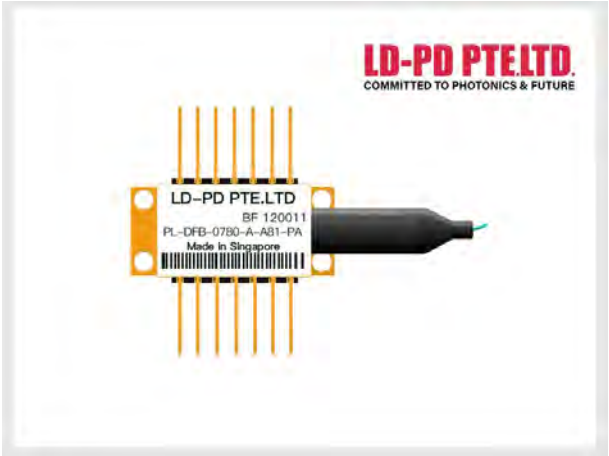
780nm DFB 14Pin Butterfly Laser Diode



Description

The PL-DFB-780-A-A81 780nm 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.We built in isolator in butterfly package to Protection Against Optical Damage and improve Frequency and Power Stability.

Features

- Narrow Linewidth < 1MHz
- Excellent wavelength control and stability
- Isolator Built inside
- Industry Standard 14 pin Butterfly package
- Mode-Hop free tuning
- Excellent reliability
- Customer specific wavelengths available

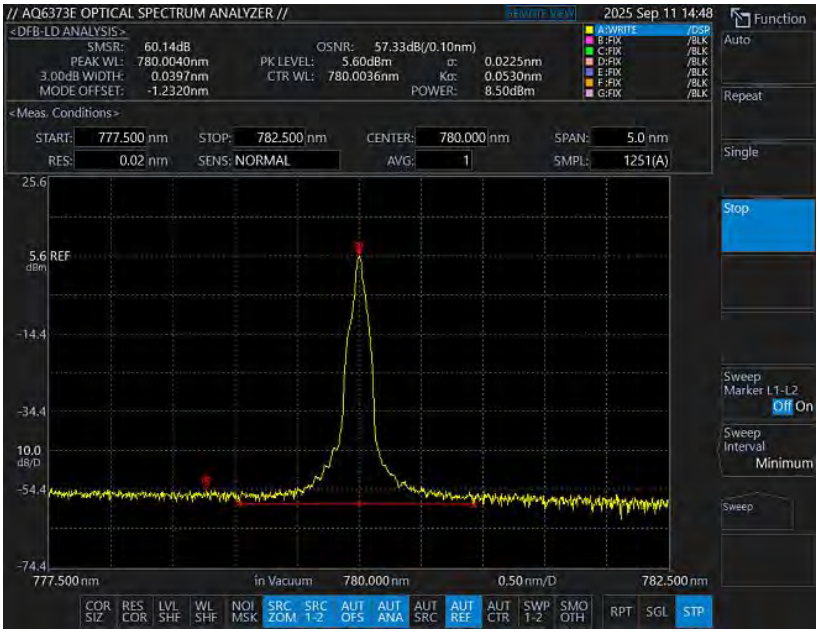
Laser Specifications

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

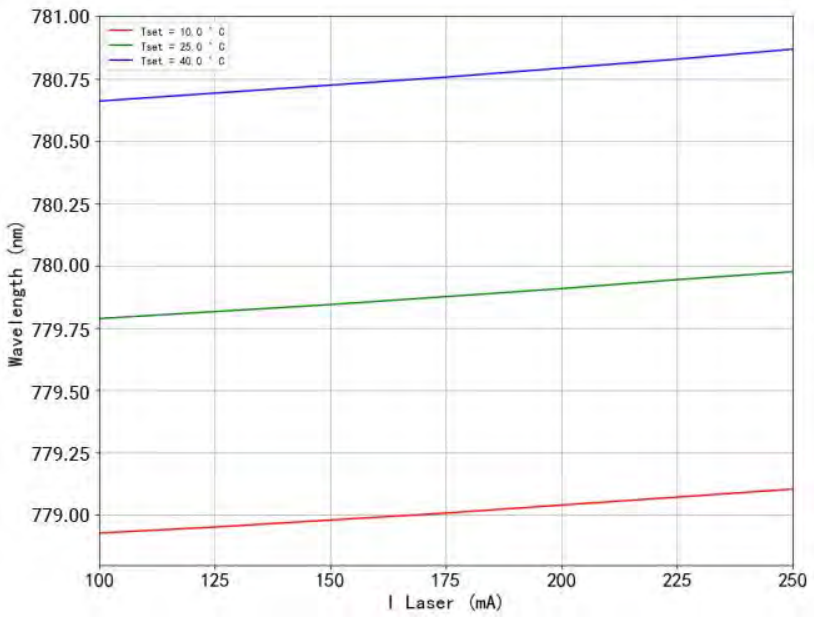
Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ	779.0	780.0	781.0	nm
Side Mode Suppression Ratio	SMSR	40	50	70	dB

