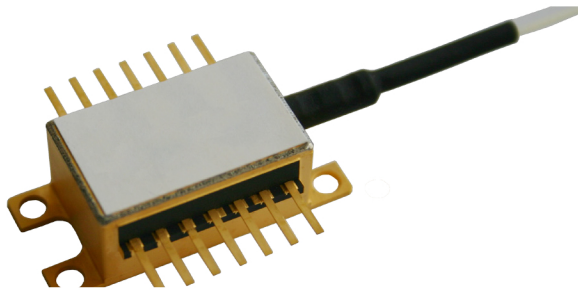


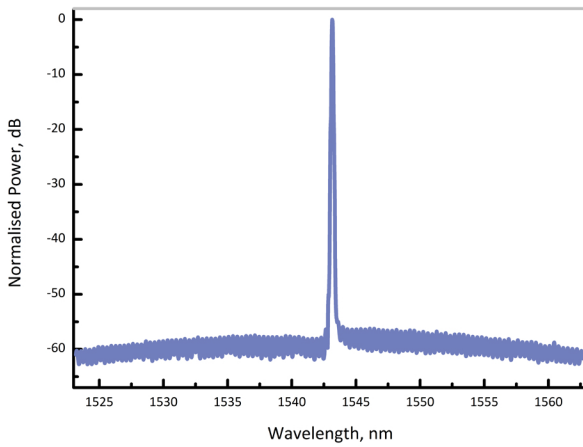
1550nm LASER

REP1550-ADF-B

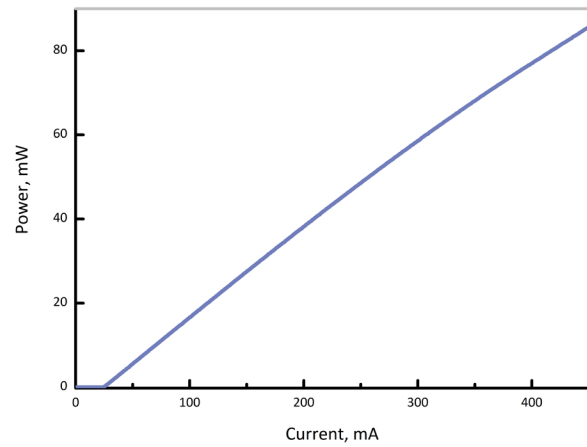


ADVANCED COMMUNICATIONS

RPMC Lasers REP1550-ADF-B laser diode is ideally suited for telecoms applications such as long reach analog transmission and CATV. This high power, low threshold laser features a highly linear output and excellent SMSR performance.



Optical Spectrum at 25°C



Output power as a function of bias current

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Available Wavelength Range	λ	-	1550	-	nm
Wavelength Tolerance	λ_{spec}	$\lambda - 10$	λ	$\lambda + 10$	nm
Side Mode Suppression Ratio	SMSR	35	45	-	dB
Threshold Current	I_{th}	-	12	20	mA
Operating Current	I_{op}	-	375	500	mA
Output Power in fiber	P_f	40	50	-	mW
Optical linewidth	Δf	-	-	1	MHz
Slope Efficiency	SE	0.08	0.12	-	mW/mA
Optical Isolation	ISO	30	35	-	dB
Relative Intensity Noise (20-1000 MHz)	RIN	-	-	-160	dB
Thermistor Resistance	R_T	9.5	10	10.5	k Ω
Thermistor Temp. Coefficient	C	-	-4.4	-	%/°C

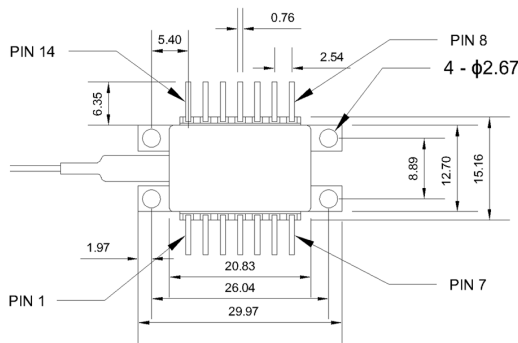
ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN	MAX	UNIT
Forward Current	I_f	-	500	mA
Forward Voltage	V_f	-	2.5	V
TEC Current	I_{TEC}	-	1.7	A
Reverse Voltage LD	V_r	-	2	V
Reverse Voltage mPD	V_{rev}	-	20	V
mPD Forward Current	I_{mPD}	-	10	mA
Case Temperature*	T_{Case}	-20	65	°C
Storage Temperature	$T_{storage}$	-40	85	°C

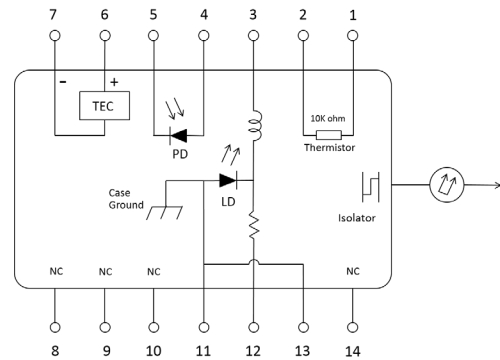
*For $T_{sub} < 25^{\circ}C$, Max Case Temperature should be derated to $T_{Case,Max} = T_{sub} + 40^{\circ}C$

PACKAGING

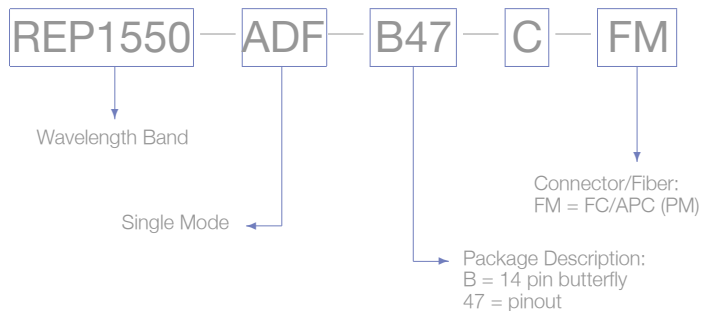
The REP1550-ADF-B product series is offered in a 14-pin Butterfly package. The standard package pinout is shown below.



14-pin butterfly schematic



Standard "Pinout 47" option



Laser Safety

This is a Class 3R Laser Product as defined by International Standard IEC 60825-1, Edition 3. 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.