

Green Dot Laser Module

Green Dot Laser Module						
Specifications	Model Number	VLM-520-00	VLM-520-01 series	VLM-520-02 series	VLM-520-03 LPT	VLM-520-04 series
						
Dimensions		Ø10.52 x 17.2 mm	Ø10.4 x 18.4 mm	Ø10.5 x 26 mm	Ø7 x 21 mm	Ø6.55 x 28.6 mm
Operating voltage		6.5~7.5 VDC	7~10 VDC	7~10 VDC	7~10 VDC	3~6 VDC
Operating current		Less than 105mA	Less than 80mA / 100mA	Less than 80mA / 100mA	Less than 80mA	Less than 150mA
Laser power output		Optical power less than 10mW	Less than 1mW / 4mW	Less than 1mW / 4mW	Less than 1mW	Less than 1mW
Laser class			Class II / Class IIIa	Class II / Class IIIa	Class II	Class II
Wavelength		505~530nm	505~530nm	505~530nm	505~530nm	505~530nm
Collimating lens		Plastic lens	Plastic lens	Plastic lens	Plastic lens	Plastic lens
Output aperture		5mm	5mm	4mm	3mm	3mm
Beam shape		Ellipse	Ellipse	Ellipse	Ellipse	Ellipse
Spot size			Less than 4.5mm at 3M	Adjustment focus	Less than 4mm at 5M	Less than 4mm at 5M
Divergence (Half Angle)		0.5 mRad	0.5 mRad	0.5 mRad	0.6 mRad	0.6 mRad
Beam alignment			Less than 3°	Less than 3°	Less than 3°	Less than 3°
Operating temp. range		+10°C ~+40°C	+10°C ~+40°C	+10°C ~+40°C	+15°C ~+30°C	+10°C ~+40°C
Storage temp. range		-20°C ~+65°C	-20°C ~+65°C	-20°C ~+65°C	-20°C ~+65°C	-20°C ~+65°C
Housing material		Brass	Brass	Brass	Stainless steel	Zinc alloy
Potential of housing		VDD(+)	VDD(+)	VDD(+)	VDD(+)	VDD(+)
Electrostatic discharge (ESD)			30KV	30KV	20KV	20KV
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.
Wire type		3*PIN from LD	1007-26AWG	1007-26AWG / Spring	1007-26AWG	1007-26AWG / Spring
Cable length			115±15mm	115±15mm / 6.5±1mm	115±15mm	115±15mm / 4±1mm
Mean time to failure (MTTF) 25°C		10000hrs	10000hrs	10000hrs	5000hrs	5000hrs
Application		Lab, without laser driver	General purpose	Focus adjustable	Economic type	Economic type
Suggestion work distance			1~30 meters / 3~100 feet	1~30 meters / 3~100 feet	1~10 meters / 3~40 feet	1~10 meters / 3~40 feet

VLM-520-17 series	VLM-532-42 series	VLM-532-43 series	VLM-520-51 series	VLM-520-52 series	VLM-520-53 series	VLM-520-60 series
						
Ø13 x 62 mm	Ø10.5 x 46.5 mm	Ø13 x 60 mm	Ø8 x 30 mm	Ø8.5 x 30.5 mm	Ø10.5 x 31 mm	Ø10 x 40 mm
3~6 VDC	2.7~3.3 VDC	2.7~3.3 VDC	3~6 VDC	3~6 VDC	3~6 VDC	3~6 VDC
Less than 100mA / 150mA	Less than 300mA	Less than 300mA	Less than 150mA	Less than 150mA / 280mA	Less than 150mA	Less than 60mA / 150mA
0.7~0.9mW / 2~3mW / 5~6mW	Less than 1mW / 5mW	Less than 1mW / 5mW / 10mW	Less than 1mW / 4mW	Less than 1mW / 4mW / 15mW	Less than 1mW / 4mW	Less than 0.39mW / 1mW
Class II / Class IIIa / Class IIIb	Class II / Class IIIa	Class II / Class IIIa / Class IIIb	Class II / Class IIIa	Class II / Class IIIa / Class IIIb	Class II / Class IIIa	Class I / Class II
510~530nm	532nm	532nm	505~530nm	505~530nm	505~530nm	515~530nm
Glass lens	Glass lens	Glass lens	Glass lens	Glass lens	Glass lens	Glass lens
8mm			5mm	5mm	5mm	0.6mm
Circular	Circular	Circular	Ellipse	Ellipse	Ellipse	Circular
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	5±1 mm at 10M	5±1 mm at 10M	5±1 mm at 10M	Less than 1mm at 0~50cm Less than 2mm at 50~90cm
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	Less than 0.4 mRad
Less than 3°	Less than 3°	Less than 3°	Less than 3°	Less than 3°	Less than 3°	Less than 3°
-10°C ~+50°C	+20°C ~+30°C	+15°C ~+35°C	-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C
-20°C ~+80°C	-20°C ~+65°C	-40°C ~+70°C	-20°C ~+85°C	-20°C ~+85°C	-20°C ~+85°C	-20°C ~+85°C
Aluminum	Brass	Brass	Aluminum	Stainless steel	Bronze	Stainless steel
Insulated	VDD(+)	VDD(+)	Insulated	Insulated	VDD(+)	Insulated
30KV	30KV	30KV	30KV	30KV	30KV	30KV / Arc protection
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.
1007-26AWG	1007-26AWG / Spring	1007-26AWG / Spring	1007-26AWG	1007-26AWG	1007-26AWG / Spring	2464 2-WIRE CABLE 26 AWG
115±15mm	115±15mm / 7±1mm	115±15mm / 6±1mm	115±15mm	115±15mm	115±10mm / 6.5±1mm	330±30mm
10000hrs	3000hrs	3000hrs	10000hrs	10000hrs	10000hrs	10000hrs
Long range application	DPPS laser	DPPS laser	Industrial application	Industrial application	Industrial application	Industrial alignment
10~500 meters / 40~2000 feet	1~30 meters / 3~100 feet	1~30 meters / 3~100 feet	1~30 meters / 3~100 feet	1~30 meters / 3~100 feet	1~30 meters / 3~100 feet	0~0.9 meters / 0~3 feet