Isolation degree	ISO	28	30		dB
Threshold Current	Ith		50	70	mA
Operating Current	Iop		150	250	mA
Power in fiber	Pf	30	40	80	mW
Quantum Efficiency	η		0.2		mW/mA
Current Tuning Coefficient	Δλ/ΔI		0.001		nm/mA
Temperature Tuning Coefficient	Δλ/ΔT		0.06		nm/deg
Forward Voltage	Vf		1.3	2	V
Thermistor Resistance	RT	9.5	10	10.5	KΩ
Thermistor Temp. Coefficient			-4.4		%/°C
Fiber+Connector	HI780+FC/APC/PM780+FC/APC				

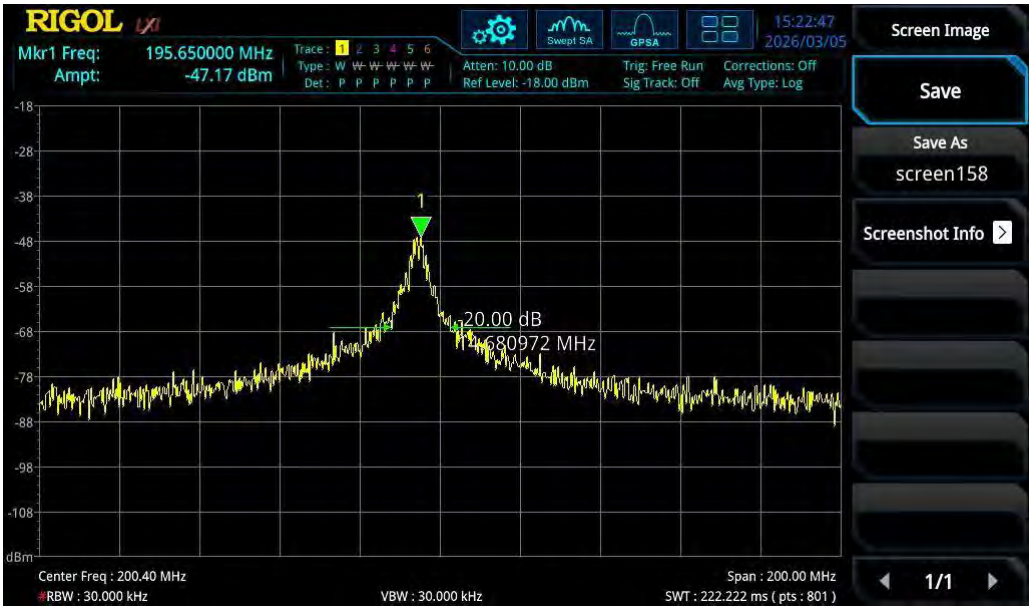
Spectrum



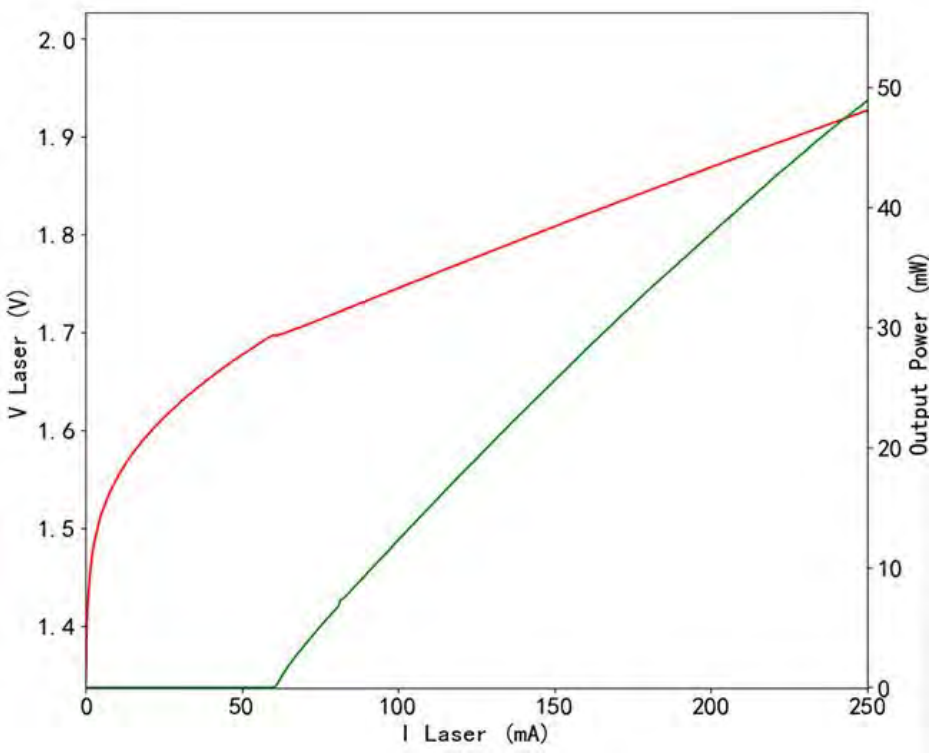
Wavelength Tuning Ability



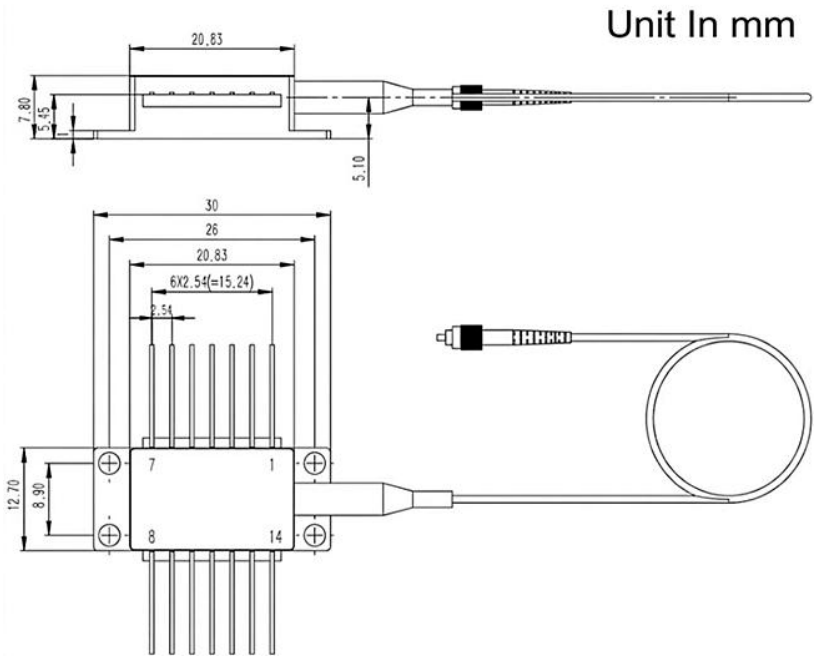
DFB Linewidth Testing Result



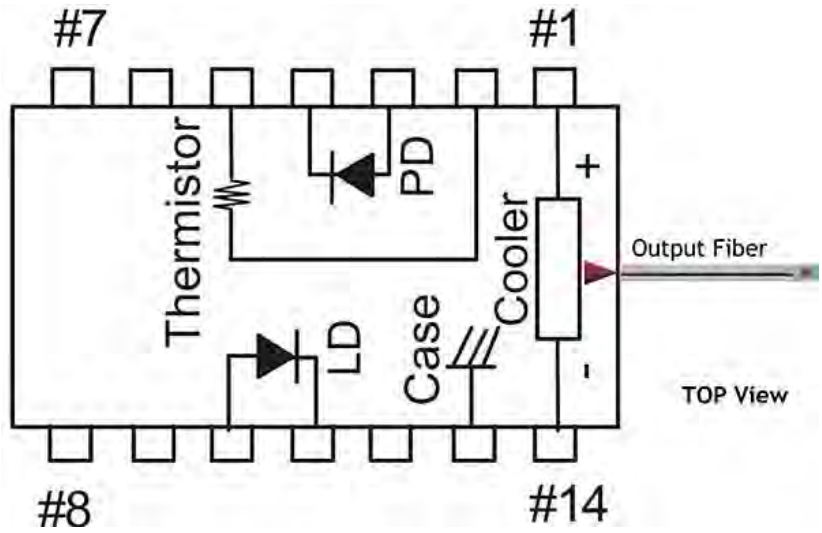
L-I Curve



Package Size



Pin definition



1	Thermoelectric Cooler (+)	8	N/C
2	Thermistor	9	N/C
3	PD Monitor Anode (-)	10	Laser Anode (+)
