OP510

# OP250

## Stabilized Light Source

## Overview

### Stabilized Light Source

The ***OP250*** is a configurable stabilized light source with a variety of **Lasers** and **LEDs**. Available in a **single port** or **dual port** configuration, selectable wavelengths, and 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 standalone, internally powered module also connects to the USB port of any computer. ***Opto*Test** provides for drivers and applications integrating it with the **OP500** series of power meters. This allows the user to perform common measurement tasks such as EXCEL compatible ***data logging*** or time-stamped


***Model OP250-LS-1310 shown***
*1310nm Laser, 0dBm with fixed FC/PC Interface*

## Features

- Stabilized Light Source

  Depending on the type of source the one hour stability is **better than 0.02dB.** LEDs and if necessary laser sources are temperature compensated.

- Single port Laser source

  Available wavelength are between **630nm and 1625nm** at power levels up to 5mW.

- Dual port Laser source

  Configured for telecom testing at 1310nm and 1550nm., other combinations are available per customer request.

- Single port or dual port LED source

  Selectable wavelength are between **630nm and 1550nm** with power levels up to 1mW. Special Launch Conditions such as underfill and overfill can be ordered.

- Internal chargeable battery

  The internal battery is based on latest Lithium Ion technology for longer lasting operation.

- USB Powered, plug&play data acquisition

Besides the internal chargeable battery or external power supply the OP250 is a bus powered, low power (<100mA) USB device. In addition to powering the source the battery is charged through the USB bus.

With the supplied drivers the source output power and modulation can be controlled remotely.

- Integrated ambient temperature tracking

If connected to the USB bus the OP250 measures the ambient temperature (ºC or ºF) within **-10ºC ...+55ºC** at a resolution of **0.1ºC**. This feature eliminates the need for an external temperature sensor during long-term stability testing.

## Applications

### Generic Applications

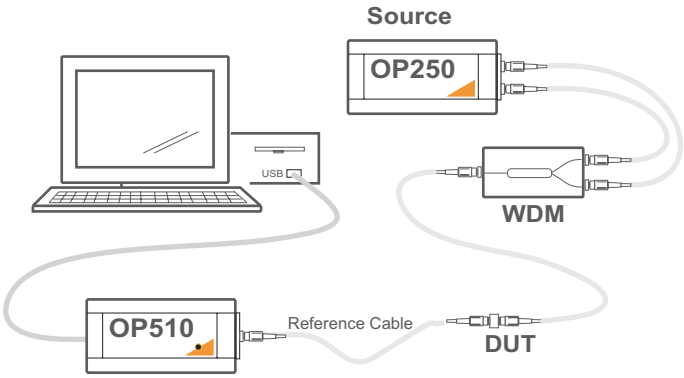
Wherever and whenever a light source is needed to test or qualify optical components, cables and systems the OP250 is an economical solution.

### Cable Insertion Loss

When bundled with the OP500 series optical power meters the insertion loss of cables is measured and logged efficiently all controlled with the OPL-5 application software.

### Multi-Wavelength Source

The remote control feature of the OP250 comes in handy when a device such as a WDM is tested with multiple wavelengths.



## OP-250

General

| | |
|---|---|
| Internal Power Source | Lithium Ion 1000 mAh Cell |
| External Power Source | Universal DC Power Supply 6VDC ... 12VDC , 500mA<br>Standard 2.1mm power plug , center positive |
| Power & Data Interface | USB powered, less than 100mA, USB 1.1 compatible data rate<br>internal battery is charged with USB power |
| Power Control | Keyboard function: up & down control 0% ..100%<br>Remote control through USB |
| Modulation | Keyboard function: CW or 1kHZ<br>Remote control through USB: CW, 100Hz .. 10kHz |
| Operating Temperature Range | -10 ºC ... 55 ºC (32ºF ... 131ºF) |
| Mech Dimension | 123x68x30 mm (4.8 x 2.7 x 1.25 inch) |
| Optical Interface (in general) | source built into bulkhead: FC, ST, SC<br>bulkhead with internal service fiber: FC, ST, SC, LC, custom |
| Single Port<br>Dual Port | All OP250 are available with a single port or a dual port configuration.<br>The wavelength are freely selectable, Laser and LED can be mixed. |

## OP-250-LD LED Source

Detail Specifications

| | -650 | -780 | -850 | -1310 | -1320 | -1550 |
|---|---|---|---|---|---|---|
| Center Wavelength (typical)<br>Range | 650nm | 780nm<br>760nm...<br>...800nm | 860nm<br>840nm...<br>...880nm | 1310nm<br>1260nm...<br>...1340nm | 1320nm | 1550nm<br>1510nm...<br>...1580nm |
| Spectral Width (FWHM) | 20nm | 50nm | 50nm | 50nm | 135nm | 50nm |
| Output Power (typical at room temperature)<br>50/125µm GI fiber<br>62.5/125µm GI fiber | -6dBm<br>into<br>1mm POF | -13dBm<br>-10dBm | -15dBm<br>-10dBm | -12dBm<br>-12dBm | -15dBm | -12dBm |
| Stability (at 21ºC +/- 5ºC)<br>60 minutes<br>12 hours | | 0.05dB | 0.05dB | 0.05dB | 0.05dB | 0.05dB |
| Optical Interface (other options available) | SMA | ST | ST,SC,FC | ST,SC,FC | ST,SC,FC | ST,SC,FC |

## OP-250-LS Laser Source

Detail Specifications

| | -850 | -830 | -980 | -1310 | -1550 | -1625 |
|---|---|---|---|---|---|---|
| Center Wavelength (typical)<br>Range | 850nm<br>830nm...<br>...860nm | 830nm<br>820nm...<br>...840nm | 980nm<br>965nm...<br>...995nm | 1310nm<br>1290nm...<br>...1330nm | 1550nm<br>1530nm...<br>...1570nm | 1625nm<br>1610nm...<br>...1650nm |
| Spectral Width (FWHM) | 0.5nm | | | 5nm | 5nm | |
| Output Power (typical at room temperature)<br>singlemode fiber<br>50/125µm GI fiber | -0dBm | -0dBm | -0dBm | -0dBm | -0dBm | -3dBm |
| Stability (at 21ºC +/- 5ºC)<br>60 minutes<br>12 hours | | | | 0.02dB | 0.02dB | 0.02dB |
| Optical Interface (other options available) | all | ST,SC,FC | ST,SC,FC | ST,SC,FC | ST,SC,FC | SC,FC |

**NOTE:** All specifications are valid within temperature range of 18º C to 24ºC unless otherwise noted. Specifications are subject to change, please confirm specific performance characteristics of the product at the time of ordering.

DS250RevA1