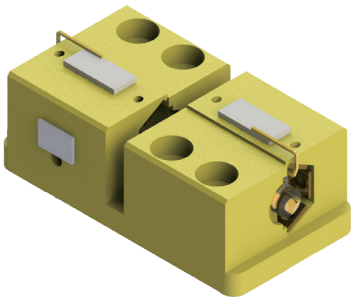
2400W Conduction Cooled QCW Diode Side-Pumped Module



RealLight's 2400W conduction-cooled QCW diode side-pumped module is composed of a self-developed PA-1 series polygonal conduction-cooled diode laser array and a solder-bonded laser crystal, achieving a water-cooling-free design. This compact module provides high peak power and outstanding tolerance to harsh environments.It delivers superior beam quality, low thermal effects, and high stability, making it widely used in solid-state lasers operating in harsh enviroments, such as airborne and vehicle-mounted devices.

Key Features

- Wide operating temperature range
- Uniform pump absorption
- High stability and reliability

Applications

Radar ranging

Target illumination

Space applications

Technical Specifications

Optical Parameters		
Pump Wavelength (nm)	808±3	
Spectral Width (nm)	≤5	
Pump Peak Power (W)	1800	2400
Crystal Material	Nd:YAG	
Crystal Diameter (mm)	Φ4×20	Φ5×20
Number of Crystals	2	2
Number of Bars	18	24
Electrical Parameters		
Operating Current (A)	<110	<110
Operating Volatge (V)	<36	<48
Working Mode	QCW	
Duty Cycle (%)	≤0.6	
Pulse Width (μs)	≤300	
Repetition Rate (Hz)	≤20	
Thermal Parameters		
Ambient Temperature (˚C)	-40~65	
Storage Temperature (˚C)	-45~80	

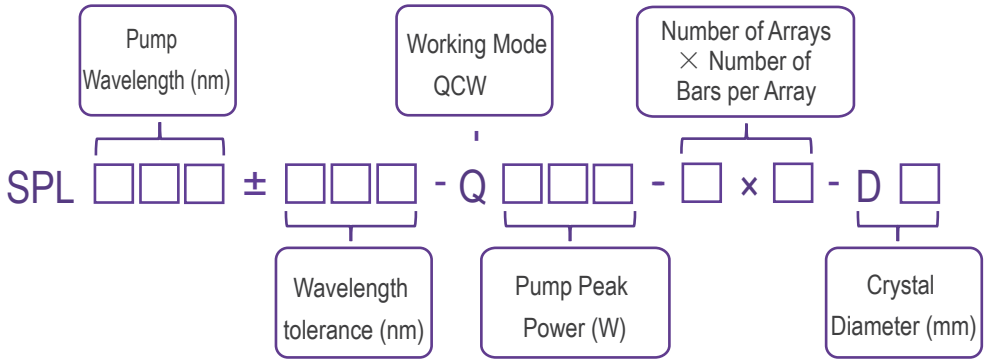
Notes:

1. Custom wedge angles for the crystal rod are available upon request.
2. Other wavelengths can be customized.
3. Other output powers are available.
4. All data in the table above are typical values measured at room temperature of 60°C. Final data is subject to the test report.

Order Information

Pump Wavelength (nm)	Part Number	Pump Peak Power (W)	Crystal Diameter (mm)	Number of Bars	Working Mode
808	SPL808±3-Q1800-6x3-D4	1800	4	18	QCW
	SPL808±3-Q2400-6x4-D5	2400	5	24	QCW

Part Numbering Schema



Mechanical Drawings (in mm)