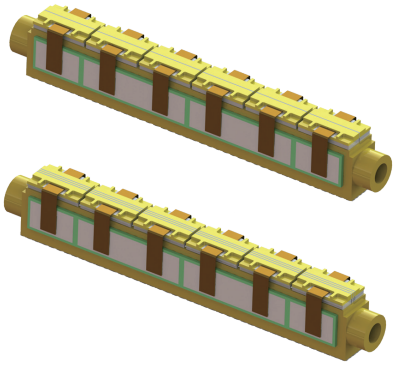
WA-6 Series Water Cooled Diode Laser Array



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

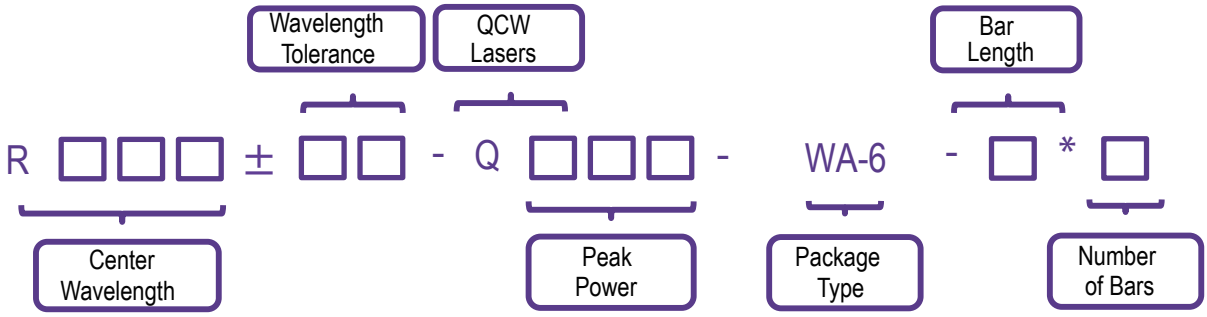
Scientific research

Technical Specifications

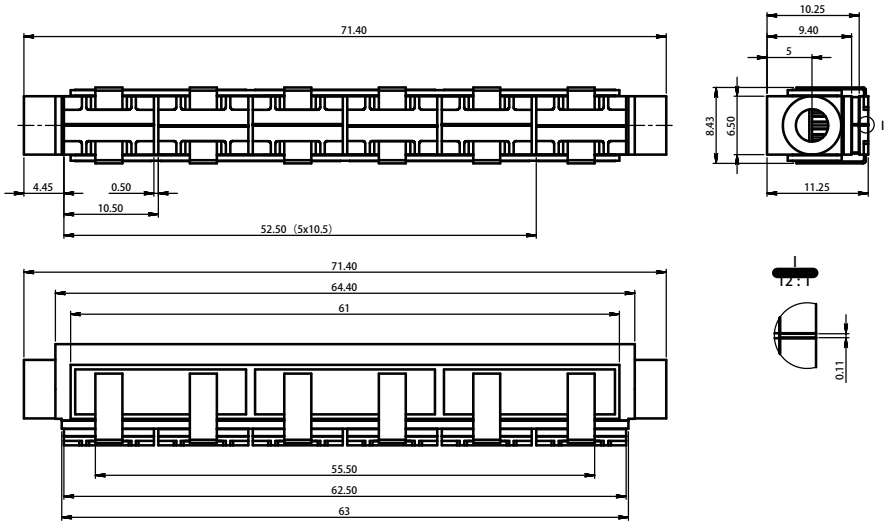
Optical Parameters		
Center Wavelength λ_c（nm）	790-812	
Wavelength Tolerance $\delta\lambda_c$（nm）	±3	
Output Power per Bar（W）	120	250
Number of Stacks	6	
Stack-to-Stack Pitch（mm）	0.5	
Maximum Peak Power（W）	2200	3000
Number of Bars per Stack	1-3	1-2
Bar-to-Bar Pitch（mm）	0.43	0.55
Spectral Width（FWHM）（nm）	<6	
Fast Axis Divergence Angle（FWHM）（°）	≤40	
Slow Axis Divergence Angle（FWHM）（°）	≤10	
Wavelength Temperature Coefficient（nm/℃）	~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（℃）	10-40	
Storage Temperature（℃）	-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.
4. 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.

Part Numbering Schema



Mechanical Drawings (in mm)



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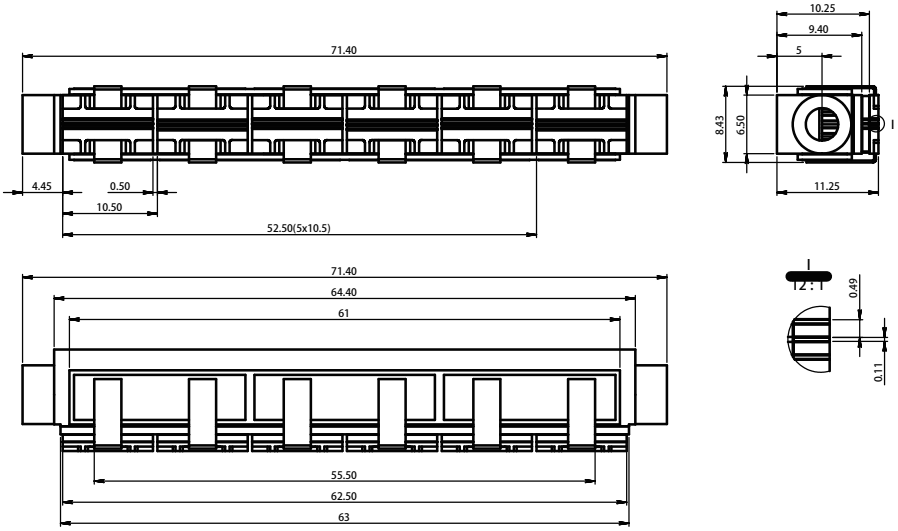

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