



Laser Modules

Z-Optics provides visible and infrared laser modules with circular, elliptic, linear, and cross hair beam profiles in variety of packages and configurations at very competitive prices. Our engineers have optics, crystal and laser background, years experiences in laser module design and production, which makes us competitive in integrating the optics, elctrics and laser upon the requests of customers. We promise one week delivery time for samples and 1-2 weeks for mass order.



Capability:

- Super Linearity and Flatness - A line laser module is developed, with only <math><2\text{mm}</math> height difference over - Super Small Laser Module - A 650nm laser module is developed, with only 3.3mm diameter.
- Super directivity - Ultra small beam divergency from center is available.

Applications:

- Industry, Survey
- Medical, Therapy - hair growth
- Entainment, Education, Toy - laser show, laser game

Our Customers:



How to Choose laser module?

Laser Module is made of laser diode, PCB driver, lens and housing. Customer had better have a clear understanding on the specifications, which will help save bardget for your applications. Or please contact our sales, our knowledges and experiences might be helpful for you.

A good balance between performance and cost is the target of us. Success of yours is ours too.

Here are some knowledges might helpful for you to find a proper product.

- Wavelength of Laser Diode: 405nm, 532nm, 635nm, 650nm...
 - * 650nm: Red, most widely used due to the low cost. Max. 250mW output power laser diode is available.
 - * 635nm: Red, 3 times brighter than 650nm at same power. Price is about twice. Only max. 35mW output power product is available.
 - * 532nm, Green, DPSS laser instead of laser diode. 532nm is about 8 times brighter than 650nm at same power. Price is about 20 times. 532nm is the best solution for some outdoor applications. DPSS laser is not as robust as red laser diode due to the complicated construction.

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Laser Modules

- Brand of Laser Diode: Laser diode of our own brand or Taiwan and Korea companies is good enough for most applications(<10mW @ 650nm and 635nm). High quality laser diodes are also available for high-end customers or upon the request of customers, which are made in Japan.

- Output power: Customized

- Lens:

- * Plastic Lens: Low cost, good enough for most applications. The focal length changes with temperature. So the beam spot is sharp at summer, while blurred at winter. But it's still acceptable for most applications like pointer.

- * Glass lens: High quality, focal length changes little with temperature. Glass is also hard and scratch-proof, so it can be cleaned by soft cotton dipped with alcohol and aether. Price is about 10 times than plastic products.

- Package: We have three standard packages for low power laser module. Package1 is default package and most cost-effective. Package3 is full jacket and provides protection for PCB. We also provide customized packages upon requests.

High power laser module is much bigger to get better heat dissipation, normally cooling fins are used.

- Driver:

- * ACC or APC

ACC- Auto-current control. Operation current keeps stable. Normally used for laser module of P>30mW

APC- Auto-power control. Output power keeps stable. Normally used for laser module of P<30mW.

- * Operation voltage: 3V, 5V, 12V, 24V, 2.7~6V or customized.

- * Size and shape: rectangular or customized.

Economic Laser Module

Economic laser modules are designed for cost sensitive applications, which use plastic lenses, low power laser diodes, simple mechanic parts. Lifetime of such laser diodes normally is >5000h. Economic laser modules are widely used in survey, industry, medical, sensor, machining, toy, etc.

Standar Products:

Part No.	Wavelength (nm)	Power (mW)	Op. Cur. (mA)	Op. Volt. (V)	Package
LME635-A-B	635	<4, <8	<40	3~6	1, 2, 3
LME650-A-B	650	<4, <8	<30	3~6	1, 2, 3
LME780-A-B	780	<4, <8	<60	3~6	1, 2, 3
LME808-A-B	808	<150	<260	3~5	3
LME850-A-B	850	<4	<30	3~5	1, 2, 3
LME980-A-B	980	<40	<110	3~5	3

* Wavelength and power not available here please contact us directly

Order Information:

LME635-A-B

635 - Wavelength, unit in nm

A - Power, unit in mW

B - Beam profile: 1 - dot, 2 - line, 3 - Cross line

Or please just tell me your applications, we will choose a proper product for you.

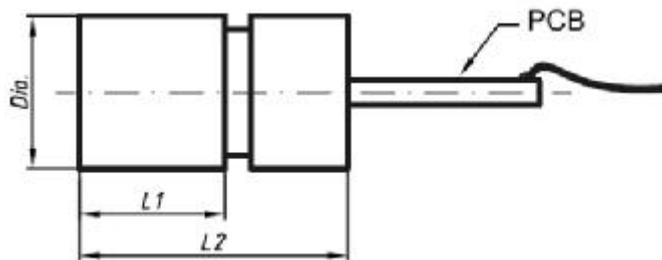
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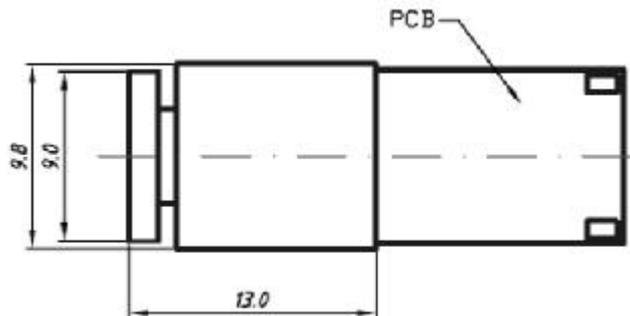
Standard Package and Dimensions:

