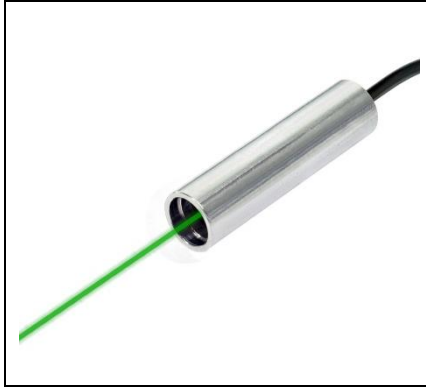


Green Circular Dot Laser Module with TTL function

VLM-520-62T Series



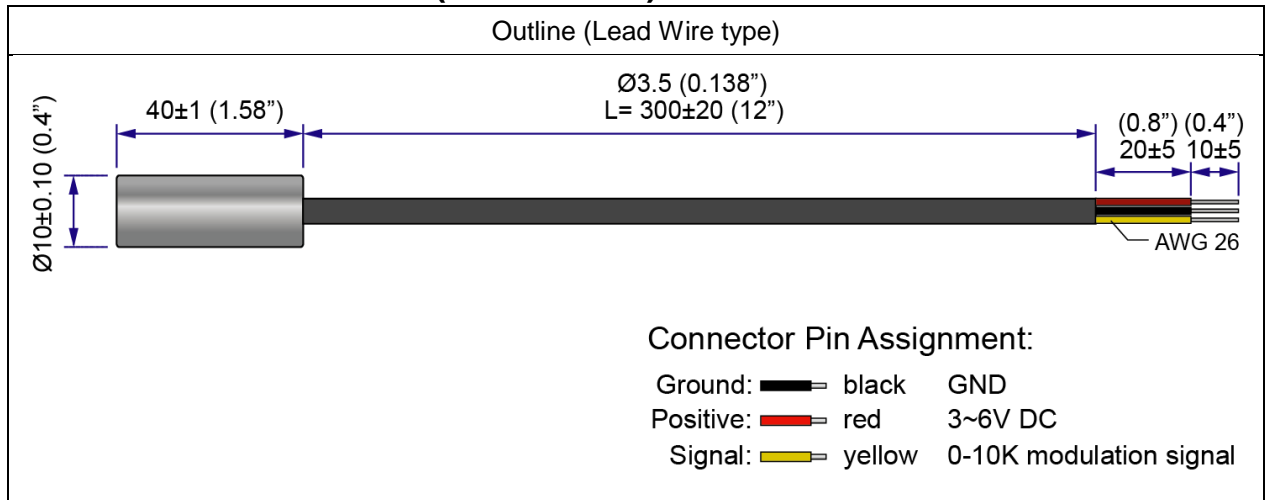
FEATURES:

- High-Precision Green Dot - Produces a sharp circular spot (<3 mm at 0~5 m) with 515~530 nm wavelength, offering peak visibility to the human eye.
- TTL Modulation Function - Supports stable CW to 10 kHz modulation, ideal for applications requiring fast response and precise control.
- Rugged Industrial Design - Stainless-steel housing and precision glass lens ensure superior durability, beam stability, and 10,000 hours lifetime.
- Compact & Easy Integration - with lead-wire connection, ideal for OEM or retrofit systems.
- Three laser power output level: LPO - Class 1 laser product
LPT - Class 2 laser product
LPA - Class 3R laser product
- Dimensions : Ø10 x 40 mm (Ø0.39" x 1.575")
- Wavelength : 515~530 nm
- 3~6 VDC operation.
- Connection type : Lead wire
- Versatile Applications - Perfect for industrial alignment, machine vision, metrology, robotics, automation, and research or educational instruments.

520 nm Laser (Green): The most visible wavelength to the human eye, appearing much brighter than red or blue at the same power. Provides a sharp, round dot with excellent beam quality, ideal for outdoor and long-distance visibility.

