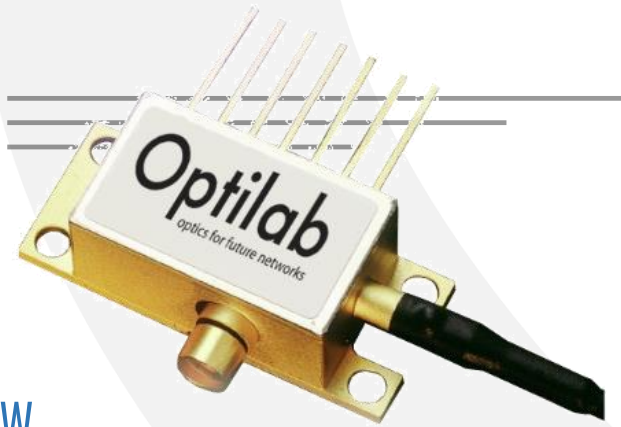


DFB-1550-EAM-12



DEVICE

EAM DFB Laser Diode, 12 GHz, 5 mW

OVERVIEW

The Optilab DFB-1550-EAM-12 laser diode is a cost effective and compact laser solution for OC-192/STM-64 DWDM applications. Consisting of a DFB laser with an integrated electro-absorption modulator (EAM), this allows for modulation speeds of over 12 GHz / 10 Gb/s applications on one 7-pin butterfly package device. Including a thermoelectric cooler (TEC), temperature thermistor, optical isolator and a GPO RF connector, the DFB-EAM is available in ITU grid wavelengths upon request, contact Optilab for more information.

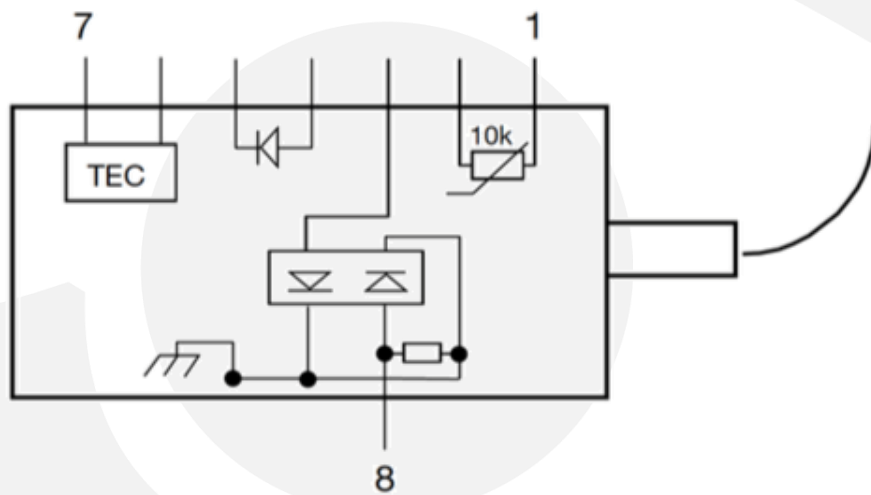
FEATURES

- 1550 nm DFB + EAM Modulator
- Hermetic, 7 pin butterfly package
- Single-mode fiber pigtail
- 12 GHz typical bandwidth
- 5 mW output power
- TEC Cooler + Thermistor

USE IN

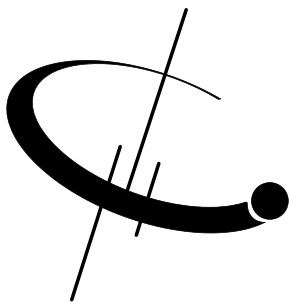
- DWDM SDH STM-64 LH
- DWDM SONET OC-192 LR

FUNCTION DIAGRAM



TOP VIEW





DFB-1550-EAM-12

SPECIFICATIONS

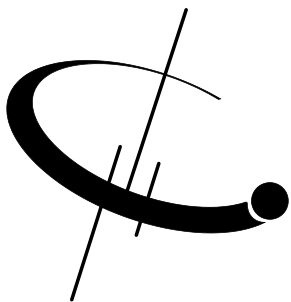
GENERAL

Operating Wavelength Range	1530nm to 1564nm, ITU selectable
Output Power	2 mW min., 5 mW typ.
Extinction Ratio	10 dB min.
Dispersion Penalty	1.5 dB max. @ 800 ps/nm disp.
Side Mode Suppr. Ratio	35 dB min.
Optical Isolation	30 dB min.
Operating Current	50 mA min., 100 mA max.
Threshold Current	25 mA max.
Forward Voltage	2 V max.
Small Signal Modulation Bandwidth	12 GHz min.
Rise/Fall Time	40 ps max.
Monitor Current	0.1 mA min., 1 mA max.
Monitor Dark Current	5 nA typ., 100 nA max.
Thermistor Resistance	9.5 k Ω min., 10.5 k Ω max.
TEC Voltage	-2.5 V min., 2.5 V max.
TEC Current	-1.2 V min., 1.2 V max.
TEC Power	3 W max.

MECHANICAL

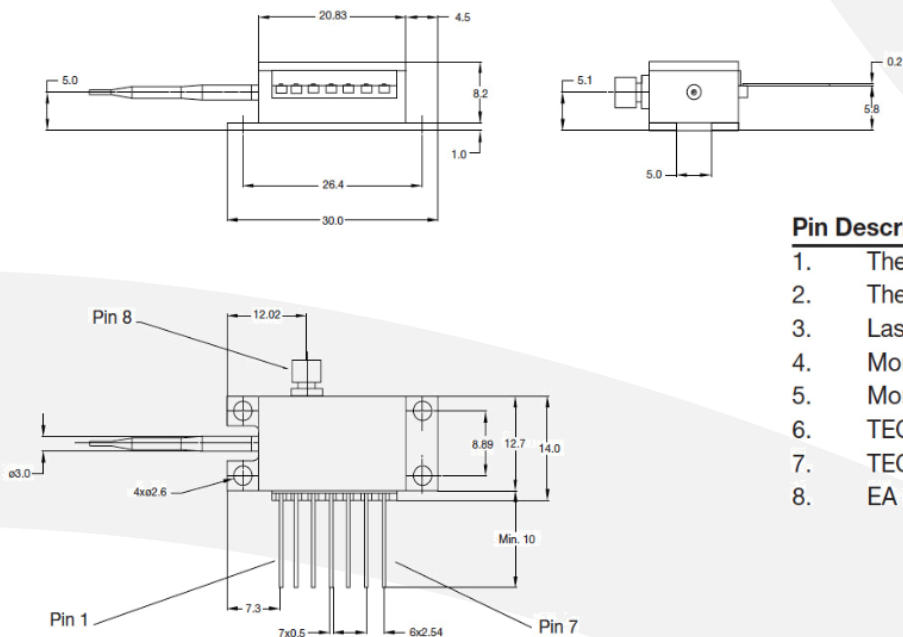
Operating Case Temperature	0 °C to +70 °C
Storage Temperature	-40 °C to +85 °C
Optical Connector	LC/UPC Standard, FC/APC Optional
Fiber Type	SMF-28, 900 micron buffer
RF Connector	GPO





DFB-1550-EAM-12

MECHANICAL DRAWING



Pin Description

1. Thermistor
2. Thermistor
3. Laser DC bias (+)
4. Monitor (-)
5. Monitor (+)
6. TEC (+)
7. TEC (-)
8. EA modulation (-)

TYPICAL S21 BANDWIDTH

