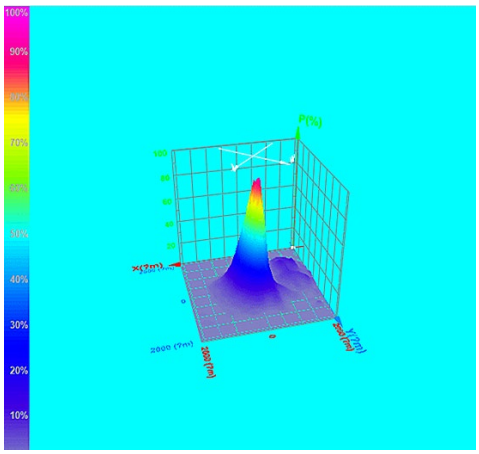
DFB Linewidth Testing Result:



Beam Profile 2D/3D:

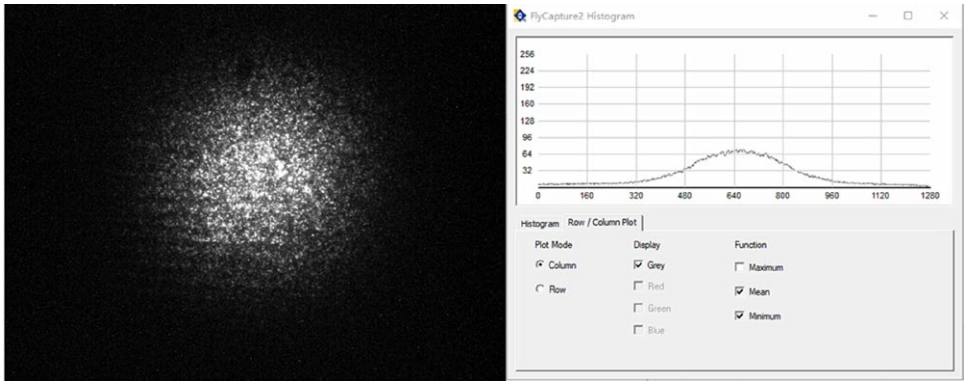


2D

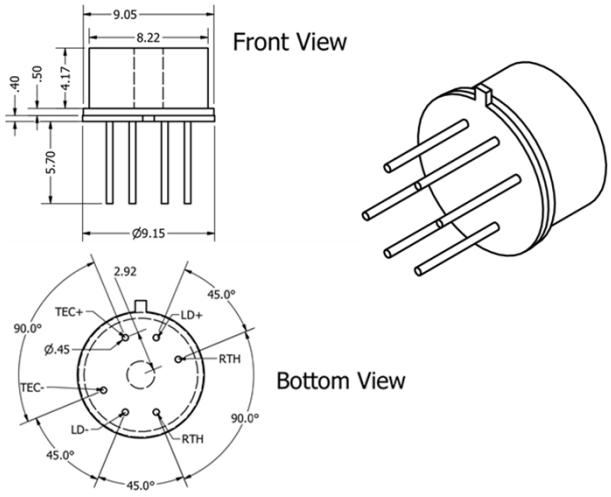


3D

Camera Analysis:



Dimensions and Pin definitions:



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

1469: 1469nm

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1653.7: 1653.7nm

☆: Output Power

A: 10mW

B: 20mW

▽: Wavelength Tolerance

1: ±1nm

2 ±2nm