

# OP250

## Stabilized Light Source

### Overview

#### Stabilized Light Source

The **OP250** is a configurable stabilized light source available with a variety of Lasers or LEDs. Offered in a single or dual port configuration with selectable wavelengths, various power levels and industry standard optical interfaces. This instrument offers all the features and functions necessary for the development, testing and inspecting of optical components and cables. The stand-alone, internally powered module also connects to a USB port on any computer.

OptoTest offers drivers and applications which allow the user to perform common measurement tasks as well as data logging or time-stamped stability measurements. OPL-2 allows the user to adjust output power from 0 to 100%.



Model OP250 stabilized light source

### Features

- Source stability of 0.02 per hour (per 1°C variation)\*
- Wide variety of source wavelength options, including 635nm, 850nm, 1310nm, and 1550nm among many others
- Various types of sources including LEDs, Fabry-Perot lasers, and VCSELs
- Customizable fiber type such as 9/125µm, 50/125µm, 62.5/125µm, 105/125µm, 100/140µm, and POF
- Many common source connector outputs such as FC, SC, and ST
- Single or dual port configuration
- Remote control of output power via USB
- Integrated temperature monitoring
- Internal rechargeable Lithium-Ion battery

\* Standard wavelengths

Single Mode: 1310/1550; Multimode: 850/1300

### Applications

#### Generic Applications

The **OP250** is an economical light source solution to test or qualify optical components, cables and systems.

#### Cable Insertion Loss

When bundled with the **OP500** series optical power meters, the insertion loss can be efficiently logged and controlled with the **OPL-5** application software.

#### Multi-Wavelength Source

The **OP250** can be operated remotely making it easier to test multi-wavelength devices such as a WDM.

# SPECIFICATIONS

Optical Power Meter	1mm InGaAs	3mm InGaAs	5mm InGaAs	10mm InGaAs	3mm Silicon
Measurement Range	+6dBm to -72dBm at 1490nm	+3dBm to -72dBm at 1490nm	0dBm to -65dBm at 1490nm	0dBm to -55dBm at 1490nm	0dBm to -65dBm at 980nm
Wavelength Range	850nm to 1650nm				400nm to 1100nm
Selectable Wavelength	Standard wavelengths (850nm, 980nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm)				Standard wavelengths (650nm, 850nm, 980nm)
Measurement Resolution (Display)	0.001dB				
Absolute Accuracy	±0.25 dB at calibration conditions for all NIST traceable wavelengths				
<b>Measurement Linearity (Relative Accuracy)</b>					
Deviation ± 0.05dB	+3dBm to -65dBm at 1490nm	0dBm to -65dBm at 1490nm	0dBm to -55dBm at 1490nm	0dBm to -45dBm at 1490nm	0dBm to -55dBm at 980nm
Deviation ± 0.01dB	<10dB power variation	<10dB power variation	<10dB power variation	<10dB power variation	<10dB power variation

Return Loss	1310nm/1550nm	1310nm/1490nm/1550nm/1625nm	850nm/1300nm
Source Wavelength	1310nm, 1550nm	1310nm, 1550nm, 1490nm, 1625nm	850nm, 1300nm
Calibrated Measurement Range	-10dB to -80dB	-10dB to -80dB	-10dB to -58dB
Measurement Linearity	±1dB (-12dB to -72dB)	±1dB (-12dB to -72dB)	±1dB (-10dB to -45dB)
Distance Range	100 meters (standard)/ 2500 meters (Rep Rate adjusted)	100 meters (standard)/ 2500 meters (Rep Rate adjusted)	100 meters (standard)/ 2500 meters (Rep Rate adjusted)

Insertion Loss	1310nm/1550nm LASER	1310nm/1490nm/1550nm/1625nm LASER	850nm/1300nm LED
Source Center Wavelength	±30nm from nominal	±30nm from nominal	±30nm from nominal
Source Bandwidth	<10nm	<10nm	<140nm
Internal Fiber	9/125µm (SMF28)	9/125µm (SMF28)	50/125µm, 62.5/125µm, 105/125µm
Launch Condition	N/A	N/A	Available upon request
Output Power	Typical -1.5dBm	Typical -2.5dBm	-18dBm: 62.5/125µm
Source Stability*	±0.02dB	±0.02dB	±0.02dB

\* Over 1 hour with a max. change of 1°C

## Laser Classifications

All **OP930 Insertion Loss and Return Loss Test Sets** utilize a **Class I Laser Source**. Unless otherwise noted, all **OP250**, **OP715**, and **OP750** source units with internal laser sources utilize a **Class I Laser Source**. Unless otherwise noted, all **OP815** and **OP850 Insertion Loss Test Sets** with internal laser sources utilize a **Class I Laser source**. All **OP280 Visual Fault Finder** units utilize a **Class III Laser Source**.

OptoTest strongly suggests that all necessary precautions be taken whenever any Class I or Class III laser source is used.

Specifications are subject to change, please confirm specific performance characteristics of the product at the time of ordering. All specifications are valid within temperature range of 18°C to 24°C unless otherwise noted. For additional specifications please contact OptoTest.