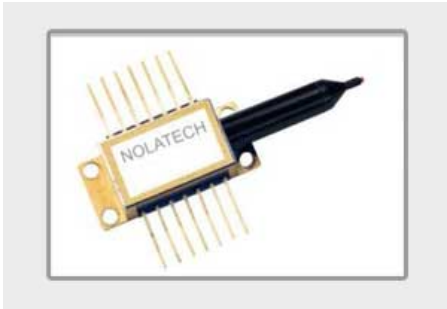


# Laser Diode 1550nm 20mW



The FPL-1550-14BF-20 is a single mode laser diode module designed for optical sensing, measurement and communication. These lasers are in a 14-pin butterfly package with a monitor photodiode and a thermo-electric cooler (TEC). The module is pigtailed with a single mode fiber and has an FC/PC connector.

## Key Features

- Optical output: 20mW
- Efficient coupling into single mode fiber
- CW or pulsed operation
- SM or PM Fiber (ø0.9mm)
- FC-PC 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	$P_f$			15	20	mW
Forward Voltage	$V_F$	$P_f=15mW$			2.5	V
Threshold Current	$I_{th}$			40	60	mA
Forward Current	$I_F$	$P_f=15mW$		150	300	mA
Center Wavelength	$\lambda_c$	$P_f=15mW$	1530		1570	nm
Spectral Width	$\Delta\lambda$	$P_f=15mW$		1	3	nm
Monitor Current	$I_m$	$P_f=15mW, V_{RD}=5V$	40		500	$\mu A$
PD Dark Current	$I_d$	$V_{RD}=5V$			0.1	$\mu A$
Cooler Voltage	$V_C$	$I_F=EOL, TC=70^\circ C$			2.7	V
Cooler Current	$I_C$	$I_F=EOL, TC=70^\circ C$			1.4	A
Thermal Resistance	$R_o$	$T_{LD}=25^\circ C, B=3900\pm 100K$	9.5	10.0	10.5	k $\Omega$
Extinction Ratio	$X_P$	$P_f=15mW$	17			dB

## Absolute Maximum Ratings

Item	Symbol	Rating	Unit
LD Forward Current	$I_f$	300	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
Cooler Current	$I_c$	1.4	A

## PACKAGING

No.	FUNCTION	No.	FUNCTION
1	Cooler anode	8	NC
2	Thermistor	9	NC
3	PD anode	10	LD anode
4	PD cathode	11	LD cathode
5	Thermistor	12	NC
6	NC	13	Case
7	NC	14	Cooler anode

