

Red Circular Dot Laser Module with TTL function

VLM-650-62T Series



FEATURES:

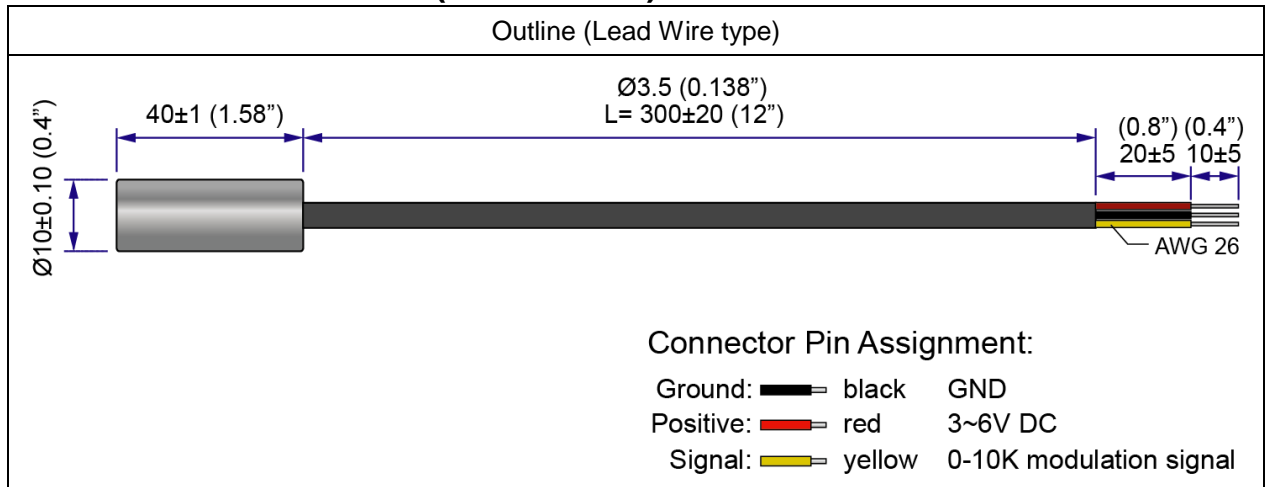
- Red circular dot laser with a precision of less than 3 mm across a range of 0 to 5 meters.
- Robust stainless steel housing. High quality red laser spot, ideal for industrial application that need precision circular dot.
- Built with high precision glass lens.
- CW to 10K HZ stable power output for demanding power and speed are of important.
- Industrial use laser modules have 10,000 hours working life.
- Three laser power output level: LPO - Class 1 product
LPT - Class 2 laser product
LPA - Class 3R laser product
- Dimensions : Ø10 x 40 mm (Ø0.39" x 1.575")
- Wavelength : 645~665 nm
- 3~6 VDC operation.
- Connection type : Lead wire

APPLICATIONS: ideal for

- Industrial Red Dot Laser Module - for positioning, measuring, pointing and laser sighting device.
- Wood processing.
- Metal processing.
- Stone processing.
- Textile industry.
- Food industry.
- Automotive industry.
- Medical science.

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OUTLINE DIMENSIONS (UNITS: mm)



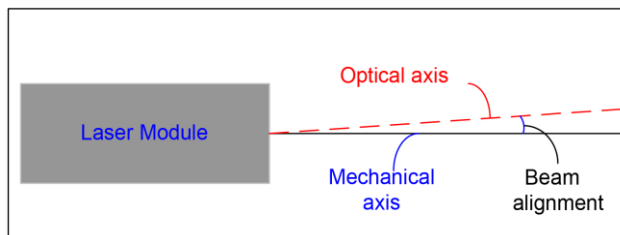
SPECIFICATIONS

Part Number		VLM-650-62T		
		LPO	LPT	LPA
1	Dimensions	$\varnothing 10 \times 40$ mm ($\varnothing 0.39" \times 1.575"$)		
2	Weight	16 \pm 1g		
3	Operating voltage (Vop)	3~6 VDC		
4	Operating current (Iop)	Less than 80mA	Less than 100mA	Less than 150mA
5	Laser power output	0.2 \pm 0.1mW	0.8 \pm 0.1mW	3.5 \pm 0.5mW
6	Laser class	Class 1	Class 2	Class 3R
7	Wavelength (λ p)	645~665nm		
8	Collimating lens	Aspherical glass lens		
9	Output aperture	2mm		
10	Beam shape	Circular		
11	Spot size	Less than $\varnothing 3$ mm @ 0~5M		
12	Divergence (Half Angle)	Less than 0.4 mRad		
13	Beam alignment*	Less than 3°		
14	Operating temp. range**	-20°C ~+60°C		
15	Storage temp. range	-20°C ~+85°C		
16	Housing material / Color	Stainless steel / Silver		
17	Potential of housing	Insulated		
18	Mod. Frequency range	0-10kHz		
19	Operation mode***	TTL(High on)****		
20	EN input current	1 to 20mA		

