



PLP Series – 635nm-980nm Miniature Laser Diode Modules

Elliptical Beam, Dia. 10.5mm x L. 15mm



Overview

The Lasermate PLP series laser diode module is a complete laser diode system designed for OEM applications with low cost, miniature size, and beam focusing requirements. Additional heat sink may be needed for the laser module under continuously operating for a long period of time. Designed for OEM, the laser is ideal for a wide range of low power laser applications, such as general sighting, leveling, and positioning.

Features

- Wide range of wavelengths from 635nm to 980nm (including 650nm, 670nm, 780nm, 808nm, 850nm, 904nm)
- Different output power levels for different wavelengths
- Good performance and low cost
- Miniature design: Dia. 10.5mm x L. 15mm
- Adjustable or fixed focus
- Elliptical beam profile
- Singlet plastic collimating lens
- Automatic Power Control (APC) circuit
- Options: Optics generating 4-degree line and 9-degree cross hair available

Applications

- Pointing
- Leveling
- Sensing

Product Overview

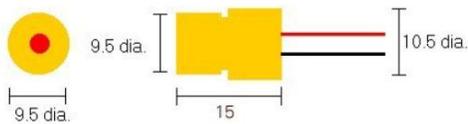
The following table shows the list of available part numbers, wavelength, optical output power, laser class, operating temperature, and focus for PLP series laser modules.

Part Number	Wavelength (nm)	Optical output power (mW)	Laser class	Operating voltage (V DC)	Operating Current typical (mA)	Operating temperature (°C)	Focus
PLP6351AE-B	635	0.5-0.99	II	3-6	40	-10 to +40	Adjustable
PLP6351FE-B	635	0.5-0.99	II	3-6	40	-10 to +40	Fixed
PLP6353AE-B	635	2.1-3	IIIa	3-6	40	-10 to +40	Adjustable
PLP6353FE-B	635	2.1-3	IIIa	3-6	40	-10 to +40	Fixed
PLP6351AE-A	635	0.5-0.99	II	3-6	40	-10 to +50	Adjustable
PLP6351FE-A	635	0.5-0.99	II	3-6	40	-10 to +50	Fixed
PLP6353AE-A	635	2.1-3	IIIa	3-6	40	-10 to +50	Adjustable
PLP6353FE-A	635	2.1-3	IIIa	3-6	40	-10 to +50	Fixed
PLP6501AE-B	650	0.5-0.99	II	3-6	25	-10 to +40	Adjustable
PLP6501FE-B	650	0.5-0.99	II	3-6	25	-10 to +40	Fixed
PLP6503AE-B	650	2.1-3	IIIa	3-6	30	-10 to +40	Adjustable
PLP6503FE-B	650	2.1-3	IIIa	3-6	30	-10 to +40	Fixed
PLP6501AE-A	650	0.5-0.99	II	3-6	25	-10 to +50	Adjustable
PLP6501FE-A	650	0.5-0.99	II	3-6	25	-10 to +50	Fixed
PLP6503AE-A	650	2.1-3	IIIa	3-6	30	-10 to +50	Adjustable
PLP6503FE-A	650	2.1-3	IIIa	3-6	30	-10 to +50	Fixed
PLP6701AE	670	0.5-0.99	II	3-6	40	-10 to +50	Adjustable
PLP6701FE	670	0.5-0.99	II	3-6	40	-10 to +50	Fixed
PLP6703AE	670	2.1-3	IIIa	3-6	40	-10 to +50	Adjustable
PLP6703FE	670	2.1-3	IIIa	3-6	40	-10 to +50	Fixed
PLP7803AE	780	2.1-3	IIIb	3-6	30	-10 to +50	Adjustable
PLP7803FE	780	2.1-3	IIIb	3-6	30	-10 to +50	Fixed
PLP8083AE	808	2.1-3	IIIb	3-6	30	-10 to +40	Adjustable
PLP8083FE	808	2.1-3	IIIb	3-6	30	-10 to +40	Fixed
PLP8503AE	850	2.1-3	IIIb	3-6	30	-10 to +50	Adjustable
PLP8503FE	850	2.1-3	IIIb	3-6	30	-10 to +50	Fixed
PLP9043AE	904	2.1-3	IIIb	3-6	30	-10 to +50	Adjustable
PLP9043FE	904	2.1-3	IIIb	3-6	30	-10 to +50	Fixed
PLP9806AE	980	4.2-6	IIIb	3-6	45	-10 to +40	Adjustable
PLP9806FE	980	4.2-6	IIIb	3-6	45	-10 to +40	Fixed

Specifications of PLP Series Laser Diode Modules

Wavelength (nm)	635	650	670	780	808	850	904	980
Tolerance	+/-10 nm @ 25 °C							
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							
Beam divergence	< 0.5 mrad							
Beam size @ 5 m	~4 x 7 mm							
Beam profile	Elliptic							
Focus	Standard: Adjustable (Optional: Fixed)							
Operating temperature	-10 to +40 °C or -10 to +50 °C							
Connector	Black wire -, red wire + & brass case +							
Dimensions	Dia. 10.5mm x L. 15mm							
Weight	6.2 gm typical							
Option	Connecting to DL+ cross hair optics & LO-04-P line optics							

Dimensions of PLP Series Laser Diode Modules (unit: mm)



Additional Notes

- The PLP 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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