



nLIGHT's DPSS 1064nm Microlaser M4 is designed with integrated output optics, thermal control and a complete electronics package for a wide range of applications. Pumped with nLIGHT's patented nXLT diodes, the Microlaser M4 offers exceptional beam quality and high pulse energy from a compact package.

The Microlaser M4 is engineered for easy integration and maintenance free operation that helps lower the cost and improve the reliability of your product.

The passively Q-switched Microlaser M4 is a proven product with years of field data.

Features

- Patented nXLT™ diode protection for extended life
- Integrated output optics
- Easy integration
- Excellent beam quality
- Compact package

Applications

- Diamond Planning
- Marking
- Biophotonics
- Lidar
- Remote sensing
- Instrumentation

Proven Performance

sales@nlight.net • www.nlight.net

Typical Laser Performance

Optical	Unit	Lower Spec	Typical	Upper Spec
Wavelength	nm		1064	
Beam quality	M ²	1	1.3	1.7
Waist diameter	um	220	300	360
Waist location ²	mm		22	
Divergence (Full angle)	mrاد	5.5	6.5	7.5
Beam location (From nominal)	mm		1	
Mode of operation		Pulsed		
Polarization		Random		
Output power ¹	mW	200	1000	1200
Pulse Repetition Frequency(PRF)	kHz	3	13.5	17
Pulse width	ns	14	18	22
Pulse energy	μJ	50	75	95
Peak power ³ at 1000mW	KW	3.5		5
Peak power at 450mW	KW	2.5		3.5
Power stability, 8hr	%		5	
Electrical				
Input voltage	VAC	100	220	240
Control interface		CAN serial communication, Digital control D-Sub		
Environment & Mechanical				
Laser head cooling type	-		Air cooled	
Operating temperature range	°C	35		45
Storage temperature range ⁴	°C	-20		70
Operating humidity range	%RH	20		80
Weight (head/driver)	g	370 / 2750		
Dimensions (head/driver)	mm	153 x 50 x 34.5 / 220 x 146 x 96		

¹ The output power can be varied via software

² Inside laser housing. Measured from output face.

³ Calculated by Peak power = Average power / (PRF x Pulse width)

