



LDH1064CxWI

1064nm CW Microchannel Water-Cooled Horizontal Diode Laser Stack

Description

The LDH1064CxWI is an 1064nm wavelength, five-bar horizontal linear diode laser array providing up to 40W/bar CW and generating output powers up to 200W. The CW diode laser array employs micro-channels and enables water-cooling. The diode laser array is designed to provide the highest reliability and efficiency in pumping, industrial and medical applications.



Features

- 1064nm Micro-Channel Water-Cooled Horizontal Linear Array
- 5 bars (Up to 40W CW/bar)
- High output power: Up to 200W CW
- Spectral width: <5 nm
- High reliability
- High efficiency

Applications

- Pumping
- Industrial
- Medical

Product Overview

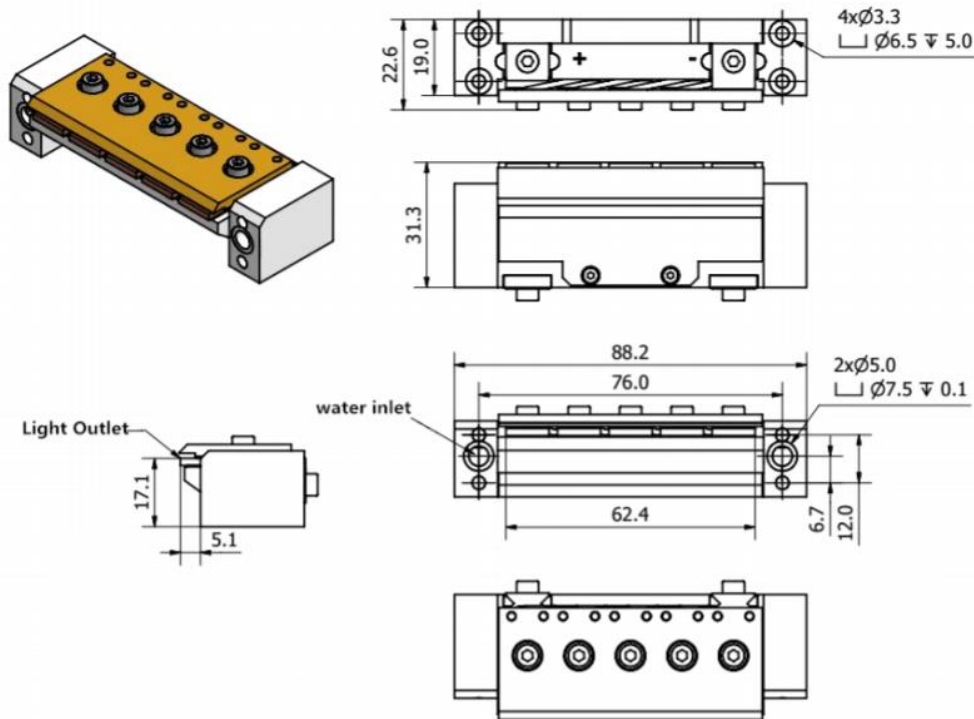
The following table lists the available part numbers, as well as the total output power, output power per bar, number of bars, and cooling method of each of the part numbers.

Part Number	Total Output Power	Output Power per Bar	Number of Bars	Cooling Method
LDH1064C200WI	200W	40W	5	Microchannel Water-Cooled

**Specifications ($T_c = 25^\circ\text{C}$)**

Optical Characteristics			
Parameter	Symbol	Value	Unit
Center wavelength	λ_c	1064	nm
Operation mode		CW	-
Output power	P_o	200	W
Output power/bar	P_o/bar	40	W
Spectral width	$\Delta\lambda$	<5	nm
Bar quantity		5	-
Fast axis divergence	θ_{\perp}	<39	deg
Slow axis divergence	θ_{\parallel}	<10	deg
Electrical Characteristics			
Parameter	Symbol	Value	Unit
Threshold current	I_{th}	<7	A
Operating current	I_{op}	<50	A
Operating voltage/bar	V_{op}	<2.0	V
Thermal Characteristics			
Parameter	Symbol	Value	Unit
Max. inlet pressure		65	psi
Cooling rate/bar		≥ 0.3	1/min
Cooling medium particle size		≤ 15	μm
Cooling medium conductivity		5 to 10	$\mu\text{s/cm}$
Operating temperature	T_{op}	15 to 35	$^\circ\text{C}$
Storage temperature	T_{stg}	-10 to +60	$^\circ\text{C}$

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.