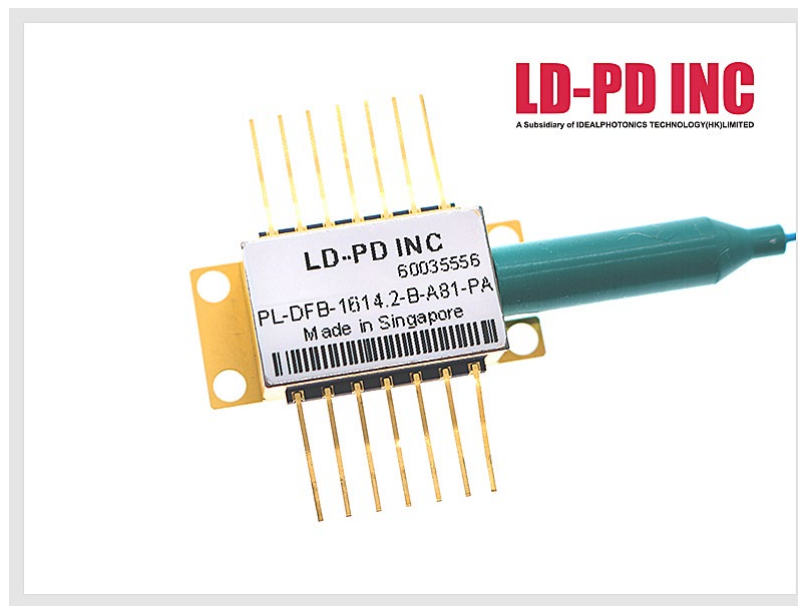


1614.2nm DFB Laser diode for CH₄ Sensing



Description:

The PL-DFB-1614.2-A1 1614.2nm 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:

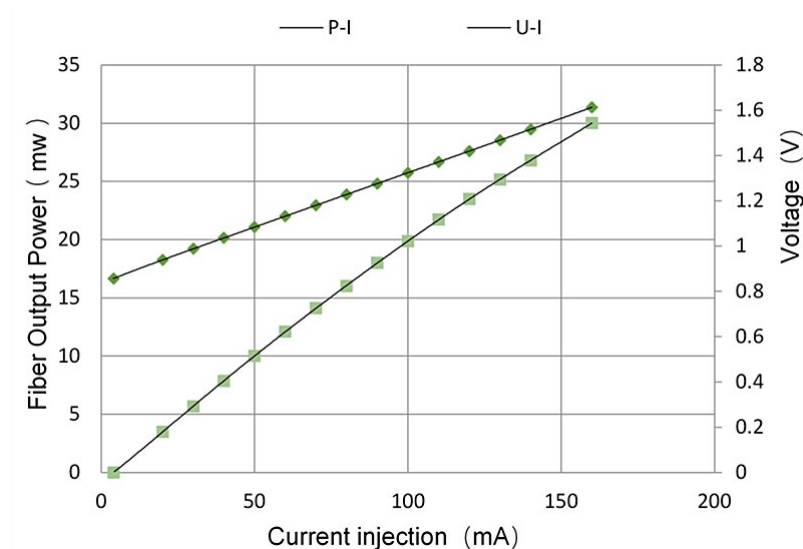
- Tunable diode laser absorption spectroscopy
- CH₄ Monitoring

Tsub=25°C, CW bias unless stated otherwise

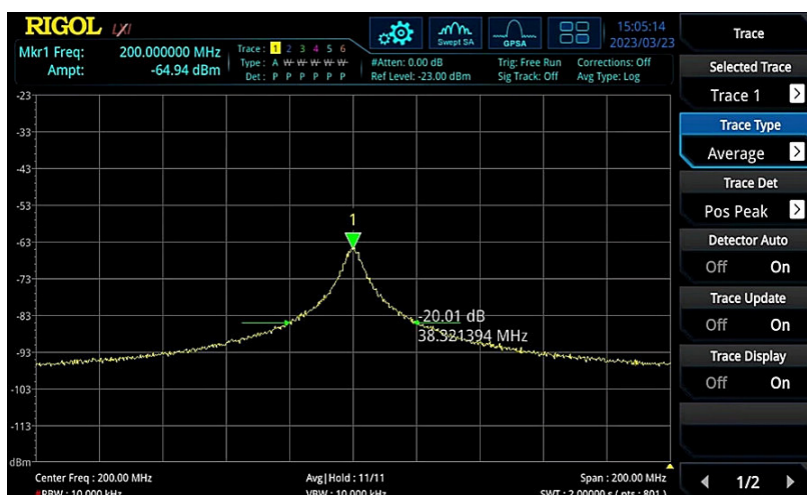
Spectrum:



