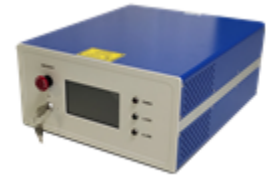




High Frequency Nanosecond Pulsed Fiber Laser FLN Series

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 <50ns, 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 10mW to 10000mW
- Pulse width <50ns
- 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

266-515 nm Specifications

Parameter	FLN266	FLN355	FLN515
Wavelength	266±1 nm	355±1 nm	515±1 nm
Operating mode	Pulsed	Pulsed	Pulsed
Output power	~10 mW, ~20 mW, ~30 mW, ~40 mW, ~50 mW	~30 mW, ~50 mW, ~100 mW, ~200 mW, ~300 mW	~10 mW, ~100 mW, ~500 mW, ~1000 mW
Pulse width	One fixed value: 0.5~50ns Adjustable: 0.5~50ns, 5~50ns	One fixed value: 0.5~50ns Adjustable: 0.5~50ns, 5~50ns	One fixed value: 0.5~50ns Adjustable: 0.5~50ns, 5~50ns
Power stability (rms, over 4 hours)	<5%	<5%, <3%	<3%
Repetition frequency	One fixed value between 0.1- 1MHz	One fixed value between 0.1~1MHz	One fixed value between 0.1~1MHz
M ² factor	<1.8	<2	<1.8
Polarization ratio	>15dB	>15dB	>15dB
Delivery cable length	60 cm	60 cm	variable
Warm-up time	<15 min	<15 min	<15 min
Operating temperature	15~35°C	15~35°C	15~35°C
Overall size and weight	Forth Harmonic Dimensions: 350(L) x185(W) x60(H) mm ³ Weight: 2.5 kg	Third Harmonic Dimensions: 350(L) x185(W) x60(H) mm ³ Weight: 2.5 kg	Second Harmonic Dimensions: 164.5(L) x78(W) x46.5(H) mm ³ Weight: 1.1 kg
	FLN1064 Series Laser Input voltage: 220V AC/12V DC Dimensions: 322(L) x282(W) x109.5(H) mm ³ Weight: 8.5 kg	FLN1064 Series Laser Input voltage: 220V AC/12V DC Dimensions: 322(L) x282(W) x109.5(H) mm ³ Weight: 8.5 kg	FLN1030 Series Laser Input voltage: 220V AC/12V DC Dimensions: 286(L) x224(W) x95(H) mm ³ Weight: 3 kg
RS232 Interface Option	Available	Available	Available
Expected lifetime	10,000 hours	10,000 hours	10,000 hours
Warranty	10 months	10 months	10 months

Remarks:

- The fiber lasers are designated solely as OEM components for incorporation into the customer's end products. It is the customer's responsibility to comply with FDA requirements of FDA 21CFR, section 1040.10 and 1040.11 for complete laser products. For the code of FDA regulations, please refer to [FDA Performance Standards for Light-Emitting Products](#) for detailed information.
- Specifications are subject to change without notice.

532-1030 nm Specifications

Parameter	FLN532	FLN540	FLN1030
Wavelength	532±1 nm	540±1 nm	1030±1 nm
Operating mode	Pulsed	Pulsed	Pulsed
Output power	~10 mW, ~100 mW, ~500 mW, ~1000 mW	~10 mW, ~100 mW, ~500 mW, ~1000 mW	~1000mW, ~3000mW, ~5000mW, ~10000mW
Pulse width	One fixed value: 0.5~50ns Adjustable: 0.5~50ns, 5~50ns	One fixed value: 0.5~50ns Adjustable: 0.5~50ns, 5~50ns	0.5~5ns, 5~250ns
Power stability (rms, over 4 hours)	<3%, <2%	<3%	<3%
Repetition frequency	One fixed value between 0.1~1MHz	One fixed value between 0.1~1MHz	100-1000 kHz
M ² factor	<1.8	<1.8	<1.8
Polarization ratio	>15dB	>15dB	Random/>15dB
Delivery cable length	variable	variable	variable
Warm-up time	<15 min	<15 min	<15 min
Operating temperature	15~35°C	15~35°C	15~35°C
Overall size and weight	Second Harmonic Dimensions: 164.5(L) x78(W) x46.5(H) mm ³ Weight: 1.1 kg	Second Harmonic Dimensions: 164.5(L) x78(W) x46.5(H) mm ³ Weight: 1.1 kg	Input voltage: 12V DC Dimensions: 280(L) x224(W) x95(H) mm ³ Weight: 2.5 kg
	FLN1064 Series Laser Input voltage: 220V AC/12V DC Dimensions: 286(L) x224(W) x95(H) mm ³ Weight: 3 kg	FLN1080 Series Laser Input voltage: 220V AC/12V DC Dimensions: 286(L) x224(W) x95(H) mm ³ Weight: 3 kg	
RS232 Interface Option	Available	Available	/
Expected lifetime	10,000 hours	10,000 hours	10,000 hours
Warranty	10 months	10 months	10 months

