



Multi-Wavelength Macro Channel Diode Laser Array

Key Features

- ◆ Multi-wavelength operation:
755/808/940/1064nm
- ◆ Single-bar power: 50W/100W
- ◆ AuSn soldering
- ◆ Macro channel water cooling
- ◆ High power density
- ◆ High efficiency
- ◆ High reliability and stability
- ◆ Square spot output

Applications

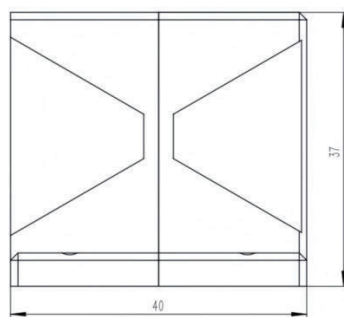
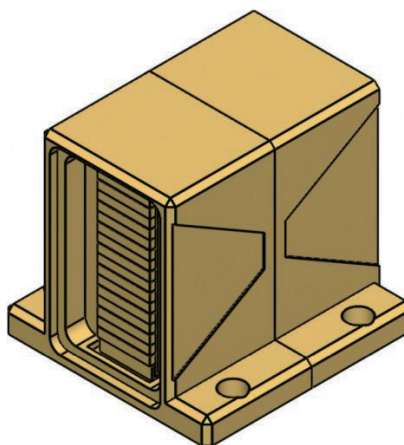
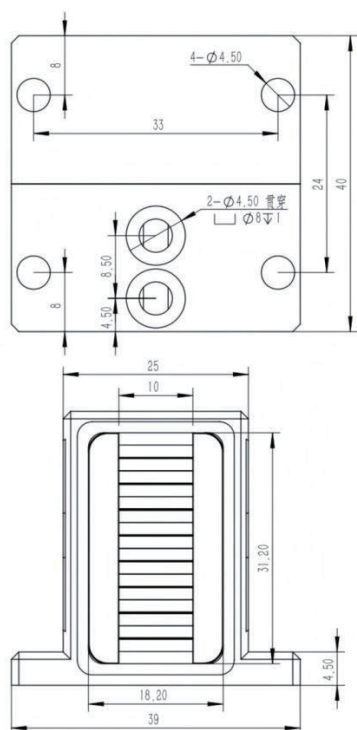
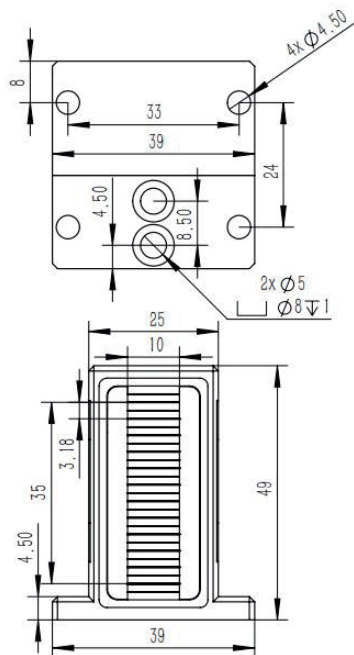
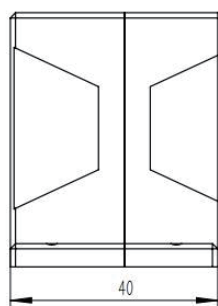
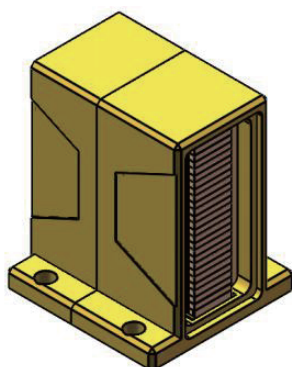
Hair removal
Skin rejuvenation

Technical Specifications

Optical Parameters	
Center Wavelength λ_c (nm)	755/808/940/1064
Wavelength Tolerance $\delta\lambda_c$ (nm)	± 15
Output Power (W)	250 ~ 1600
Number of Bars	5 ~ 16
Bar-to-Bar Pitch (mm)	2.1 ~ 3.81
Spot Size (mm)	8.4 ~ 34.7
Fast Axis Full Divergence Angle (FWHM) (°)	78
Slow Axis Full Divergence Angle (FWHM) (°)	20
Wavelength Temperature Coefficient (nm/°C)	~ 0.3
Electrical Parameters	
Operating Current I_{op} (A)	≤ 100
Threshold Current I_{th} (A)	≤ 20
Operating Voltage V_{op} (V)	≤ 32
Slope Efficiency per Bar (W/A)	≥ 1.1
Power Conversion Efficiency (%)	≥ 48
Duty Cycle (max., %)	40
Pulse Width (max., ms)	400
Repetition Rate (Hz)	1 ~ 10
Cooling Parameters	
Cooling Water Requirements	Deionized Water or Distilled Water
Water Temperature (°C) ¹	20 ~ 30
Water Pressure (Mpa)	0.2 ~ 0.5
Water Flow Rate (L/min) ²	3 ~ 5.5

1. Avoid laser operation in condensing environments, ensure ambient temperature exceeds minimum safe operating limits.
2. The water flow rate refers to the flow of cooling water exiting the laser system.
3. Custom wavelengths available upon request.
4. 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.

Mechanical Drawings (in mm)



Notes:

The light-emitting area dimensions in the diagram are for illustrative purposes only. Refer to specs for actual measurements.

