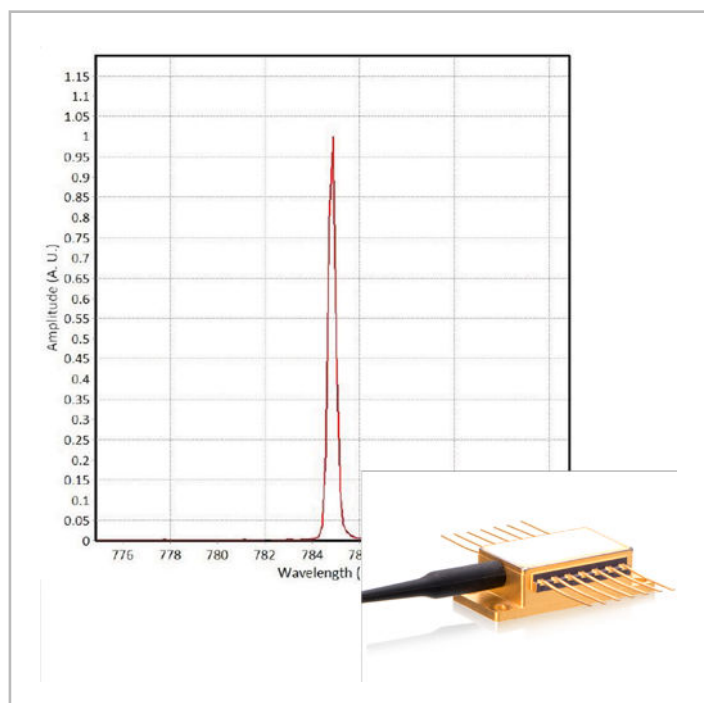




Offered by
LASER LAB SOURCE

manufactured by  **RealLight**

785nm, 0.5 Watt Narrow Linewidth Laser Diode



RLS/785NM-500MW-RL

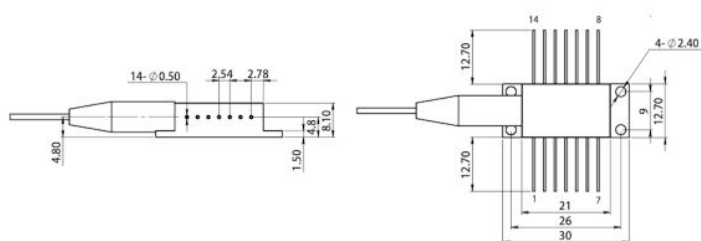
- Spectral Linewidth < 0.1nm
- Output Power > 500mW
- 105 μ m Fiber-Coupled Butterfly Package
- Industry Standard Type-1 Pinout

These butterfly packaged lasers deliver high power, narrow line width laser light due to the internal volume Bragg grating.

These laser diodes are offered in an industry standard 14-pin butterfly package with a 105 μ m multimode fiber pigtail, terminated with an FC/PC connector (other types on request)

The laser package integrates a thermoelectric cooler with 10 k Ω thermistor and an internal monitor photo-diode.

The pinout is industry-standard Type-1. The package is electrically floating relative to ground, offering flexibility in mounting and control of the laser.



Pin	Function	Pin	Function
1	TEC (+)	14	TEC (-)
2	Thermistor	13	–
3	PD Anode	12	–
4	PD Cathode	11	Laser Diode Cathode
5	Thermistor	10	Laser Diode Anode
6	–	9	–
7	–	8	–

SPECIFICATIONS

LASER SPECIFICATIONS

- CW Output Power: 500 mW
- Center Wavelength: 785 nm (± 0.5 nm)
- Spectral Width: < 0.1 nm
- Temperature Tuning Coefficient: 0.01 nm/ $^{\circ}$ C
- Current Tuning Coefficient: 0.05 nm/A

FIBER AND CONNECTOR

- Fiber Core Diameter: 105 μ m
- Fiber Cladding Diameter: 125 μ m
- Fiber Coating Diameter: 250 μ m
- Numerical Aperture: 0.22 NA
- Connector: FC/PC or SMA905 (specify @ time of order)

ELECTRICAL SPECIFICATIONS

- Threshold Current: 0.4 A
- Operating Current: 1.1 A
- Operating Voltage: 2.0 V
- TEC max Current: 2.5 A
- TEC max Voltage: 6.3 V
- Monitor Photodiode Range: 2000 μ A
- Thermistor: 10 ($\pm 5\%$) k Ω (@25 $^{\circ}$ C)
- Slope Efficiency: 0.7 W/A

GENERAL SPECIFICATIONS

- Operating Temperature Range: 10 $^{\circ}$ C – 30 $^{\circ}$ C
- Storage Temperature Range: -20 $^{\circ}$ C - 70 $^{\circ}$ C
- Max Operating Humidity, Relative: 75 %
- Max Storage Humidity, Relative: 90 %
- Lead Soldering Temp: 250 $^{\circ}$ C max, 10 sec

PRIMARY APPLICATIONS

- Raman Spectroscopy
- Analytical Instruments
- Biological Research



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DIODE
SOURCES

PRODUCT WARRANTY:

This product is sold with a full one-year warranty. It is warrantied 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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