

Green Dot Laser Module

Model Number	VLM-520-17 series	VLM-532-42 series	VLM-532-43 series	VLM-520-60 series	VLM-520-61 series (TTL)	VLM-520-62 series
Specifications						
						
Dimensions	Ø13 x 62 mm	Ø10.5 x 46.5 mm	Ø13 x 60 mm	Ø10 x 40 mm	Ø10 x 40 mm	Ø10 x 40 mm
Operating voltage	3~6 VDC	2.7~3.3 VDC	2.7~3.3 VDC	3~6 VDC	3~6 VDC	3~6 VDC
Operating current	Less than 100mA / 150mA	Less than 300mA	Less than 300mA	Less than 60mA / 150mA	Less than 60mA / 150mA	Less than 80mA / 100mA / 150mA
Laser power output	0.7~0.9mW / 2~3mW / 5~6mW	Less than 1mW / 5mW	Less than 1mW / 5mW / 10mW	Less than 0.39mW / 1mW	Less than 0.39mW / 1mW	0.2±0.1mW / 0.8±0.1mW / 3.5±0.5mW
Laser class	Class 2 / Class 3R / Class 3B	Class 2 / Class 3R	Class 2 / Class 3R / Class 3B	Class 1 / Class 2	Class 1 / Class 2	Class 1 / Class 2 / Class 3R
Wavelength	510~530nm	532nm	532nm	515~530nm	515~530nm	515~530nm
Collimating lens	Glass lens	Glass lens	Glass lens	Glass lens	Glass lens	Glass lens
Output aperture	8mm			0.6mm	0.6mm	2mm
Beam shape	Circular	Circular	Circular	Circular	Circular	Circular
Spot size	Less than 9 mm at 40M Less than 22 mm at 100M	6±1 mm at 3M	4 ±1mm at 5M 18 ±2mm at 30M	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 Ø3mm at 0~5M
Divergence (Full Angle)	Less than 0.1 mRad	1 mRad	0.3 mRad	Less than 0.4 mRad	Less than 0.4 mRad	Less than 0.4 mRad
Beam alignment	Less than 3°	Less than 3°	Less than 3°	Less than 3°	Less than 3°	Less than 3°
Operating temp. range	-10°C ~+50°C	+20°C ~+30°C	+15°C ~+35°C	-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C
Storage temp. range	-20°C ~+80°C	-20°C ~+65°C	-40°C ~+70°C	-20°C ~+85°C	-20°C ~+85°C	-20°C ~+85°C
Housing material	Aluminum	Brass	Brass	Stainless steel	Stainless steel	Stainless steel
Potential of housing	Insulated	VDD(+)	VDD(+)	Insulated	Insulated	Insulated
Electrostatic discharge (ESD)	30KV	30KV	30KV	30KV / Arc protection	30KV / Arc protection	30KV / Arc protection
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	1007-26AWG / Spring	1007-26AWG / Spring	2464 2-WIRE CABLE 26 AWG	2464 3-WIRE CABLE 26 AWG	2464 2-WIRE CABLE 26 AWG
Cable length	115±15mm	115±15mm / 7±1mm	115±15mm / 6±1mm	330±30mm	330±30mm	330±30mm
Mean time to failure (MTTF) 25°C	10000hrs	3000hrs	3000hrs	10000hrs	10000hrs	10000hrs
Application	Long range application	DPPS laser	DPPS laser	Industrial alignment	Industrial alignment with TTL modulation function	Industrial alignment
Suggestion work distance	10~500 meters / 40~2000 feet	1~30 meters / 3~100 feet	1~30 meters / 3~100 feet	0~1 meters / 0~3 feet	0~1 meters / 0~3 feet	0~5 meters / 0~16 feet

VLM-520-62T series (TTL)	VLM-520-70 series	VLM-520-71 series (TTL)	VLM-520-72 series	VLM-520-72T series (TTL)	CLM-520-01 LPO	CLM-520-02 LPT
						
