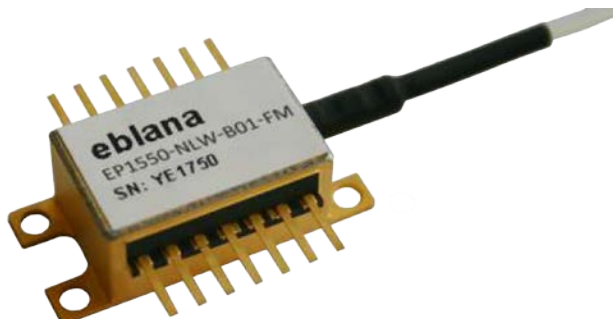


# 1550nm NLW LASER

EP1550-NLW-B

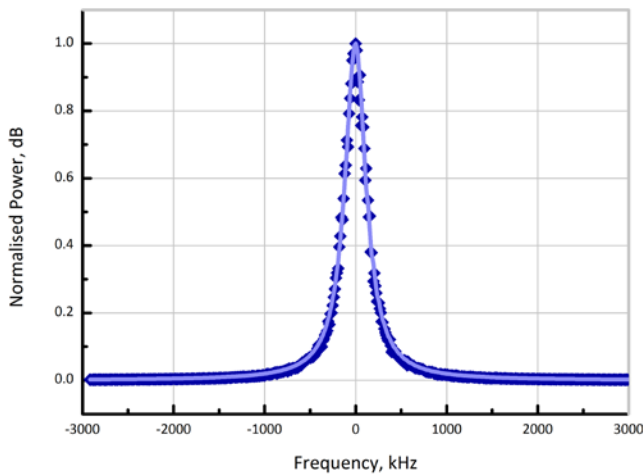


**eblana**photonics

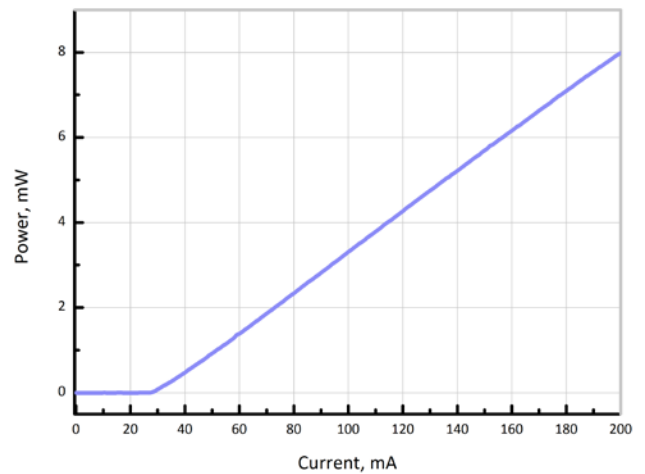


## MONOLITHIC COHERENCE

Eblana Photonics EP1550-NLW-B laser diode, available in the 1540 - 1560nm range, features an ultra-narrow linewidth making it ideal for coherent comms and metrology applications. Eblana's Discrete-Mode (DM) technology enables excellent SMSR and tunability at a highly competitive price.



Self-heterodyne linewidth measurement at 150mA



Output power as a function of bias current

## ELECTRO-OPTICAL CHARACTERISTICS\* ( $T_{SUB} = 25^{\circ} C$ )

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Optical linewidth	$\Delta f$	-	-	200	kHz
Centre Wavelength Range	$\lambda$	1540	1550	1560	nm
Wavelength specification	$\lambda_{spec}$	$\lambda - 1$	$\lambda$	$\lambda + 1$	nm
Side Mode Supression Ratio	SMSR	30	40	-	dB
Threshold Current	$I_{th}$	32	37	-	mA
Output Power in fiber	$P_f$	4	6	8	mW
Temperature Tuning Coefficient	$T_{\lambda}$	-	0.09	-	nm/ $^{\circ}C$
Current Tuning Coefficient	$I_{\lambda}$	-	5	-	pm/mA
Slope Efficiency	SE	0.03	0.04	-	mW/mA
Thermistor Resistance	$R_T$	9.5	10	10.5	k $\Omega$
Thermistor Temp. Coefficient	C	-	-4.4	-	%/ $^{\circ}C$

