

Stability of the OMM-6810B Optical Multimeter and the OMH-6727B InGaAs Power/WaveHead

This Technical Note presents the experimental results showing the power measurement stability of an OMM-6810B Optical Multimeter coupled to an OMH-6727B InGaAs Power/WaveHead.

RESULTS

As shown in Graph 1, the OMM-6810B with the OMH-6727B provided power measurement stability of better than ± 0.004 dB over a five day period.

MEASUREMENT SETUP

The measurement setup is shown in Figure 1. An ILX Lightwave MPS-8033/01 Precision Fiber Optic Source, operating at approximately 1300 nm, provided 1 mW of laser light from a single mode fiber patchcord. The patchcord was coupled to the OMH-6727B with an FC fiber optic adapter. A computer, operating over GPIB, was used to automatically read and record power and wavelength as measured by the OMM-6810B. Measurements were recorded every five minutes. The experiment was performed in an open laboratory environment with the temperature fluctuating approximately $\pm 1^\circ\text{C}$.

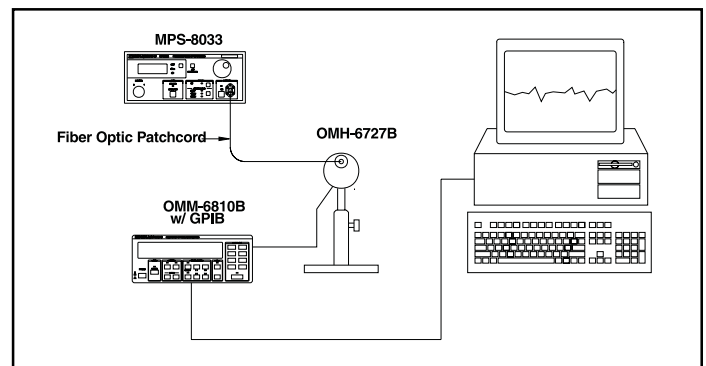
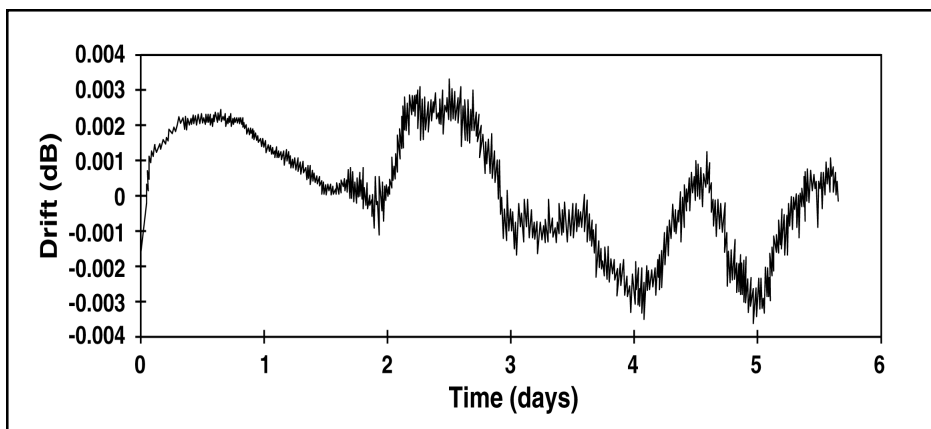


Figure 1. Measurement Setup.



Graph 1. Power Measurement Stability of the OMM-6810B/OMH-6727B.