



AWMO Series Diode Laser Modules

The AWMO series diode laser modules integrate multi-emitter laser diodes and driver circuits, designed and manufactured by RealLight. Featuring standardized input/output interfaces, they can be easily embedded into user host systems to deliver highly stable, compact multi-wavelength laser output. This series finds extensive applications in fields such as spectral detection, material processing, display lighting, and biomedical technology. Customization and secondary development services are available upon request. Additionally, we offer customized fiber-optic external optical path design to meet your specific application needs.

Key Features

- ◆ Combined output of up to 4 different laser wavelengths
- ◆ Simultaneous multi-wavelength output up to 30W
- ◆ Power stability, effective heat dissipation
- ◆ Same fiber output, uniform spot size
- ◆ Compact design, plug-and-play

Applications

Spectroscopic Detection
Biomedicine
Material Analysis
Display&Lighting
Laser Manufacturing

Technical Specifications (25°C)

Center Wavelength (nm)		Optional Wavelength																		
		450	635	650	675	695	755	785	808	830	880	915	940	980	1064	1320	1470	1550	1720	1940
Optical	CW Output Power / P _{op} (W)	3	3	3	3	3	5	5	10	5	10	10	10	10	10	5	5	3	3	3
	Maximum Average Output Power P _{max} (W)	15 / 30																		
	Wavelength Tolerance (nm)	±10																		
	Spectral Width / Δλ (nm)	<6																		
Aiming Beam	Output Power / P _a (mW)	1~5																		
	Wavelength / λ _a (nm)	650																		
Fiber	Output Mode	Fiber detachable																		
	Fiber Core Diameter / D _{core} (μm)	400 (Customizable)																		
	Fiber Length / L (cm)	100±10 (Customizable)																		
	Numerical Aperture / NA	0.22																		
	Connector	SMA905																		
System	Working Mode	CW / QCW																		
	Repetition Rate (kHz)	0~10																		
	Pulse width (ms)	0.05~300																		
	Heat Dissipation	Air Cooling																		
	Control Method	Analog 0~5V power adjustment, TTL 5V duty cycle modulation																		
	Power Supply	12VDC, 100W																		
	Operating Temperature (℃)	10~30																		
	Storage Temperature(℃)	0~60																		
	Storage Humidity	0~80% RH																		

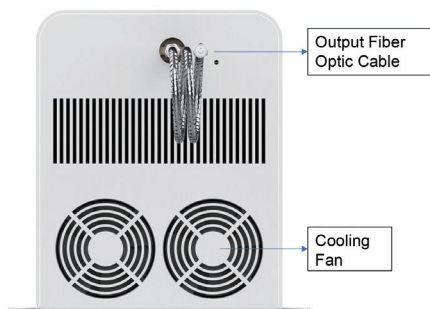
Notes:

1. Available wavelength and power combinations are listed in the table above. For further usage information, please contact our company.
2. We offer standard stackable laser modules without housings and custom development for system control boards.
3. 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.

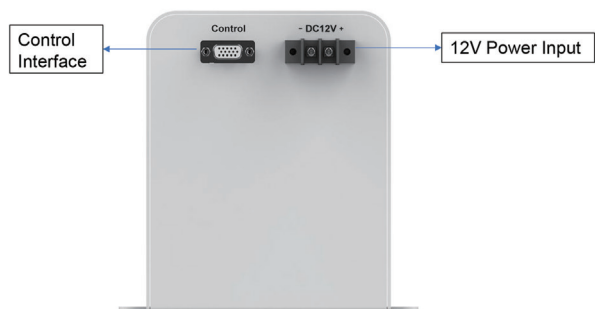
Functional Diagrams



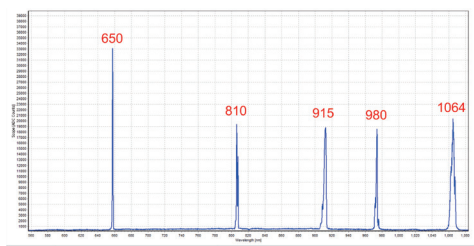
15W



30W



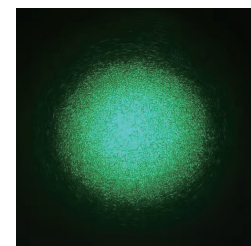
Product Characteristics Diagrams



Multi-wavelength Laser Spectrum

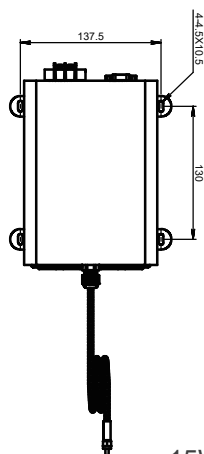
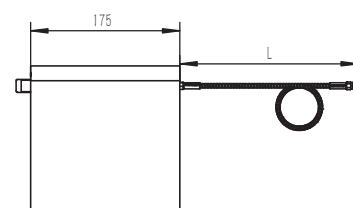
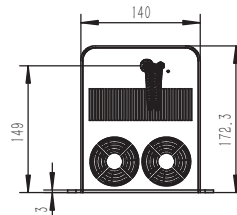
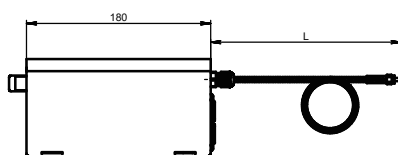
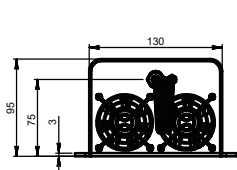


Multi-channel Control Signal Waveforms

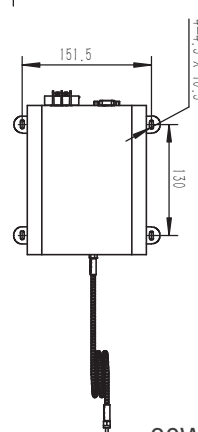


Beam Profile

Mechanical Drawings (in mm)



15W



30W

