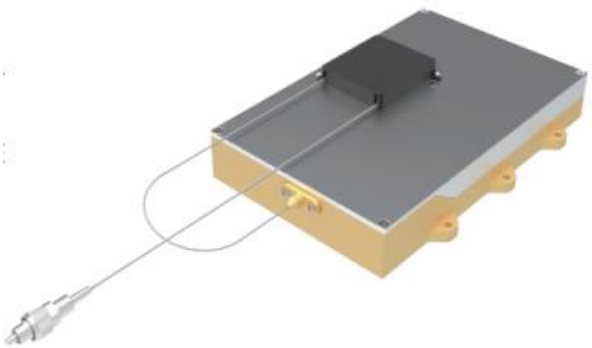
# LMF-525D-C20-F200 Specification List

## Product Description



The product is a fiber-coupled output semiconductor diode laser, which is used as a pump source. It has the advantages of compact structure, small size, light weight, high power density, high electro-optical efficiency stable performance and long life. Applied in fluorescence excitation, spectral analysis, photoelectric detection, and laser display etc., which is an important component of laser systems.

## Main Application

- Illumination
- Detection
- Scientific research

## Main Features

- High environmental adaptability
- High-efficiency conductive cooling
- Long lifespan
- Compact structure and lightweight

## Technical Parameter @25℃

| Optical Parameters | Units | Minimum | Typical | Maximum |
|---|---|---|---|---|
| Output Power | W | 20 | | |
| Central Wavelength | nm | | 525±5 | |
| Spectrum width (FWHM) | nm | | 10 | |
| 95% energy NA | NA | | 0.21 | |
| homogenization | | | 85% (with lens) | |
| **Electric Parameters** | **Units** | **Minimum** | **Typical** | **Maximum** |
| Electro-optical efficiency | % | 13 | | |
| Working Current | A | | | 2 |
| Working Voltage | V | | 66V-82V | |

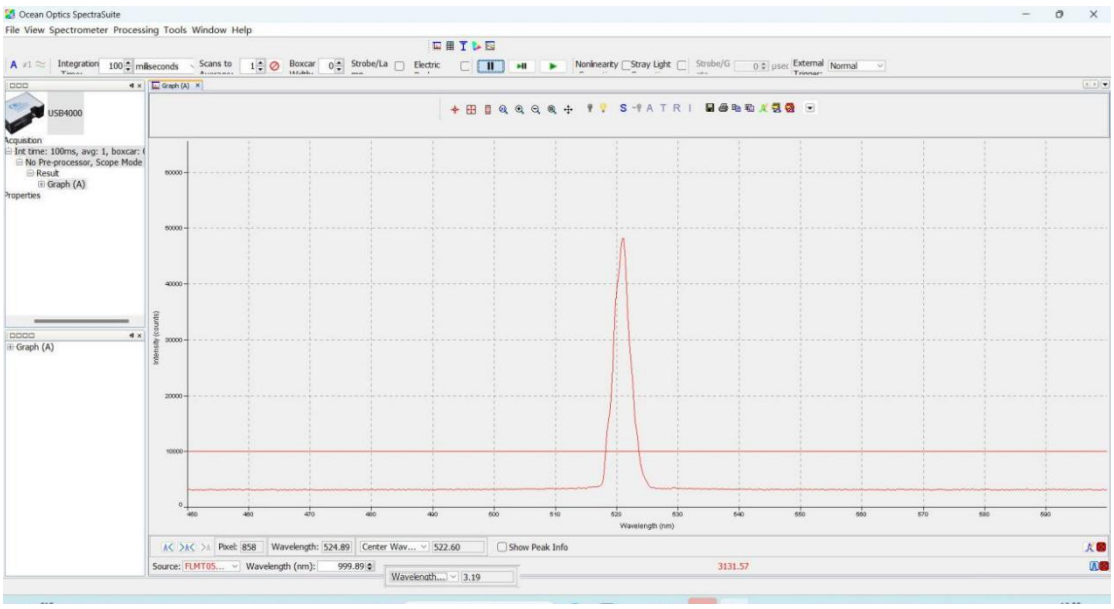
(2 channels, each 33V-41V, can be connected in series)

| Fiber Parameters | Units | Minimum | Typical | Maximum |
|---|---|---|---|---|
| Fiber core diameter | μm | | 200 | |
| Fiber Cladding Diameter | μm | | 220 | |
| Fiber NA | | | 0.22 | |
| Fiber Length | m | | 1±0.1 | Customized |
| Fiber Sheath Diameter | mm | | 0.9 | Customized |
| Fiber Connector | | | FC/SMA905 optional | |

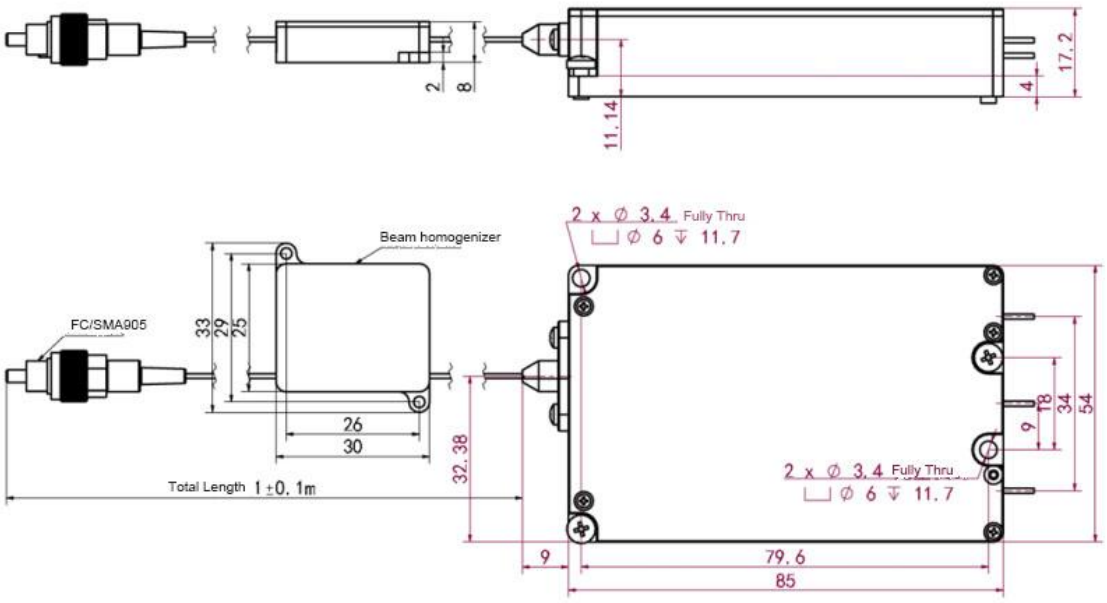
| Other Parameters | Typical |
|---|---|
| High and low temperature storage | First store at+70 ℃ for 1 hour, then store at -50 ℃ for 1 hour, cycle three times, with a heating and cooling rate of 3 ℃/min |

| Structure Parameters | Units | Minimum | Typical | Maximum |
|---|---|---|---|---|
| Dimension | mm | | 85×54×17.2 | |
| Weight | g | | 370 | |
| Platform | | | B16 | |

## Spectral Chart




## Layout Drawing




## Attentions

- 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.