# UT5-50G-780 LASER DIODE MODULE

# DATASHEET



#### FEATURES

- Adjustable Focus Beam
- High Stability & Low Noise
- ESD & Reverse Polarity Protected
- 1MHz Modulation

#### APPLICATIONS

- Measurement
- Automation
- Alignment

#### **Operational Hazard of Laser Module**

This laser module emits radiation that is visible/invisible and harmful to human eye. When in use, do not look directly into the laser emitting aperture. Direct viewing of laser diode emission at close range may cause eye damage.



#### **Limited Warranty**

One year. No warranty coverage for disassembly, modifications, or damage due to abuse or misapplication.



WORLD STAR TECH

## **SPECIFICATIONS**

FECIFICATIONS	
OPTICAL	
Wavelength	780 nm
Optical Output Power	50 mW
Laser Power Stability (with heat sink)	< 1%
Wavelength Drift	0.2nm/ºC
Laser Class	Class IIIB
Laser Operation	Continuous
Laser Structure	Single Mode Laser
Divergence (at collimation)	< 1 mrad
Spot Size	Elliptical Adjustable (default) Or Collimated (5mm) at 1m
Min Spot Size	< 100 µm at < 10" distance
ELECTRICAL	
Operating Voltage	3.3 to 5V DC
Operating Current	< 120 mA
Control Circuit	Auto Power Control
Electrical Connections	+ Red, - Black, White (TTL)
TTL Input <sup>1</sup>	Low (0-0.8V), High (3-5V)
MECHANICAL/ENVIRONMENTAL	
Dimension, mm	12mm (D)X 51mm (L)
Cable	200mm
Operating Temperature	+10°C to +50°C
Storage Temperature	-40°C to +80°C

**WORLD STAR TECH** 

1.For CW Operation connect the white wire to the red wire. TTL voltage should never exceed the operating voltage

2. This laser is designed to dissipate heat through its body. Do not use a thermally insulating material for mounting. Do not restrict air circulation around the device. An additional heat sink can be used to maximize the performance and life time.

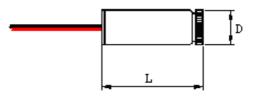
Recommended for extended use

UT Series Infrared Laser is sold only for use in OEM equipment. OEM responsible for compliance with all applicable safety regulations

Caution: The case is internally connected to the circuit. Damaging the anodized surface may result in failure of the laser module

### **OUTLINE DRAWING**

Heat Sink Requirements<sup>2</sup>



W www.worldstartech.com

Rev. 2021.01

P +1 905 415 2737 E info@worldstartech.com