

OP510

Fiber Optic Power Meter

Overview

Fiber Optic Power Meter Module

The **OP510** was specifically designed for applications where cost effective solutions for measuring, monitoring and logging of insertion loss or power fluctuations are needed. The **OP510** is a small (4"x2"x1.25") desk friendly module designed such that minimal movement and bending of the reference and test cables is necessary. This results in stable, accurate and repeatable measurements.

A unique feature of the **OP510** is the 16 position bar graph that displays the user the approximate power absolute or relative power level. The TEST button on the module allows the user to the reference function or to trigger a computer based measurement.

The **OP510** is offered with various detectors with an adapter system or fixed optical interfaces. These options cover a wide variety of applications.

The USB powered module connects directly to the computer. OptoTest provides for drivers and applications allowing the user to perform common measurement tasks such as EXCEL Microsoft Spreadsheet compatible data logging or time-stamped stability measurements.



Model OP510 USB Power Meter

Features

High Precision Fiber Optic Power Measurement

- Extended optical power measurement range, depending on the selected detector +10dBm...-80dBm for InGaAs detector, +6dBm...-75dBm for Silicon detector.
- Wide wavelength range 830nm ... 1700nm (InGaAs), 580nm ... 1080nm (Si).
- Great measurement resolution of 0.001 dB.
- Tight linearity specifications: +/- 0.05dB.
- Selectable sample rate selected by application : 1 sample/sec .. 100 sample/sec.
- Integrated Ambient Temperature Tracking
- Pass / Fail display with user defined limits
- Turnkey measurement solutions

USB powered, plug and play data acquisition

The **OP508** is a bus powered, lower power (<100mA) USB device. With the supplied drivers data can be transferred to and from the module at 0.2Mb/s.or per IEC specifications

The **OP510** measures the ambient temperature (C° or F°) within -10 C° ...+55 C° at a resolution of 0.1° C. This feature eliminates the needs for an external temperature sensor during long-term stability testing.



OP510

Fiber Optic Power Meter

Applications

Stability-and Long-term Loss Characteristic of Optical Components

Bundled with the **OPL5** Optical Power Meter Software the **OP510** is a cost-effective system for measuring stability of passive fiber optic components and optical sources. Monitoring the ambient temperature is a necessity, minor fluctuations can influence the outcome of the measurements. The **OP510** measures and reports ambient temperature eliminating the need for an external monitor.

Production Testing of Connectors and Components

In a production environment where the insertion loss of cables or other components is measured the **OP510** offers a cost effective solution. The module offers a programmable Pass/Fail indicator indicating the result of the IL measurement to the user instantly. The **OPL5-Pro** Component Test Software has the capability to log the test data, part number, and serial number directly into spreadsheets. The Test button on the module allows the user to trigger measurements on the desk.

	OP510-IN-XX	OP510-SI-XX	OP510-IN1
Measurement Range	+6dBm..-75dBm	+6dBm..-75dBm	+10dBm..-80dBm
Wavelength Range	830nm .. 1700nm	580 .. 1080nm	830nm .. 1700nm
Selectable Wavelength ¹⁾	16	16	16
Measurement Resolution	0.001dB	0.001dB	0.001dB
Calibration Points ²⁾	850/1310/1550nm	630/850/980nm	850/1310/1550nm
Measurement Linearity, Relative Accuracy	0.05dB	0.05dB	0.05dB
Power & Data Interface	USB powered, less than 100mA, USB 1.1 compatible data rate		
Operating Temperature Range	-10° C ... 55° C (14° F ... 131° F)		
Mechanical Dimensions	105x55x30 mm (4 x 2 x 1.25 inch)		
Optical Interface	Fixed optical interface FC/ST/SC		5/8" Adapter

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

1) Calibration against NIST traceable standard @ -10dBm.

2) Linearity for loss <5dB and absolute power within 0dBm..-55dBm

3) Linearity for loss <5dB and absolute power within 0dBm and -50dBm

NOTE: Specifications are subject to change, please confirm specific performance characteristics of the product at the time of ordering.