Fiber Optics

OptoTest
Test Solutions for Fiber Optics

LASER COMPONENTS

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 or dual port configuration, 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 standalone, internally powered module also connects to the USB port of any computer. OptoTest 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 stabilized light source

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. InGaAs detector, +6dBm...-75dBm for Silicon detector.
- **Single Port Laser Source**
  Available wavelengths 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 or Dual Port LED Source**
  Selectable wavelengths 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 (C° or F°) within -10 C° ...+55 C° at a resolution of 0.1 C°. This feature eliminates the need for an external temperature sensor during long-term stability testing.

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 of cables is measured, logged and all efficiently 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.

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		OP250
General	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 (in general)	source built into receptacle FC, ST, SC bulkhead with internal service fiber: FC, ST, SC, LC, custom
	Single Port / Dual Port	All OP250s are available with a single port or a dual port configuration. The wavelengths are freely selectable.

OP-250-LD	LED Source	-650	-780	-850	-1300	1550
Detail Specifications	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 21°C +/- 5°C) 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

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.

OP-250-LS	Laser Source	-850	-830	-980	-1310	-1550	-1625
Detail Specifications	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) 50/125µm GI fiber 62.5/125µm GI fiber	-0dBm -3dBm	-0dBm	-0dBm	-0dBm	-0dBm	-0dBm
	Stability (at 21° C +/- 5° C) 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

All specifications are valid within temperature range of 18° C to 24° C unless otherwise noted.
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