

## ***PGL-LS Series Diode Lasers***



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The laser module with modulation function and powered by an OEM version 5-12V PCB and made features of ultra compact and lightweight, uniform power density, high straightness and good stability line beam.

The user can choose from red, green, or blue wavelengths depending on the application and material to be inspected.

PGL-LS Series Diode Lasers with its industrial-suited design and stable performance works perfectly as an integrated module in collimation, laser medical treatment, scientific experiment, optical instrument, etc.

### ***FEATURES***

- Ultra compact and lightweight
- Easy operating
- 5-12V PC board
- TTL & analog modulation

### ***APPLICATIONS***

- Collimation
- Laser medical treatment
- Scientific experiment
- Optical instrument

**SYSTEM SPECIFICATIONS\***

Wavelength	nm	405	520	660
Wavelength tolerance	nm (typical)	±5	±5	±10
Output power	mW	1-100	1-50	1-100
Line width	<250mm	50-200um		
Line width	@1m	< 1.0mm		
Line angles		7° 、 10° 、 15° 、 30° 、 45° 、 60° 、 75° 、 90°		
Laser operation mode		CW		
Expected lifetime	hours	10,000		

**ELECTRICAL SPECIFICATIONS**

Operating voltage	DC 5-12V
Connection	Cable with flying leads

**TTL MODULATION**

Maximum frequency	up to 30kHz		
Signaling levels	VIL_max<+0.9V	VIH_min>+2.2V	VIH_max<+7V

**ANALOG MODULATION**

Active range(optional)	DC 0-3V	DC 0-5V
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**ENVIRONMENTAL CONDITIONS**

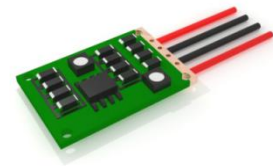
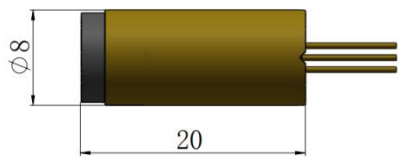
Operating temperature	°C	-10°C to +45°C
Storage temperature	°C	-20°C to +80°C
Humidity	%	< 90 %, non-condensing
Dissipated heat	W	< 1 W

\*All testing data under the conditions of temperature 25°C.

**MECHANICAL SPECIFICATIONS**

Weight	g	5 g
Length	mm	20 mm
Diameter head Ø	mm	8 mm
Material	Copper & Aluminum	

Dimensions of laser and PCB (mm):



### Accessories

#### CONNECTOR

USB connector	Suit for access to computer control
Bayonet nut connector	Minimize distractions
Headset connector	Easy connect and disconnect

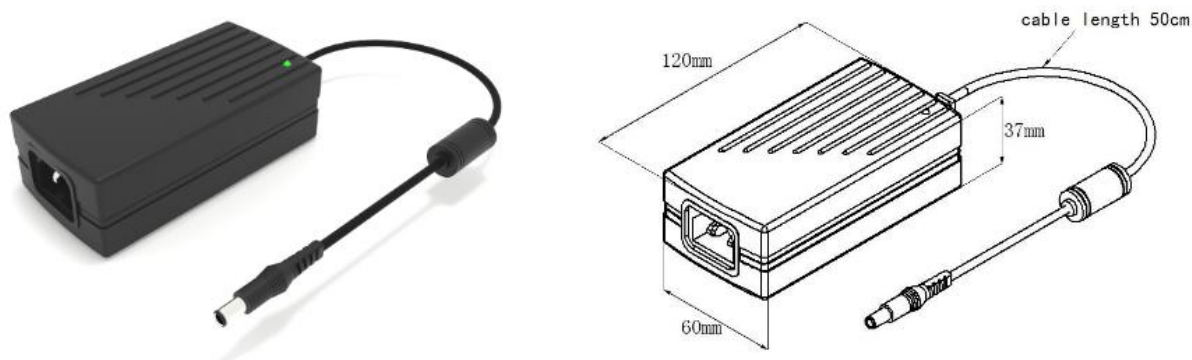
#### BATTERY CASE

Power supply	6-7V CR123A Lithium batteriesX2    3V AA Alkaline batteries x 2
Battery case connector	Optional, suggest using headset connector

#### POWER ADAPTER\*\*

Input	85-264V AC 47/63Hz	
Output	DC 5V 5A	
Adapter size	mm	120 x 60 x 37mm
Adapter cable length	m	0.5m
Cable connector	Easy connect/disconnect jack	

Dimensions of power adapter (mm):



The Universal Diode Laser Module Power Supply with CE-marked provides a well-regulated 5 VDC. This auto ranging power module can be connected to any 85-264 VAC 47/63 Hz supply. There is an IEC 60320 input socket and a 0.5m output cable terminated with an easy connect/disconnect jack socket. The Headset connector which could also be found in accessories is compatible with the power supply jack.

\*\*EF provides other types of power adapters to meet customer demand, please contact sales for details.