OP250

OP250
Stabilized Light Source

Overview

Stabilized Light Source

The ***OP250*** is a configurable stabilized light source with a variety of **Laser**s and **LED**s. 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 ***stability measurements***.

Model OP250-LS-13/15 shown
1310nm & 1550nm Laser, 0dBm with 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 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

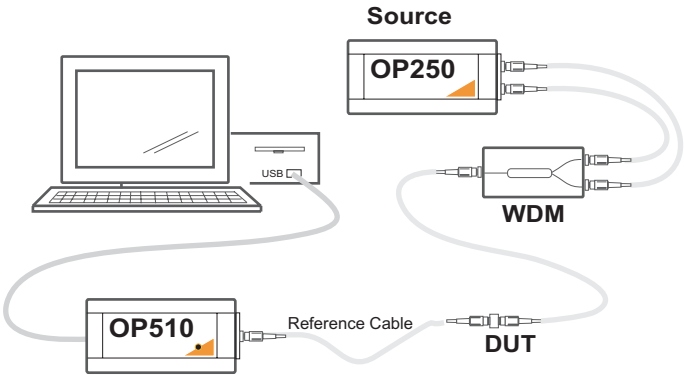
Wherever and whenever a light source is needed to test or qualify optical components, cables and systems the OP250 is an economical solution.

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 Standard 2.1mm power plug , center positive
Power & Data Interface	USB powered, less than 100mA, USB 1.1 compatible data rate internal battery is charged with USB power
Power Control	Keyboard function: up & down control of output power Remote control through USB
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 receptacle FC, ST, SC bulkhead with internal service fiber: FC, ST, SC, LC, custom
Single Port Dual Port	All OP250 are available with a single port or a dual port configuration. The wavelength are freely selectable.

OP-250-LD LED Source

other wavelength upon request

Detail Specifications

	-650	-780	-850	-1300	-1550
Center Wavelength (typical) Range	650nm	780nm 760nm... ...800nm	850nm 820nm... ...880nm	1300nm 1270nm... ...1330nm	1550nm 1520nm... ...1580nm
Spectral Width (FWHM)	20nm	50nm	80nm	180nm	50nm
Output Power (typical at room temperature) 50/125µm GI fiber 62.5/125µm GI fiber	-6dBm into 1mm POF	-13dBm -10dBm	-15dBm -13dBm	-18dBm -17dBm	-17dBm
Stability (at 21ºC +/- 5ºC) 60 minutes 12 hours		0.05dB	0.05dB	0.05dB	0.05dB
Optical Interface (other options available)	SMA	ST	ST,SC,FC	ST,SC,FC	ST,SC,FC

OP-250-LS Laser Source

other wavelength upon request

Detail Specifications

	-850	-830	-980	-1310	-1550	-1625
Center Wavelength (typical) Range	850nm 830nm... ...860nm	830nm 820nm... ...840nm	980nm 965nm... ...995nm	1310nm 1290nm... ...1330nm	1550nm 1530nm... ...1570nm	1625nm 1610nm... ...1650nm
Spectral Width (FWHM)	0.5nm			5nm	5nm	
Output Power (typical at room temperature) singlemode fiber 50/125µm GI fiber (VCSEL only)	-0dBm -3dBm	-0dBm	-0dBm	-0dBm	-0dBm	-3dBm
Stability (at 21ºC +/- 5ºC) 60 minutes 12 hours	SM: 0.05dB MM: 0.1dB	SM: 0.05dB	SM: 0.05dB	0.02dB	0.02dB	0.02dB
Optical Interface (other options available)	ST,SC,FC	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.

DS250RevA5