

IR Dot&Line Laser Module

Specifications	Model Number	VLM-780-01 series VLM-850-01 series	VLM-780-03 series VLM-850-03 series	VLM-780-04 sreies	VLM-850-81 Series	VLM-850-82 Series	VLM-850-83 Series
							
Dimensions		Ø10.5 x 19 mm	Ø7 x 21 mm	Ø6.55 x 21.1 mm	Ø16 x 17.5 mm	Ø16 x 29 mm	Ø22 x 27 mm
Operating voltage		2.6~6 VDC	2.6~6 VDC	2.6~6 VDC	4~6 VDC	9~36 VDC	4~6 VDC
Operating current		Less than 40mA	Less than 40mA / 30mA	Less than 40mA	Less than 300mA	Less than 600mA	Less than 600mA
Laser power output		Less than 0.7mW / Less than 3mW	Less than 0.7mW / Less than 3mW	Less than 0.7mW / Less than 3mW			
Laser class		Class I / Class IIIb	Class I / Class IIIb	Class I / Class IIIb	Class I, Eye Safe	Class I, Eye Safe	Class I, Eye Safe
Wavelength		770~795nm / 840~865nm	770~795nm / 840~865nm	770~795nm	850nm	850nm	850nm
Collimating lens		Plastic lens	Plastic lens	Plastic lens	Glass lens	Glass lens	Glass lens
Output aperture		7mm	5mm	5mm	5mm	5mm	12.6mm
Beam shape		Ellipse	Ellipse	Ellipse	Round	Round	Round
Spot size		5±1mm at 5M	6±1mm at 5M	6±1mm at 5M	15°: 2.4M at 10M 30°: 4M at 10M	15°: 2.4M at 10M 30°: 4M at 10M	Less than 2M at 10M
Divergence (Half Angle)		0.5 mRad	0.6 mRad	0.6 mRad	15° / 30°	15° / 30°	6°
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 ~+40°C	+15°C ~+30°C	+15°C ~+30°C	-10°C ~+50°C	-10°C ~+50°C	-10°C ~+50°C
Storage temp. range		-20°C ~+65°C	-20°C ~+65°C	-20°C ~+65°C	-20°C ~+65°C	-20°C ~+65°C	-20°C ~+65°C
Housing material		Brass	Steel	Zinc alloy	Bronze	Bronze	Bronze
Potential of housing		VDD(+)	VDD(+)	VDD(+)	VDD(+)	VDD(+)	VDD(+)
Electrostatic discharge (ESD)		30KV	20KV	20KV	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 / Spring	1007-26AWG	1007-26AWG / Spring	1007-26AWG	1007-26AWG	1007-26AWG
Cable length		115±15mm / 8±1mm	115±15mm	115±15mm / 4±1mm	115±15mm	115±15mm	115±15mm
Mean time to failure (MTTF) 25°C		5000hrs	5000hrs	5000hrs	10000hrs	10000hrs	10000hrs
Application		General purpose	Economic type	Economic type	IR high power illumination	IR high power illumination	IR high power illumination
Suggestion work distance		1~30 meters / 3~100 feet	1~10 meters / 3~40 feet	1~10 meters / 3~40 feet	10~100 meters / 40~300 feet	10~100 meters / 40~300 feet	50~200 meters / 150~600 feet