AWM Series
Diode Laser System

The AWM series diode laser system combines a main control unit, an industrial touchscreen, multi-emitter laser diode modules, drive circuits and a heat dissipation system. It delivers a highly integrated, exceptionally stable, and user-friendly multi-wavelength laser output, making it an ideal solution for spectroscopy, biomedical applications, material processing, display&lighting, and other industries. The system includes PC control software for real-time monitoring, and supports online firmware updates. Additionally, we offer tailored external fiber-optic light path solutions to meet your specific needs in scientific research, prototype development and more.

Key Features

- Ease of Use - Touchscreen control and display
- Safety and reliability - Emergency stop and enable switches
- Built-in control program, supporting online updates
- Up to 4 different wavelength combinations for output
- Simultaneous multi-wavelength output power up to 30W
- Uniform spot and stable power output via single-fiber delivery

Applications

Spectroscopic Detection

Biomedicine

Material Analysis

Display&Lighting

Laser Manufacturing

Technical Specifications（25℃）

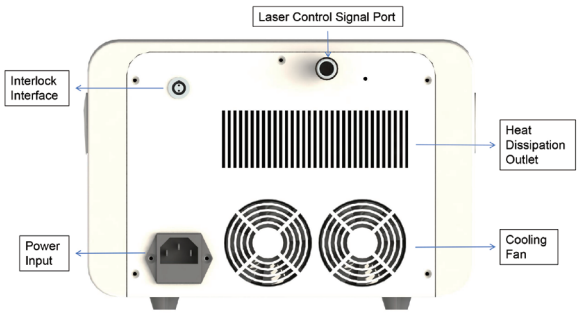
Center Wavelength (nm)		Optional Wavelength																		
		450	635	650	675	695	755	785	808	830	880	915	940	980	1064	1320	1470	1550	1720	1940
Optical	CW Output Power / P_{op} (W)	3	3	3	3	3	5	5	10	5	10	10	10	10	10	5	5	3	3	3
	Maximum Average Output Power P_{max} (W)	30																		
	Wavelength Tolerance (nm)	±10																		
	Spectral Width / △λ (nm)	<6																		
Aiming Beam	Output Power / P_a (mW)	1~5																		
	Wavelength / λ_a (nm)	650																		
Fiber	Output Mode	Fiber detachable																		
	Fiber Core Diameter / Dcore (μm)	400 (Customizable)																		
	Fiber Length / L (cm)	100±10 (Customizable)																		
	Numerical Aperture / NA	0.22																		
	Connector	SMA905																		
System	Working Mode	CW / QCW, Multi-channel Synchronization																		
	Repetition Rate (kHz)	0~10																		
	Pulse width (ms)	0.05~300																		
	Heat Dissipation	Air Cooling																		
	Display	7-inch capacitive touchscreen																		
	Program Control	Independent setting of power, pulse interval, pulse width, and lasing time																		
	System Power (W)	≤300																		
	Power Supply	100~240 VAC, 50 / 60 Hz																		
	Operating Temperature (℃)	10~30																		
	Storage Temperature(℃)	-25~55																		
	Storage Humidity	0~80% RH																		
	System Dimensions (W×H×L, mm)	250×174.4×280.7																		

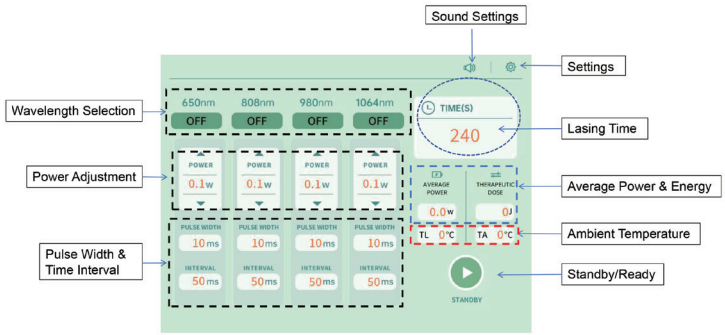
Notes:

1. Optional wavelength combinations are provided in the above table. For more information, please contact us.

2. All the data in the above table are the typical values obtained from the tests at room temperature of 25℃, and the final data is subject to the final test report.

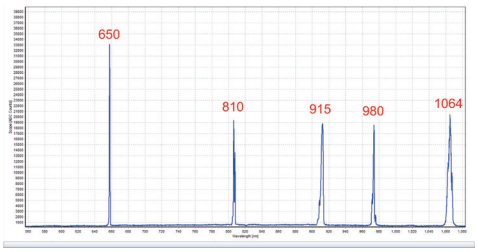
Functional Diagrams





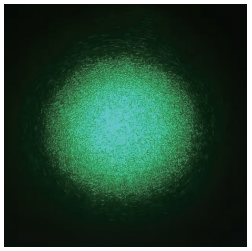
Control Screen

Product Characteristics Diagrams



Multi-wavelength Laser Spectrum

Multi-channel Control Signal Waveforms



Beam Profile

Mechanical Drawings (in mm)