

# Laser Systems

## Three-wavelength multimode fiber white light laser system

A professional-grade white light laser system featuring "three-wavelength integration, high customization, and compact design"

- Three-wavelength integrated design, adapting to multi-band coordination requirements
- Fiber parameters are highly customizable, with strong scene adaptability
- Software control + high stability, with convenient operation and reliable results
- Compact integration + wide environmental adaptability, flexible deployment



One Platform Many Possibilities

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## Overview

### Introduction:

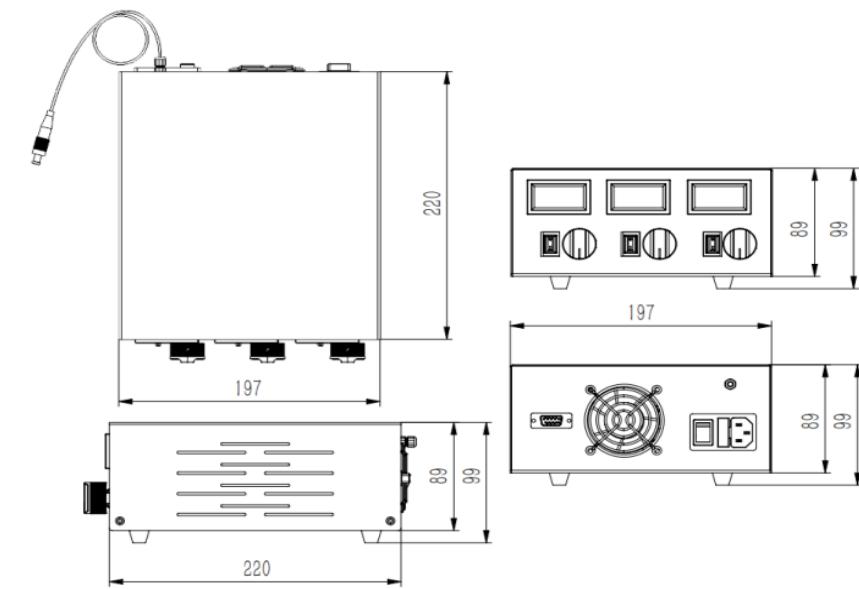
It is a three-wavelength integrated white light fiber-coupled laser system developed by Venuslab. Through an integrated design, it integrates laser modules of three wavelength bands: 450nm (blue light), 520nm (green light), and 638nm (red light) into the same chassis, forming a complete laser solution capable of outputting composite white light. In terms of core performance, the single-channel output power of this product is 30mW, the center wavelength accuracy is controlled within  $\pm 3\text{nm}$  ( $450\pm 3\text{nm}$ ,  $520\pm 3\text{nm}$ ,  $638\pm 3\text{nm}$ ), and the spectral width is uniformly 3nm.

All adopt FP (Fabry-Perot) type lasers to ensure the stability and consistency of lasers in each wavelength band. In terms of fiber configuration, multimode fiber transmission is used. The fiber core diameter and numerical aperture (0.22/0.37/0.5) support customization, the fiber length is 1m, and the interface is compatible with industrial standard types such as FC/SMA905/SC/ST, which can flexibly adapt to connection requirements in different scenarios.

### Features:

- Precision controllable
- Firm output
- Flexible customization
- Interface compatibility
- Automation control
- Compact and portable
- Environmental tolerance

### Dimension:



## Specifications

### Common Parameter Specification Table

Spectral Width	3 nm
Fiber Core Diameter	Customizable
Numerical Aperture (NA)	0.22, 0.37, 0.5 (Customizable)
Fiber Type	Multimode Fiber (MF)
Fiber Length	1 m
Operating Mode	CW (Standard)
Remote Control	RS232 Software Control
Stability (2-hour Continuous Operation)	2%
Cooling Method	Air Cooling

Control Mode	Automatic Current Control (ACC)
Operating Temperature	+10°C ~ +40°C
Storage Temperature	-20°C ~ +60°C
Warm-up Time	< 5 Minutes
AC (Standard)	90V ~ 240VAC, 50 ~ 60Hz
DC (Optional)	+12V
Collimating Lens	Optional

## Explore Series

Model	Output power	Central Wavelength	Fiber optic types	Fiber optic interface
VLFL-450+520+638-MF	30 mW per channel	(450、 520、 638) ±3 nm	Multimodal	FC/SMA905/SC/ST

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