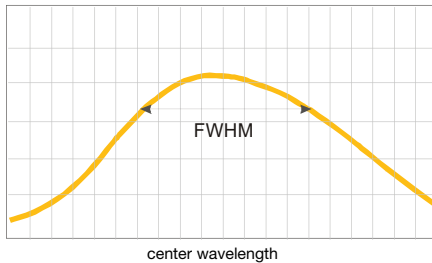


# Specifications

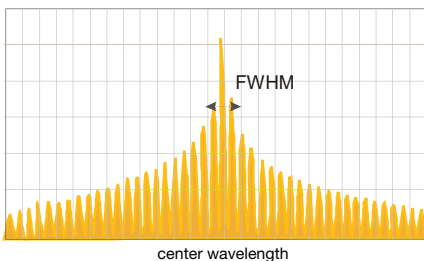
Internal Power Source	Lithium Ion 1000 mAh Cell
External Power Source	DC Power Supply, +5VDC , 500mA Standard 2.1mm power plug , center positive
Power & Data Interface	USB powered, less than 100mA, USB 1.1 compatible data rate internal battery is charged with USB power
Power Control	Keyboard function: up & down control of output power Remote control through USB
Operating Temperature Range	-10 °C ... 55 °C (32 °F ... 131 °F)
Mechanical Dimension	123x68x30 mm (4.8 x 2.7 x 1.25 inch)
Optical Interface	source built into bulkhead or internal service fiber

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

Light Emitting Diode (LED)  
Typical Spectrum



Fabrit Perot Laser  
Typical Spectrum



## Source Specific Parameters

### Source Wavelength

The nominal wavelength for each source is indicated by the module part number (for example OP-LS-850 -> wavelength is 850nm). The actual center wavelength for each source can vary within +/-20nm.

### Output Power

The nominal output power for each source is a minimal specification. With the source level adjustment set to maximum this nominal output power should be achieved, given a clean connector interface and the use of a matching fiber to measure the output power.

### Power Stability

Inherently the OP250 sources are stable to better than +/- 0.05dB. For true singlemode sources this stability can be easily achieved by using all singlemode fiber. For stability measurements using multimode fiber the results can expand beyond this range due to changes in modal distribution (caused by fiber movement and temperature).

NOTE: The singlemode core-size of the fibers gets smaller with lower wavelength (example 980nm -> 6-7µm).

### Limited Warranty

OptoTest warrants to the original purchaser only, that the equipment is free from defects in material or workmanship. This warranty expires two year from the date of shipment unless noted otherwise. If the original purchaser discovers within the warranty period a defect in material or workmanship, one must promptly notify OptoTest in writing. During the warranty period, OptoTest will, at its option, either repair or replace any product that proves to be defective. These remedies are the purchaser's only remedies for breach of warranty. The warranty contained herein does not apply to defects resulting from unauthorized modifications or misuse of any product part thereof. The optical interfaces are fragile and require proper use and handling. The warranty is void if the optical interfaces are damaged or broken or if anyone except trained OptoTest personnel opens, services or calibrates the instrument. For connector, components and optical interfaces the warranty does not apply to normal wear and tear. With regard to instruments and related equipment the warranty does not apply to fuses, batteries, or damage from battery leakage. The warranty contained herein is in lieu of all other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular use. In no event will OptoTest be liable for any indirect, special, incidental or consequential damage based on breach of warranty, breach of contract, negligence, strict tort or any other legal theory.

Full warranty details can be found at [www.optotest.com](http://www.optotest.com)

## Short Instructions



**Invisible Laser Radiation**  
Avoid Direct Exposure to Beam

Peak Power <500mW  
Wavelength 630nm - 1650nm



# OP250

## Stabilized Light Source

OptoTest Corp.  
4750 Calle Quetzal  
Camarillo, CA 93012

805.987.1700  
sales@optotest.com  
engineering@optotest.com

### Power On | Off Button

- Push button to power the module, a green standby indicator will light up. This will put the module into standby mode, the sources are not active.
- Push button power off instrument.

NOTE: Connecting to the USB port will power on the module into standby mode. If the unit is powered off and data is sent via USB the module will power on as well.

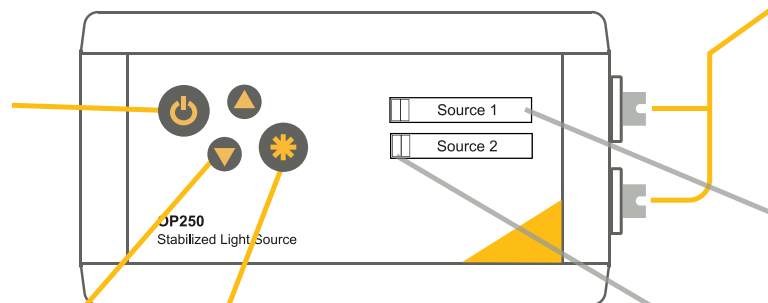
### Increase/Decrease Optical Power

Pushing the up or down button will increase or decrease the optical power of the selected source(s). If the button is pressed continuously the rate of increase will speed up and eventually stop at the minimum respectively maximum, of the setting.

NOTE: The range of the power adjustment is different for each laser and is to be used for minimal fine tuning of source power. For loss measurements a proper REFERENCE is necessary at all times.

### USB Port

Use the USB A-B cable to connect to the computer port. The USB port provides power to the module, charges the battery and provides the high speed data interface to the computer.



### Optical Ports

Depending on the option, the OP250 is equipped with one or two optical ports. If not in use, the optical port should be kept clean from dust and covered with the appropriate cap.

### Source Description

The wavelength and nominal source power are noted in the corresponding fields.

### LED Indicators

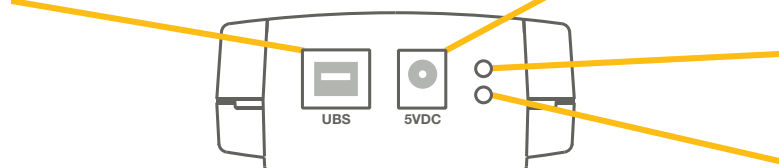
- Green LED: Indicates standby power of corresponding source. During USB traffic the upper green LED will flash briefly.
- Yellow LED: Indicates the corresponding source is active. During adjustment of the source power the corresponding LED will flash briefly.

### Source Mode

- Single Source Module: The source mode button activates or deactivates the source. If activated the yellow indicator lights up.
- Dual Source Module: The source mode button sequentially activates or deactivates the two sources in the following order: source 1, source 2, both sources, all off. The corresponding yellow indicator will light up.

Connector for external DC power supply  
Voltage range: +5VDC nominal, 0.5A

NOTE: Charging a fully discharged battery through this port requires 0.5A current. Over voltage on this port will overheat the internal charging circuit!



- LED Indicator for external DC voltage is illuminated if external voltage is present
- LED Indicator for USB port voltage is illuminated up if USB port is active, powers the module and charges the battery.