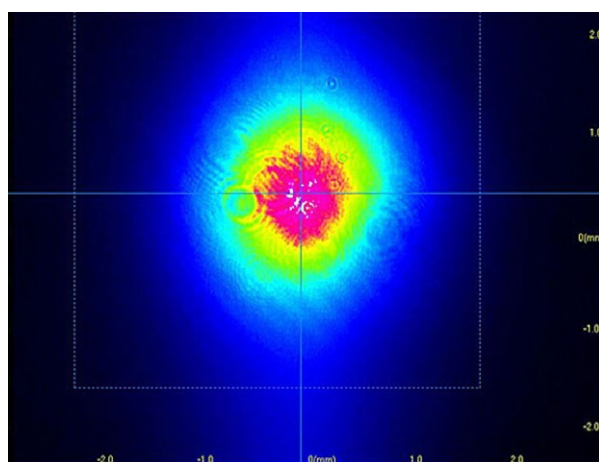
L-I Curve:



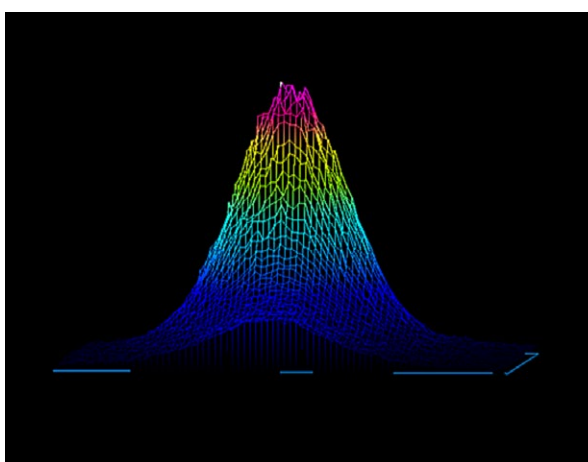
DFB Linewidth Testing Result:



Beam Quality Profiler (2D/3D):

