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LASER LAB SOURCE

manufactured by **AeroDIODE**

976nm Grating Stabilized Laser Diode, Polarization-Maintaining SM Fiber, 600mW Output



976LD-1-0-0 / LASER-DIODE

- o 976nm ± 0.5 nm Output
- o 600mW Output Power
- o Grating Stabilized, < 0.1nm Spectral Line Width
- o Polarization-Maintaining Fiber (PM980)
- o Bare Fiber Termination (FC/APC Optional)



976NM GRATING STABILIZED FIBER-COUPLED LASER DIODE

These 600mW Bragg grating stabilized 976nm laser diodes are utilized extensively in fiber laser pumping applications which require a single mode first stage pump source. The wavelength is locked using a fiber Bragg grating.

These lasers are offered with a bare fiber (no connector) for direct coupling. An FC/APC connector is available as an option. Also, a purpose-built control electronics and mounting module is available. Refer to options below.

976LD-1-0-0 / LASER-DIODE GENERAL SPECIFICATIONS

SPECIFICATIONS (@ TEMPERATURE 25 °C)

- Nominal operating power (min): 600 mW CW
- Center Wavelength: 976.0 nm (± 0.5 nm)
- Forward Current (typ): 1050 mA
- Forward Voltage (max): < 1.8 Volts
- Threshold Current (max): < 70 mA
- Wavelength Tuning vs Temperature: 0.02 nm / °C
- Emission Bandwidth @ -3 dB (FWHM, max): ~0.1 nm
- Power in Band: > 90%
- Internal Photodiode Responsivity: 0.5 mA / W
- Internal Photodiode Dark Current: < 100 nA
- Max LD Reverse Voltage: 2 V

THERMOELECTR COOLER AND TEMPERATURE SENSOR

- TEC voltage (max): < 1.4 Volts (case at 70°C)
- TEC current (max): < 3.2 Amps (case at 70°C)
- Thermistor Resistance (25°C): 9.5k - 10.5k Ω

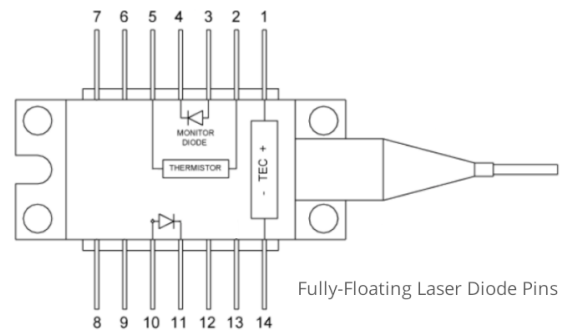
FIBER PIGTAIL AND TERMINATION

- Fiber Type: Polarization Maintaining (PM980)
- Includes Fiber Bragg Grating
- Polarization State: Aligned Parallel to the Slow Axis
- Coating Diameter (except along grating): ~ 250 μm
- Fiber Pigtail Termination: Bare Fiber (FC/APC Available on Request)

GENERAL SPECIFICATIONS

- Storage Temperature: -40°C – 85°C
- Operating Temperature: -20°C – 75°C
- Lead Soldering Temperature: 280°C

Butterfly Laser Type-1 Pinout



1	TEC (+)	8	NC
2	Thermistor	9	NC
3	PD Anode (+)	10	LD Anode (+)
4	PD Cathode (-)	11	LD Cathode (-)
5	Thermistor	12	NC
6	NC	13	Case Ground
7	NC	14	Thermistor (-)



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PRODUCT SALES AND SERVICE:

Unlimited phone and email support is provided for products purchased through Laser Lab Source. 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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