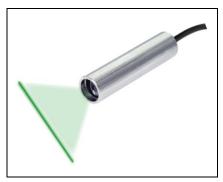


Green Line Laser Module with TTL Function Fan Angle 110° Uniform Line

VLM-520-57-110°Series



The newly developed glass line lens come with various fan angles and they produce high quality uniform laser line in a robust stainless housing, ideal for automation, machine vision, image processing, digital data acquisition, counting, precision 3D scanner and science & medical application. They are all come with TTL function to allow up to 10K Hz modulation frequency. They are available at 10 cm, 20 cm, 40 cm and 90 cm focus length, red & green wavelength, Class 1M and Class 2M laser class to cover within 1 meter range task. For customized focus length, wavelength and laser power output, please contact us.

FEATURES:

- Built with high precision glass line lens and glass laser collimating lens.
- Fan Angle: 110°
- Focus range: 10cm, 20cm, 40cm, 90cm, customized focus length are available by request.
- CW to 10K HZ stable power output for demanding power and speed are of important.
- Customized focus within 1 meter available please direct contact us.
- Two laser power output level: LPO Class 1M laser product

LPT - Class 2M laser product

- Dimensions: Ø10 x 40 mm (Ø0.39" x 1.575")
- Wavelength: 515~530 nm
- 3~6 VDC operation.
- Connection type : Lead wire
- Laser line demonstration: https://www.youtube.com/watch?v=3 gRtxyeP28

APPLICATIONS: ideal for

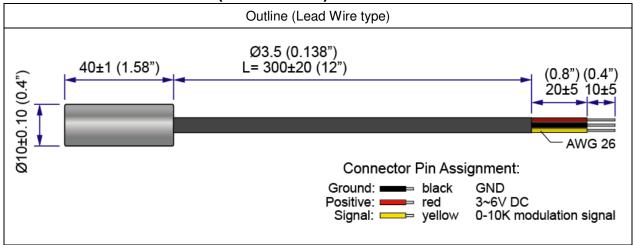
- Machine vision.
- Automation industry.
- Image processing.
- Medical & Science.
- Scanning.
- Precision 3D scanner.
- Counting.
- Measurement.

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VLM-520-57-110°Series

OUTLINE DIMENSIONS (UNITS: mm)



SPECIFICATIONS

D. I.N. I		VLM-520-57 LPO-D110-				VLM-520-57 LPT-D110-				
	Part Number	F10	F20	F40	F90	F10	F20	F40	F90	
1	Focus length	10 cm	20 cm	40 cm	90 cm	10 cm	20 cm	40 cm	90 cm	
2	Fan angle / Laser line length		110°/	_ength	of Las	er Line	as TA	BLE A		
3	Laser line width	AS TABLE B								
4	Recommended working range	AS TABLE B								
5	TTL modulation frequency			Hiç	jh ON,	0-10K	Hz			
6	Dimensions		Ø1	10 x 40	mm (Ø	Ø0.39" x 1.575")				
7	7 Weight		18±1g							
8	Operating voltage (Vop)		3~6 VDC							
9	Operating current (lop)		Less than 80mA			Less than 180mA				
10	Optical power*	Less than 10mW		Less than 30mW			W			
11	Laser power output**	Le	ss thar	0.39m	0.39mW		Less than 1mW		٧	
12	Laser class	Class 1M		Class 2M						
13	3 Wavelength (λp)		515~530nm							
14	Collimating lens / Line generating lens		Aspherical glass lens							
15	Output aperture	8mm								
16	Beam shape		Line							
17	Laser line accuracy		40"(±1mm@5M)							
18	Operating temp. range*** -20°C ~+60°C									
19	Storage temp. range -20°C ~+85°C									
20	20 Housing material / color Stainless steel / Silv		/ Silver							
21	Potential of housing	Insulated								

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VLM-520-57-110°Series

22	Electrostatic discharge (ESD)	30KV
23	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.
24	Wire type	2464 3-WIRE CABLE 26 AWG
25	Cable length	330±30mm
26	Mean time to failure (MTTF) 25°C	Above 10000 hrs
27	International Protection Marking	IP65
20	Application	Precision fine line for Automation, Machine vision and
20	Application	Medical with modulation function
29	Suggestion work distance	0~1.2 meters / 0~4 feet

- * 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.

SAFETY LABEL

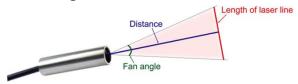
LPO:

LPT:

CLASS I LASER PRODUCT



TABLE A: Laser Line Length Table:



Length of laser line:

Distance	10 cm	20 cm	40 cm	100 cm
Fan angle	(4 inch)	(8 inch)	(16 inch)	(40 inch)
5°	0.9 cm	1.75 cm	3.5 cm	7.85 cm
	(0.35")	(0.7")	(1.4")	(3")
10°	1.75cm	3.5 cm	7 cm	17.5 cm
	(0.6")	(1.4")	(2.8")	(6")
15°	2.6 cm	5.2 cm	10.5 cm	26.3 cm
	(1")	(2")	(4")	(10")
20°	3.5 cm	7 cm	14 cm	35 cm
	(1.4")	(2.8")	(5.6")	(14")
30°	5.3 cm	10.7 cm	21 cm	53.5 cm
	(2")	(4")	(8")	(20")
45°	8.28 cm	16.6 cm	33.1 cm	82.85 cm
	(3¼")	(6½")	(13")	(32½")
60°	11.5 cm	23 cm	46 cm	115.5 cm
	(4½")	(9")	(18")	(45")
110°	28.6 cm	57.1 cm	114.2 cm	285.6 cm
	(11¼")	(23")	(46")	(112½")

