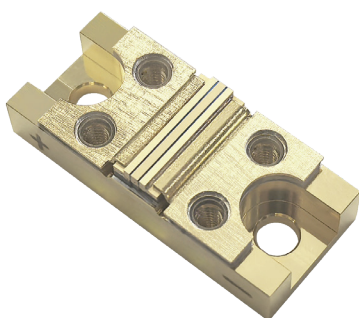


GS15 Conduction-cooled Vertical Stacked Diode Laser Array



GS15 series conduction-cooled vertical stacked diode laser array is Real-Light's self-developed laser component for wide-temperature applications. It is high-peak-power, compact and easy-to-integrate.

Key Features

- ◆ AuSn solder for packaging
- ◆ High peak power
- ◆ High reliability
- ◆ Multi wavelength integration

Applications

- Pumping source
- Scientific research

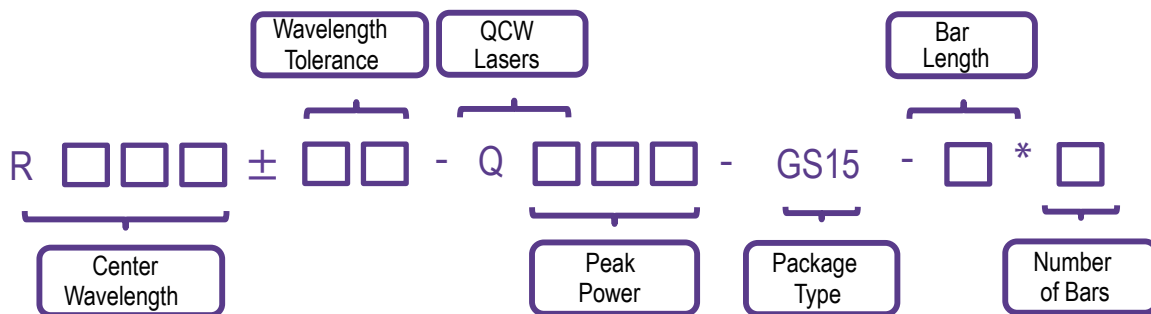
Technical Specifications

Optical Parameters			
Center Wavelength λ_c (nm)	940	790-812	
Wavelength Tolerance $\delta\lambda_c$ (nm)	± 5	± 3	
Output Power per Bar (W)	100	100	200
Number of Bars	1-2	5-12	5-10
Bar Length (mm)	10	10	
Bar-to-Bar Pitch (mm)	0.8	0.43	0.55
Spectral Width (FWHM) (nm)	≤ 5		
Fast Axis Divergence Angle (FWHM) ($^\circ$)	≤ 40		
Slow Axis Divergence Angle (FWHM) ($^\circ$)	≤ 10		
Wavelength Temperature Coefficient (nm/ $^\circ\text{C}$)	≈ 0.35		
Electrical Parameters			
EO Conversion Efficiency (%)	≥ 50		
Threshold Current I_{th} (A)	≤ 20	≤ 20	≤ 30
Operating Current I_{op} (A)	100	100	220
Operating Voltage V_{op} of each Bar (V)	≤ 2.1		
Duty Cycle	$\leq 6\% @ 200\text{W}$	$\leq 1\% @ 1200\text{W}$	$\leq 0.6\% @ 2000\text{W}$
Pulse Width (μs)	≤ 3000	≤ 300	
Repetition Rate (Hz)	1-20	1-30	1-20
Environment Parameters			
Operating Temperature ($^\circ\text{C}$)	-40~65		
Storage Temperature ($^\circ\text{C}$)	-45~85		

Notes:

1. Different wavelengths, numbers of bars, bar pitches and other specifications are available upon request.
2. 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)

