



Offered by
LASER LAB SOURCE

manufactured by **AeroDiODE**

1555nm, 10mW DFB LASER DIODE DATA SHEET



1555NM DFB LASER DIODE SINGLE FREQUENCY, SINGLE MODE

- o Output Power (CW mode): 10 mW
- o Spectral Width (FWHM): < 200 kHz
- o 14-Pin Butterfly Package, Industry Standard Type 1 Pin Configuration
- o SMF28 Fiber
- o PM1550 Polarization Maintaining Fiber Available
- o FC/APC Fiber Connector

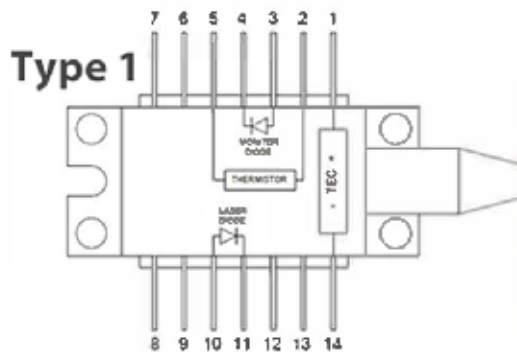
SINGLE MODE, SINGLE FREQUENCY DFB LASER DIODE

These DFB lasers offer a single longitudinal mode (single frequency) emission profile and up to 10mW CW output power. DFB lasers utilize Bragg diffraction gratings in the active gain region of the semiconductor material to form a waveguide. Their high stability and wavelength tuneability make them an excellent choice for sensing, spectroscopy, metrology, telecom, and atomic physics research applications.

These laser diodes are offered in an industry standard 14-pin butterfly package with a single-mode fiber pigtail. The fiber is terminated with an FC/APC connector. PM1550 polarization maintaining fiber is available, inquire for price and lead-time. They have an integrated thermo-electric cooler, an internal 10 kOhm thermistor, and an internal monitor photodiode. The package is electrically floating relative to ground, offering flexibility in mounting and control of the laser.

ELECTRICALLY FLOATING PACKAGE

TYPE 1 PIN CONFIGURATION



No	Description	No	Description
1	TEC Anode	14	TEC Cathode
2	Thermistor	13	n/c
3	Monitor PD Anode	12	n/c
4	Monitor PD Cathode	11	LD Cathode
5	Thermistor	10	LD Anode
6	n/c	9	n/c
7	n/c	8	n/c



OPTICAL SPECIFICATIONS

- Wavelength: 1555 nm \pm 5 nm
- Pulsed Output Power: 20 mW
- CW Output Power: 10 mW
- Emission Bandwidth: < 0.1 nm
- SMSR: 35 dB (min)
- Wavelength Shift w/Temperature: 0.08 nm/ $^{\circ}$ C
- Wavelength Shift w/Current: 0.003 nm/mA

ELECTRICAL SPECIFICATIONS

- Threshold Current: 2 mA (typ)
- Operating Current: 60 mA (typ)
- Operating Voltage: 1.6 V (typ)
- TEC Current: 1 A (max)
- TEC Voltage: 1.5 V (max)
- Thermistor: 10 kOhm

FIBER PIGTAIL

- Single Mode SMF28, Fiber Core: 9 μ m
- Polarization Maintaining Fiber Available Optionally
- FC/APC Connector



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PRODUCT SALES AND SERVICE:

Orders for this product are fulfilled by Laser Lab Source in North America and select international regions. It is manufactured by Aerodiode, Talence, France.

PRODUCT WARRANTY:

This product is sold with a full one year warranty. It is warranted to be free from defects in material and/or workmanship for a period of one year from the date of shipment.



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