



LAC Series — 635nm–980nm Precision Pointing Dot Laser Diode Modules

Fixed Focus, Circular Beam, Adjustable Alignment Screws



Overview

The Lasermate LAC Series laser diode modules provide precise dot projection for alignment and aiming applications. Available in wavelengths ranging from 635nm to 980nm, these modules offer circular beam profiles, stable output via APC circuit design, and fixed-focus optics. The three set screws allow fine-tuned alignment of the laser beam, making the LAC Series ideal for industrial OEM use where pointing accuracy and stability are critical.

Features

- Wide range of wavelengths from 635nm to 980nm (including 650nm, 670nm, 780nm, 808nm, 850nm, 904nm)
- Different output power levels for all wavelengths
- Fixed focus
- Circular beam profile
- Automatic Power Control (APC) circuit design
- 3 set screws for adjusting the alignment of laser beam

Applications

- Alignment
- Aiming

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 LAC series laser modules.

Part Number	Wavelength (nm)	Optical output power (mW)	Laser class	Operating voltage (V DC)	Operating Current typical (mA)	Operating temperature (°C)
LAC6351FE-B	635	0.5-0.99	II	3-6	40	-10 to +40
LAC6352FE-B	635	1.2-2	IIIa	3-6	40	-10 to +40
LAC6351FE-A	635	0.5-0.99	II	3-6	40	-10 to +50
LAC6352FE-A	635	1.2-2	IIIa	3-6	40	-10 to +50
LAC6501FE-B	650	0.5-0.99	II	3-6	30	-10 to +40
LAC6502FE-B	650	1.2-2	IIIa	3-6	30	-10 to +40
LAC6501FE-A	650	0.5-0.99	II	3-6	30	-10 to +50
LAC6502FE-A	650	1.2-2	IIIa	3-6	30	-10 to +50
LAC6701FE	670	0.5-0.99	II	3-6	35	-10 to +50
LAC6702FE	670	1.2-2	IIIa	3-6	35	-10 to +50
LAC7802FE	780	1.2-2	IIIb	3-6	35	-10 to +50
LAC8082FE	808	1.2-2	IIIb	3-6	35	-10 to +40
LAC8502FE	850	1.2-2	IIIb	3-6	35	-10 to +50
LAC9042FE	904	1.2-2	IIIb	3-6	35	-10 to +50
LAC9804FE	980	2.4-4	IIIb	3-6	45	-10 to +40

Specifications of LAC Series Laser Diode Modules

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	Regulated APC (automatic power control)							
Optics	Singlet plastic collimating lens							
Beam divergence	< 0.5 mrad							
Beam size @ 5 m	Dia. ~5 mm for the center spot							
Beam profile	Circular							
Focus	Fixed							
Operating temperature	-10 to +40 °C or -10 to +50 °C							
Connector	Black wire -, red wire +							
Dimensions	Dia. 15.9mm x L. 46.8mm							

Additional Notes

- The LAC 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.
- Specifications are subject to change without notice.



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