Remarks:

- The fiber lasers are designated solely as OEM components for incorporation into the customer's end products. It is the customer's responsibility to comply with FDA requirements of FDA 21CFR, section 1040.10 and 1040.11 for complete laser products. For the code of FDA regulations, please refer to [FDA Performance Standards for Light-Emitting Products](#) for detailed information.
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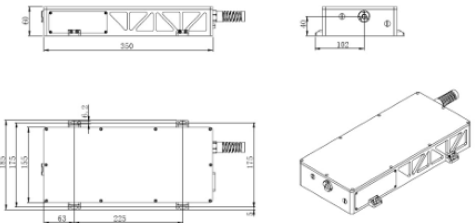
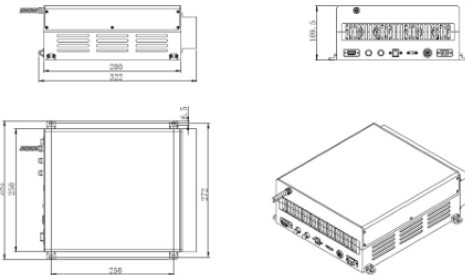

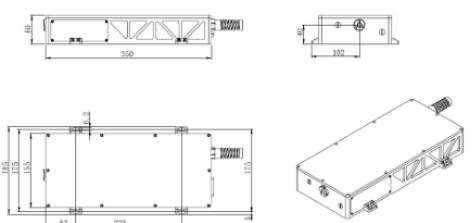
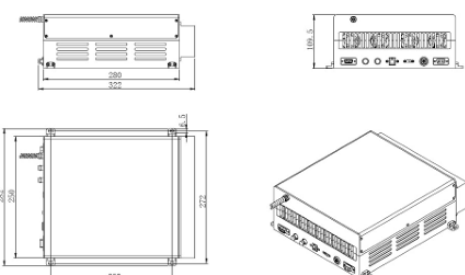
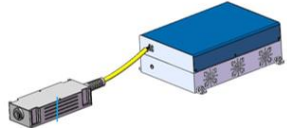
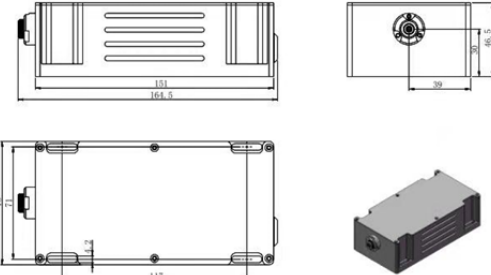
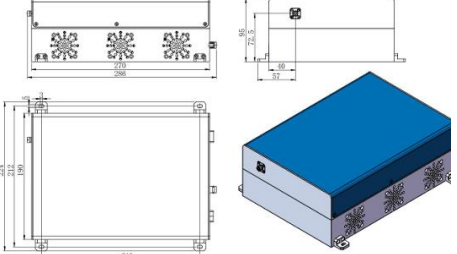
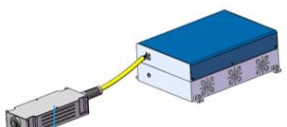
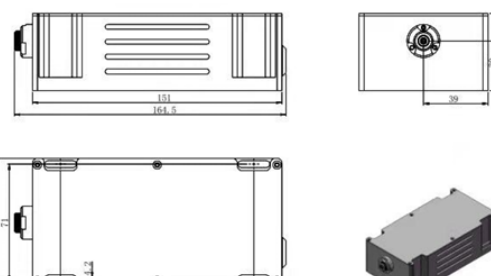
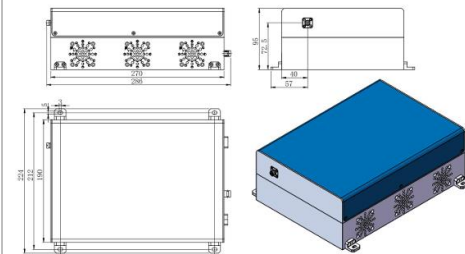
1064-1550 nm Specifications

