



Mode-Locked Picosecond Pulsed Fiber Laser FLP Series

Data Sheet



Overview

The FLP series is a line of UV, visible, and near infrared all fiber pulsed lasers with mode-locked operating mode and can deliver output power levels up to 2000mW. The laser is constructed with SESAM technique and exhibits features of pulse duration <10ps, high output power stability, good beam profile, ultra-compact design, long lifetime, cost effectiveness, and easy operation. The UV and visible FLP series is commonly used in scientific research, laser processing, TCSPC, picosecond processing, and many other applications. The infrared FLP series is commonly used for laser radar, precision marking, precision drilling, life science, precision etching, microelectronics, and many other applications.

Features

- UV-Visible-IR wavelengths
- Pulsed operating mode
- Optical output power 5mW to 2000mW
- Pulse width <10ps

Applications

- Laser processing
- Scientific research
- TCSPC
- Picosecond processing
- Laser radar
- Precision marking
- Precision drilling
- Life science
- Precision etching
- Microelectronics

266-515 nm Specifications

Parameter	FLP266	FLP355	FLP515
Wavelength	266±1 nm	355±1 nm	515±1 nm
Operating mode	Passive mode-locked	Passive mode-locked	Passive mode-locked
Output power	~5 mW, ~10 mW	~10 mW, ~30 mW, ~50 mW	~100 mW, ~200 mW
Pulse width	<10 ps	<10 ps	<10 ps
Power stability (rms, over 4 hours)	<5%, <3%	<5%, <3%	<3%, <2%
Repetition frequency	One fixed value between (20~50) ±1 MHz	One fixed value between (20~50) ±1 MHz	One fixed value between (20~50) ±1 MHz
M ² factor	<2	<2	<1.5
Polarization ratio	>15dB	>15dB	>15dB
Beam height from base plate	40 mm		30 mm
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: 223.5(L) x95(W) x45(H) mm ³ Weight: 2 kg	Third Harmonic Dimensions: 223.5(L) x95(W) x45(H) mm ³ Weight: 2 kg	Second Harmonic Dimensions: 164.5(L) x78(W) x46.5(H) mm ³ Weight: 1.1 kg
	FLP1064 Laser Input voltage: 220V AC/12V DC Dimensions: 330(L) x260(W) x100(H) mm ³ Weight: 5.5 kg	FLP1064 Laser Input voltage: 12V DC Dimensions: 330(L) x260(W) x100(H) mm ³ Weight: 5.5 kg	FLP1030 Laser Input voltage: 12V DC Dimensions: 344(L) x200(W) x100(H) mm ³ Weight: 3 kg
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.

