Quarton inc.

Straight Green Line Laser

VLM-520-27 Series

FEATURES:

- Direct Green Laser Diode for large temperature operation range.
- The best line-accuracy and the widest emitting angle line laser module for use with high-precision devices.
- Laser beam is focused at 10 meters to generate best thin laser line from 5 meters to 20 meters.
- This module has integrated quartz cylindrical lens, collimating lens, laser diode, and APC driver circuit.
- APC driver circuit enables the laser power output safe and constant.
- Includes patented solid brass structure for the best shock resistance and better heat transfer consideration.
- Aspherical Plastic Lens and Quartz Cylindrical Lens provides tight Line Laser.
- Dimensions : Ø12.5 x 30 mm (Ø0.492" x 1.181")
- Wavelength : 505~530 nm
- Laser power output : LPT - Class 1M - less than 0.39mW
  LPA - Class 2M - less than 1mW
- Emitting Angle : >90°
- 7~10 VDC operation.
- Connection type : Lead wire

APPLICATIONS:

- Straight Green Line from Direct Green Laser Diode.
- Wood processing.
- Metal processing.
- Stone processing.
- Textile industry.
- Food industry.
- Automotive industry.
- Medical science.

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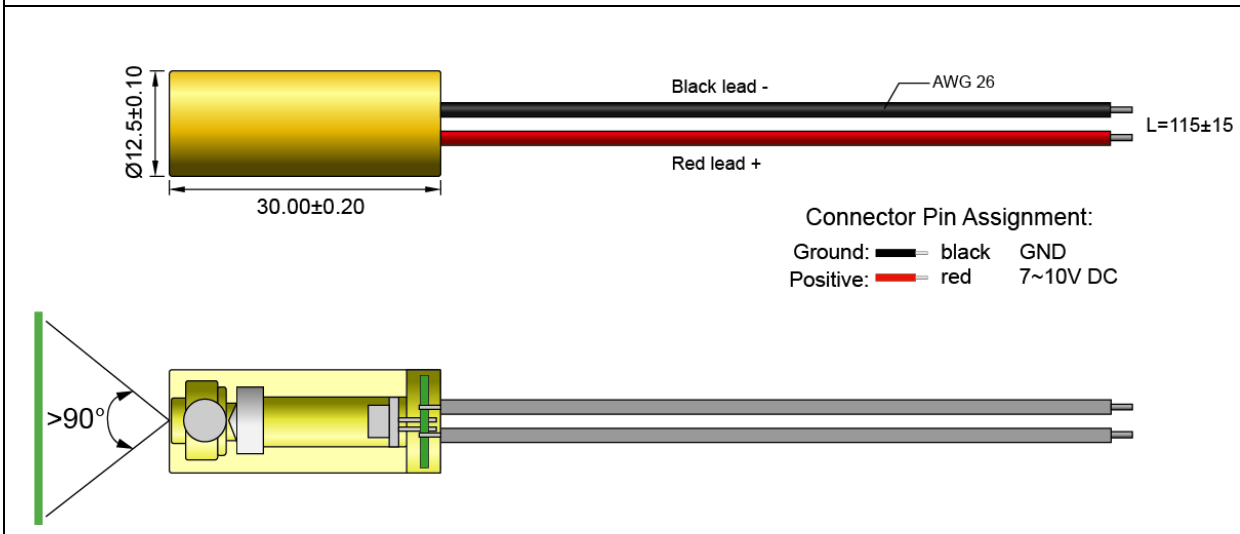
OUTLINE DIMENSIONS (UNITS: mm)

Outline (Lead Wire type)



SPECIFICATIONS

SPECIFICATIONS		VLM-520-27	
		LPT	**LPA**
1	Dimensions	Ø12.5 x 30 mm (Ø0.492" x 1.181")	
2	Operating voltage (Vop)	7~10 VDC	
3	Operating current (Iop)	Less than 80mA	Less than 100mA
4	Optical power*	4~5mW	9~10mW
5	Laser power output**	Less than 0.39mW	Less than 1mW
6	Laser class	Class 1M	Class 2M
7	Wavelength at peak emission (λp)	505~530nm	
8	Collimating lens	Aspherical plastic lens	
9	Line lens	Plastic lens	
10	Beam shape	Line	
11	Laser Line width@10M	Less than 3.5mm	
12	Laser line accuracy	40” (±1mm @5M)	
13	Emitting angle	More than 90°	
14	Operating temp. range***	+15°C ~+30°C	
15	Storage temp. range	-20°C ~+65°C	
16	Housing material	Brass	
17	Potential of housing****	VDD(+)	

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18	Electrostatic discharge (ESD)	30KV
19	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.
20	Wire type	1007-26 AWG
21	Cable length	115±15mm
22	Mean time to failure (MTTF) 25°C	10000hrs
23	Application	General industrial alignment
24	Suggestion work distance	Above 2 meters

* Optical power is total power output measured at the aperture of the laser.

** According to FDA 1040.10 & IEC 60825-1 regulations, laser power output is measured by 7mm aperture stop from a 10 cm distance of the laser.

*** 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.

**** Laser module housing is an electrical positive surface, it is imperative that contact between the laser module and the machine be avoided. This is to prevent damage from the machine electrical leakage. Surge protected power supply to the laser module is strongly recommended.

ORDER CODE

Order Code	Wavelength	Optical power*	Laser power output**	Laser Class	Connection Type
VLM-520-27 LPT	520 nm	4~5mW	Less than 0.39mW	Class 1M	Lead Wire
VLM-520-27 LPA	520 nm	9~10mW	Less than 0.9mW	Class 2M	Lead Wire

* Optical power is total power output measured at the aperture of the laser.

** According to FDA 1040.10 & IEC 60825-1 regulations, laser power output is measured by 7mm aperture stop from a 10 cm distance of the laser.

SAFETY LABEL

CLASS I LASER PRODUCT