VLM-520-62T Series

OUTLINE DIMENSIONS (UNITS: mm)



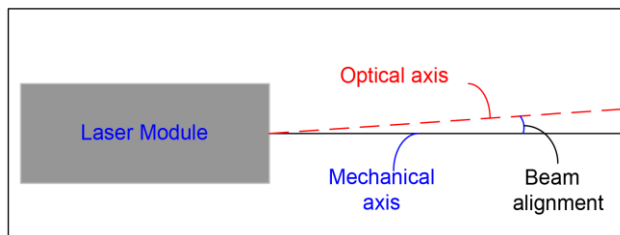
SPECIFICATIONS

Part Number		VLM-520-62T		
		LPO	LPT	LPA
1	Dimensions	$\varnothing 10 \times 40$ mm ($\varnothing 0.39" \times 1.575"$)		
2	Weight	16 ± 1 g		
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 ± 0.1 mW	0.8 ± 0.1 mW	3.5 ± 0.5 mW
6	Laser class	Class 1	Class 2	Class 3R
7	Wavelength (λ_p)	515~530nm		
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	Stainless steel		
17	Potential of housing	Insulated		
18	Mod. Frequency range	0-10kHz		
19	Operation mode***	TTL(High on)****		
20	EN input current	1 to 20mA		

VLM-520-62T Series

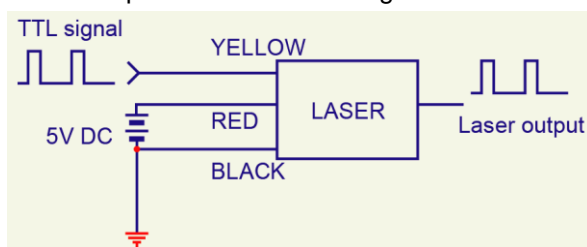
21	Electrostatic discharge (ESD)	30KV / Arc protection
22	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.
23	Protection circuit	Reversed supply circuit protection, over-current protection, surge protection, Short circuit protection
24	Vibration resistance	10 to 55Hz, 1.5mm amplitude 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 application with modulation function
31	Suggestion work distance	0~5 meters / 0~16 feet

* Beam alignment:

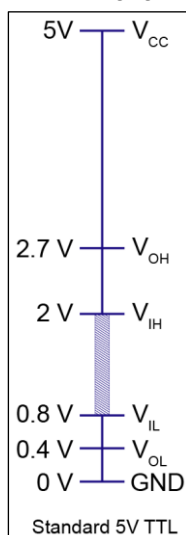


** Operation temperature means within this temperature range, the laser spot/line will not be affected to change the spot size/line width. It can still work over this range, but the laser spot size or laser line width will be larger.

*** TTL Operation Function Diagram



**** TTL Level



VLM-520-62T Series

ORDER CODE

Order Code	Wavelength	Laser Power Output	Laser Class	Connection Type
VLM-520-62T LPA	520 nm	3.5±0.5mW	Class 3R	Lead Wire
VLM-520-62T LPT	520 nm	0.8±0.1mW	Class 2	Lead Wire
VLM-520-62T LPO	520 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:

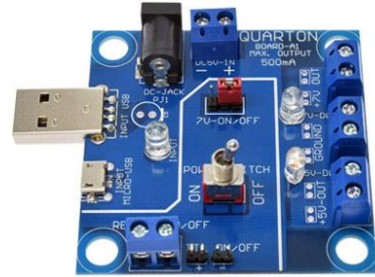
- 4 directions adjustable.
- Can be mounted onto the optical table with screws (Screws not included).
- Engraved scale for precision adjustable.



Optional Accessories

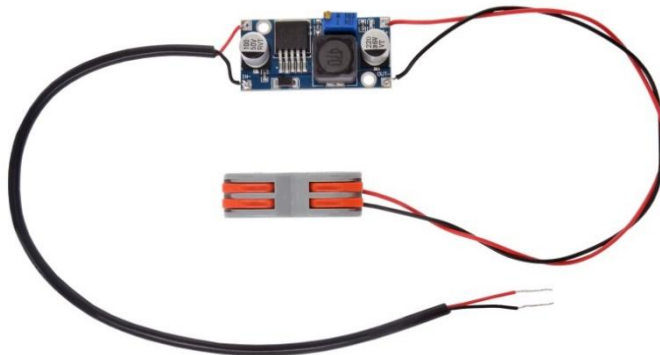
LMPS-MP1 - Multi-function Laser Module Power Supply Board.

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.