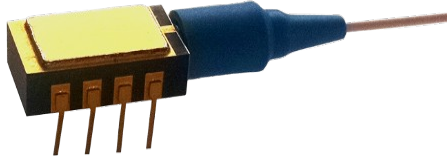


## Laser Diode 1550nm 5mW



BLD-1550-8DL Fiber Bragg Grating laser is single frequency laser diode module designed for optical measurement and communication. The laser is packaged in 8-pin DIL ceramic package with monitor photodiode. Without thermo-electric cooler (TEC).

### Key Features

- Optical output: 5mW
- Narrow linewidth ( $\Delta\nu < 0.1\text{MHz}$ )
- Wavelength: 1550nm @ 25°C
- SM Fiber ( $\varnothing 0.9\text{mm}$ )
- FC-APC connector
- 14-pin butterfly package
- Internal monitor PD and TEC
- Low power consumption

### Optical and electrical characteristics: (T = 25°C)

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Output Power	$P_f$		3	5		mW
Forward Voltage	$V_F$	$P_f=5\text{mW}$			2.5	V
Threshold Current	$I_{th}$			25	35	mA
Forward Current	$I_F$	$P_f=5\text{mW}$		70		mA
Center Wavelength	$\lambda_c$	$P_f=5\text{mW}$	1520		1550	nm
Spectral Width	$\Delta\lambda$	$P_f=5\text{mW}$		100		kHz
Side Mode Suppression Ratio	SMSR	$P_f=5\text{mW}$	40	45		dB
Relative Intensity Noise	RIN	$P_f=5\text{mW}$		-150		dB/Hz
Monitor Current	$I_m$	$P_f=5\text{mW}, V_{RD}=5\text{V}$	40		200	$\mu\text{A}$
PD Dark Current	$I_d$	$V_{RD}=5\text{V}$			0.1	$\mu\text{A}$
Extinction Ratio	$X_P$	$P_f=5\text{mW}$	17			dB
Mode Hop Free Range	$\Delta I$			30		mA
Single-Frequency Continuous Tuning Range	$\Delta f$		3			GHz
Current Tuning	$\Delta\lambda/\Delta I$			0.002		nm/mA
Temperature Tuning	$\Delta\lambda/\Delta T$			0.08		nm/°C

## Absolute Maximum Ratings

Item	Symbol	Rating	Unit
LD Forward Current	$I_f$	100	mA
LD Reverse Voltage	$V_r$	1.8	V
PD Reverse Voltage	$V_{RD}$	10	V
Operation Case Temperature	$T_c$	-40 to +70	°C
Storage Temperature	$T_{stg}$	-40 to +85	°C

## PACKAGING

No.	FUNCTION	No.	FUNCTION
1	NC	5	PD anode -
2	LD anode +	6	LD cathode -, case
3	LD cathode -, case	7	NC
4	PD cathode +	8	NC

