



PLP-L4 Series 635nm–980nm Line Generating Laser Diode Modules

4-Degree Line Optics, Focus Adjustable, Dia. 10.5mm



Overview

The Lasermate PLP-L4 series laser diode modules are compact line-generating laser solutions designed for OEM applications requiring precise line projection and fine beam control. These modules cover a wide wavelength range from 635nm to 980nm and feature a 4-degree fan angle line-generating optic. Housed in a 10.5mm diameter metal barrel, the PLP-L4 series offers adjustable focus, APC (Automatic Power Control) circuitry for stable output, and a miniature form factor suitable for integration in systems where space is limited. The modules are ideal for alignment, positioning, measurement, and machine vision applications.

Features

- Wide range of wavelengths from 635nm to 980nm (including 650nm, 670nm, 780nm, 808nm, 850nm, 904nm)
- Different output power levels for different wavelengths
- Miniature design: Dia. 10.5mm x L. 20mm
- Adjustable focus
- Automatic Power Control (APC) circuit
- 4-degree line generating lens

Product Overview

The following table shows the list of available part numbers, wavelength, optical output power, laser class, operating voltage, operating current, and operating temperature for PLP-L4 series laser modules.

Part Number	Wavelength (nm)	Optical output power (mW)*	Laser class	Operating voltage (V DC)	Operating Current typical (mA)	Operating temperature (°C)
PLP6351AE-L4B	635	0.5-0.99	II	3-6	40	-10 to +40
PLP6353AE-L4B	635	2.1-3	IIIa	3-6	40	-10 to +40
PLP6351AE-L4A	635	0.5-0.99	II	3-6	40	-10 to +50
PLP6353AE-L4A	635	2.1-3	IIIa	3-6	40	-10 to +50
PLP6501AE-L4B	650	0.5-0.99	II	3-6	25	-10 to +40
PLP6503AE-L4B	650	2.1-3	IIIa	3-6	30	-10 to +40
PLP6501AE-L4A	650	0.5-0.99	II	3-6	25	-10 to +50
PLP6503AE-L4A	650	2.1-3	IIIa	3-6	30	-10 to +50
PLP6701AE-L4	670	0.5-0.99	II	3-6	40	-10 to +50
PLP6703AE-L4	670	2.1-3	IIIa	3-6	40	-10 to +50
PLP7803AE-L4	780	2.1-3	IIIb	3-6	30	-10 to +50
PLP8083AE-L4	808	2.1-3	IIIb	3-6	30	-10 to +50
PLP8503AE-L4	850	2.1-3	IIIb	3-6	30	-10 to +50
PLP9043AE-L4	904	2.1-3	IIIb	3-6	30	-10 to +50
PLP9806AE-L4	980	4.2-6	IIIb	3-6	45	-10 to +50

Specifications of PLP-L4 Series Laser Diode Modules with 4-Degree Line Generating Lens

Wavelength (nm)	635	650	670	780	808	850	904	980
Laser light	Visible Red			Infrared				
Laser class	Class II <1mW, Class IIIa <5mW			Class IIIb				
Diode structure	Index guided							
Diode output power	5-10mW							
Operating current	25-50mA typical							
Operating voltage	3–6 VDC							
Drive circuit	Voltage regulated APC (automatic power control)							
Optics	Singlet plastic collimating lens plus the ~4° plastic line generating lens							
Beam size @ 1 m	~ 5.2 cm							
Beam profile	Line							
Focus	Adjustable							
Operating temperature	-10 to +40 °C or -10 to +50 °C							
Connector	Black wire -, red wire + & brass case +							
Dimensions/Weight	Dia. 10.5mm x L. 20mm; 15 gm typical							

Additional Notes

- The PLP-L4 series laser modules are designated solely as OEM components for incorporation into the customer's end products. Therefore, it is the customer's responsibility to comply with the appropriate requirements of FDA 21CFR, section 1040.10 and 1040.11 for complete laser products. For the code of FDA regulations, please refer to [FDA Performance Standards for Light-Emitting Products](#) for detailed information.
- Additional heat sink may be needed if the laser module is operated continuously for a long period of time.
- Specifications are subject to change without notice.



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