532-1064 nm Specifications

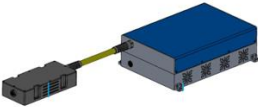
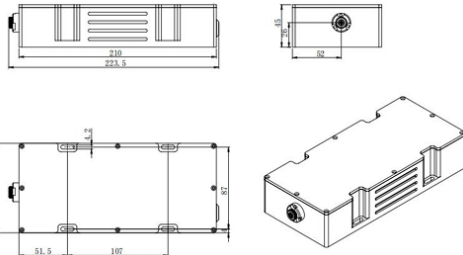
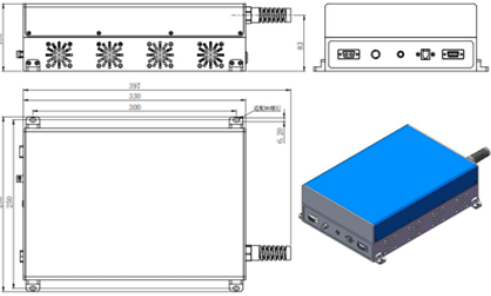
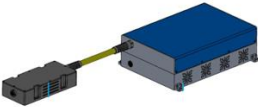
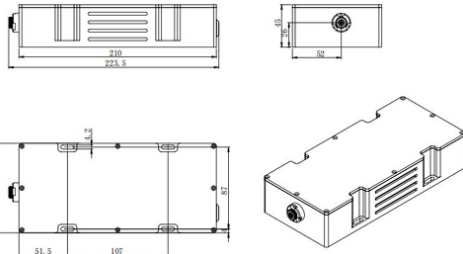
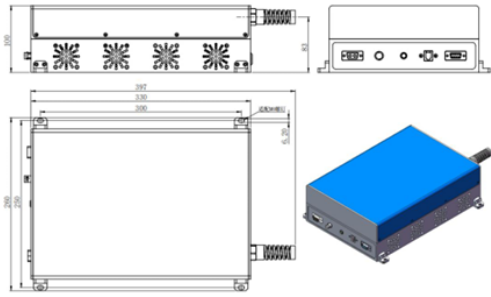
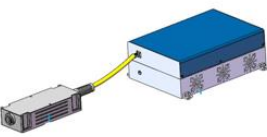
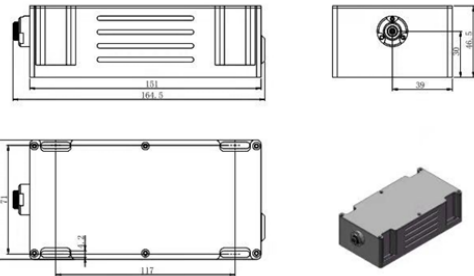
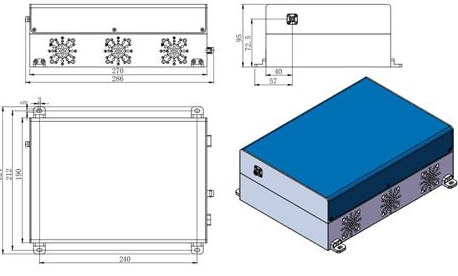
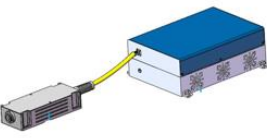
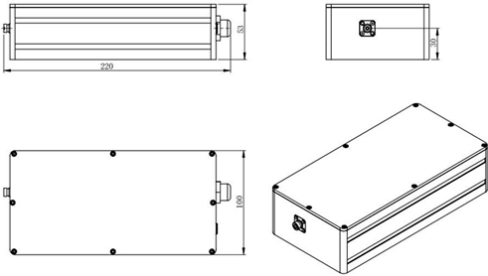
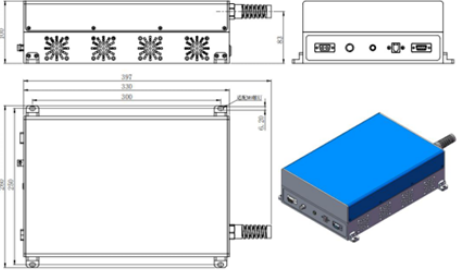
Parameter	FLP532	FLP1030		FLP1064	
Wavelength	532±1 nm	1030±1 nm		1064±1 nm	
Operating mode	Passive mode-locked	Passive mode-locked		Passive mode-locked	
Output power	~50 mW, ~150 mW	~1 mW, ~20 mW, ~100 mW	~1000 mW, ~2000 mW	~1 mW, ~20 mW, ~100 mW	~1000 mW, ~2000 mW
Pulse width	<10 ps	<10 ps		<10 ps	
Power stability (rms, over 4 hours)	<3%, <2%	<3%, <1%	<3%, <1%, <0.5%	<3%, <1%	
Repetition frequency	One fixed value between (20~60) ±1 MHz	One fixed value between (20~50) ±1 MHz		One fixed value between (20~60) ±1 MHz	
M ² factor	<1.5	<1.2	<1.5	<1.2	<1.5
Polarization ratio	>15dB	Random/>15dB		Random/>15dB	
Beam height from base plate	30 mm				
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: 220(L) x100(W) x53(H) mm ³ Weight: 1 kg	Input voltage: 12V DC Dimensions: 286(L) x190(W) x90(H) mm ³ Weight: 2.5 kg		Input voltage: 12V DC Dimensions: 286(L) x190(W) x90(H) mm ³ Weight: 2.5 kg	
	FLP1064 Series Laser Input voltage: 12V DC Dimensions: 344(L) x200(W) x100(H) mm ³ Weight: 5.5 kg				
Expected lifetime	10,000 hours	10,000 hours		10,000 hours	
Warranty	10 months	10 months		10 months	

