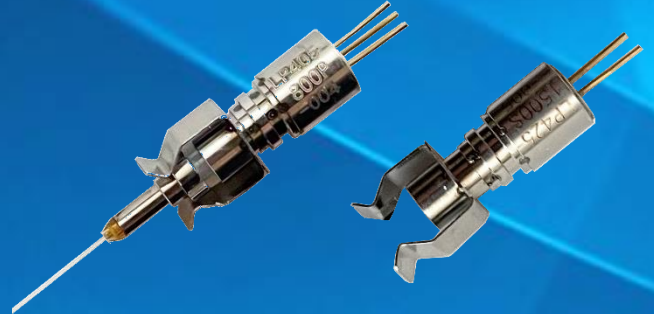


UV-Violet-Blue Single Emitter Fiber-coupled Diode Laser

405nm/480mW~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-405-xxx-10522C operates at 405nm and produces output power up to 2.5W from 105 μ m core fiber. The whole device features compact package and good coupling efficiency.

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

FEATURES

- Compact receptacle package
- Suitable for 105 μ m core fiber with 2.5mm-diameter ferrule termination
- 405nm central wavelength
- Up to 2.5W of optical power

Specifications

Optical & Electrical (25°C)

Parameter	Symbol	LPC-405-0.48	LPC-405-0.64	LPC-405-0.80	LPC-405-2.50
Output power*	P_o	480mW	640mW	800mW	2.5W
Center wavelength	λ_c	405±5nm			
Spectral width (FWHM)	$d\lambda$	6nm			
Slop efficiency	SE	1.6	2.0	1.6	1.8
Threshold current (Typ.)	I_{th}	120mA	110mA	150mA	430mA
Threshold current (Max.)		180mA	150mA	225mA	530mA
Operating current (Typ.)	I_{op}	420mA	440mA	650mA	1.8A
Operating current (Max.)		500mW	540mW	750mW	2.2W
Forward voltage (Typ.)	V_f	4.4V	5.0V	5.0V	4.7V
Forward voltage (Max.)		5.5V	5.8V	6.0V	5.5V
Ferrule type		2.5mm ceramic			

* Tested from a fiber with 105µm core 0.22N.A.

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

