



## Red Line Laser Module

Specifications	Model Number	VLM-635-27 series VLM-650-27 series	VLM-650-28 LPT	VLM-650-30 series	VLM-635-37 series VLM-650-37 series	VLM-650-41 series	VLM-635-55 series
							
Dimensions		Ø12.5 x 30 mm	Ø9 x 26 mm	Ø10 x 27.1 mm	(W)14 x (H)14 x (L)26 mm	Ø10 x 26 mm	Ø10 x 38 mm
Operating voltage		2.6~6 VDC	2.6~6 VDC	3~6 VDC	2.6~6 VDC	3~6 VDC	3~6 VDC
Operating current		Less than 50mA / 55mA Less than 35mA / 100mA	Less than 35mA	Less than 40mA / 60mA	Less than 50mA Less than 35mA / 100mA		Less than 80mA / 100mA
Optical power		Less than 2mW / 4~5mW Less than 2mW / 12~15mW	Less than 2mW	Less than 5mW / 20mW	4~5mW / 12~15mW	Less than 2.5mW / 20mW	4~5mW / 9~10mW
Laser power output		Less than 0.39mW / 1mW	Less than 0.39mW	Less than 0.39mW / 1mW	Less than 0.39mW / 1mW	Less than 0.39mW / 1mW	Less than 0.39mW / 1mW
Laser class		Class 1M / Class 2M	Class 1M	Class 1M / Class 2M	Class 1M / Class 2M	Class 1M / Class 2M	Class 1M / Class 2M
Wavelength		630~645nm / 645~665nm	645~665nm	645~665nm	630~645nm / 645~665nm	635~665nm	630~645nm
Collimating lens		Plastic lens	Plastic lens	Plastic lens	Glass lens	Plastic lens	Glass lens
Line lens		Plastic lens	Plastic lens	Glass lens	Glass lens	Plastic lens	Glass lens
Beam shape		Line	Line	Line	Line	Line	Line
Laser Line width		3 ±0.5mm at 5M 6 ±0.5mm at 10M	1.2mm at 1M	Less than 1.2mm at 40CM	2±1mm at 5M 4±1mm at 10M	Less than 1.2mm at 40CM	3±0.5mm at 5M 6±0.5mm at 10M
Laser line accuracy		40" (±1mm @5M)	1/100	4/1000(<1.6mm @400mm)	20" (± 1mm @10m)	1/100	40"(±1mm@5M)
Emitting angle		More than 90°	More than 60°	60° / 90°	More than 120°	60° / 90°	60°
Operating temp. range		+10°C ~+40°C	+15°C ~+30°C	+15°C ~+40°C	-20°C ~ +50°C	+15°C ~+40°C	-20°C ~+65°C
Storage temp. range		-20°C ~+65°C	-20°C ~+65°C	-20°C ~+65°C	-40°C ~ +70°C	-20°C ~+65°C	-20°C ~+85°C
Housing material		Brass	Brass	Aluminum	Aluminum	Aluminum	Aluminum
Potential of housing		VDD(+)	VDD(+)	Insulated	Insulated	Insulated	Insulated
Electrostatic discharge (ESD)		30KV	30KV	30KV	30KV	30KV	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	1007-26AWG	1007-26AWG	1007-26AWG	1007-26AWG	2464 2-WIRE CABLE 26 AWG
Cable length		115±15mm	115±15mm	250±10mm	115±15mm	115±15mm	330±30mm
Mean time to failure (MTTF) 25°C		10000hrs	10000hrs	10000hrs	10000hrs	5000hrs	10000hrs
Application		General industrial alignment	Economic 3D scanner	Precision 3D scanner	Precision industrial alignment	Precision 3D scanner	Precision industrial alignment
Suggestion work distance		Above 2 meters	0.3~1.8 meters / 1~6 feet	20~60 cm / 8"~24"	1~20 meters / 3~60 feet	20~60 cm / 8"~24"	1~20 meters / 3~60 feet

VLM-635-56 series		VLM-635-57 series (TTL)	
			
Ø10 x 40 mm		Ø10 x 40 mm	
3~6 VDC		3~6 VDC	
Less than 50mA / 100mA		Less than 50mA / 100mA	
Less than 5mW / 10mW		Less than 5mW / 10mW	
Less than 0.39mW / 1mW		Less than 0.39mW / 1mW	
Class 1M / Class 2M		Class 1M / Class 2M	
630~645nm		630~645nm	
Glass lens		Glass lens	
Glass lens		Glass lens	
Line		Line	
Less than 1mm		Less than 1mm	
40°(±1mm@5M)		40°(±1mm@5M)	
5°, 10°, 15°, 20°, 30°, 45°, 60°, 110°		5°, 10°, 15°, 20°, 30°, 45°, 60°, 110°	
-20°C ~+60°C		-20°C ~+60°C	
-20°C ~+85°C		-20°C ~+85°C	
Stainless steel		Stainless steel	
Insulated		Insulated	
30KV		30KV	
Level 1 - acc to JEDEC J-STD-020E.		Level 1 - acc to JEDEC J-STD-020E.	
2464 2-WIRE CABLE 26 AWG		2464 2-WIRE CABLE 26 AWG	
330±30mm		330±30mm	
10000hrs		10000hrs	
Precision fine line for Automation, Machine vision and Medical		Precision fine line for Automation, Machine vision and Medical with modulation function	
0~1.2 meters / 0~4 feet		0~1.2 meters / 0~4 feet	