Ø10 x 40 mm	M12 x 68 mm	M12 x 68 mm	M12 x 68 mm	M12 x 68 mm	Ø20 x 60 mm	Ø20 x 60 mm
3~6 VDC	10~36 VDC	10~36 VDC	10~36 VDC	10~36 VDC	3~6 VDC	3~6 VDC
Less than 80mA / 100mA / 150mA	Less than 20mA at 24V	Less than 20mA at 24V	Less than 30mA at 24V	Less than 30mA at 24V	Less than 160mA	Less than 160mA
0.2±0.1mW / 0.8±0.1mW / 3.5±0.5mW	Less than 0.39mW / 1mW	Less than 0.39mW / 1mW	0.2±0.1mW / 0.8±0.1mW / 3.5±0.5mW	0.2±0.1mW / 0.8±0.1mW / 3.5±0.5mW	Less than 0.39mW	Less than 1mW
Class 1 / Class 2 / Class 3R	Class 1 / Class 2	Class 1 / Class 2	Class 1 / Class 2 / Class 3R	Class 1 / Class 2 / Class 3R	Class 1	Class 2
515~530nm	515~530nm	515~530nm	515~530nm	515~530nm	515~530nm	515~530nm
Glass lens	Glass lens	Glass lens	Glass lens	Glass lens	Glass lens	Glass lens
2mm	0.6mm	0.6mm	2mm	2mm	0.8mm	3mm
Circular	Circular	Circular	Circular	Circular	Circular	Circular
Less than Ø3mm at 0~5M	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 Ø3mm at 0~5M	Less than Ø3mm at 0~5M	Less than 1.2mm at 1M	Less than 9mm at 20M
Less than 0.4 mRad	Less than 0.4 mRad	Less than 0.4 mRad	Less than 0.4 mRad	Less than 0.4 mRad	0.15 mRad	0.15 mRad
Less than 3°	Less than 3°	Less than 3°	Less than 3°	Less than 3°	Less than 1mm	Less than 1mm
-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C
-20°C ~+85°C	-20°C ~+85°C	-20°C ~+85°C	-20°C ~+85°C	-20°C ~+85°C	-40°C ~+85°C	-40°C ~+85°C
Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Insulated	Insulated	Insulated	Insulated	Insulated	Insulated	Insulated
30KV / Arc protection	30KV / Arc protection	30KV / Arc protection	30KV / Arc protection	30KV / Arc protection	30KV	30KV
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.	Level 1 - acc to JEDEC J-STD-020E.
2464 3-WIRE CABLE 26 AWG	2464 2-WIRE CABLE 26 AWG	2464 3-WIRE CABLE 26 AWG	2464 2-WIRE CABLE 26 AWG	2464 3-WIRE CABLE 26 AWG	Micro USB (5V)	Micro USB (5V)
330±30mm	330±30mm	330±30mm	330±30mm	330±30mm		
10000hrs	10000hrs	10000hrs	10000hrs	10000hrs	10000hrs	10000hrs
Industrial alignment with TTL modulation function	Industrial alignment	Industrial alignment with TTL modulation function	Industrial alignment	Industrial alignment with TTL modulation function	Concentricity Laser	Concentricity Laser
0~5 meters / 0~16 feet	0~1 meters / 0~3 feet	0~1 meters / 0~3 feet	0~5 meters / 0~16 feet	0~5 meters / 0~16 feet	0~1 meter / 0~3 feet	1~30 meters / 3~100 feet

CLM-520-11 LPO	CLM-520-12 LPT
	
20 x 20 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 1mW
Class 1	Class 2
515~530nm	515~530nm
Glass lens	Glass lens
0.8mm	3mm
Circular	Circular
Less than 1.2mm at 1M	Less than 9mm at 20M
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
Hard anodized aluminum	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	1~30 meters / 3~100 feet