



LTG-T Series – 635nm-980nm High-Performance Laser Diode Modules

TTL up to 100kHz, Elliptical Beam, Precision Focus, Dia. 0.5in



Overview

The Lasermate LTG-T series laser diode module system with TTL modulation is a self-contained laser diode system designed for OEM applications with adjustable focusing and APC circuit design features. The laser is designed as a high quality and high-performance laser diode module with flexible and adjustable characteristics for industrial heavy-duty users.

Features

- Wide range of wavelengths from 635nm to 980nm (including 650nm, 670nm, 780nm, 808nm, 850nm, 904nm)
- Wide range of output power up to 50mW
- High performance and low cost
- Adjustable focus
- Super fine pitch (0.25mm) for precision focusing
- Elliptical beam profile
- Glass collimating lens
- TTL modulation to 100kHz

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 LTG-T series laser modules.

Part Number	Wavelength (nm)	Optical output power (mW)	Laser class	Operating current typical (mA)	Operating & Control voltage (VDC)	Operating temperature (°C)
LTG6351A5-T	635	0.5-0.99	II	40	5	-10 to +50
LTG6354A5-T	635	2.5-3.5	IIIa	40	5	-10 to +50
LTG6357A5-T	635	5-7	IIIb	55	5	-10 to +50
LTG6501A5-T	650	0.5-0.99	II	30	5	-10 to +50
LTG6504A5-T	650	2.5-3.5	IIIa	30	5	-10 to +50
LTG6505A5-T	650	4.1-4.99	IIIa	50	5	-10 to +50
LTG6507A5-T	650	5-7	IIIb	28	5	-10 to +50
LTG66012A3-T	660	10-12	IIIb	80	3.3	-10 to +50
LTG6701A5-T	670	0.5-0.99	II	40	5	-10 to +50
LTG6704A5-T	670	2.5-3.5	IIIa	40	5	-10 to +50
LTG7804A5-T	780	2.5-3.5	IIIb	30	5	-10 to +50
LTG8084A5-T	808	2.5-3.5	IIIb	30	5	-10 to +40
LTG8504A5-T	850	2.5-3.5	IIIb	30	5	-10 to +50
LTG9044A5-T	904	2.5-3.5	IIIb	30	5	-10 to +50
LTG9047A5-T	904	5-7	IIIb	40	5	-10 to +50
LTG9807A5-T	980	5-7	IIIb	45	5	-10 to +40
LTG98012A3-T	980	10-12	IIIb	65	3.3	-10 to +40

Specifications of LTG-T Series Laser Diode Modules with TTL Modulation

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 >5mW			Class IIIb				
Diode structure	Index guided							
Diode output power	5-50mW							
Operating current	30-90mA typical							
Operating voltage	5V DC or 3.3V DC (red wire "+" & black wire "-")							
Control voltage	Maximum 5V DC or 3.3V DC (yellow wire "+" & black wire "-")							
Drive circuit	APC with TTL modulation							
Modulation frequency	From DC to 100KHz							
Optics	Glass collimating lens with AR coating							
Beam divergence	< 0.5 mrad							
Beam size @ 7 m	~6 x 8 mm							
Beam profile	Elliptic							
Focus	Adjustable							
Operating temperature	-10 to +40 °C or -10 to +50 °C							
Connector	Black wire -, red wire + & yellow wire + signal							
Dimensions	Dia. 0.5" x L. 2"							
Weight	35 gm							
Option	Connecting to cross hair optics							

Additional Notes

- The LTG-T 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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