

Wavelength Optical Power Meter



Article Overview

Wavelength and optical power meters are instruments used to measure the optical power and wavelength of light sources, essential for fiber optics, laser testing, and photonics applications.

Overview

An optical power meter (OPM) measures the power of an optical signal, typically in fiber optic systems, using a calibrated sensor such as a photodiode or thermopile, along with a measuring amplifier and display. The measured power is often wavelength-dependent, so the meter must be set to the correct test wavelength to ensure accuracy. Optical power meters can be standalone, handheld, or integrated with other instruments like optical light sources or visual fault locators for loss measurements. A wavelength meter measures the wavelength of a laser or light source, often simultaneously with optical power. Instruments like the Newport OMM-6810B combine both functions, allowing precise measurement of optical power over a wide dynamic range (up to 80 dB) and wavelength with accuracies from tenths of a nanometer to one nanometer.

Key Features

- **Measurement Range:** Optical power meters can measure from microwatts to several watts, depending on the sensor type. Wavelength meters cover ranges from 400 nm to 1650 nm or more.
- **Sensor Types:** Photodiode sensors (e.g., InGaAs) are common for high-speed, linear measurements, while thermopile sensors are used for high-power sources

Article Content

Feb 12, 2026

Optical Power and Wavelength Meter

Literature OMM-6810B Optical Power & Wavelength Meter Brochure(642.8 kB, PDF)
Application Notes Using a Power Wavehead for

Nov 15, 2025

Optical Power Meters

ILX Lightwave offers and a unique optical power/wavelength meter for accurate optical power measurement with wavelength

Jun 03, 2026

Optical Power Meters | Any Network | Kingfisher International

Optical power meters for any network. A range of handheld meters with choice of styles. Best accuracy, flexibility and easy to use.

Apr 24, 2026

Optical Power Meter: A Tool for Measuring Fiber Optic Power

An optical power meter is a device used to measure the power of an optical signal. It is a valuable tool for fiber optic technicians, as it

Jun 11, 2026

How to Use an Optical Power Meter Correctly

How to Use an Optical Power Meter Correctly A power meter is only as accurate as the technician using it. Skipped reference, wrong

Dec 21, 2025

Optical Power and Wavelength Meter

The OMM-6810B is a power and wavelength meter capable of simultaneously measuring the optical power and wavelength of a laser

Apr 07, 2026

Power and Wavelength Meter, 100 VAC

Power and Wavelength Meter, 100 VAC Model: OMM-6810B-100V The OMM-6810B-100V is the only power meter capable of

Jan 22, 2026

Optical power meters

Fast monitoring of signal power from -60 to +10 dBm and broad wavelength range of 750 nm to 1700 nm. With a logarithmic

Mar 15, 2026

WAVETESTER OPTICAL POWER METER

WaveTester Optical Power Meter provides accurate and reliable measurements for fiber optic networks,

Jul 02, 2026

How to Use an Optical Power Meter(OPM): A Beginner's Guide

Get everything you need to know about an optical power meter including its types, applications and fiber optic power

Aug 20, 2025

Optical Power Meters – optical power measurement

Optical power meters are instruments for optical power measurements, based on heating of an absorber

Jul 17, 2026

Optical Fiber Power Meter Calibrations at NIST

NIST has established measurement services for the calibration of optical fiber power meters at the three nominal wavelengths of 850,

Jul 18, 2026

Optical Power Meters: N7743C | Keysight

N7743C Optical high-power power meter with 2 / 4 ports, analog outputs for linear or logarithmic feedback,

Jun 27, 2026

Optical Power Meters

VIAMI offers fast, cost-effective, and easy-to-use power meters for installation and maintenance of single mode and multimode fiber

Feb 02, 2026

Optical Power and Energy Meters

Thorlabs' expanding line of optical power and energy meters includes a large selection of sensor heads, single- and dual-channel

Jan 03, 2026

Fiber Optic Power Meters and Fault Locators | Fluke Networks

Fluke Networks sets the standard in network testing with its advanced range of fiber optic power meters and fault locators, designed

Sep 09, 2025

The FOA Reference For Fiber Optics

Optical power meters typically use semiconductor detectors since they are sensitive to light in the wavelengths and power levels

Sep 28, 2025

Optical power meter

An increasingly common special-purpose OPM, commonly called a "PON Power Meter" is designed to hook into a live PON (Passive

Aug 04, 2025

OMM-6810B-240V Power and Wavelength Meter

The OMM-6810B-240V is the only power meter capable of measuring the optical power and wavelength of semiconductor lasers

Jun 27, 2026

OPTICAL POWER METER

TOM103 Handheld Optical Power Meter is a newly designed fiber optic tester, which aims at the installation, engineering acceptance

Apr 07, 2026

HighFinesse | Wavemeter

Automation The implemented API allows the integration of the wavelength meter into more complex optical systems for fully

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