\*CW bias unless otherwise stated

©Eblana Photonics Series 1550-NLW-B Rev 2.0

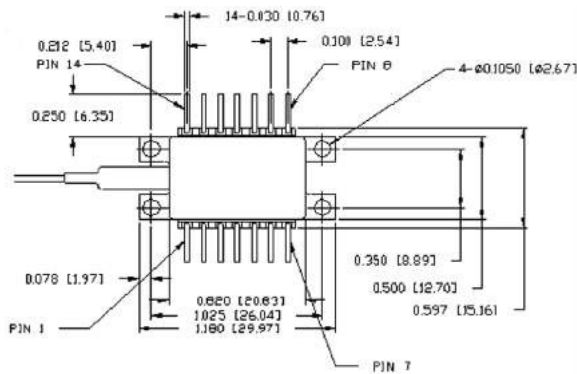
# ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Forward Current	$I_f$	-	160	200	mA
Forward Voltage	$V_f$	-	1.3	1.6	V
TEC Current	$I_{TEC}$	-	-	1.2	A
Reverse Voltage LD	$V_r$	-	-	2.0	V
Reverse Voltage PD	$V_{rev}$	-	-	20	V
Case Temperature*	$T_{Case}$	-20	-	65	°C
Chip Submount Temperature	$T_{Sub}$	0	-	50	°C
Storage Temperature	$T_{storage}$	-40	-	85	°C

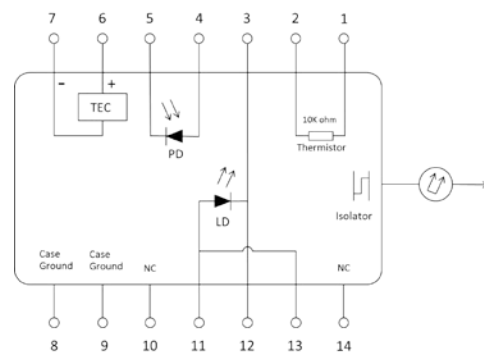
\*For  $T_{Sub} < 25^{\circ}\text{C}$ , Max Case Temperature should be derated to  $T_{Case,Max} = T_{Sub} + 40^{\circ}\text{C}$

## PACKAGING

The EP1550-NLW-B product series is offered in a 14-pin Butterfly package - Inquire for other packaging options. The standard package pinout is shown below, variations may be requested.



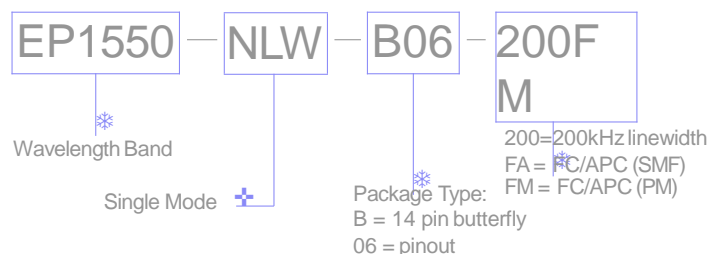
14-pin butterfly schematic



Standard "Pinout 01" option

## HOW TO ORDER

Construct your part number using the following example and email your order= to [contact@cybel-llc.com](mailto:contact@cybel-llc.com), or call 610-691-7012.



### Laser Safety

This is a Class 3R Laser Product as defined by International Standard IEC 60825-1, Edition 2. Invisible Laser radiation is emitted from the end of the fiber or connector. Avoid direct eye exposure to the beam. Laser safety labels are not attached to the module due to space limitations but instead are affixed to the outside of the shipping carton.

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