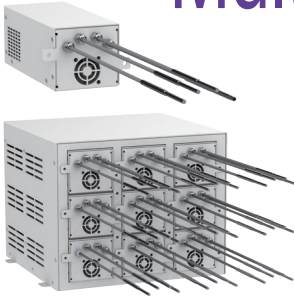


# AWSO-B Series Multi-Wavelength Multi-Channel Diode Laser Module



The AWSO-B series multi-wavelength multi-channel diode laser module is equipped with RealLight's self-developed single-mode fiber-coupled diode laser and multi-channel driver circuits. This module comes with standard I/O interfaces for easy integration into user's host system, delivering highly stable multi-wavelength laser output. RealLight also provides customization of fibers, lenses, and handpieces to meet your application needs.

## Key Features

- ◆ Modular design, up to 36 output channels
- ◆ Custom control and software services available
- ◆ Single-mode fiber output with high uniformity
- ◆ Multi-wavelength combination available
- ◆ Compact, plug and play

## Applications

- Spectroscopic Detection
- Biomedicine
- Material Analysis
- Display & Lighting
- Laser Manufacturing

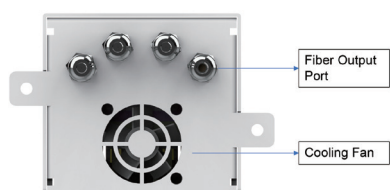
## Technical Specifications (25°C)

Center Wavelength (nm)		405	450	520	638	650
Optical	CW Output Power / $P_{op}$ (mW) <sup>(1)</sup>	50	50	50	60	50
	Wavelength Tolerance (nm)	±10				
	Spectral Width / $\Delta\lambda$ (nm)	<3				
	Temperature Drift of Wavelength / $\Delta\lambda/\Delta T$ (nm/°C)	0.3				
	Beam Profile	Single-Mode				
	Module Layout	4*9, 36 output channels in total				
Fiber	Fiber Core Diameter / Cladding Diameter (μm)	4/125, 6/125, 9/125				
	Numerical Aperture / NA	0.14				
	Fiber Length / L (cm)	200±5				
	Connector	SMA 905 metal ferrule (50mm in length, 3.17mm outer diameter)				
Electrical	Working Mode	CW/QCW				
	Repetition Rate (kHz)	0~2				
	Pulse width (ms)	<40				
	Working Time (min)	<45				
	Temperature Control	Built-in TEC, real-time temperature monitoring				
	Control Method	Independent control, Synchronized output allowed				
	Communication	RS232 communication via DB9 port				
	Operating Temperature (°C)	10~35				
	Storage Temperature(°C)	0~60				
	Storage Humidity	0~80% RH				

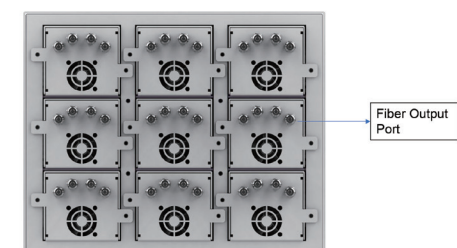
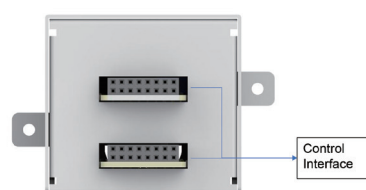
Notes:

1. Other output power can be customized.
2. Feedback Protection Function is available for this series of products upon request.
3. Customizable multi-mode output.
4. All the data in the above table are the typical values obtained from the tests at room temperature of 25°C, and the final data is subject to the final test report.

## Functional Diagrams

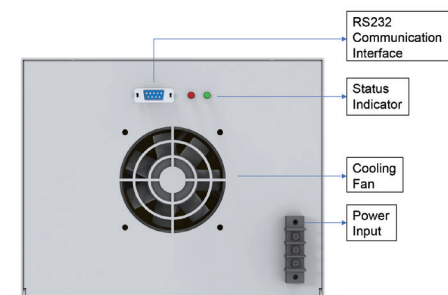


Single-Module

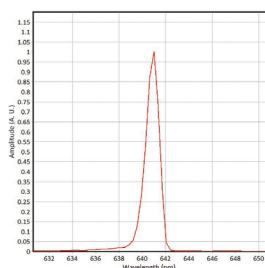


9-Module Laser Array, 36 channels

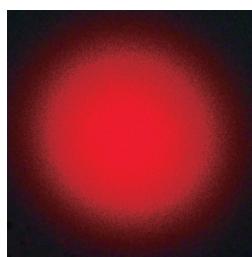
9-Module



## Product Characteristics Diagrams

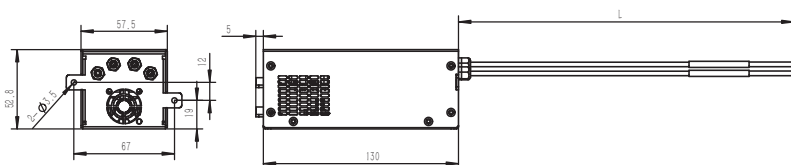


Laser Spectrum

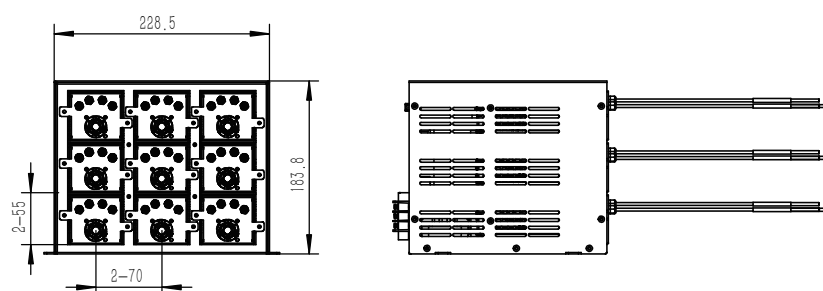
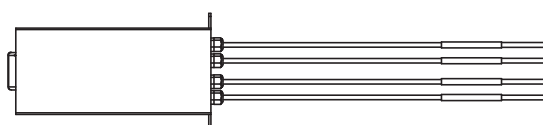


Beam Profile

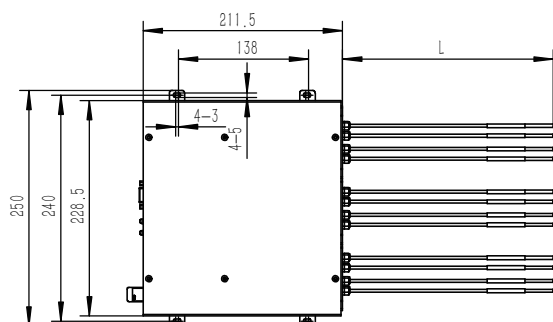
## Mechanical Drawings (in mm)



Single-Module



9-Module



Note: This dimensional drawing applies to products with wavelengths of 638 nm. For products with other wavelengths, please contact the sales team for validated dimensional specifications.

