

# OP508

## Fiber Optic Power Meter

### Overview

#### Fiber Optic Power Meter Module

The **OP508** was specifically designed for applications where cost-effective solutions for measuring, monitoring and logging of insertion loss or power fluctuations are needed. The **OP508** 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.

The **OP508** is offered with various detectors and connector styles with a fixed optical interface covering 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 data logging or time-stamped stability measurements.



Model OP508 Fiber Optic Power Meter

### Features

#### High precision fiber optic power measurement

- Extended optical power measurement range, depending on the selected detector\* +6dBm..-65dBm for InGaAs detector, +6dBm..-60dBm for Silicon detector.
- Wide wavelength range 830nm ... 1700nm (InGaAs), 580nm ... 1080nm (Si).
- Great measurement resolution of 0.001 dB
- Tight linearity specifications: +/- 0.05d

\*detectors other than the fixed InGaAs or Si are available, for example 1mm & 3mm InGaAs, 3mm Si

#### USB powered, plug and play data acquisition

The **OP508** is a usb powered, lower power (<100mA) USB device. With the supplied drivers data can be transferred to and from the module. The power meter sampling is up to 10 samples/sec.

The **OP508** measures the ambient temperature (C° or F°) within -10C° ...+55C° at a resolution of 0.1C°. This feature eliminates the need for an external temperature sensors during long-term stability testing.



### Applications

#### Stability-and Long-term Loss Characteristic of Optical Components

Bundled with the **OPL5** Optical Power Meter Software the **OP508** is a cost-effective system for measuring stability of passive fiber optic components and optical sources.

For high precision, long term stability tests monitoring the ambient temperature is a necessity, minor fluctuations can influence the outcome of the measurements. The **OP508** measures and reports ambient temperature. There is practically no need for an additional setup to monitor temperature.

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	OP508-IN-XX	OP508-SI-XX	
Detail Specifications	Measurement Range	+3dBm ...-65dBm	+3dBm ...-60dBm
	Wavelength Range	830nm ... 1700nm	580 ... 1080nm
	Selectable Wavelength <sup>1)</sup>	850/1310/1550nm	630/850/980nm
	Measurement Resolution	0.001dB	0.001dB
	Measurement Linearity, Relative Accuracy	0.05dB <sup>2)</sup>	0.05dB <sup>3)</sup>
	Power & Data Interface	USB powered, less than 100mA, USB 1.1 compatible data rate	
	Operating Temperature Range	-10 C° ... 55 C° (14F° ... 131F°)	
	Mechanical Dimensions	105 x 55 x 30mm (4 x 2 x 1.25 inch)	
	Optical Interface	Fixed FC/ST/SC or adapters for most common connectors	

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.