4	PD Monitor Cathode (+)	11	Laser Cathode (–)
5	Thermistor	12	N/C
6	N/C	13	Case Ground
7	N/C	14	Thermoelectric Cooler (–)

Absolute Maximum Ratings

Item	Unit	Min	Typ	Max
Case Temperature	°C	-5	25	70
Chip Temperature	°C	+10	25	40
Operating Current	mA	0	150	250
Forward Voltage	V	0.8	1.2	2.1
TEC Current	A	-	1.2	1.2
Reverse Voltage（LD）	V	-	-	2.0

Reverse Voltage(PD)	V	-	-	20

Application

- Tunable diode laser absorption spectroscopy
- CPT Application

Ordering Info

PL-DFB-□□□□-☆-A8▽-XX

□□□□: Wavelength

780: 780.0nm

1270: 1270nm

1532: 1532nm

1392: 1392nm

1512: 1512nm

1567: 1567nm

*****

1653.7: 1653.7nm

☆: Output Power

A: 7mW

B: 30mW

C: 50mW

▽: Wavelength Tolerance

1: ±1nm

2: ±2nm

XX: Fiber and Connector Type

SA=HI780+ FC/APC

SP=HI780+ FC/PC

PP=PM 850Fiber+ FC/PC

PA=PM 850Fiber+ FC/APC