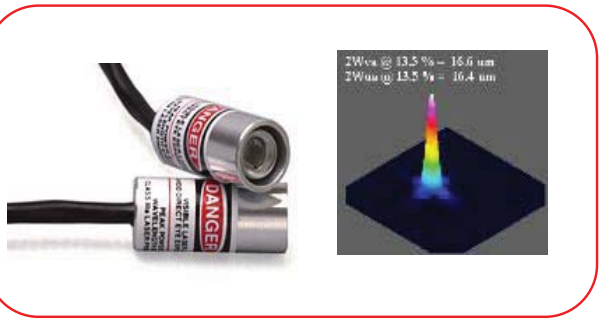
LDM-4 Standard Module



Features

- Compact size (11mm dia. x 25mm long)
- Slow start, reverse polarity and over voltage protection
- Small focal spots down to 10 microns
- Available with range of line generators both Gaussian and Uniform Intensity
- Cost effective

Available Wavelengths & Powers	**Wavelength (nm)**	**Power (mW)**
	635nm	0.5 - 25mW
	650nm	0.5 - 40mW
	670nm	0.5 - 8mW
	780nm	1 - 50mW
	808nm	1 – 400mW (requires external driver)
	830nm	5 - 40mW
	840nm	0.5 - 8mW
	850nm	0.5 – 8mW
	905nm	10 – 25mW
Beam Size at output	Apertured	3mm x 2mm
	Non-aperture – Glass	6mm x 2mm
	Non-apertured - Plastic	5mm x 2mm
Typical Achievable focal spot sizes (1/e2) (spot circularity of measurements (0.95 typical))	**Focus Distance (mm)**	**Spot Size (um) Apertured / Non-apertured**
	25	15 / 18
	50	27 / 34
	75	42 / 58
	150	85 / 115
	200	117 / 135
Typical Achievable Line Thicknesses (1/e2) (when used with one of our line generators)	**Focus Distance (mm)**	**Line Thickness (um)**
	25	12
	50	25
	75	40
	150	80
	200	110
Beam Divergence	0.75 mrad	
Mechanical / Optical Alignment	Standard Fixed Focus	< +/- 10mm @ 3m
	Special Fixed Focus	< +/- 5mm @ 3m

This product is registered with the FDA in accordance with 21 CFR 1040.10(a)(3)(I) and is compliant with European, and Australia/New Zealand laser safety standards 73/23/EEC - 98/37/EG, 89/336/EEC, EN 50081-1, EN-31252, EN-31252, EN 55022, EN 60825-1 and AS/NZS 2211:1997. The complete laser product manufacturer must supply adequate instructions for installation and servicing of this product. This is not a removable laser system. This product is designed solely as a component in an electronic product and therefore does not comply with the requirements of 21 CFR 1040.10 and 1040.11 for complete laser products. Avoid direct eye exposure to the beam.

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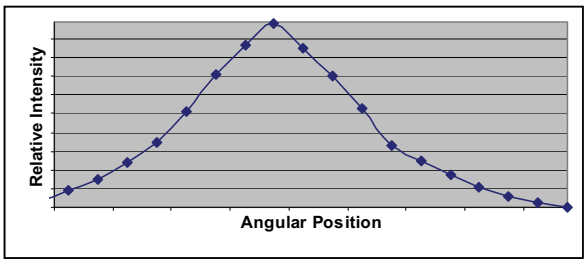
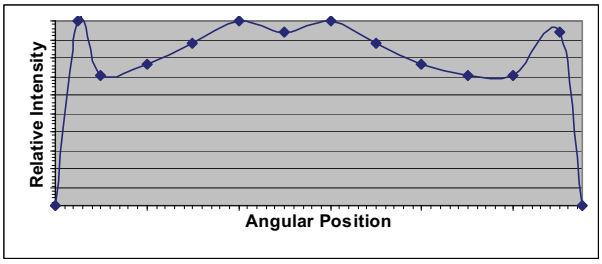
Physical Dimensions	11mm diameter x 25.4mm	
Operating Voltage	3 – 6 VDC	
Typical Operating Current	**Laser Power (mW)**	**Current (mA)**
	1-4	<45
	5-8	<80
	15-50	<120mA
Power Stability (25deg C)	2hr, <1%	
Beam Pointing Stability	<50urad	
Spectral Linewidth	<0.5nm typical	
External TTL Modulation	**Standard LDM-4**	**With Pulsing Option**
	1kHz	500kHz

Gaussian Line Generator Profile 60 degrees



Uniform Intensity Line Generator Profile 60 degrees



Standard Gaussian Line Generator Options

Part Number	Line Generator Fan Angle
L5	5 degrees
L8	8 degrees
L15	15 degrees
L40	40 degrees
L45	45 degrees
L60	60 degrees
L70	70 degrees
L90	90 degrees

Standard Uniform Intensity Line Generators

Part Number	Line Generator Fan Angle
UL60	60 degrees
UL90	90 degrees

Determining Laser Specifications from part number

LDM - ■ - ■■■ - ■ - ■■■ - ■■■■ - ■■

MODULE	WAVELENGTH	POWER	LENS	FOCUS	OPTIC
1 = Micro	635 = 635nm	1 = 1mW	P = Plastic	F100 = 100mm	L5 = Line 5°
2 = X-Y Adjustable	650 = 650nm	3 = 3mW	G = Glass	F350 = 350mm	L10 = Line 10°
3 = Sealed	..	..	..	..	..
4 = Standard	..	..	..	..	..
5 = Low Divergence	980 = 980nm	50 = 50mW	GA = Glass Aperatured	none = Collimated	CH = Cross Hair