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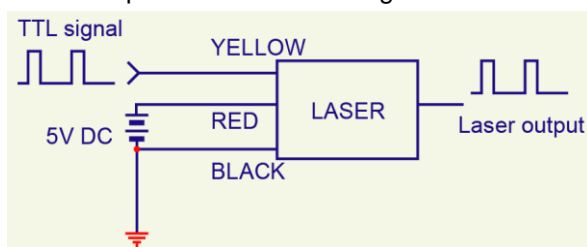
21	Electrostatic discharge (ESD)	30KV / Arc protection
22	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.
23	Protection circuit	Reversed supply circuit protection, over-current protection, surge protection, Short circuit protection
24	Vibration resistance	10 to 55Hz, 1.5mm amplitude for 2 hours each in X, Y and Z direction
25	Standard	IEC60825:2014
26	Wire type	2464 3-WIRE CABLE 26 AWG
27	Cable length	330±30mm
28	Mean time to failure (MTTF) 25°C	10000 hrs.
29	International Protection Marking	IP65
30	Application	Industrial alignment with modulation function
31	Suggestion work distance	0~5 meters / 0~16 feet

* Beam alignment:

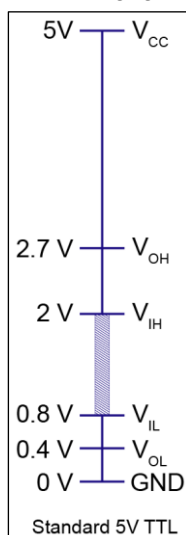


** Operation temperature means within this temperature range, the laser spot/line will not be affected to change the spot size/line width. It can still work over this range, but the laser spot size or laser line width will be larger.

*** TTL Operation Function Diagram



**** TTL Level



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ORDER CODE

Order Code	Wavelength	Laser Power Output	Laser Class	Connection Type
VLM-650-62T LPA	650 nm	3.5±0.5mW	Class 3R	Lead Wire
VLM-650-62T LPT	650 nm	0.8±0.1mW	Class 2	Lead Wire
VLM-650-62T LPO	650 nm	0.2±0.1mW	Class 1	Lead Wire

SAFETY LABEL

LPA:



LPT:



LPO:

CLASS I LASER PRODUCT

Optional Accessories

Quarton offers mounts, power supply boards, battery pack and USB cable switch to help you running as quickly as possible. For more information, please visit www.quarton.com, www.quarton.com/contact or email contact@quarton.com.

QLM-1125 - Laser Module Mount/Holder for diameter 6mm to 12.5mm, it's an ideal choose for mounted onto optical tables.

Feature:

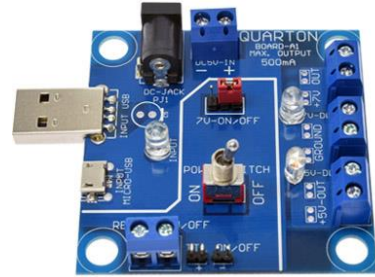
- 4 directions adjustable.
- Can be mounted onto the optical table with screws (Screws not included).
- Engraved scale for precision adjustable.



Optional Accessories

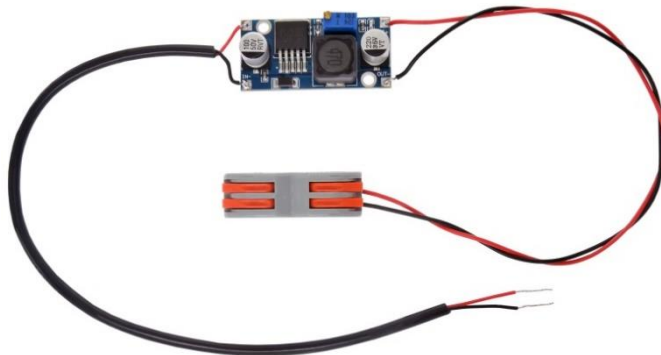
LMPS-MP1 - Multi-function Laser Module Power Supply Board.

Four input : USB, micro USB, DC Power Jack(5.5 x 2.1), and terminal block. Two channel output : 7 VDC 500mA and 5 VDC 1A. Three switches-toggle switch, remote switch and TTL signal.



Feature:

- Allow four kinds of power input: USB, micro USB, DC Power Jack(5.5x2.1) and terminal block.
- Two Channel output: 7 VDC 500mA and 5 VDC 1A.
- Built-in three switches: toggle switch, terminal block remote switch and TTL signal switch by on-board connect point.
- 7 VDC output work for all Quarton Laser Modules with 7-12 V operation Voltage (Vop).
- 5 VDC output work for all Quarton Laser Modules with 3-6 V operation Voltage (Vop).
- Three LED indicators: Input power indicator, 7V output indicator and 5V output indicator.



LMPS-MP2 - DC converter, In: 9-36V, Out: 5V 1A.



LMPS-mUSB1 - Laser Module Power Supply Board, Input: micro USB, Output: 5 VDC 2A.

Feature:

- Micro USB connector power input.
- Output 5 VDC 2A with alligator clips.
- For all Quarton Laser Modules that require 3-6V operation Voltage.

Optional Accessories



LMPS-DC1 - Laser Module Power Supply Board, Input: DC Power Jack(5.5 x 2.1), Output: 5 VDC 2A.

Feature:

- DC Power Jack(5.5 x 2.1) power input.
- Output 5 VDC 2A with alligator clips.
- For all Quarton Laser Modules that require 3-6V operation voltage.



CLM-BP4N3 - Battery pack (4* AA batteries)

*** AA Batteries are **NOT** included in package.

Feature:

- USB Output Voltage: 5 VDC.
- Color: Black.



CLM-UM3M - USB to micro USB Cable.

Feature:

- Length: 3 meters.
- Color: Black.