Remarks:

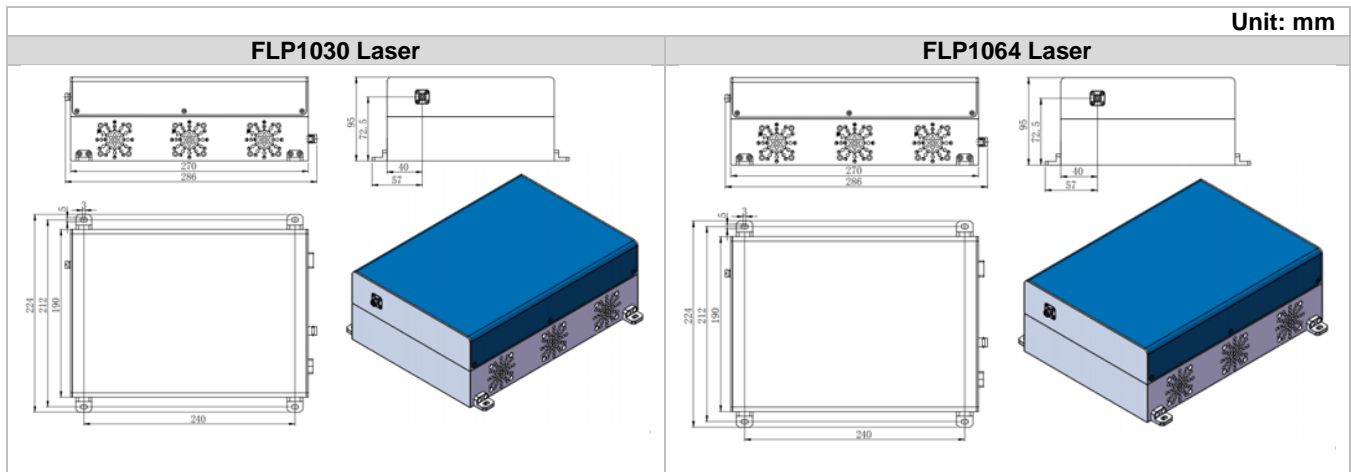
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FLP Series Laser Outline Dimensions

Unit: mm

FLP266 Laser		
<p>Forth Harmonic (left); FLP1064 Laser (right)</p> 	<p>Forth Harmonic</p> 	<p>FLP1064 Laser</p> 
FLP355 Laser		
<p>Third Harmonic (left); FLP1064 Laser (right)</p> 	<p>Third Harmonic</p> 	<p>FLP1064 Laser</p> 
FLP515 Laser		
<p>Second Harmonic (left); FLP1030 Laser (right)</p> 	<p>Second Harmonic</p> 	<p>FLP1030 Series Laser</p> 
FLP532 Laser		
<p>Second Harmonic (left); FLP1064 Laser (right)</p> 	<p>Second Harmonic</p> 	<p>FLP1064 Laser</p> 

FLP Series Laser Outline Dimensions (Continued)



Ordering Information

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

Part Number Configuration FLP[1][2][3][4]				
FLP = Laser Model Series	[1] = Wavelength	[2] = Output Power	[3] = Power Stability	[4] = Repetition Frequency (value)=Specify value
	266= 266nm 355= 355nm 515= 515nm 532= 532nm 1030= 1030nm 1064= 1064nm	5= 5mW 10= 10mW 30= 30mW 50= 50mW 100= 100mW 150= 150mW 200= 200mW 500= 500mW 1W= 1000mW 2W= 2000mW	A= <5% E= <3% 2= <2% D= <1% S= <0.5%	

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