VLM-520-57-110°Series

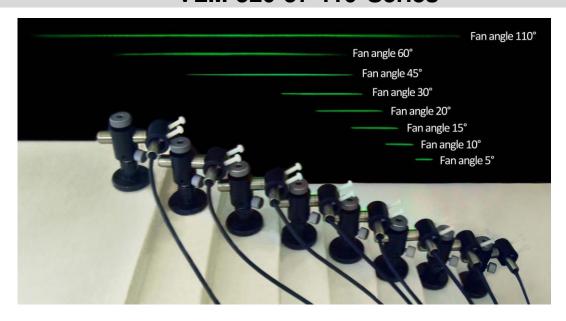


TABLE B: Recommended working range:

Focus at 10 cm:

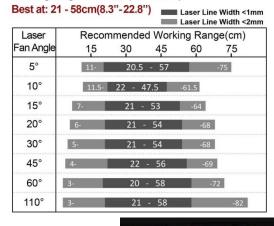
Working range: 0 - 22.5cm(0-8.9")

Best at: 7 - 16.5cm(2.8"-6.5") Laser Line Width <1mm

Laser Fan Angle	Recor 5	mmende 10	d Worki 15	200	ge(cm)
	5	10	15	00	
			.,,	20	25
5°		6.5 -	16	-21	
10°		8 - 1	.5 -	19	
15°	6	- 8 - 1	L5 -	19	
20°	4-	7 - 1	.6	-21.5	
30°	4-	6 - 14.5		-21	
45° 0-		5.5 - 15	-	19	
60° 0-		7 - 14.	.5	-20	
110° 0-		7 - 1	6.5	-22.5	

Focus at 40 cm:

Working range: 3 - 82cm(1.2"-32.3")



Focus at 20 cm:

Working range: 8 - 30cm(3.1"-11.8")

Best at: 12.5 - 23cm(4.9"-9")

Laser Line Width <1mm

Laser Line Width <2mm

				Lusci Liii	e width \Zin
Laser	Recom	mende	d Worki	ng Ran	ge(cm)
Fan Angle	10	15	20	25	30
5°	1	12.5- 1	5 - 23	-26	
10°	10-	14	- 22	-26	
15°	10-	14.	5 - 22	-26	
20°	10-	14	.5 - 23	-27	
30°	10-	14	- 22	-26	
45°	9-	13	- 24		-34
60°	11-	15	5 - 23.5		-32
110°	8-	12.5	- 23		-30

Focus at 90 cm:

Working range: 38 - 134cm(15"-52.8")

Best at: 60 - 106cm(23.6"-41.7") Laser Line Width <1mm

				Laser Lii	ie width \Zi
Laser	Recom	mende	d Worki	ng Ran	ge(cm)
Fan Angle	40	65	90	115	140
5°	29-	45 - 9	1 -10	09	
10°	35-		57 - 119		-146
15°	31-		57 - 119		-140
20°	31-		59 - 122	2	-142
30°	42-	E	50 - 114		-144
45°	40-	5	55 - 120		-139
60°	35-	5	6 - 116		-145
110°	38-	60	- 106	-1	34

Laser Line Width <1mm Laser Line Width <2mm

Headquarter

QUARTON INC.

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QUARTON USA INC.

Cell: 210-837-3485 contact@quarton.com www.quarton.com

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, <a href="https://

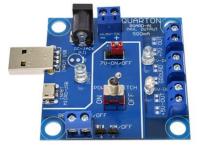
QLM-1125 - Laser Module Mount/Holder for diameter 6mm to 12.5mm, it's an ideal choose for mounted onto optical tables.

Feature:

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



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.

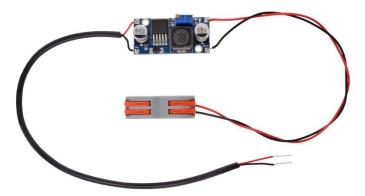


Feature:

- 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.

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Optional Accessories



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



LMPS-mUSB1 - Laser Module Power Supply Board, Input: micro USB, Output: 5 VDC 500mA.

Feature:

- Micro USB connector power input.
- Output 5 VDC 500mA with alligator clips.
- For all Quarton Laser Modules that require 3-6V operation Voltage.



LMPS-DC1 - Laser Module Power Supply Board, Input: DC Power Jack(5.5 x 2.1), Output: 5 VDC 500mA.

Feature:

- DC Power Jack(5.5 x 2.1) power input.
- Output 5 VDC 500mA with alligator clips.
- For all Quarton Laser Modules that require 3-6V operation voltage.

Optional Accessories



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

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

Feature:

USB Output Voltage: 5 VDC.

Color: Black.



CLM-USBSW - USB Cable Switch.

Feature:

Length: 28cm.

Color: Black.



CLM-UM3M - USB to micro USB Cable.

Feature:

Length: 3 meters.

Color: Black.