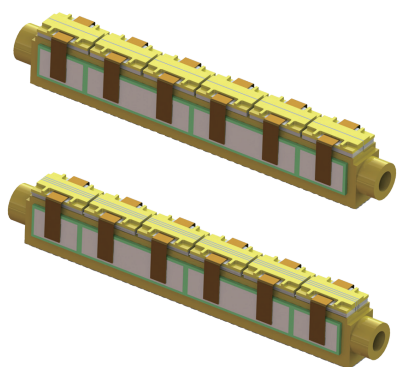


WA-6 Series Water Cooled Diode Laser Array



WA-6 Series water cooled diode laser array is a narrow linewidth, high peak power diode laser array product developed by RealLight. The WA-6 series is composed of 6 stacks arranged in a linear configuration, with 1-3 bars in each stack, and each bar has a power of 120W/250W. Other powers, wavelengths and packaging forms can be customized.

Key Features

- ◆ AuSn solder for packaging
- ◆ Compact design
- ◆ High peak power
- ◆ High reliability

Applications

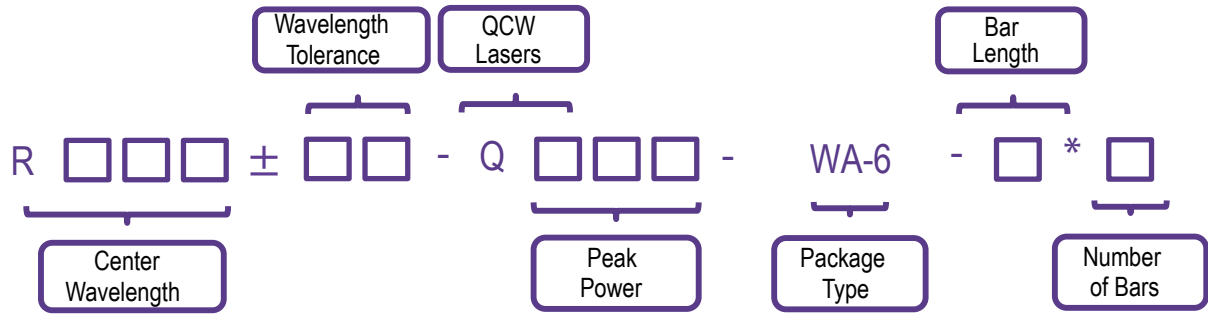
- Pumping source
- Scientific research

Technical Specifications

Optical Parameters	
Center Wavelength λ_c (nm)	790-812
Wavelength Tolerance $\delta\lambda_c$ (nm)	± 3
Output Power per Bar (W)	120 250
Number of Stacks	6
Stack-to-Stack Pitch (mm)	0.5
Maximum Peak Power (W)	2200 3000
Number of Bars per Stack	1-3 1-2
Bar-to-Bar Pitch (mm)	0.43 0.55
Spectral Width (FWHM) (nm)	<6
Fast Axis Divergence Angle (FWHM) ($^\circ$)	≤ 40
Slow Axis Divergence Angle (FWHM) ($^\circ$)	≤ 10
Wavelength Temperature Coefficient (nm/ $^\circ\text{C}$)	~ 0.3
Electrical Parameters	
EO Conversion Efficiency (%)	≥ 50
Threshold Current I_{th} (A)	≤ 20 ≤ 30
Operating Current I_{op} (A)	120 220
Operating Voltage V_{op} of each Bar (V)	≤ 2.1
Duty Cycle (%)	≤ 3
Pulse Width (μs)	≤ 300
Repetition Rate (Hz)	≤ 100
Environment Parameters	
Water Flow Rate (L/min)	≥ 5
Water Pressure (Mpa)	≤ 0.5
Operating Temperature ($^\circ\text{C}$)	10-40
Storage Temperature ($^\circ\text{C}$)	-20~60

1. Wavelengths from 940nm to 960nm available upon request.
2. Custom number of bars and bar-to-bar pitch are available upon request.
3. The installation and wiring can be customized to meet the customer's requirements.

Part Numbering Schema



Mechanical Drawings (in mm)