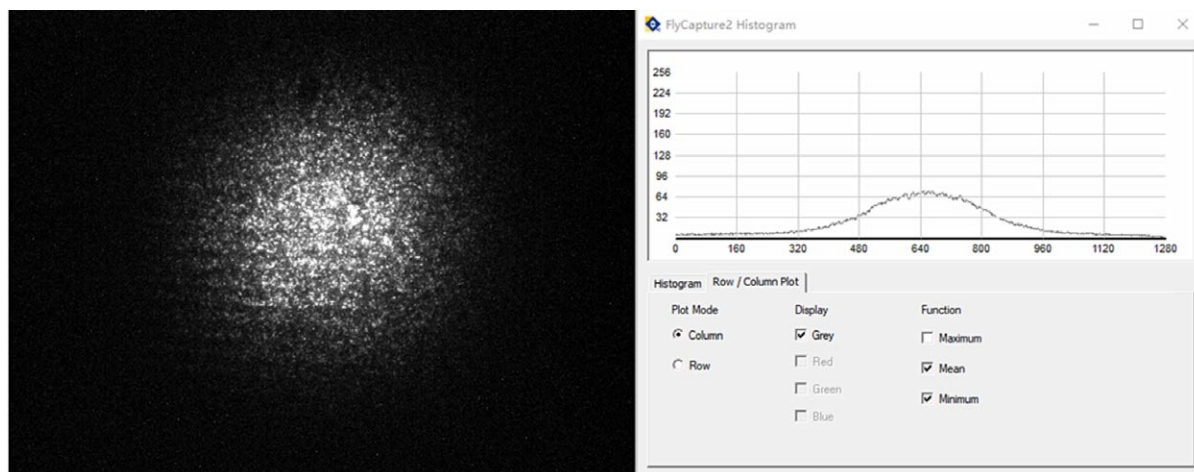


2D

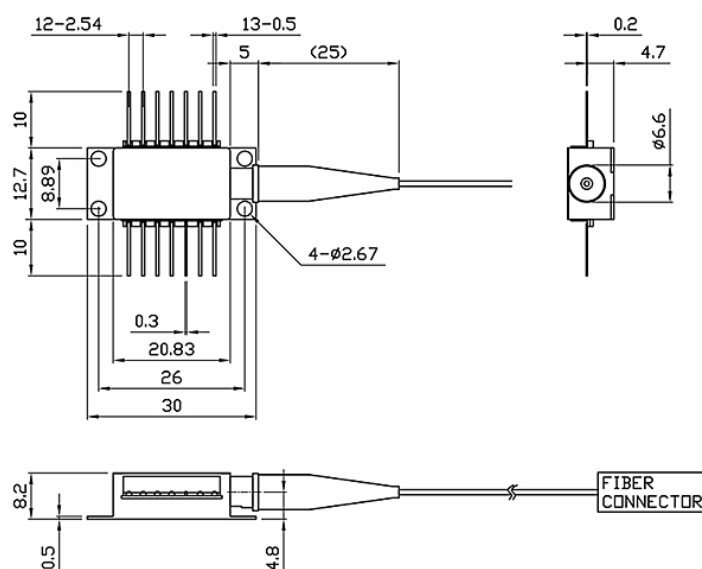


3D

Camera Analysis:



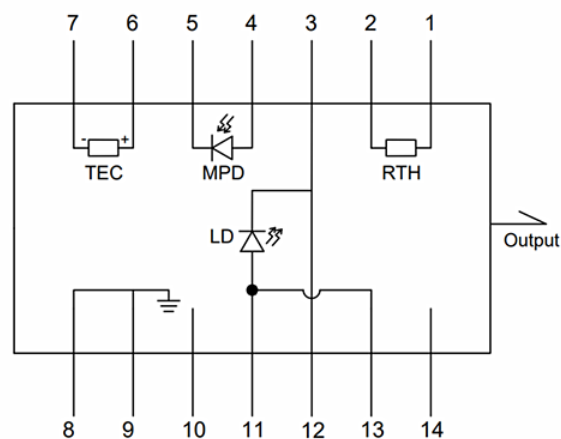
Package Size:



Pin definition

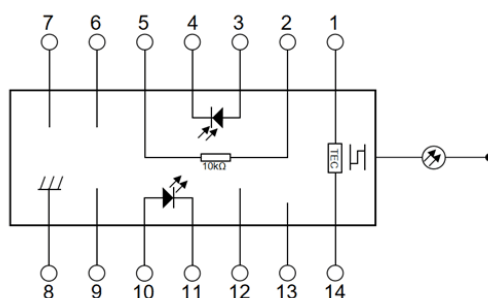
Schematic Diagram (Top View)

TYPE A



TYPE A Pin Connection

PIN#	Function	PIN#	Function
1	Thermistor	8	Case Ground
2	Thermistor	9	Case Ground
3	LD(-)	10	NC
4	Detector (+)	11	LD(+)
5	Detector (-)	12	LD (-), RF
6	TEC (+)	13	LD (+)
7	TEC (-)	14	NC



TYPE B Pin Connection

PIN#	Function	PIN#	Function
1	TEC(+)	8	Case Ground
2	Thermistor	9	NC
3	Detector(+)	10	Laser Anode (+)
4	Detector (-)	11	Laser Anode (-)
5	Thermistor	12	NC
6	NC	13	NC
7	NC	14	TEC(-)

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	150
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

1392: 1392nm

1512: 1512nm

1567: 1567nm

1572: 1572nm

1614.2: 1614.2nm

☆: Output Power

A: 10mW

B: 20mW

▽: Wavelength Tolerance

1: ± 1 nm2: ± 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