Dimensions of Package 1



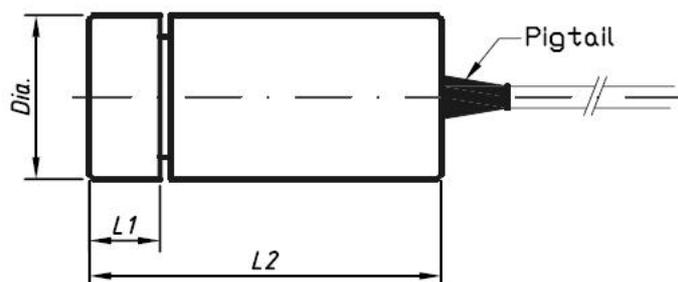
Diameter (mm)	L1(mm)	L2(mm)	Laser Module
4.0	-	7.5	650nm 5mW
6.0	5.7	10.5	635nm, 650nm, 780nm, 850nm, 5mW Spot beam
6.5	5.7	10.5	
7.0	5.7	10.5	
7.5	7.1	12.4	
8.0	7.1	12.4	

Dimensions of Package 2



Package for 635nm, 650nm, 780nm, 850nm 5mW laser modules
Spot Beam

Dimensions of Package 3



Diameter (mm)	L1(mm)	L2(mm)	Laser Module
7.5	none	16.0	635, 650, 780, 850nm, 5, 10mW Spot beam
9.0	6.0	23	635, 650, 780, 850nm, 5, 10mW Line, Cross beam
12.0	5.0	36	980nm, 40mW Line, Cross beam

* We also provide customized packages upon your requests.

High Quality Laser Module

High quality laser modules are designed for high-end applications, with glass lenses or hybrid lenses(glass + plastic lens), high quality laser diodes(lifetime >8000h). High quality laser modules are used in survey, medical, sensor, machining, military, research, etc.

Z-OPTICS provides ODM and OEM services for customers.



Laser Modules

Standar Products:

Part No.	Wavelength (nm)	Power (mW)	Op. Volt. (V)	Package	
				Dot, Line	Cross Line
LMQ532-A-B	532	<1, <5, <10, <15, <30, <50, <100, <150, <200, <300, <500, <800	DC 3~5 AC 100~240V	Φ11.8x60 Φ26x100 Φ20x70 33x33x80 39x39x100 49x49x130	
LMQ635-A-1	635	<3, <5, <6, <12, <15, <22, <25	3, 4.5, 5, 6	Φ8x22(dot)	Φ12x36
LMQ635-A-2	635	<3, <5, <6, <14, <16, <22		Φ9x35	Φ12x40
LMQ635-A-3	635	<2.5, <4.5, <7, <9, <12, <15		Φ11x40	Φ16x40
LMQ650-A-1	650	<3, <6, <12, <18, <30, <70, <120, <170		Φ16x40	Φ16x55
LMQ650-A-2	650	<3, <6, <12, <18, <30, <70, <120, <170		Φ16x55	Φ22x60
LMQ650-A-3	650	<2, <5, <8, <18, <30, <70, <120, <170		Φ22x60	Φ22x85
LMQ808-A-1	808	<60, <140, <400, <650, <1600, <4200		Φ22x85	Φ22x91
LMQ980-A-1	980	<40, <240, <650, <1400		Φ26x100	Φ26x110
*LMQ1064-A-1	1064	<5, <10, <50	3~5	Φ11.8x60	

*LMQ1064-A-1 is a single frequency DPSS laser module
Other Wavelength and power not list here please contact us directly

Main Specifications:

Beam Divergency (spot laser):	0.2~1.5mrad(635nm, 650nm, 808nm, 980nm) 1.5~2.0mrad(532nm, 1064nm)
Spot Size (spot laser)	<0.5mm@0.5m, <1mm@3m, <1.5mm@6m
Fan Angle (line, cross laser):	10°~120°
Linearity (line laser):	<1/8000
Line Width (line, cross laser):	<0.5mm@0.5m, <1mm@3m, <1.5mm@6m
Linearity (cross laser):	<1/5000
Verticality (cross laser):	<+/-1'
Operation Temperature:	-10~+50°C
Storage Temperature:	-40~+85°C

Order Information:

LMQ532-A-B

532 - Wavelength, unit in nm

A - Power, unit in mW

B - Beam profile: 1 - dot, 2 - line, 3 - Cross line

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