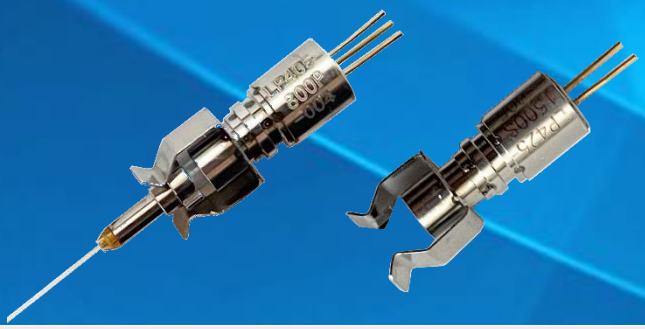
Phone: +1 408-520-9825
sales@4in1photonics.com

UV-Violet-Blue Single Emitter Fiber-coupled Diode Laser

440nm/2.5W



GENERAL DESCRIPTION

The LP series of receptacle laser diode modules are very convenient for implementing into systems and instruments. The receptacle will accept 2.5mm-diameter zirconia ferrule connector for user supplied fiber coupling. It allows the use an optical fiber of any desired length, and allows for easy replacement. LPC-440-2.50-10522C operates at 440nm and produces output power of 2.5W from 105µm core fiber. The whole device features compact package and good coupling efficiency.

FEATURES

- Compact receptacle package
- Suitable for 105µm core fiber with 2.5mm-diameter ferrule termination
- 440nm central wavelength
- Up to 2.5W of optical power

SERVICE

Optionally, we offer the complete value chain:

We design and develop laser modules which are optimized to meet the specific requirements of your application.
In order to evaluate the performance of the lasers in the design phase we offer the rapid manufacture of prototypes and small series production.

APPLICATIONS

- Laser Direct Imaging (LDI) in PCB manufacturing
- Fluorescence excitation

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Specifications

Optical & Electrical (25°C)

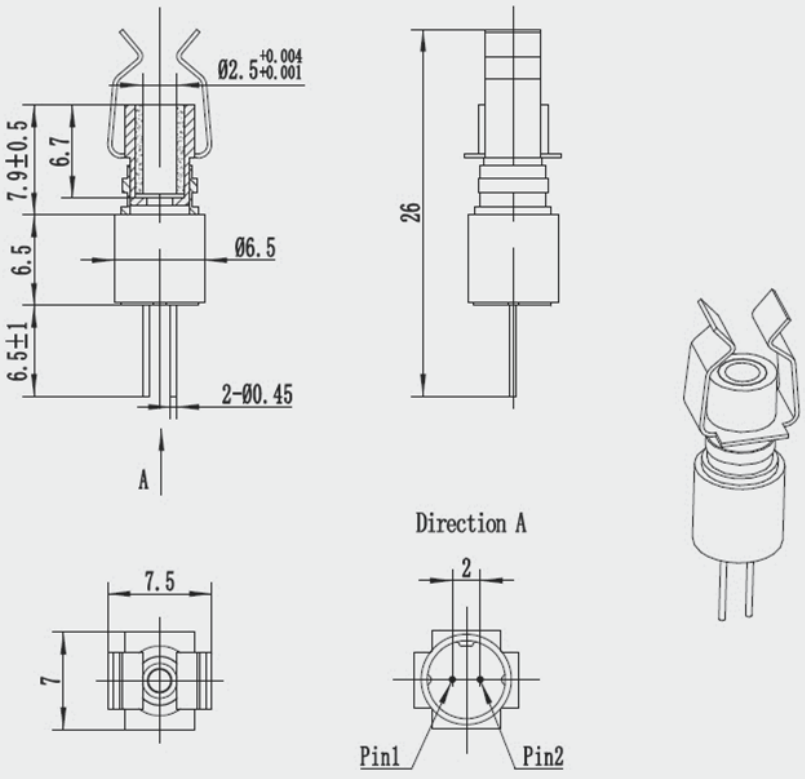
Parameter	Symbol	Minimum	Typical	Maximum	Test Conditions
Output power	P_o		2.5W		From a fiber with 105μm core 0.22N.A.
Center wavelength	λ_c	430nm	440nm	450nm	Po=2.5W
Spectral width (FWHM)	dλ			6nm	Po=2.5W
Slop efficiency	SE		1.2		CW
Threshold current	I_{th}		370mA	450mA	CW
Operating current	I_{op}		2.90A	3.49W	Po=2.5W
Forward voltage	V_f		4.6V	5.3V	Po=2.5W
Ferrule type		2.5mm ceramic			

Absolute Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Test Conditions
Reverse voltage	V_r		2V	
Operating case temperature	T_{op}	5°C	30°C	
Storage temperature range	T_{stg}	-40°C	+85°C	
Relative humidity	RH		75%	Noncondensing
Lead soldering time	T_{sol}	-	3sec.	350°C

Dimensions

Unit: mm



4in1 Photonics LLC.
8407 Central Avenue, Suite#2084
Newark, CA 94560, US
www. 4in1photonics.com