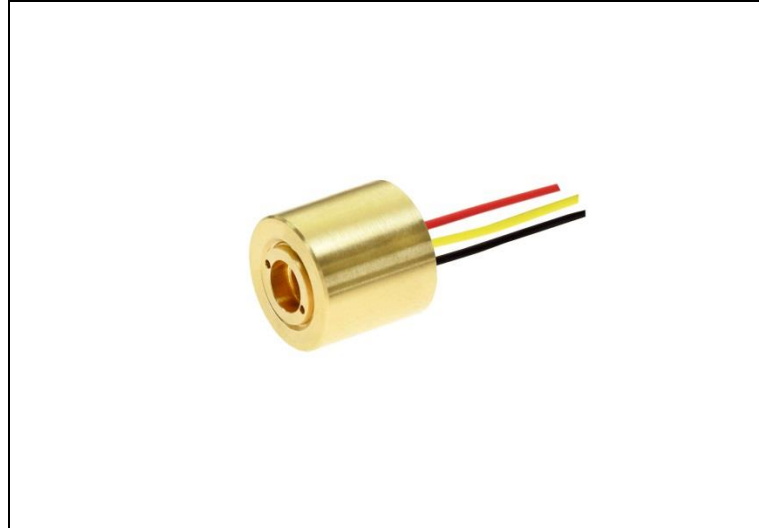


## High Power IR Laser Module

### VLM-850-81 Series



#### FEATURES:

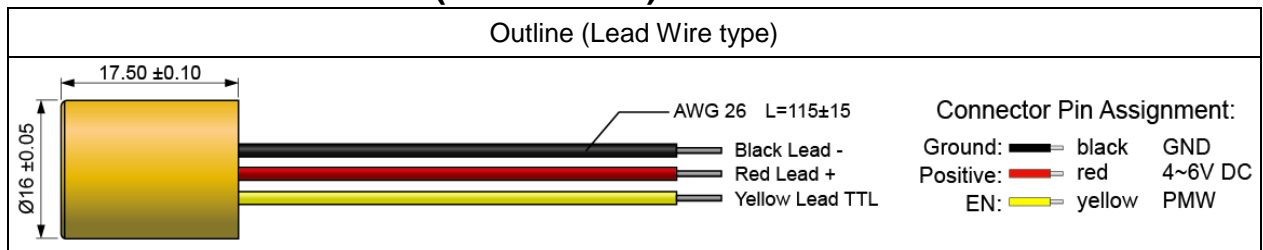
- 3W IR Laser Illuminator.
- 15° / 30° Divergence angle meet Class I Eye Safe laser regulation.
- Dimensions : Ø16 x 17.5mm (Ø0.629" x 0.688")
- Wavelength : 850 nm
- Laser power output : Class I - Eye Safe, FDA & EN 60825 approval.
- Fan Angle : 15° / 30°
- 5±1 VDC operation.
- Connection type : Lead wire
- This module has integrated optic, laser diode, and APC driver circuit.
- APC Driver Circuit enables the Laser output power safe and constant.

#### APPLICATIONS:

- 3W IR Laser Illuminator.
- Ideal for Security Camera Illumination, and night vision device illumination.
- 15 degree divergence angle: Mid Range Application 30 meters to 100 meters.
- 30 degree divergence angle: Short Range within 10 meters to 50 meters.

