

Green Dot Laser Module

Specifications	Model Number	VLM-520-02 series	VLM-520-60 series	VLM-520-61 series (TTL)	VLM-520-70 series	VLM-520-71 series (TTL)	VLM-520-96 LPA
							
Dimensions		Ø10.5 x 26 mm	Ø10 x 40 mm	Ø10 x 40 mm	M12 x 68 mm	M12 x 68 mm	Ø16.5 x 72.8 mm
Operating voltage		7~10 VDC	3~6 VDC	3~6 VDC	10~36 VDC	10~36 VDC	3~6 VDC
Operating current		Less than 80mA / 100mA	Less than 60mA / 150mA	Less than 60mA / 150mA	Less than 20mA at 24V	Less than 20mA at 24V	Less than 120mA
Laser power output		Less than 1mW / 4mW	Less than 0.39mW / 1mW	Less than 0.39mW / 1mW	Less than 0.39mW / 1mW	Less than 0.39mW / 1mW	0~4.25±0.25mW (adjustable)
Laser class		Class 2 / Class 3R	Class 1 / Class 2	Class 1 / Class 2	Class 1 / Class 2	Class 1 / Class 2	Class 3R
Wavelength		505~530nm	515~530nm	515~530nm	515~530nm	515~530nm	510~530nm
Collimating lens		Plastic lens	Glass lens	Glass lens	Glass lens	Glass lens	Glass lens
Output aperture		4mm	0.6mm	0.6mm	0.6mm	0.6mm	5mm
Beam shape		Ellipse	Circular	Circular	Circular	Circular	Ellipse
Spot size		Adjustment focus	Less than 1mm at 0~50cm Less than 2mm at 50~90cm	Less than 1mm at 0~50cm Less than 2mm at 50~90cm	Less than 1mm at 0~50cm Less than 2mm at 50~90cm	Less than 1mm at 0~50cm Less than 2mm at 50~90cm	Less than 0.2mm at 10mm Less than 8mm at 10M
Divergence (Full Angle)		0.5 mRad	Less than 0.4 mRad	Less than 0.4 mRad	Less than 0.4 mRad	Less than 0.4 mRad	Adjustable 0.4 mRad~12°
Beam alignment		Less than 3°	Less than 3°	Less than 3°	Less than 3°	Less than 3°	
Operating temp. range		+10°C ~+40°C	-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C	-10°C ~ +60°C
Storage temp. range		-20°C ~+65°C	-20°C ~+85°C	-20°C ~+85°C	-20°C ~+85°C	-20°C ~+85°C	-20°C ~ +85°C
Housing material		Brass	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Aluminum
Potential of housing		VDD(+)	Insulated	Insulated	Insulated	Insulated	Insulated
Electrostatic discharge (ESD)		30KV	30KV / Arc protection	30KV / Arc protection	30KV / Arc protection	30KV / Arc protection	30KV
Moisture sensitivity level (MSL)		Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.
Wire type		1007-26AWG / Spring	2464 2-WIRE CABLE 26 AWG	2464 3-WIRE CABLE 26 AWG	2464 2-WIRE CABLE 26 AWG	2464 3-WIRE CABLE 26 AWG	2464 2-WIRE CABLE 26 AWG
Cable length		115±15mm / 6.5±1mm	330±30mm	330±30mm	330±30mm	330±30mm	330±30mm
Mean time to failure (MTTF) 25°C		10000hrs	10000hrs	10000hrs	10000hrs	10000hrs	10000hrs
Application		Focus adjustable	Industrial alignment	Industrial alignment with TTL modulation function	Industrial alignment	Industrial alignment with TTL modulation function	Laboratory or medical research, physical-optic experiments
Suggestion work distance		1~30 meters / 3~100 feet	0~1 meters / 0~3 feet	0~1 meters / 0~3 feet	0~1 meters / 0~3 feet	0~1 meters / 0~3 feet	Above 10mm

CLM-520-01 LPO	CLM-520-11 LPO
	
Ø20 x 60 mm	20 x 20 x 60 mm
3~6 VDC	3~6 VDC
Less than 160mA	Less than 160mA
Less than 0.39mW	Less than 0.39mW
Class 1	Class 1
515~530nm	515~530nm
Glass lens	Glass lens
0.8mm	0.8mm
Circular	Circular
Less than 1.2mm at 1M	Less than 1.2mm at 1M
0.15 mRad	0.15 mRad
Less than 1mm	Less than 1mm
-20°C ~+60°C	-20°C ~+60°C
-40°C ~+85°C	-40°C ~+85°C
Stainless steel	Hard anodized aluminum
Insulated	Insulated
30KV	30KV
Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.
Micro USB (5V)	Micro USB (5V)
10000hrs	10000hrs
Concentricity Laser	Concentricity Laser
0~1 meter / 0~3 feet	0~1 meter / 0~3 feet