Parameter	FLN1064	FLN1080	FLN1550
Wavelength	1064±1 nm	1080±1 nm	1550±1 nm
Operating mode	Pulsed	Pulsed	Pulsed
Output power	~1000mW, ~3000mW, ~5000mW	~500mW, ~1000mW, ~2000mW, ~3000mW, ~5000mW, ~8000mW, ~10000mW	~100mW, ~300mW, ~500mW, ~1000mW
Pulse width	0.5~5ns, 5~50ns	5~50ns	0.5-5ns, 5-50ns
Power stability (rms, over 4 hours)	<3%, <2%	<2%	<3%, <2%
Repetition frequency	0.1-1 MHz	100-1000 MHz	50-1000 kHz
M ² factor	<1.8	<1.8	<1.5
Polarization ratio	Random/>15dB	Random/>15dB	Random/>15dB
Delivery cable length	variable	Variable	
Warm-up time	<15 min	<15 min	<15 min
Operating temperature	15~35°C	15~35°C	15~35°C
Input voltage	12V DC	12V DC	12V DC
Overall size and weight	Dimensions: 280(L) x224(W) x95(H) mm ³ Weight: 2.5 kg	Dimensions: 280(L) x224(W) x95(H) mm ³ Weight: 2.5 kg	Dimensions: 220(L) x150(W) x75(H) mm ³ Weight: 2.5 kg
Expected lifetime	10,000 hours	10,000 hours	10,000 hours
Warranty	10 months	10 months	10 months

Remarks:

