



WV13 808nm-2400W

Macro Channel Diode Laser Array

Key Features

- ◆ Fast axis collimation optional
- ◆ 200W single bar
- ◆ AuSn soldering
- ◆ Macro channel water cooling
- ◆ High power density
- ◆ High efficiency
- ◆ High reliability and stability
- ◆ Multi-wavelength operation:
755/808/940/1064nm

Applications

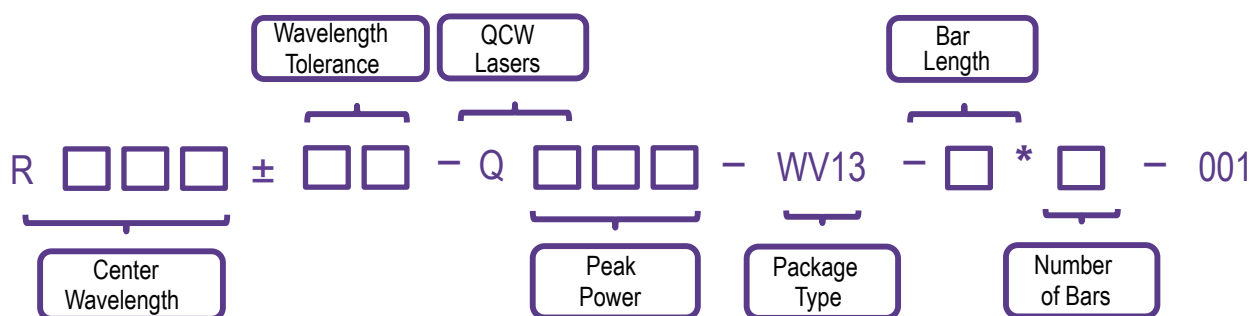
Hair removal
Skin rejuvenation
Material processing
Laser illumination

Technical Specifications

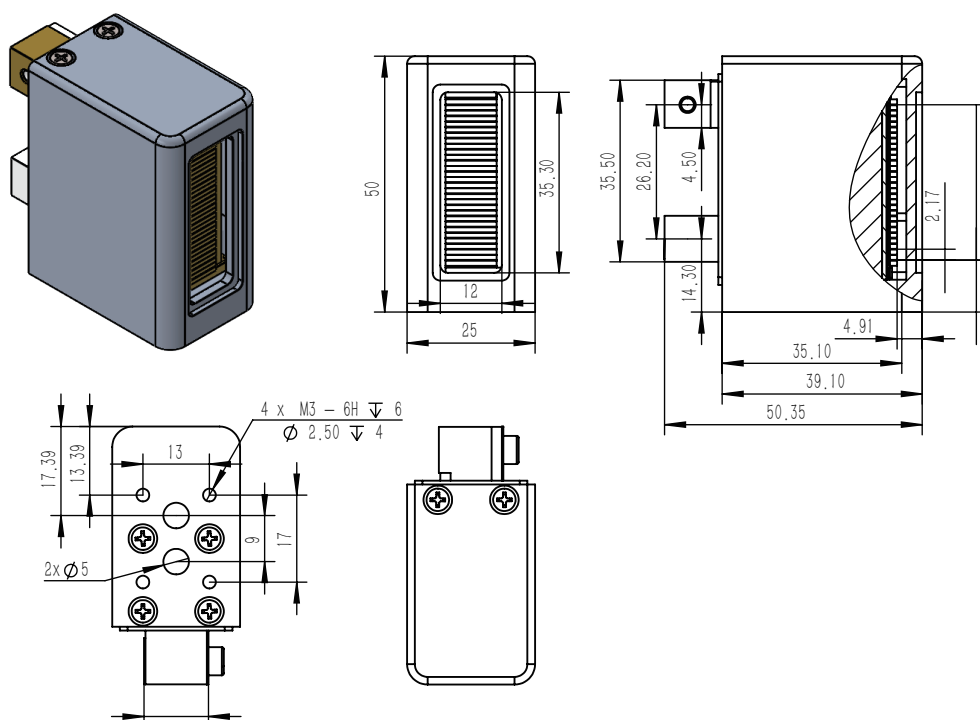
Optical Parameters	
Part Number	R808±15-Q2400-WV13-10x24-001
Center Wavelength λ_c (nm)	808
Wavelength Tolerance $\delta\lambda_c$ (nm)	±15
Output Power (W)	2400
Number of Bars	12
Bar-to-Bar Pitch (mm)	2.77
Spot Size (mm)	10 X 30.47
Fast Axis Full Divergence Angle (FWHM) (°)	78 (or customized angle)
Slow Axis Full Divergence Angle (FWHM) (°)	20
Wavelength Temperature Coefficient (nm/°C)	~ 0.3
Electrical Parameters	
Operating Current I_{op} (A)	≤200
Threshold Current I_{th} (A)	≤30
Operating Voltage V_{op} (V)	≤24
Duty Cycle (max., %)	20
Pulse Width (max., ms) ¹	200
Repetition Rate (Hz)	1 ~ 10
Cooling Parameters	
Cooling Water Requirements	Deionized Water or Distilled Water
Water Temperature (°C) ²	20 ~ 30
Water Pressure (Mpa)	0.3 ~ 0.4
Water Flow Rate (L/min) ³	3.0 ~ 4.0

1. Since the duty cycle of the module cannot exceed 20% during operation, when the maximum pulse width is 200ms, the repetition frequency can only be 1Hz.
2. Avoid laser operation in condensing environments, ensure ambient temperature exceeds minimum safe operating limits.
3. The water flow rate refers to the flow of cooling water exiting the laser system.
4. Custom wavelengths available upon request.
5. 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.

Part Numbering Schema



Mechanical Drawings (in mm)



Notes:

The light-emitting area dimensions in the diagram are for illustrative purposes only. Refer to specs for actual measurements.

Laser Operating Conditions Reference

Operating Condition		Frequency (Hz)										Operating Current
		1	2	3	4	5	6	7	8	9	10	
Pulse Width (ms)	10	200A	200A	200A	200A	200A	200A	200A	200A	200A	200A	≤200A
	20	180A	180A	180A	180A	180A	180A	180A	180A	180A	180A	
	30	120A	120A	120A	120A	120A	120A	120A	120A	120A	120A	
	40	120A	120A	120A	120A	120A	120A	120A				
	50	120A	120A	120A	120A	120A	120A					
	60	100A	100A	100A	100A	100A						
	70	100A	100A	100A	100A							
	80	100A	100A	100A								
	90	100A	100A									
	100	100A										
	200	70A										

