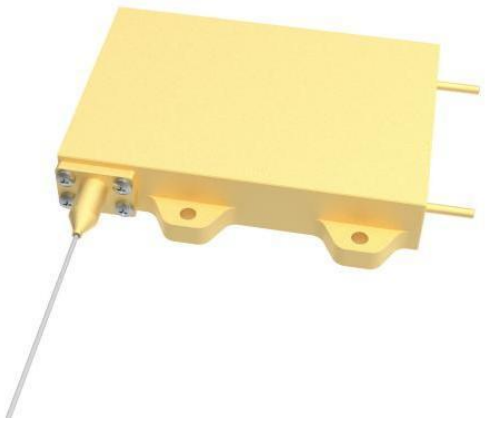
LMF-878.6A-C120-F200-C18 Specification Manual

Product Description

The product is a fiber coupled output diode laser, which is used as a pump source. It has the advantages of compact structure, small size, light weight, high power density, high electron-optical efficiency, stable performance and long life. Suitable for industrial processing, pumping, photoelectric detection, etc., is an important part of the system.



Main Feature

- High environmental adaptability
- High efficiency conduction heat dissipation
- Long life
- Compact structure and light weight

Main Application

- Solid state laser pump source
- Direct semiconductor
- Laser illumination
- Scientific research

Technical Parameter @25℃ Water Cooling

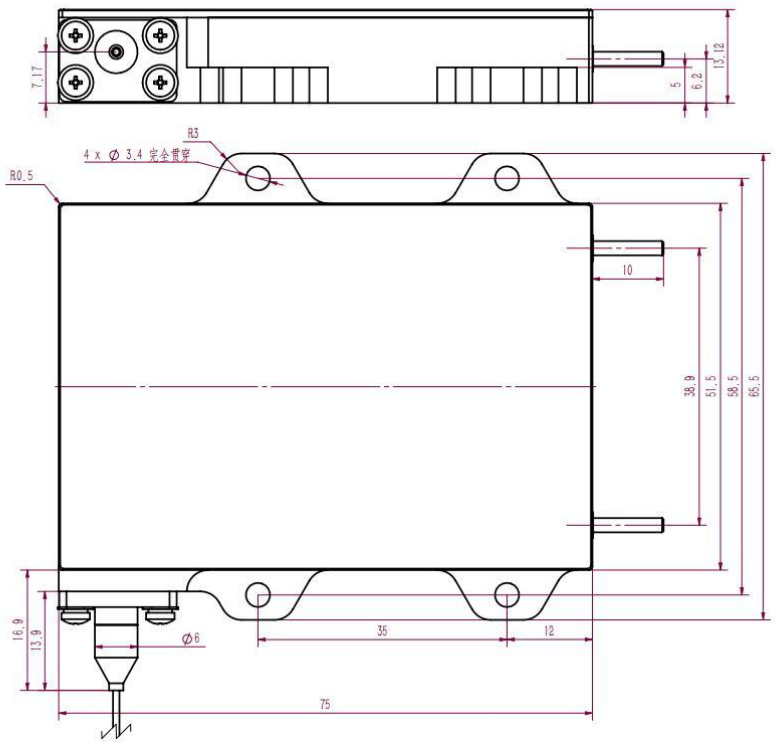
Optical Parameters	Units	Minimum	Typical	Maximum
Output Power 25℃	W	120		
Central Wavelength	nm	878.1	878.6	879.1
Spectra Width（FWHM）	nm			1
Wavelength locking range			30%-100% power	
95% power NA	NA		0.17	
Temperature drift	nm/℃		0.015	

coefficient				
Echo isolation	nm		1030-1200	

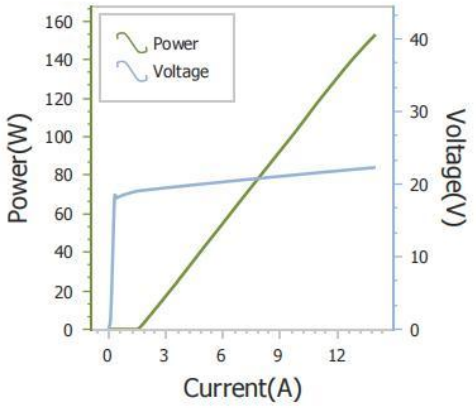
Electric Parameters	Units	Minimum	Typical	Maximum
Electron-optical efficiency	%	47	50	
Working Current	A		13	14
Working Voltage	V		22	24

Fiber Parameters	Units	Minimum	Typical	Maximum
Fiber core diameter	μm		200	
Fiber NA			0.22	
Fiber Cladding Diameter	μm		220	
Fiber Length	m		1.5	Customized
Fiber Optic Sheath Diameter	mm		0.9	Customized
Terminal			SMA 905	

Layout Drawing

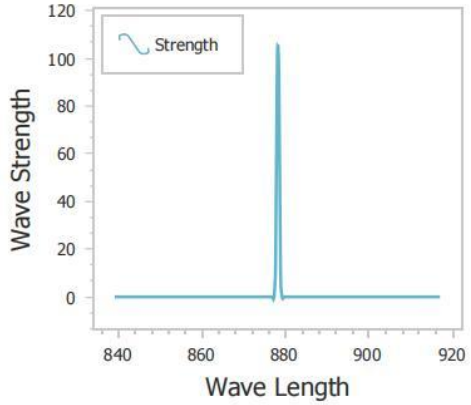


PIV



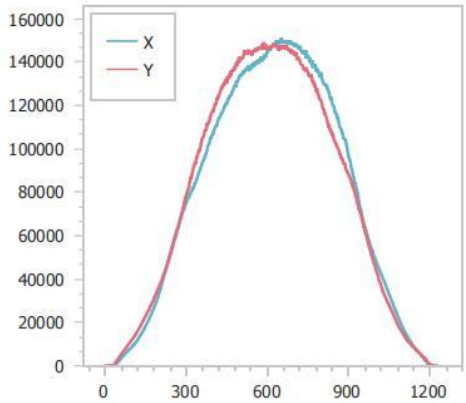
PIV Characteristics	Value
Pop(W)	152.78
Iop(A)	14.01
Von(V)	20.15
Ith(A)	1.61
V@Iop(V)	22.04
SE(W/A)	10.90
PE(%)	49.5
Rs(Ohm)	0.23

SPECTRUM



Spectrum Characteristics	Value
Iop (A)	14.01
Peak Wavelength (nm)	878.22
Center Wavelength (nm)	878.40
FWHM (nm)	0.38

LIGHT SPOT



FFP Characteristics	Value
Iop (A)	14.01
Percentage of Power (%)	100.00%
NA	0.18

Note:

- During transportation, storage, and use, anti-static measures must be taken, and short-circuit wires should be connected between the pins during transportation and storage.
- Before use, ensure the fiber optic end-face is clean.
- Use a constant current power supply and avoid peak currents and surges during operation.
- When the laser is in operation, avoid direct exposure of eyes or skin to the laser.
- The device should be used within its rated current and power.
- Ensure good heat dissipation when the laser is working; it is recommended to use high thermal conductivity silicone grease on the heat-conducting surface.
- For water cooling, a temperature range of 23-25 degrees Celsius is recommended.
- Do not bend the fiber optic cable at sharp angles; the bending radius should be greater than 300 times the diameter of the fiber.