nanoPFL™ | IR

nanoPFL™ IR provides a robust solution for materials processing and photovoltaic applications. Designed to meet the highest standards of reliability and durability, the air-cooled system outputs a near diffraction limited beam at 1064nm.

The PFL™ platform integrates nLIGHT's industry-leading technologies to deliver a high-performance pulsed fiber laser solution:

- Powered by Pearl™ single-emitter diode laser modules, which set the standard of excellence in high-performance, high-reliability diode lasers
- Leveraging Liekki™ fiber with proprietary Direct Nano-particle Deposition (DND) technology that provides high efficiency and minimizes photodarkening

nLIGHT's nanoPFL™ provides plug and play integration with maintenance-free operation.

Features

- High peak power: 200kW
- Short pulse width: <1.2ns
- *Powered by Pearl*™ SE diode laser engine
- Liekki™ DND fiber technology
- Simple, plug and play integration
- Air-cooled

Applications

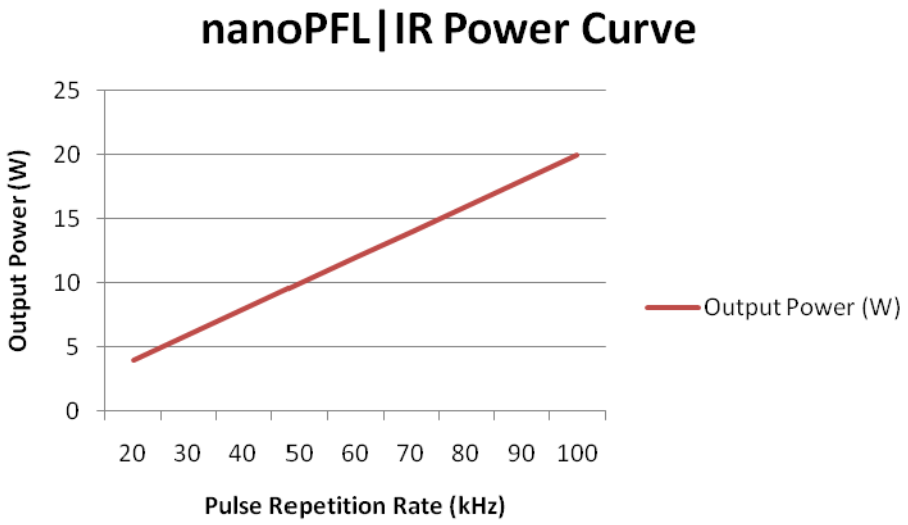
- PV scribing
- PV edge deletion
- Marking and engraving
- Trimming
- Micro-machining
- Precision drilling

Typical Device Performance

Proven Performance

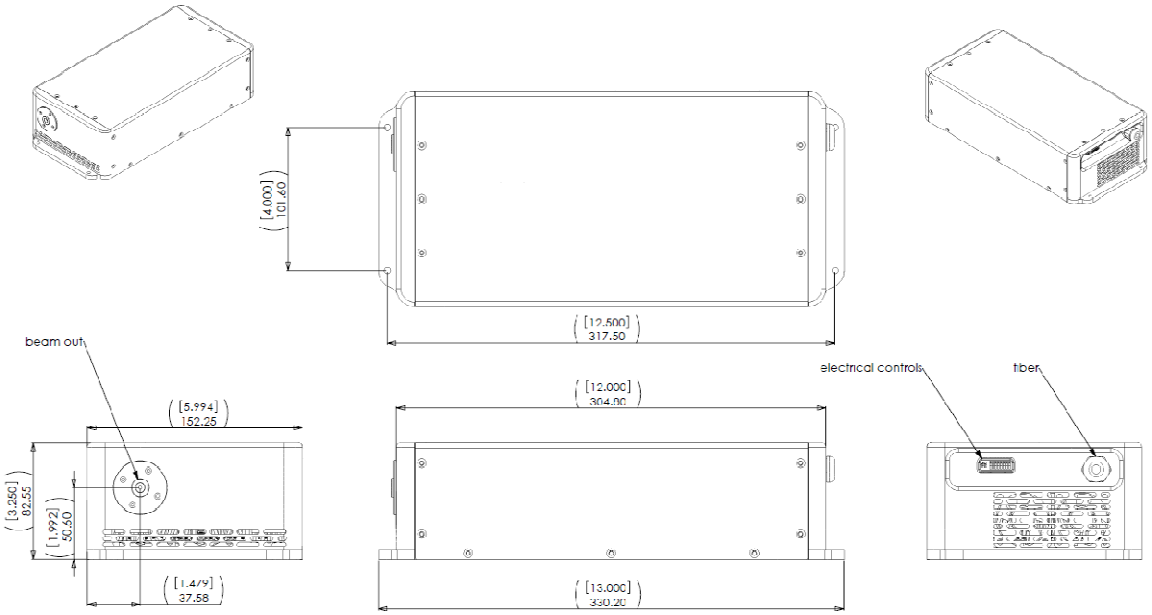
Optical		NL-NPFL-10-1064	NL-NPFL-20-
Mode of operation		Pulsed	
Polarization		Linear / Horizontal	
Wavelength	nm	1064	
Nominal average power	W	10	20
Pulse width	ns	<1.2	
Beam quality	M^2	<1.3	
Peak power	kW	200	200
Pulse to pulse stability	%RM	<2	
Average power stability (8 hrs)	%	<2	
Output beam diameter(@1/e^2)	mm	<0.6	
Output beam divergence	mrad	<5	
Pulse repetition rate	kHz	20-50	20-120
Electrical			
Operating voltage*	VAC	200-240	
AC frequency	fAC	50-60	
Control		Analog / RS232	
Mechanical			
Cooling method		Air	
Thermal			
Operating temperature	ºC	0 to +40	
Storage temperature	ºC	-20 to +60	
Relative humidity	%	5 to 95	

* 110V available upon request

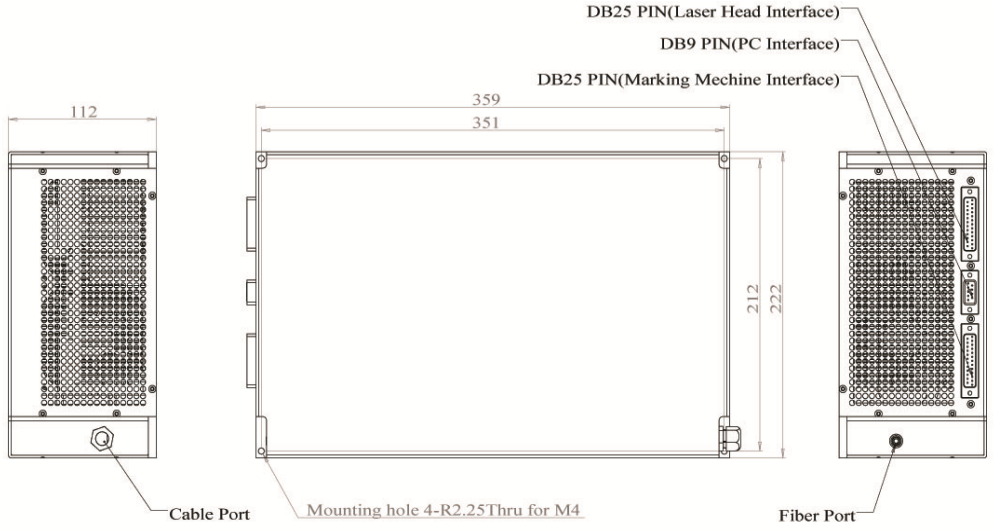


Package Dimensions

Laser Head



Driver



CFR Regulation
These components do not comply with the federal regulation (Title 21 CFR, Chapter 1, Subchapter J) as administered by the Center for Device and radiological Health. Purchaser acknowledges that their products must comply with these regulations before they can be sold to an end-use.

Notice
nLIGHT continually improves its products to provide our customers with outstanding quality and reliability. nLIGHT may make changes to specifications and product descriptions at any time, without notice. In addition, nLIGHT offers a limited warranty to ensure customer satisfaction. For complete details, please contact your nLIGHT sales representative.