



## LDH940QxWA

### 940nm QCW Macrochannel Water-Cooled Horizontal Array

#### Description

The LDH940QxWA is an 940nm wavelength, four-bar horizontal linear diode laser array providing up to 200W/bar QCW and generating output powers up to 800W. The QCW diode laser array employs macro-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

- 940nm Macro-Channel Water-Cooled Horizontal Linear Array
- 4 bars (Up to 200W QCW/bar)
- High output power: Up to 800W
- 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.

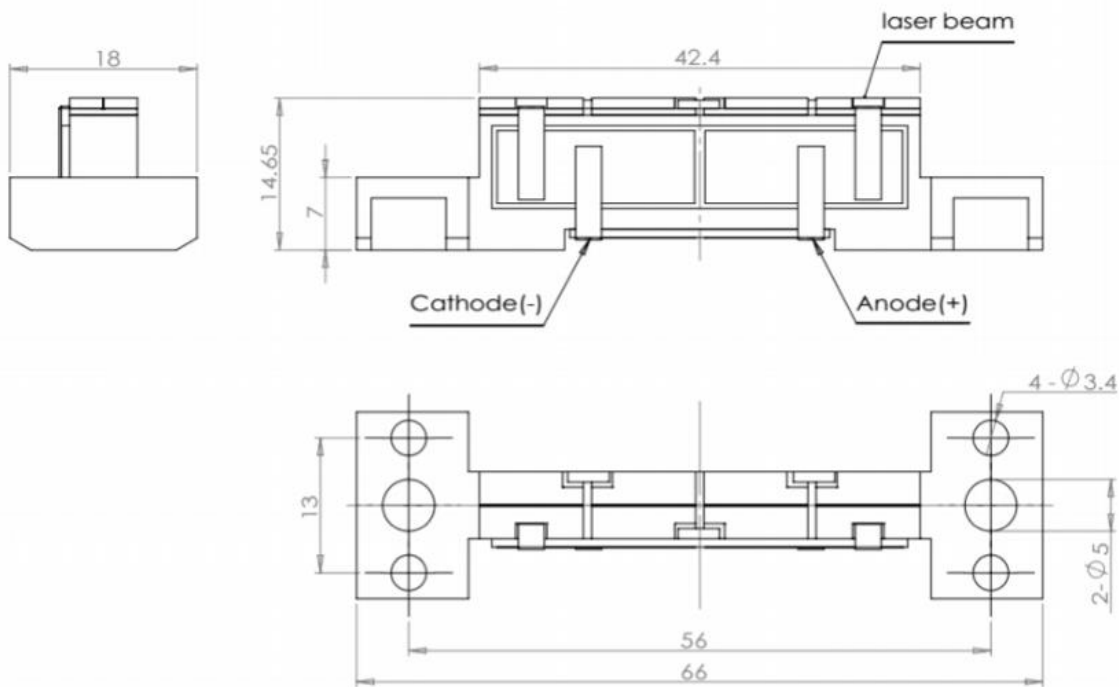
Part Number	Total Output Power	Output Power per Bar	Number of Bars	Cooling Method
LDH940Q400WA	400W	100W	4	Macrochannel Water-Cooled
LDH940Q800WA	800W	200W	4	Macrochannel Water-Cooled



**Specifications (T<sub>c</sub> = 25°C)**

<b>Optical Characteristics</b>				
<b>Parameter</b>	<b>Symbol</b>	<b>Value</b>		<b>Unit</b>
Center wavelength	$\lambda_c$	940		nm
Operation mode		QCW		-
Output power	P <sub>o</sub>	400	800	W
Output power/bar	P <sub>o</sub> /bar	100	200	W
Spectral width	$\Delta\lambda$	<5		nm
Bar quantity		4		-
Wavelength Temperature coefficient		0.28		nm/°C
Pulse width		<500		μs
Duty ratio		≤4		%
Fast axis divergence	$\theta_{\perp}$	<39		deg
Slow axis divergence	$\theta_{\parallel}$	<10		deg
<b>Electrical Characteristics</b>				
<b>Parameter</b>	<b>Symbol</b>	<b>Value</b>		<b>Unit</b>
Threshold current	I <sub>th</sub>	<25	<30	A
Operating current	I <sub>op</sub>	<110	<200	A
Operating voltage/bar	V <sub>op</sub>	<2.0	<2.0	V
<b>Thermal Characteristics</b>				
<b>Parameter</b>	<b>Symbol</b>	<b>Value</b>		<b>Unit</b>
Operating temperature	T <sub>op</sub>	15 to 35		°C
Storage temperature	T <sub>stg</sub>	-10 to +60		°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.