VLM-520-73 series	VLM-520-74 series	VLM-520-91 LPB	CLM-520-01 LPO	CLM-520-02 LPT	CLM-520-11 LPO	CLM-520-12 LPT
						
Ø7 x 26.1 mm	Ø6.5 x 26 mm	Ø16 x 25 mm	Ø20 x 60 mm	Ø20 x 60 mm	20 x 20 x 60 mm	20 x 20 x 60 mm
3~6 VDC	3~6 VDC	4~6 VDC	3~6 VDC	3~6 VDC	3~6 VDC	3~6 VDC
Less than 150mA / 200mA	Less than 150mA / 200mA	Less than 500mA	Less than 160mA	Less than 160mA	Less than 160mA	Less than 160mA
Less than 1mW / 4mW	Less than 1mW / 4mW	100mW	Less than 0.39mW	Less than 1mW	Less than 0.39mW	Less than 1mW
Class II / Class IIIa	Class II / Class IIIa	Class IIIb	Class I	Class II	Class I	Class II
505~530nm	505~530nm	520nm	515~530nm	515~530nm	515~530nm	515~530nm
Glass lens	Glass lens	Glass lens	Glass lens	Glass lens	Glass lens	Glass lens
4.3mm	4.3mm	2.5mm	0.8mm	3mm	0.8mm	3mm
Ellipse	Ellipse	Ellipse	Circular	Circular	Circular	Circular
Less than 7mm at 10M	Less than 7mm at 10M	Less than 15mm at 10M	Less than 1.2mm at 1M	Less than 9mm at 20M	Less than 1.2mm at 1M	Less than 9mm at 20M
Less than 0.6 mRad	Less than 0.6 mRad		0.15 mRad	0.15 mRad	0.15 mRad	0.15 mRad
Less than 3°	Less than 3°	Less than 3°	Less than 1mm	Less than 1mm	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
-40°C ~+85°C	-40°C ~+85°C	-20°C ~+85°C	-40°C ~+85°C	-40°C ~+85°C	-40°C ~+85°C	-40°C ~+85°C
Stainless steel	Bronze	Bronze	Stainless steel	Stainless steel	Hard anodized aluminum	Hard anodized aluminum
VDD(+)	VDD(+)	VDD(+)	Insulated	Insulated	Insulated	Insulated
30KV	30KV	30KV	30KV	30KV	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.
1007-26AWG	1007-26AWG	1007-26AWG	Micro USB (5V)	Micro USB (5V)	Micro USB (5V)	Micro USB (5V)
115±15mm	115±15mm	115±15mm				
10000hrs	10000hrs	10000hrs	10000hrs	10000hrs	10000hrs	10000hrs
Economic industrial application	Economic industrial application	High power	Concentricity Laser	Concentricity Laser	Concentricity Laser	Concentricity Laser
1~30 meters / 3~100 feet	1~30 meters / 3~100 feet	1~30 meters / 3~100 feet	0~1 meter / 0~3 feet	1~30 meters / 3~100 feet	0~1 meter / 0~3 feet	1~30 meters / 3~100 feet