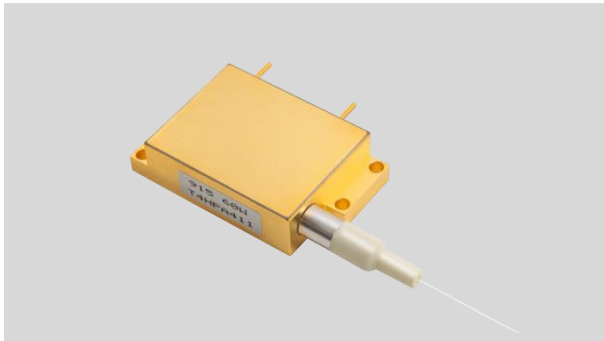


975nm 50W Uncooled Laser Diode Module with Red Aiming Beam

TY-975+/-10NM-50.0W-25C-105-0.22NA-T3SR



SkyEra delivers TY-975+/-10NM-50.0W-25C-105-0.22NA-T3SR diode lasers employing professional coupling technology, that enjoy multiple advantages, e.g., compact design, stable output power, high power, high efficiency and convenient packaging. These laser diode modules can provide solutions for fiber laser applications and direct suppliers.

The performance and aging tests have been performed upon the production line to guarantee reliable, stable and long lifetime of products. To provide customers with high-quality, high-cost performance products is the company's goal.

Specification:

Functional parameters are tested on condition that the heat sink temperature is 25 degree, contact resistance of the component and the heat sink is smaller than 1CM² K/W.

Parameter	Min	Typ	Max	Unit	Conditions
Output Power (CW)	48	50	-	W	
Output Power (QCW)	2.4	2.5	-	W	f:100HZ, Duty Cycle:5%
Centre Wavelength T3SR	965	975	985	nm	
Spectral Width (FWHM)	-	4.5	6	nm	
Threshold Current	-	0.5	0.9	A	
Operating Current	-	-	22.0	A	
Operating Voltage	-	5.0	6.0	V	
Conversion Efficiency	-	50	-	%	
90% Power	-	0.18	-	NA	
Wavelength shift vs. Temperature	-	0.35	-	nm/°C	
Slop Efficiency	-	2.5	-	W/A	
Storage Temperature	-30	25	70	°C	Non-Condensing
Operating Temperature	15	25	55	°C	
Fiber Bend Radius	37.5	-	-	mm	
Core Diameter	102	105	108	µm	
Aiming Beam-Red-Voltage	-	2.5	2.8	V	
Aiming Beam-Red-Current	-	0.2	0.25	A	
Aiming Beam-Red-Power	-	2	-	mW	
Numeric Aperture	0.2	0.22	0.24	-	
Fiber length	0.9	1.5	-	M	
Protection Tube	0.9	-	1.5	mm	
Fiber Connector	-	CO	-	-	

Key Parameters:

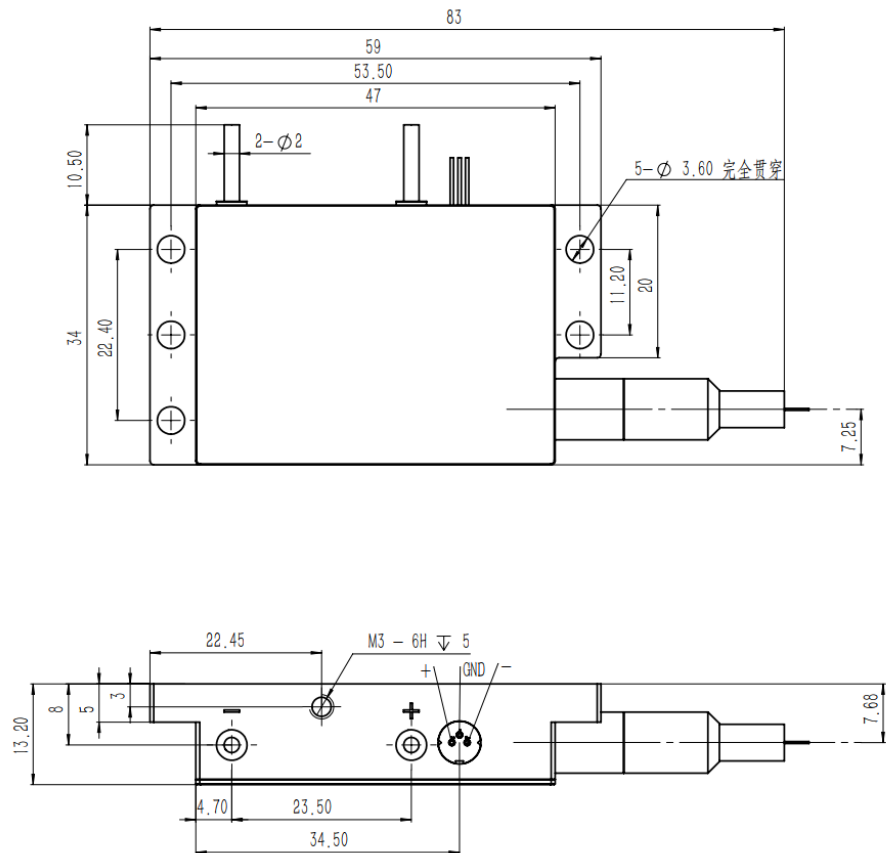
- Based on single fire spot laser module
- High output power 50W
- High stability
- 0.22NA 105µm core multimode fiber
- Parallel weld 2-Pin sealed package
- Standard central wavelength 975nm
- RoHS compliance
- Red Aiming Beam

Application:

- Medical cosmetology
- Soldering
- Pump source

2. Dimension Diagram

Unit:MM; undeclared tolerance: $\pm 0.5\text{mm}$.



3. Instructions

- Avoid eyes or skin exposure to direct or scattered radiation;
- ESD protection is required for transportation, storage and operation; short-circuit protection between pins is required for transportation and storage.
- Please connect pins by solder when operating current is over 6A; solder point should be close to the root of pins with a max soldering temperature at 260°C and a duration less than 10 seconds ;
- Drive constant current power supply by laser and avoid surge while working;
- Operate under rated current and rated power;
- Good heat dissipation is required;
- Please test with coated fiber in order to avoid chip damage by reducing back reflection;
- Operating temperature is $15^{\circ}\text{C}\sim 55^{\circ}\text{C}$;
- Storage temperature is $-30^{\circ}\text{C}\sim +70^{\circ}\text{C}$.