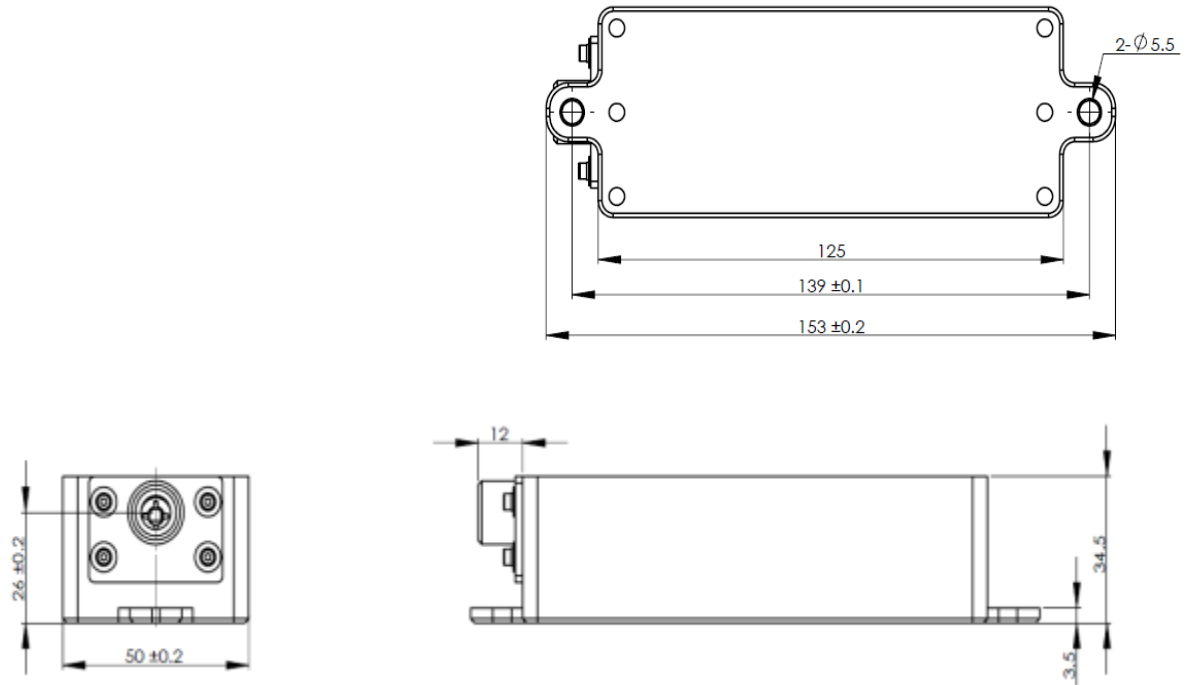
⁴ Non condensing environment

All typical values specified at 1000mW.

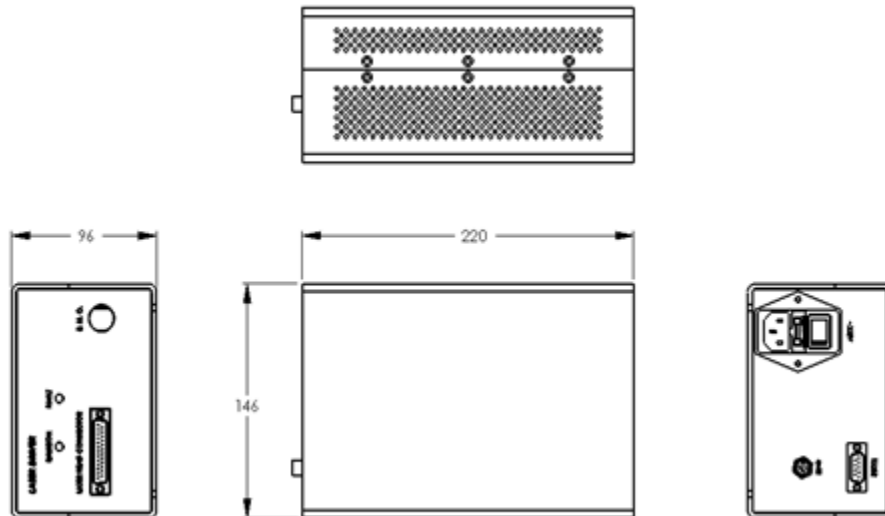


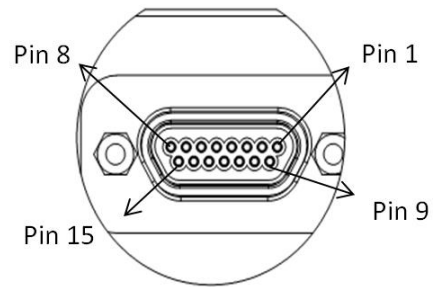
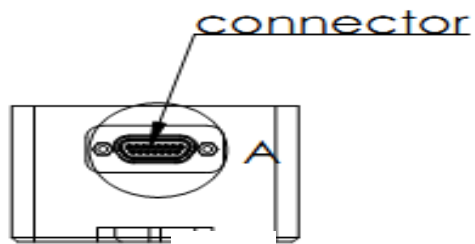
The M4 Microlaser is not certified in accordance with IEC 60825-1 or 21CFR1040.10/21CFR1040.11 and is solely intended to be integrated into a laser product certified by the Purchaser. The Purchaser acknowledges that their product must comply with the applicable regulations or standards before it can be sold to an end user.

Package Dimensions



Note: OEM versions can have output optics per customer requirement





Pin Definition

Pin1	TEC-
Pin2	
Pin3	
Pin4	Thermistor
Pin5	Thermistor
Pin6	LD+
Pin7	
Pin8	
Pin9	TEC+
Pin10	
Pin11	
Pin12	
Pin13	LD-
Pin14	
Pin15	