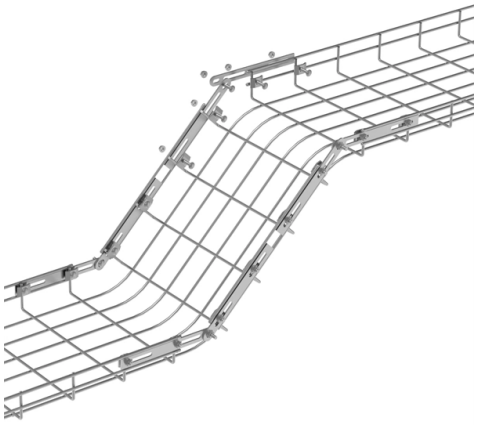
How to use a remotely usable optical power meter



Overview

This optical power meter is widely used in the construction, maintenance, inspection and acceptance of optical fiber com-munication network projects.

Key Takeaways

Optical power meters can be remotely controlled using dedicated software, USB/GPIB interfaces, or SCPI commands, depending on the device model.

Using Manufacturer Software

Many optical power meters, such as Thorlabs PM100D and similar models, support remote control via dedicated software: Thorlabs Optical Parameter Monitor (OPM): This software allows remote control and monitoring of up to eight devices simultaneously. It supports Power and Energy Meter Consoles, self-contained power meters, fiber power meters, and other compatible devices. The software provides a graphical interface and includes drivers (TLPMX.dll) for communication via USB or network interfaces.

Legacy Software for PM100D and PM160 series: Thorlabs also provides legacy software packages, including the Optical Power Meter Utility (single device), Multi Power Meter Utility (up to 8 devices), and Power Meter Monitor (Bluetooth-enabled remote control). These packages include LabVIEW and NI-VISA drivers, programming examples, and run-time engines for integration into automated test systems.

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

Using USB or GPI

B InterfacesUSB Interface: Many handheld and benchtop meters can be connected to a PC via USB. Once connected, the software or programming environment (LabVIEW, C, Python) can send commands to read measurements, configure settings, or trigger data logging.

GPI

B Interface: Some meters, like the EXFO PM-1100, support GPIB control. You can write a GPIB program to send commands to the meter. When the device is in remote mode, a "Remote" indicator appears on the display, and local controls are disabled.

Using SCPI Commands

Devices such as the Yokogawa AQ6150/AQ6151 support SCPI (Standard Commands for Programmable Instruments). Remote control can be achieved via GP-IB or network interfaces. Commands include enabling remote mode (REN), local lockout (LLO), and reading or setting measurement parameters.

The REMOTE LE

D indicates active remote control, and local controls are disabled until remote mode is cleared.

Steps for Remote Control

Install the appropriate software for your meter model (OPM, legacy utilities, or SCPI-compatible drivers). Connect the meter to your PC or controller via USB, GPIB, or network interface. Switch the meter to remote mode if required (some devices automatically enter remote mode when receiving commands).

Use the software GUI or programming environment to configure measurement parameters, start data acquisition, and log results. Monitor the device remotely; some software allows multiple meters to be controlled simultaneously. Programming IntegrationLabVIEW or C: Many meters provide libraries and examples for LabVIEW or C, enabling automated measurement sequences.

Python: Using NI-VISA drivers, Python scripts can communicate with the meter over USB or GPIB, sending SCPI commands to control measurements and retrieve data. By following these methods, you can fully integrate an optical power meter into automated test setups or monitor measurements remotely without manual operation.

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

Article Content

Optical Power Meter User Manual

This optical power meter is widely used in the construction, maintenance, inspection and acceptance of optical fiber com-munication network projects. The combination of fiber optic power meter & light

How to Use an Optical Power Meter Correctly

Step-by-step guide to using a fiber optic power meter: connector cleaning, wavelength selection, reference setup, insertion loss measurement, and live

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 meter test procedure.

How to Use an Optical Power Meter for Fiber Testing

Learn how to use an optical power meter to test fiber links, read power levels, measure loss, and work safely around active fiber.

Beginner''s Guide to Power Meter Usage for Optical Networks

Use a power meter for fiber optic testing by cleaning connectors, setting wavelength, calibrating, and following step-by-step procedures for accurate results.

Fiber Optical Powermeter User Manual | FS

This catalog mainly introduces different types of FS FOPM (Fiber Optical Power Meter), including FOPM-101/FOPM-102, FOPM103/FOPM-104, FOPM-105 etc. Handheld fiber optical power meters

Step-by-Step Guide to Using an Optical Power Meter

An optical power meter is a key tool that measures light strength in the fiber, helping identify signal losses or connection problems. This guide will explain how to use an optical power

Optical Power Meters: Understand Their Uses and Internals

Optical power meters are indispensable instruments for testing and maintaining modern fiber optic communication and other systems. Learn all about their internals.

Legacy Software for Touchscreen, Handheld, and USB-Interface

This legacy software includes the Optical Power Meter Utility, Multi Power Meter Utility, Power Meter Monitor, device drivers, programming examples, and run-time engines to operate our Touchscreen,

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

Optical Power Meter User Guide

Testing Absolute Measurements The RP450 can be used to view the Absolute Power of a fiber by first ensuring the correct wavelength is selected, and that the unit is in dBm, then plugging . he fiber into

How Fibre Optic Communication Works – Wray Castle

Fibre optic communication is the process of sending data as pulses of light through thin strands of glass or plastic fibers. At its core, the technology converts electrical signals into light

Full text of "NEW"

Full text of "NEW" See other formats Word . the, > < br to of and a : " in you that i it he is was for - with) on (? his as this ; be at but not have had from will are they -- ! all by if him one your or up her there

Optical Power Meter Usage and Selection Guide

Optical power meter is one of these fiber optic testing tools designed for fast and easy optical power testing and measurement. There is a wide selection of optical power meters provided

Optical power meter, how do we use one?

For achieving the accurate measurement of the optic power, a device named Optical Power Meter (OPM) is utilized. This device helps in testing.

Optical Power Meter User Guide

Introduction The RP460 Optical Power Meter is an ultra low cost, and compact power meter used for verifying both absolute and relative power across any given fiber. This document will serve as an

How to Use an Optical Power Meter for Fiber Optic Testing?

Conclusion Using an Optical Power Meter for fiber optic testing is a straightforward yet essential task for maintaining reliable networks. By following proper calibration, connection, and

Field Optical Receiver Guide: Specs, Installation, and Troubleshooting

Optical power at the receiver input should be measured with a calibrated power meter during installation and documented for future reference, since this baseline reading becomes invaluable later if the link

Optical Power Meter: A Tool for Measuring Fiber Optic Power

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

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 can be used to measure the power of a variety of fiber optic devices,

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

Contact Us

Continue your research online:

Website: https://fdsoluciones.es
Technical inquiry: https://fdsoluciones.es/project-enquiry.html

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved