



FLN Series

Nanosecond Pulsed Fiber Laser

Data Sheet



Overview

The FLN series is a line of UV, visible, and near infrared high frequency all fiber pulsed lasers that deliver up to 10000 mW output power. The FLN laser series is available in nine different wavelengths and is constructed with features of pulse duration 0.5ns to 250ns, high output power stability, good beam profile, ultra-compact design, long lifetime, cost effectiveness, and easy operation. It is commonly used in scientific research, laser processing, laser drilling, glass engraving, laser radar, laser ranging, 3D scanning, telemetry, medical, cosmetology, holography, spectrum analysis, scientific experiment, optical instrument, interference, security, and many other applications.

Features

- UV-Visible-IR wavelengths
- Pulsed operating mode
- Optical output power 1mW to 10000mW
- Pulse width from 0.5ns to 250ns
- Ultra-compact design

Applications

- Laser processing
- Scientific research
- Laser drilling
- Glass engraving
- Laser radar
- 3D scanning
- Laser ranging
- Telemetry
- 3D scanning
- Medical
- Holography
- Spectrum analysis
- Scientific experiment
- Optical instrument
- Interference
- Security

266-540 nm Specifications

Parameter	FLN266	FLN343	FLN355	FLN515	FLN532	FLN540
Wavelength	266±1 nm	343±1 nm	355±1 nm	515±1 nm	532±1 nm	540±1 nm
Operating mode	Pulsed					
Average power ⁽¹⁾	1-50 mW	100-300 mW	10-300 mW	1-1000mW	1-1000mW	1-1000mW
Pulse duration ⁽²⁾	0.5-50 ns					
Power stability (rms, over 4 hours ±3°C)	<5%, <3%	<5%, <3%	<5%, <3%	<3%, <2%	<3%, <2%	<3%, <2%
Repetition frequency ⁽³⁾	0.1-1 MHz					
M ² factor	<1.8	<2	<2	<1.8	<1.8	<1.8
Polarization ratio	>15dB Horizontal					
Delivery cable length	60 cm					
Cooled method	Air cooled					
Warm-up time	<15 min					
Operating temperature	15-35°C					
Expected lifetime	>10,000 hours					

Remarks:

1. Output power adjustable 10-100%.
2. One fixed value between 0.5-50ns; pulse width 0.5-5ns or 5-50ns variable.
3. One fixed value between 0.1-1MHz.
4. Specifications of the pulsed laser are based on the laser pulsed at the specified repetition rate. If the laser is run at a different repetition rate, the output characteristics may change.
5. Specifications are subject to change without notice.

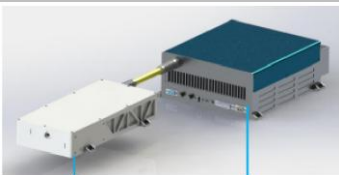
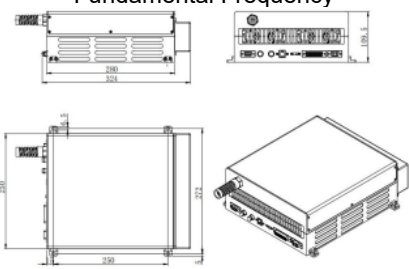
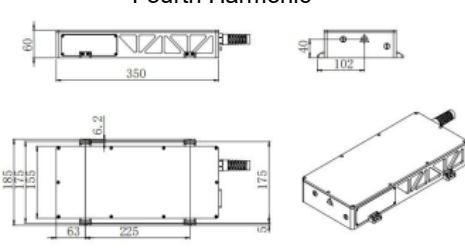
1064-1550 nm Specifications

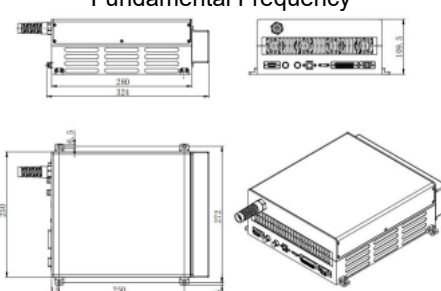
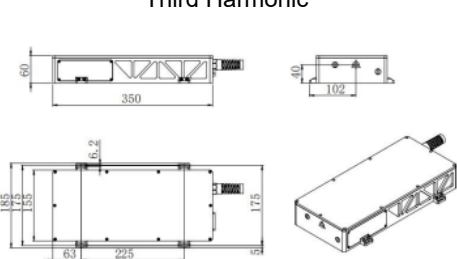
Parameter	FLN1030	FLN1064	FLN1080	FLN1550
Wavelength	1030±1 nm	1064±1 nm	1080±1 nm	1550±1 nm
Operating mode	Pulsed			
Average power ⁽¹⁾	0.5-10 mW	500-10000 mW	0.5-10 mW	50-1000 mW
Pulse duration ⁽²⁾	0.5-5 ns, 5-100 ns, 100-250 ns	0.5-5 ns, 5-100 ns, 100-250 ns	0.5-5 ns, 5-100 ns, 100-250 ns	0.5-5 ns, 5-50 ns
Power stability (rms, over 4 hours ±3°C)	<3%, <2%			
Repetition frequency	0.1-1 MHz (Adjustable)	0.1-1 MHz (Adjustable)	0.1-1MHz (Adjustable)	0.05-1 MHz (Adjustable)
M ² factor	<1.8	<1.8	<1.8	<1.5
Fiber connector	FC/APC, Collimator optional			
Fiber length	1m			
Fiber jacket	PVC			
Beam diameter	4±1 (Collimator output)			
Polarization ratio	Random/>15dB			
Cooled method	Air cooled			
Warm-up time	<15 min			
Operating temperature	15~35°C			
Expected lifetime	>10,000 hours			

Remarks:

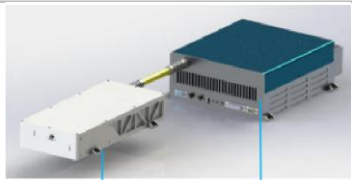
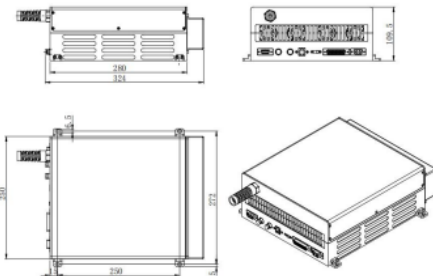
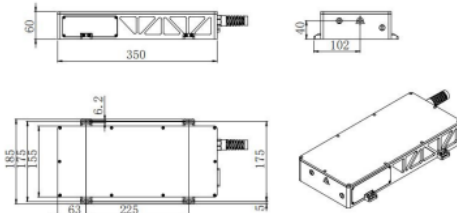
1. Output power adjustable 10-100%.
2. Pulse duration is adjustable.
3. Specifications of the pulsed laser are based on the laser pulsed at the specified repetition rate. If the laser is run at a different repetition rate, the output characteristics may change.
4. Specifications are subject to change without notice.

FLN Series Laser Dimensions

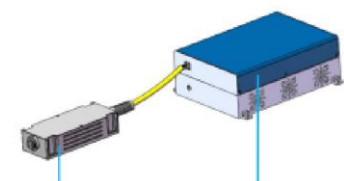
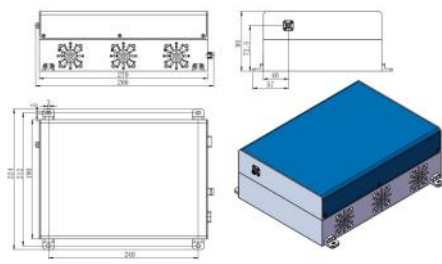
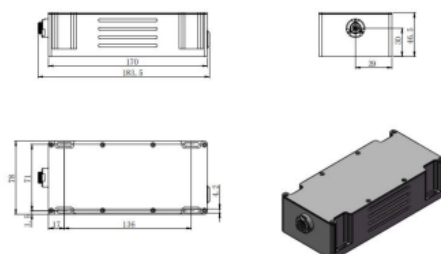
FLN266 Laser			Unit: mm
 Forth harmonic FLN1064	Fundamental Frequency		
			
	Fourth Harmonic		
			
Parameter	Fundamental Frequency	Fourth Harmonic	
Dimensions	324(L) x 282(W) x 109.5(H) mm ³	350(L) x 185(W) x 60(H) mm ³	
Weight	8.5 kg	2.5 kg	
Operating voltage	12VDC/11.5A		

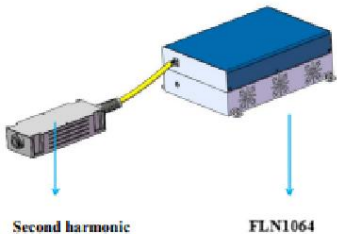
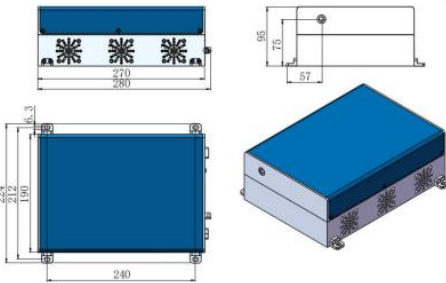
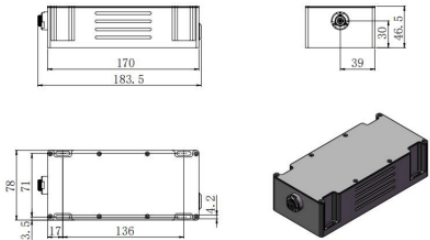
FLN343 Laser			Unit: mm
 Third harmonic FLN1030	Fundamental Frequency		
			
	Third Harmonic		
			
Parameter	Fundamental Frequency	Third Harmonic	
Dimensions	324(L) x 282(W) x 109.5(H) mm ³	350(L) x 185(W) x 60(H) mm ³	
Weight	8.5 kg	2.5 kg	
Input voltage	12VDC/11.5A		

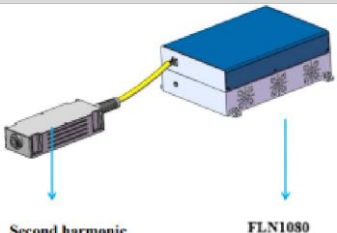
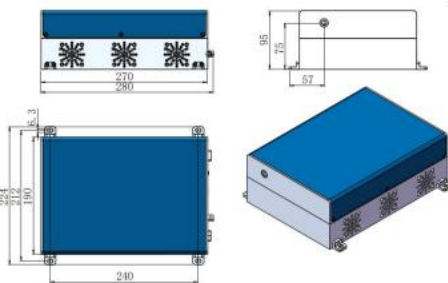
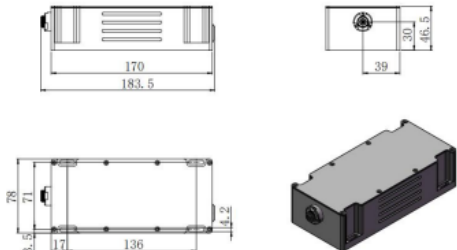
Unit: mm

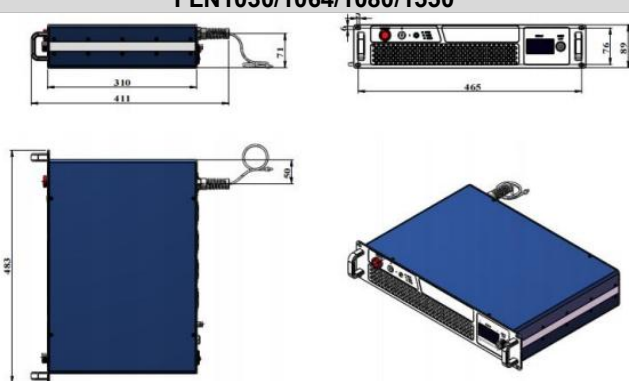
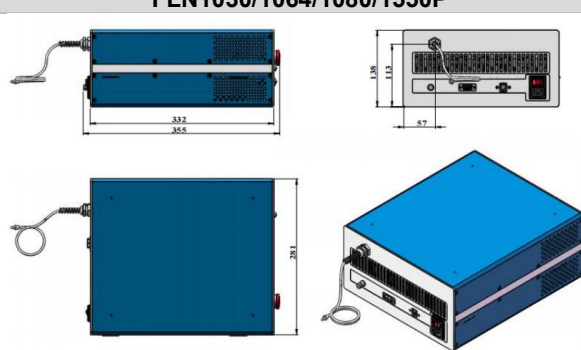
FLN355 Laser		
 Third harmonic FLN1064	Fundamental Frequency 	Third Harmonic 
	Parameter	Third Harmonic
	Dimensions	350(L) x 185(W) x 60(H) mm ³
	Weight	2.5 kg
	Input voltage	12VDC/11.5A

Unit: mm

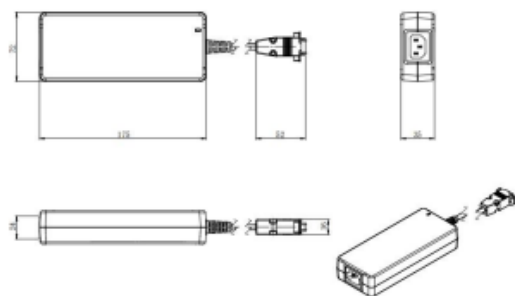
FLN515 Laser		
 Second harmonic FLN1030	Fundamental Frequency 	Second Harmonic 
	Parameter	Second Harmonic
	Dimensions	183(L) x 78(W) x 46.5(H) mm ³
	Weight	1 kg
	Input voltage	12VDC/11.5A

Unit: mm		
FLN532 Laser		
	Fundamental Frequency 	Second Harmonic 
	Parameter	Second Harmonic
	Dimensions	280(L) x224(W) x95(H) mm ³
	Weight	3.5 kg
	Input voltage	12VDC/11.5A

Unit: mm		
FLN540 Laser		
	Fundamental Frequency 	Second Harmonic 
	Parameter	Second Harmonic
	Dimensions	280(L) x224(W) x95(H) mm ³
	Weight	3.5 kg
	Input voltage	12VDC/11.5A

FLN1030/1064/1080/1550		Unit: mm
		
		
Parameter	FLN1030/1064/1080/1550	FLN1030/1064/1080/1550P
Dimensions	483(L) x 411(W) x 89(H) mm ³	355(L) x 281(W) x 138(H) mm ³
Weight	5 kg	5.5 kg
Input voltage	110/220 VAC	110/220 VAC
Features	Adjustable knob	Touch screen

FLN Series Power Supply Dimensions

		Unit: mm
		
Parameter	100-240VAC Power Supply	
Dimensions	350(L) x 185(W) x 60(H) mm ³	
Weight	0.7 kg	
Input voltage	100-240VAC	

Ordering Information

For more information, please contact Lasermate directly at sales@lasermate.com.

Part Number Configuration FLN[1]-[2][3][4][5]					
FLN = Laser Model Series	[1] = Wavelength	[2] = Output Power	[3] = Power Stability	[4] = Pulse Width	[5] = Repetition Frequency
			A= <5% E= <3% 2= <2%	(value)= Fixed value A1= Adjustable 5~50ns A2= Adjustable 5~50ns A3= Adjustable 5~250ns	(value)=Specify value

Note: The above specifications are subject to change without notice.

