



808nm 4000W QCW Water-Cooled Vertical Diode Laser Stack LDV808Q4000WW

Data Sheet



Description

The LDV808Q4000WW is an 808nm wavelength, vertical stacked diode laser array providing 100W/bar QCW and generating output power up to 4000W. The QCW diode laser array is water-cooled.

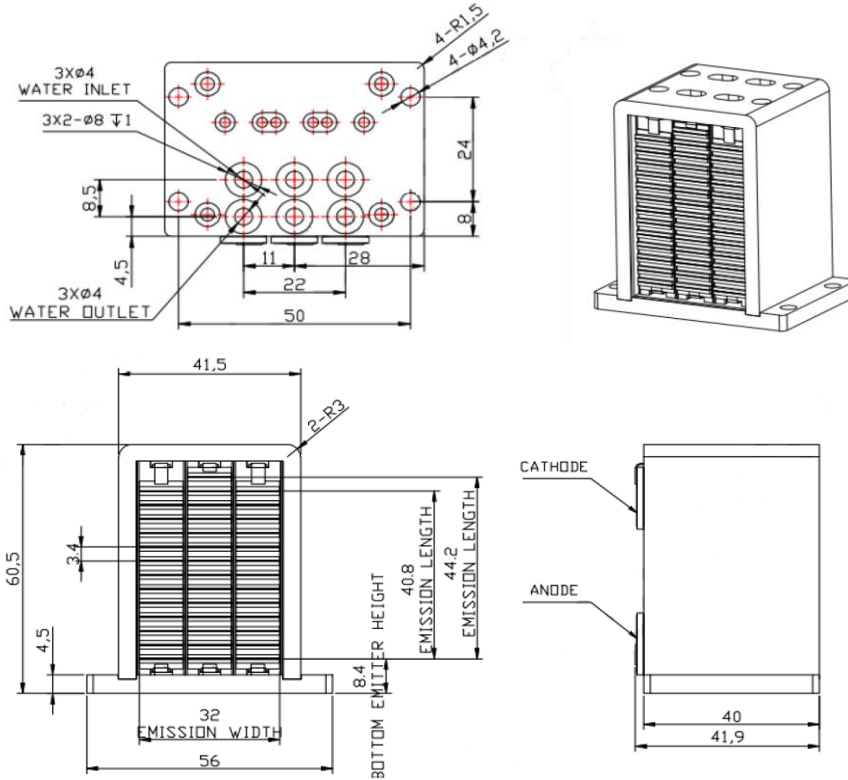
Features

- 808nm Water Cooled Vertical Stacked Array
- Containing 40 bars (100W QCW/bar)
- High output power: 4000W

Specifications (T_c = 25°C)

Optical Characteristics			
Parameter	Symbol	Value (Typ.)	Unit
Center wavelength	λ_c	808	nm
Wavelength tolerance		+/-10	nm
Operation mode		QCW	-
Output power	P _o	4000	W
Output power/bar	P _o /bar	100	W
Bar quantity		40	-
Pulse width		400	ms
Frequency		1	Hz
Fast axis divergence (FWHM)	θ_{\perp}	38	deg
Slow axis divergence (FWHM)	θ_{\parallel}	12	deg
Electrical Characteristics			
Parameter	Symbol	Value	Unit
Threshold current	I _{th}	25	A
Operating current	I _{op}	100	A
Operating voltage	V _{op}	80	V
Thermal Characteristics			
Parameter	Symbol	Value	Unit
Test temperature	T _{op}	25	°C
Storage temperature	T _{stg}	0 to +55	°C
Coolant		Distilled Water	
Flow rate/bar		12	L/min
Max inlet pressure		300-500	kPa
Water temperature (No condensation)		23-27	°C
Filtered water particles		<20	um

Mechanical Outline (unit: mm)



Notes

- Specifications are subject to change without notice. Ensure that you have the latest specification by contacting us prior to purchase or use of the product.
- Please make sure that the laser diode is operated under the temperature between 15 °C and 35 °C, as high temperature will increase threshold current, decrease exchange rate and accelerate the aging.
- Please take measures to avoid condensation, which will cause aging of laser diode.
- Take precautions to avoid electrostatic discharge and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- Observing visible or invisible laser beams with human eye directly, or indirectly, can cause permanent damage. Do not look directly into the laser output port.