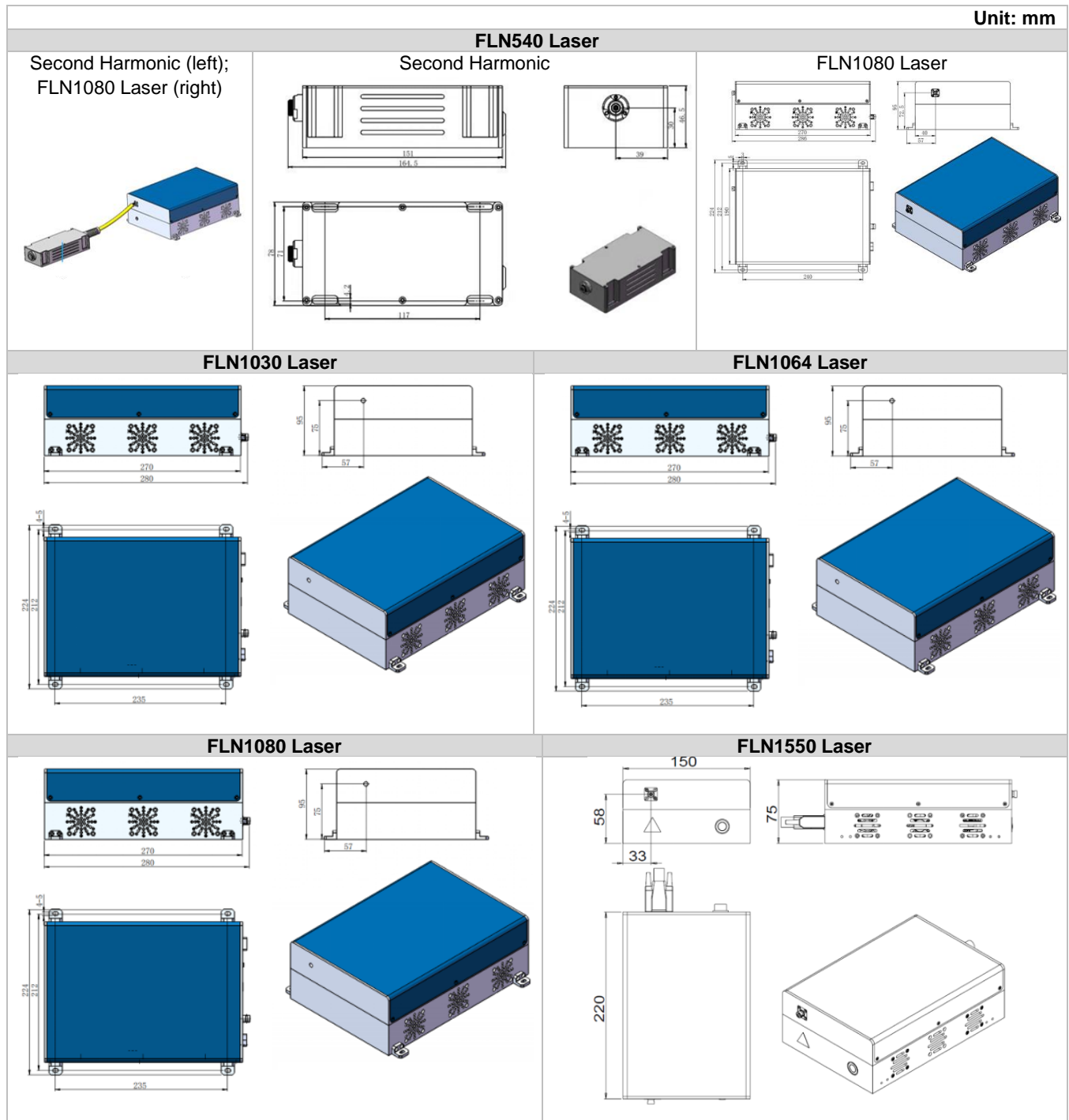
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- Specifications are subject to change without notice.

FLN Series Laser Dimensions

				Unit: mm	
FLN266 Laser					
<p>Forth Harmonic (left); FLN1064 Laser (right)</p> 	<p>Forth Harmonic</p> 		<p>FLN1064 Laser</p> 		
FLN355 Laser					
<p>Third Harmonic (left); FLN1064 Laser (right)</p> 	<p>Third Harmonic</p> 		<p>FLN1064 Laser</p> 		
FLN515 Laser					
<p>Second Harmonic (left); FLN1030 Laser (right)</p> 	<p>Second Harmonic</p> 		<p>FLN1030 Laser</p> 		
FLN532 Laser					
<p>Second Harmonic (left); FLN1064 Laser (right)</p> 	<p>Second Harmonic</p> 		<p>FLN1064 Laser</p> 		

FLN Series Laser Dimensions (Continued)

Unit: mm



Ordering Information

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

Part Number Configuration FLN[1][2][3][4][5][6]						
FLN = Laser Model Series	[1] = Wavelength	[2] = Output Power	[3] = Power Stability	[4] = Pulse Width	[5] = Repetition Frequency	[6] = RS232 Interface
	266= 266nm 355= 355nm 515= 515nm 532= 532nm 540= 540nm 1030= 1030nm 1064= 1064nm 1080= 1080nm 1550= 1550nm	10= 10mW 20= 20mW ... 1W= 1000mW 2W= 2000mW ... 8W= 8000mW 10W= 10000mW	A= <5% E= <3% 2= <2%	(value)= Fixed value A1= Adjustable 5~50ns A2= Adjustable 5~50ns A3= Adjustable 5~250ns	(value)=Specify value	Blank=No R=Yes

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