M30 Microlaser + Driver

nLIGHT's DPSS 1064nm Microlaser M30 + Driver is optimized for a wide range of material processing applications providing a high-performance, low-cost laser solution to system integrators. Pumped by nLIGHT's patented Pearl™ high-brightness diodes, the Microlaser M30 + Driver delivers industry-leading peak power and excellent beam quality in a compact package.

The Microlaser M30 + Driver has been specifically designed for low-cost compact laser marking systems to enable easy integration and maintenance-free operation.

The passively Q-switched Microlaser M30 + Driver is designed for long-term, reliable performance within the rigors of industrial settings.

Features

- High peak power
- Compact package
- Easy integration
- High efficiency allows air cooling

Applications

- Marking
- Engraving
- Coding

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Typical Device Performance

Optical[1]	Units	Lower Spec	Typical	Upper Spec
Wavelength	nm		1064	
M^2	x DL	1.0	1.2	2.3
Waist diameter (d4σ)	µm		170	
Waist location[2]	mm		20	
Divergence (d4σ full-angle)	mrad		9.7	
Beam location (from nominal)	mm			1
Mode of operation		Pulsed		
Polarization		Random		
Average power	W			5.5
Peak power[3]	kW	17	30	
Power stability, 8 hr	%			10
Pulse width (FWHM)	ns		5	
Pulse Repetition Frequency (PRF)[4]	kHz	25	30	40
Timing jitter	µs		<10	
Laser fire delay[5]	µs		110	
Electrical		**Lower Spec**	**Typical**	**Upper Spec**
Input voltage	V	22	24	26
Input current	A		3.2	5
Electrical input connection	M3 screw terminals: 16 AWG wire (recommended)			
Control interface	CAN serial communication, Digital control D-Sub			
Environmental & Mechanical				
Operating temperature (Microlaser base)[6]	°C	+10	+25	+40
Storage temperature[6]	°C	-20		+60
Fiber length	m		3	
Weight (head / driver)	g	181 / 2000		
Dimensions (head / driver)	mm	128 x 35 x 24 / 178 x 120 x 120		

[1] All parameters at 5.5W and 25°C
[2] Inside laser housing, measured from the output face
[3] Calculated by Peak Power = 0.94 × (Average Power)/(PRF × Pulse Width)
[4] At 25°C; PRF typically varies linearly with temperature at a rate of -0.23 kHz/°C
[5] Pearl operating at current level for 5.5W QCW output, 50% duty cycle, 100 Hz
[6] Non-condensing environment

IEC Regulation

This product 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.

Notice

nLIGHT continually improves its products to provide customers with outstanding quality and reliability, therefore may change certain specifications and product descriptions at any time, without notice. Additionally, nLIGHT offers a limited warranty to ensure customer satisfaction.

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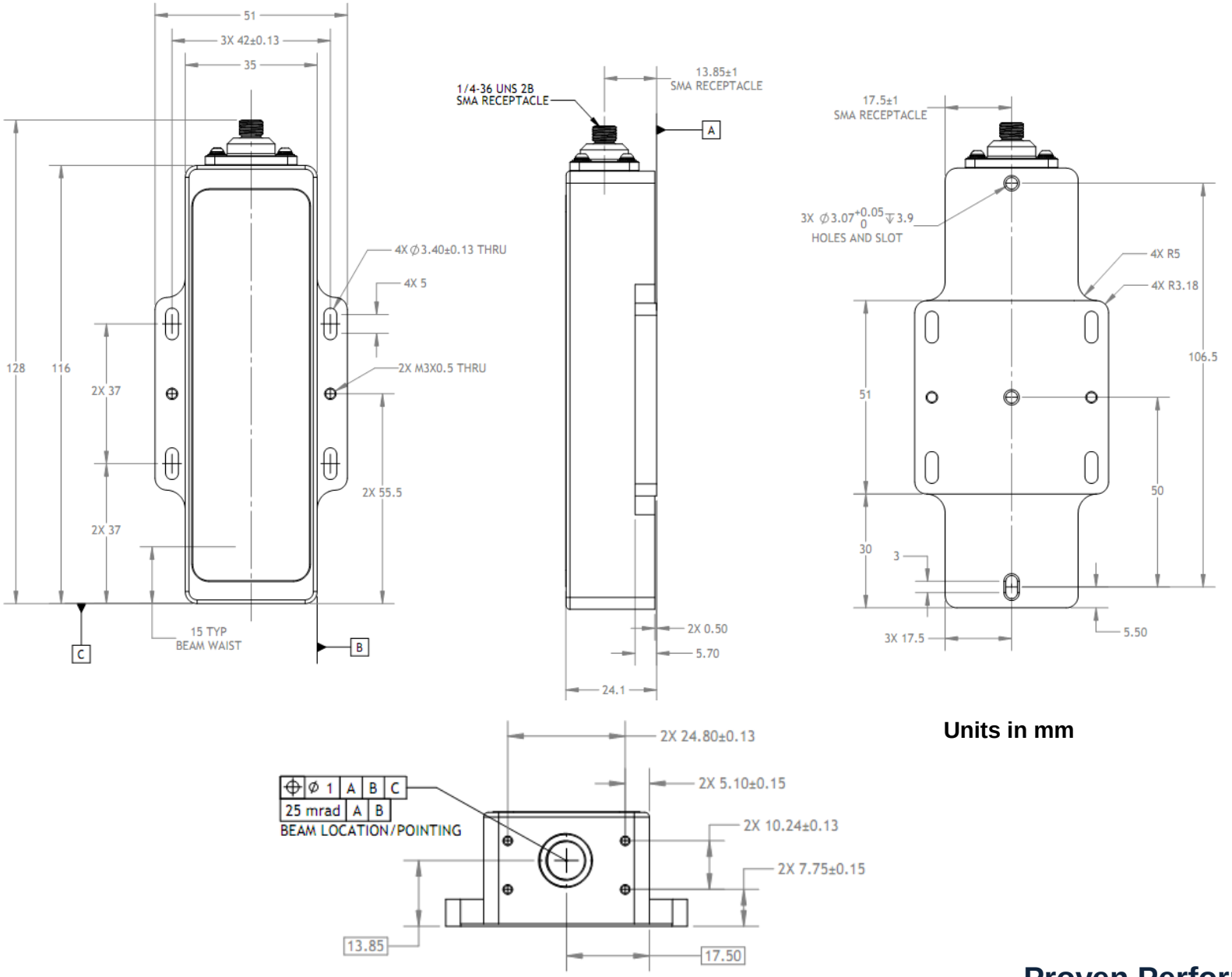

