

Transmitter Optical Sub-Assembly (TOSA) Laser Diode Package Test Fixture

## GENERAL PRODUCT INFORMATION

The TS-2000-A Transmitter Optical Sub-Assembly (TOSA) Laser Diode Package Test Fixture is designed to allow the user to easily mount and connect to Photodigm's Transmitter Optical Sub-Assembly (TOSA) Laser Diode package. It provides easy connections to an external laser diode driver controller and an external thermoelectric cooler controller.



## FEATURES

- Heat sink for high-powered laser diodes
- 15-Pin D-SUB Male Connector connects to thermoelectric cooler (TEC) controller
- 9-Pin D-SUB Male Connector connects to laser diode (LD) controller
- (4) ½-20 mounting holes
- (4) 4-40 mounting holes for a 30mm cage system
- Zero insertion force (ZIF) socket for flex cable
- Black anodized
- 72.6mm \* 50.8mm \* 44.5mm

## USER GUIDE

### Unpacking, Installation, and Laser Safety

- Remove the two (2) 2mm Allen head screws from the TOP cover
- Remove the TOP cover
- Ensure the mechanical latch on the ZIF socket is UNLOCKED
- Apply thermal grease to the bottom of the slot where the device under test (DUT) will be installed
- Install DUT through the front of the fixture, FLEX Cable end first
  - The silkscreen on the FLEX cable indicates which way is UP
  - Employ caution to prevent thermal grease from meeting the face of the DUT
- Set the DUT in place, the spring-loaded thumbscrew will keep it secure
- Install the FLEX cable in the ZIF socket and LOCK the mechanical latch
- Reinstall the TOP cover using the two (2) 2mm Allen head screws

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**Removal**

- Reverse the installation procedure
- Use caution to not contaminate the LENS of the DUT with thermal grease

**NOTE:** The fixture is designed for the 50.8mm FLEX cable but may be used with the 152.4mm cable. If using the 152.4mm cable carefully fold back the cable over itself. Employ caution to not crimp the cable (minimum 2mm bend radius). There is room available above the ZIF socket in the TOP cover.

**CAUTION**



- The TEC in the TOSA laser diode package is capable of temperature change rates of 50C/second
- Employ caution when configuring the control circuit
- The use of thermal grease is required for proper heat sink operation
- Ensure thorough coverage but use sparingly
- Follow proper ESD handling procedures when handling the DUT and FLEX cable
- Do not bend the Feed through Pins on the back of the DUT excessively (more than five (5) degrees) while installing or removing the fixture

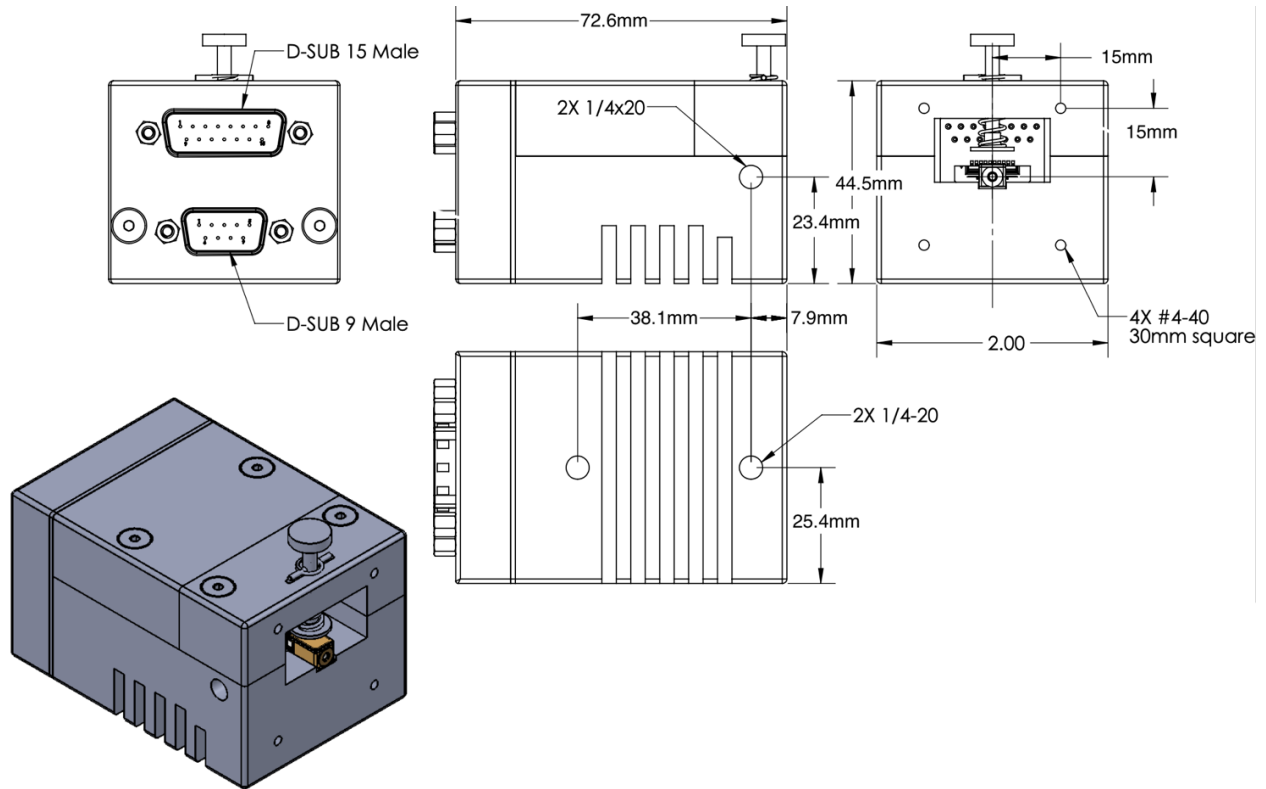
15-Pin D-SUB Male Pin Out		
Pin #	Row	Description
1	Top	Thermoelectric Cooler Positive (TEC+)
2	Top	Thermoelectric Cooler Positive (TEC+)
3	Top	Thermoelectric Cooler Negative (TEC-)
4	Top	Thermoelectric Cooler Negative (TEC-)
5	Top	Not Connected (NC)
6	Top	Not Connected (NC)
7	Top	Thermistor
8	Top	Thermistor
9	Bottom	Not Connected (NC)
10	Bottom	Not Connected (NC)
11	Bottom	Not Connected (NC)
12	Bottom	Not Connected (NC)
13	Bottom	Not Connected (NC)
14	Bottom	Not Connected (NC)
15	Bottom	Not Connected (NC)

9-Pin D-SUB Male Pin Out		
Pin #	Row	Description
1	Top	Not Connected (NC)
2	Top	Not Connected (NC)
3	Top	Not Connected (NC)
4	Top	Laser Diode Negative (LD-)
5	Top	Laser Diode Negative (LD-)
6	Bottom	Not Connected (NC)
7	Bottom	Not Connected (NC)
8	Bottom	Laser Diode Positive (LD+)
9	Bottom	Laser Diode Positive (LD+)

# DATA SHEET | TS-2000-A



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