

## LMF-976A-C100-F105-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

- Fiber laser pumping
- Direct semiconductor
- Laser illumination
- Scientific research

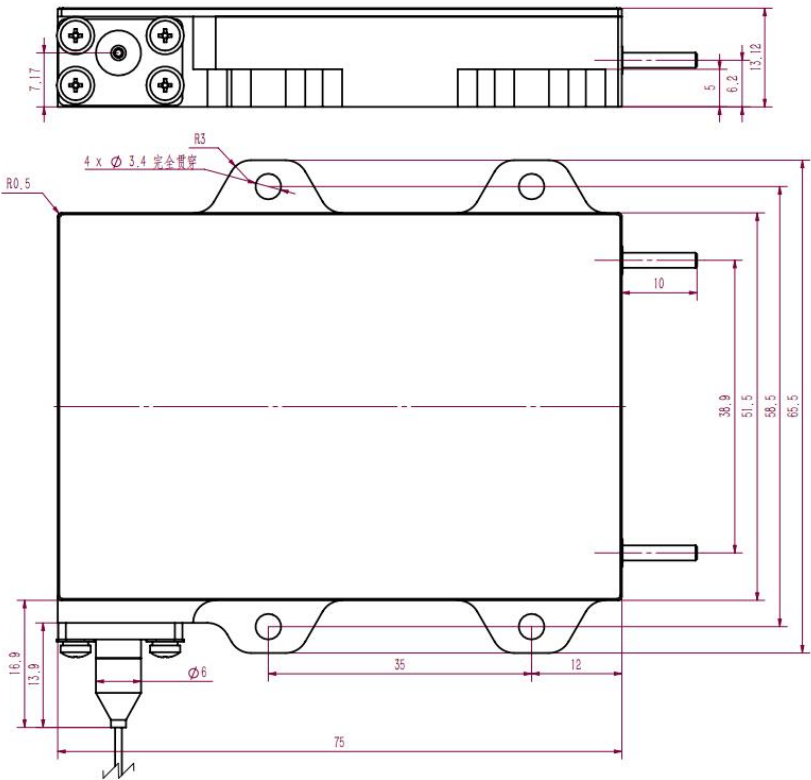
### Technical Parameter @25°C Water Cooling

| Optical Parameters            | Units | Minimum | Typical        | Maximum |
|-------------------------------|-------|---------|----------------|---------|
| Output Power 25°C             | W     | 100     |                |         |
| Central Wavelength            | nm    | 975.3   | 976            | 976.7   |
| Spectra Width (FWHM)          | nm    |         |                | 1       |
| Wavelength Locking Range      |       |         | 30%-100% power |         |
| 95% power NA                  | NA    |         | 0.17           |         |
| Temperature Drift Coefficient | nm/°C |         | 0.02           |         |
| Echo Isolation                | nm    |         | 1030-1200      |         |
| Electric Parameters           | Units | Minimum | Typical        | Maximum |

|                             |   |    |    |    |
|-----------------------------|---|----|----|----|
| Electron-optical Efficiency | % | 47 |    |    |
| Working Current             | A |    | 11 | 12 |
| Working Voltage             | V |    | 21 | 23 |

| Fiber Parameters            | Units | Minimum                | Typical | Maximum    |
|-----------------------------|-------|------------------------|---------|------------|
| Fiber Core Diameter         | μm    |                        | 105     |            |
| Fiber NA                    |       |                        | 0.22    |            |
| Fiber Cladding Diameter     | μm    |                        | 125     |            |
| Fiber Length                | m     |                        | 1.5     | Customized |
| Fiber Optic Sheath Diameter | mm    |                        | 0.9     | Customized |
| Terminal                    |       | Pigtail output/SMA 905 |         |            |

Layout Drawing



## 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.