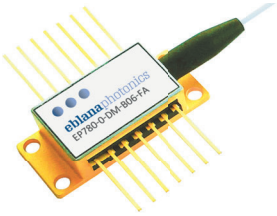
IMM photonics

780nm DM LASER

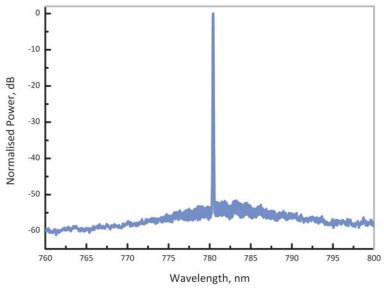
EP780-DM-B

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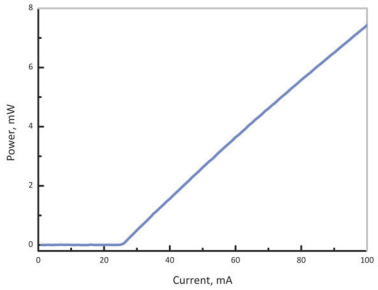


SUPERIOR PERFORMANCE

The Eblana Photonics EP780-DM-B laser diode module is a cost effective, highly coherent laser source. Eblana's discrete-mode (DM) technology is used to deliver an advanced product emitting at a range of wavelengths from 779 - 785nm, ideal for applications in Rubidium-based atomic clocks.



Representative optical Spectrum at 25°C



Representative LIV plot

ELECTRO-OPTICAL CHARACTERISTICS (T_{SUB} = 25° C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Available Wavelength Range	λ	779	780.2	785	nm
Wavelength Tolerance	λ_{spec}	λ -1	λ	λ +1	nm
Side Mode Supression Ratio	SMSR	30	40	-	dB
Threshold Current	I_{th}	-	25	35	mA
Output Power in fiber	P_f	4	6	-	mW
Optical linewidth	Δf	-	3	-	MHz
Temperature Tuning Coefficient	T_λ	-	0.06	-	nm/°C
Current Tuning Coefficient	I_λ	-	6	-	pm/mA
Slope Efficiency	SE	0.07	0.1	-	mW/mA
Thermistor Resistance	R_T	9.5	10	10.5	kΩ
Beta Coefficient	B	-	3930	-	K

*CW bias unless otherwise stated

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eblanaphotonics

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Individual. Innovative. Exceptional.

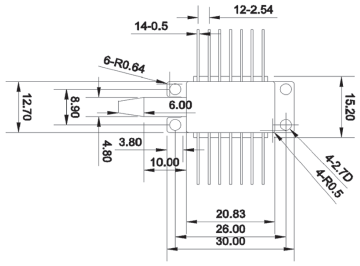
ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN	MAX	UNIT
Forward Current	I_f	-	100	mA
Forward Voltage	V_f	-	2.5	V
TEC Current	I_{TEC}	-	1.2	A
Reverse Voltage LD	V_r	-	2.0	V
Case Temperature*	T_{Case}	-20	65	°C
Storage Temperature	$T_{storage}$	-40	85	°C

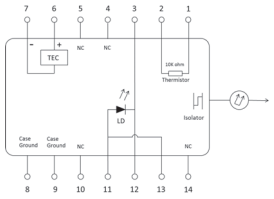
*For T_{sub} < 25°C, Max Case Temperature should be derated to $T_{Case,Max} = T_{sub} + 40°C$

PACKAGING

The EP780-DM-B product series is offered in a 14-pin Butterfly package - Please inquire for other packaging options. Standard package pinout is shown below, variations may be requested.



14-pin butterfly schematic



Standard "Pinout 06" option

HOW TO ORDER

Construct your part number using the following example and email your order to sales@eblanaphotonics.com, or call +353 1 675 3220.

EP780 – 0 – DM – B06 – FA

- EP780 – Wavelength Band
- 0 – Single Mode
- DM
- B06 – Package Description: B = 14 pin butterfly, 06 = pinout
- FA – Connector/Fiber: FA = FC/APC (SMF), FM = FC/APC (PM)

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.

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