IMM photonics

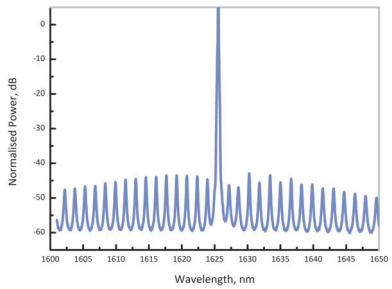
# 1625nm DM LASER

EP1625-DM-B

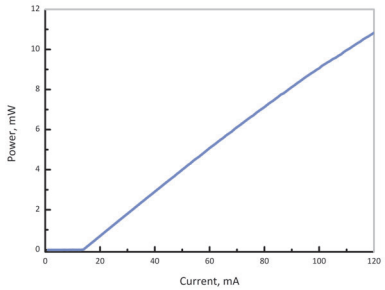
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## SUPERIOR SENSITIVITY

Eblana Photonics EP1625-DM-B laser, available in the 1600 - 1645nm range, is designed to coincide with hydrocarbon absorption lines in the 1625nm region. Eblana's Discrete-Mode (DM) technology enables tunable single-mode operation with no mode-hops, at a competitive price.




Typical optical spectrum at 25° C




Output power as a function of bias current

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

| PARAMETER | SYMBOL | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|
| Available Wavelength Range | $\lambda$ | 1600 | 1625 | 1645 | nm |
| Wavelength Tolerance | $\lambda_{spec}$ | $\lambda$ -1 | $\lambda$ | $\lambda$ +1 | nm |
| Side Mode Supression Ratio | SMSR | 30 | 40 | - | dB |
| Threshold Current | $I_{th}$ | - | 16 | 20 | mA |
| Output Power in fiber | $P_f$ | 4 | 7.5 | - | mW |
| Optical linewidth | $\Delta f$ | - | 2 | - | MHz |
| Temperature Tuning Coefficient | $T_\lambda$ | - | 0.1 | - | nm/°C |
| Current Tuning Coefficient | $I_\lambda$ | - | 17 | - | pm/mA |
| Slope Efficiency | SE | 0.04 | 0.09 | - | 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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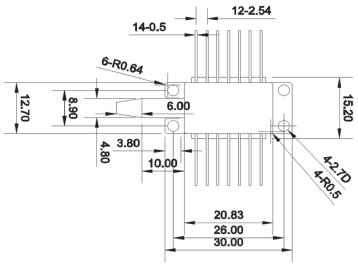
## ABSOLUTE MAXIMUM RATINGS

| PARAMETER | SYMBOL | MIN | MAX | UNIT |
|---|---|---|---|---|
| Forward Current | $I_f$ | - | 120 | mA |
| Forward Voltage | $V_f$ | - | 2 | V |
| TEC Current | $I_{TEC}$ | - | 1.2 | A |
| Reverse Voltage LD | $V_r$ | - | 2 | V |
| Case Temperature* | $T_{Case}$ | -20 | 65 | °C |
| Storage Temperature | $T_{storage}$ | -40 | 85 | °C |

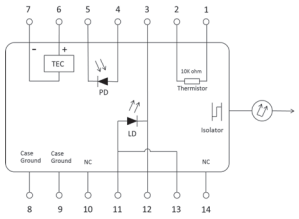
*For $T_{sub}$ < 25°C, Max Case Temperature should be derated to $T_{Case,Max} = T_{sub} + 40°C$

## PACKAGING

The EP1625-DM-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 sales@eblanaphotonics.com, or call +353 1 675 3220.

EP1625 – 0 – DM – B01 – FA

- EP1625 – 0: Wavelength Band
- DM: Single Mode
- B01: Package Description: B = 14 pin butterfly, 01 = 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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