

Article Overview

FPM optical power meters are precision instruments used to measure absolute optical power and relative power loss in fiber optic systems, with models suitable for lab, field, and production environments.

Overview of FPM Optical Power Meters

FPM (Fiber Power Meter) devices are designed to measure optical power in fiber optic cables, providing accurate readings in dBm or mW. They are widely used in telecommunications, data communications, and research applications to ensure proper signal strength and network performance.

Key Models and Features

- o Jonard Tools FPM-50S and FPM-55: Handheld meters capable of measuring optical power from -50 to +26 dBm. They include features like built-in visual fault locators, network cable testing, and data storage for recording measurements. These meters support multiple connector types such as FC, SC, and LC, making them versatile for field testing .
- o EXFO FPM-300 Series: Designed for testing passive optical networks (PONs) at ITU-T recommended wavelengths (1310 nm, 1490 nm, 1550 nm). The FPM-300 supports a wide range of wavelengths from 830 nm to 1625 nm and offers high sensitivity and accuracy, with automatic calibration when paired with compatible light sources .
- o ILX Lightwave FPM-8200 / FPM-8220: Laboratory-grade meters with high precision, low polarization dependence, and wide dynamic range (up to +30 dBm). They feature interchangeable measurement heads, GPIB and USB interfaces for remote control, and fast data acquisition (up to 20 readings per second). These meters are suitable for R&D and manufacturing testing of fiber optic components .

Common Specifications

- o Measurement Range: Typically from -50 dBm to +30 dBm depending on the model.
- o Wavelength Range: 800 nm to 1650 nm for lab-grade meters; field meters often cover 850 nm, 1300 nm, 1310 nm, 1490 nm, 1550 nm, and 1625 nm.
- o Accuracy and Repeatability: High-end meters provide better than $\pm 2.5\%$ accuracy with ± 0.01 dB repeatability.
- o Connectivity: Many models include USB, GPIB, or analog outputs for integration with automated test systems.
- o Additional Features: Some models include visual fault locators, data logging, and compatibility with multiple fiber connectors.

Applications

FPM optical power meters are used for:

- o Measuring absolute optical power in fiber optic links.
- o Determining relative power loss to identify faults or degradation.
- o Testing and validating fiber optic components in R&D and production.
- o Field testing of PONs and other telecommunication networks. These meters are essential tools for ensuring optimal performance and reliability in fiber optic systems, whether in laboratory, manufacturing, or field environments.

Products Light Analysis Optical Meters Benchtop Power & Energy Meters ILX Precision Fiber Optic Power Meters

FPM-50 includes: Fiber Optic Power Meter, Instruction Manual, Protective Cover, (3) AA Batteries (required for operation), (2)

Measures both the absolute optical power and relative power loss in fiber optic cables. Power measurement range (+10 ~ -70 dBm)

The Jonard Tools Mini Optical Power Meter is perfect for measuring both the absolute optical power and relative power loss in fiber

The FPM-8220 Fiber Optic Power Meter combines accurate, repeatable power measurements with low polarization dependence in a

ILX Lightwave's new Fiber Optic Power Meter (FPM-8220) combines accurate, repeatable power measurements with low

Jonard Mini Optical Power Meter, (-50 to +26dBm) - FPM-50S Spec Sheet The Jonard Tools Mini Optical

Buy now, ships today. FPM-50A - Fiber Optic Cables, Fiber Optic Connectors Optical Power Meter from

The Jonard Tools Mini Optical Power Meter is perfect for measuring both the absolute optical power and

Optical Power Expert (PX1) - Connected optical power meter Power meter with Bluetooth connectivity, a wide

The FPM-300 power meter is part of EXFO's new line of handheld units, which includes the FLS-300 light source and the FOT-300

Optical Power Meter-FPM-300 With a high-power option and 10 calibrated wavelengths, the FPM-300 is the most complete, yet

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The FPM-8200 Fiber Optic Power Meter provides sophisticated versatility and fast data acquisition. The FPM-8200 delivers precision

The Jonard Tools Mini Optical Power Meter is perfect for measuring both the absolute

Benchtop optical power meters provide accurate measurements of optical power and energy by reading the output of calibrated

Web: <https://bssoda.pl>