Units in mm

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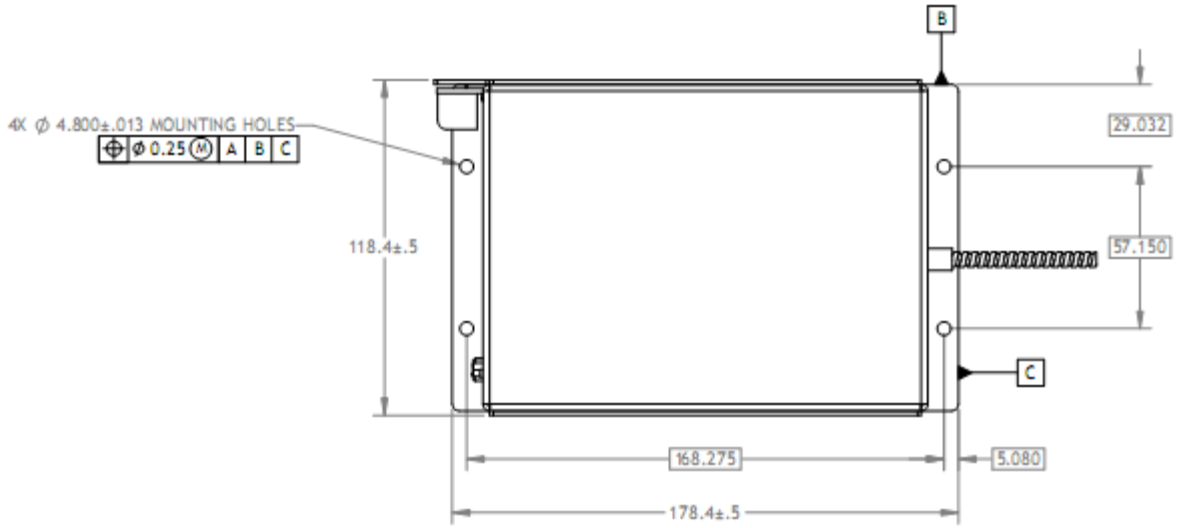
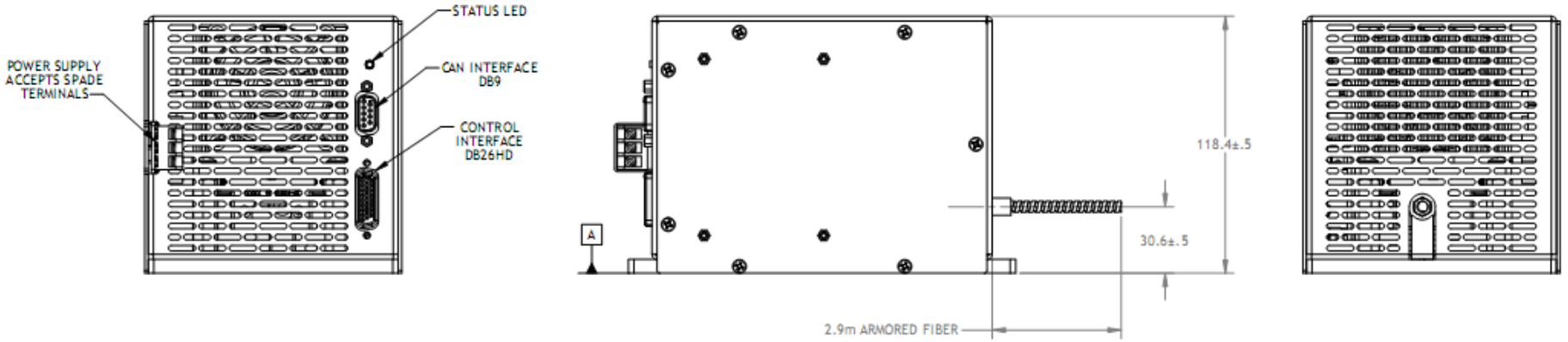


Units in mm



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