

# **Product Reliability Tester (PRT-LASER-LP-5)**

## **Laser Diode Reliability & Burn-In**

### **Test System**



The custom Product Reliability Tester (PRT) is an Automated Test Equipment (ATE) system that provides a low cost, high performance, accelerated aging, burn-in, and qualification testing for laser diodes. The PRT uses precise control allowing the user to test up to 1024 laser diodes with various environmental chambers.

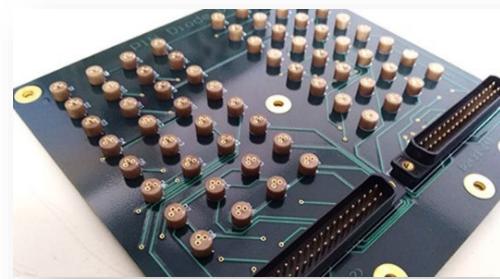
## Affordable & High Performance

## Powerful Software Interface

- An easy to use GUI provides real-time testing and functional reports
- Multiple test scenarios (recipes) are easily configured without complicated programming.
- FIT (Failure in Time) & Mean Time to Failure (MTTF) calculation
- LIV Curve, Threshold Current, Operating Current, Forward Voltage, Monitoring Current and Data Collection
- Designed for use by Operators & Supervisors
- E-mail notification

## Custom Interface Design

- Custom laser diode test fixture boards are built to meet your packaging & test specification
- Custom PRT system input and output interface board connections
- Custom interface control with third party environmental chambers
- Designed to operate up to 200°C



## Technical Data

|                               |   |
|-------------------------------|---|
| <b>Reliability Test</b>       | FIT (Failure In Time),<br>MTTF (Mean Time to Failure)<br>Light Intensity, Bias Current,<br>Forward Voltage (LIV),<br>Vmax, Imax, Imin |
| <b>Measured Quantities</b>    |   |
| <b>Number Test Components</b> | 64 - 1024   |
| <b>Current Range</b>          | 1mA - 200 mA  |
| <b>Current Accuracy</b>       | 0.1% F.S  |
| <b>Source Measure Board</b>   | Custom Interface Test Fixture   |
| <b>Current Sweep</b>          | 0.1 mA to 200 mA (200 steps)  |
| <b>Maximum Current</b>        | 200 mA  |
| <b>Default Current</b>        |   |
| <b>Measurement Resolution</b> | Analog to Digital 13-bit  |
| <b>Scan Time</b>              | 2 to 6 seconds per component  |
| <b>Input Voltage</b>          | 110V -240V AC   |
| <b>Power Consumption</b>      | 220 Watts   |
| <b>System Dimensions (mm)</b> | L-515 x W-477 x H-395 (size based on 64 component testing)  |
| <b>Material</b>               | Aluminum/Steel  |

## Essential Features

### Conforms to Test Standards

Telcordia (Bellcore) GR-468-CORE  
MIL-STD-883E, Test Method 1016

### Types of Testing

Accelerated aging, burn-in, and qualification testing

### Designed to Work with All Third-Party Environmental Test Chambers

HAST, HTOL, Autoclave, Temperature & Humidity, Bias Test

### Power Monitoring & UPS Backup

Power Failure mode ensures data integrity even through power blackouts

### Laser Diode Protection

Custom current high/low limits are set to protect the laser from damage during burn-in or reliability testing

Connection Diagram for RPT Station