## VLM-850-81 Series

### OUTLINE DIMENSIONS (UNITS: mm)



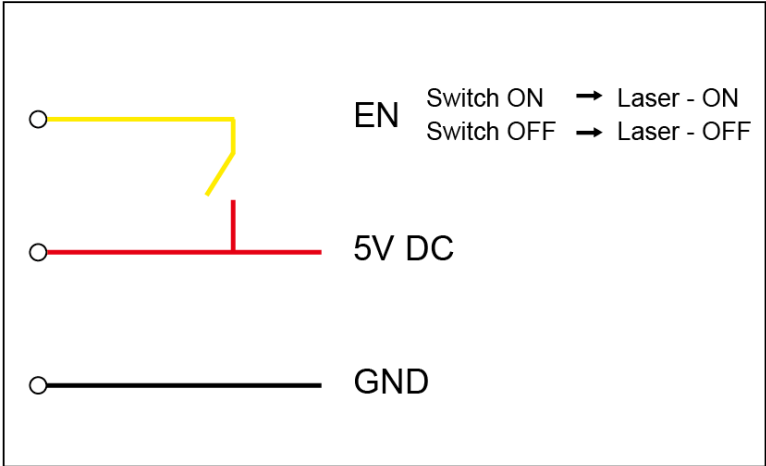
### SPECIFICATIONS

SPECIFICATIONS		VLM-850-81	
		LPT-15	LPT-30
1	Dimensions	Ø16 x 17.5 mm (Ø0.629" x 0.688")	
2	Weight	16g±1g (0.56±0.035 oz.)	
3	Operating voltage (Vop)	5±1 VDC	
4	Operating current (Iop)	< 300mA	
5	Laser power output	Class I, Eye Safe*	
6	Wavelength at peak emission (λp)	850nm	
7	Collimating lens	Aspherical Glass lens	
8	Output aperture	5mm	
9	Beam shape	Round	
10	Fan angle	15°	30°
11	Spot size at 10M	2.4M	4M
12	Operating temp. range	-10°C ~+50°C	
13	Storage temp. range	-20°C ~+65°C	
14	EN Operating mode	High ON	
15	Housing material	Bronze	
16	Potential of housing**	VDD(+)	
17	Electrostatic discharge (ESD)	30KV	
18	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.	
19	Wire type	1007-26 AWG	
20	Cable length	115±15mm	
21	Mean time to failure (MTTF) 25°C	10000hrs	

\* This product meets specified certification standards, 21 CFR 1040.10 (United States) and IEC 60825-1 (Europe). Please refer to the final page to see the test report from a nationally recognized testing laboratory, SGS, that shows evidence that this product was tested according to the standard IEC 60825-1. Besides, this product has the Food and Drug Administration (FDA) accession number.

\*\* 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.

## VLM-850-81 Series



### ORDER CODE

Order Code	Wavelength	Output Power	Fan Angle	Connection Type
VLM-850-81 LPT-15	850 nm	CLASS I	15°	Lead Wire
VLM-850-81 LPT-30	850 nm	CLASS I	30°	Lead Wire


### SAFETY LABEL

**CLASS I LASER PRODUCT**



Report No.: OM-2019-60003

Page 1 of 14

<b>TEST REPORT</b> <b>IEC 60825-1: 2014 3<sup>rd</sup> Edition / EN 60825-1: 2014</b> <b>Safety of laser products --</b> <b>Part 1: Equipment classification and requirements</b>	
Report Number.....	OM-2019-60003
Date of issue.....	Jun. 14, 2019
Applicant's name.....	QUARTON INC.
Address.....	9 <sup>th</sup> Fl., No. 185, Sec. 1, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan, R.O.C.
Testing Laboratory.....	SGS Taiwan Ltd., Optics Laboratory
Address.....	No. 33, Wu Chyuan Road, New Taipei Industrial Park, Wu Ku District, New Taipei City 24886, Taiwan (R.O.C.)
<b>Test specification:</b>	
Standard.....	IEC 60825-1:2014 (Third Edition) EN 60825-1: 2014
Test procedure.....	Same as above
Non-standard test method.....	N/A
Tested Product Name.....	Laser Module
Model number / Type.....	VLM-850-81 LPT-6.5, VLM-850-81 LPT-15, VLM-850-81 LPT-30
<b>Conclusion:</b>	In the opinion of SGS, the submitted Device Under Test (DUT) complies with <b>Class 1 Laser Product</b> of the above test specification.
	Reviewed by: Calvin Tzou Technical Manager Jun. 14, 2019
	 Signature
<p>Details and test results are given in subsequent pages of this report.            This report refers only to the unit(s) submitted for test. This report shall not be reproduced except in full, without written approval of the issuing testing laboratory.            "(see Enclosure #)" refers to additional information appended to the report.            "(see appended table)" refers to a table appended to the report. Throughout this report a point is used as the decimal separator.            This document is issued by the company under its General Conditions of Service accessible at <a href="http://www.sgs.com/terms_and_conditions.htm">http://www.sgs.com/terms_and_conditions.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.            Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.</p>	

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