

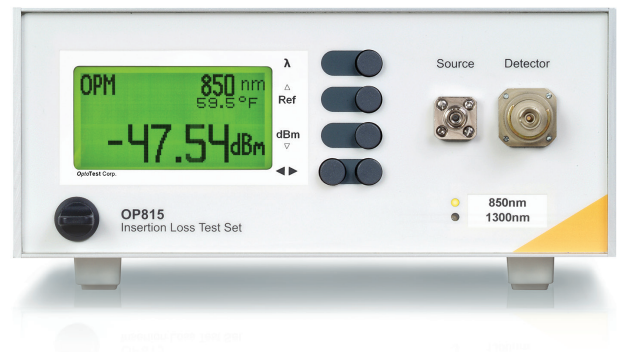
OP815

Insertion Loss Measurement

Overview

Insertion Loss

The **OP815** was designed to measure insertion loss (IL) on fiber optic components quickly and accurately. Insertion loss is measured by utilizing the built-in, stabilized laser or LED source in combination with the precision optical power meter. Using the **OP815**, dual wavelength insertion loss (IL) measurements are performed in less than one second. Like all other OptoTest equipment the **OP815** supports the USB interface. The **OPL-Pro** turnkey application software fully integrates this instrument into the data acquisition process of an efficient production line.



Model OP815-LS-13/15 Insertion Loss Instrument.
Single mode, dual wavelength 1310nm & 1550nm

Features

Efficient Manufacturing Process

- Compact (8.5x3.5x10) bench top instrument for all-in-one operation
- High speed USB Interface to standard computer
- Cable test software OPL-Pro available for writing measurement data directly into a spreadsheet
- Interface to custom applications via OPL-SDK
- Fully automated, single wavelength or dual wavelength insertion loss measurement
- Multimode units available with controlled launch condition available for EF, M80, 70/70
- Various detector options for single fiber or duplex fiber

SPECIFICATIONS

Optical Power Meter	1mm InGaAs	3mm InGaAs	5mm InGaAs	10mm InGaAs	3mm Silicon
Measurement Range	+6dBm to -72dBm at 1490nm	+3dBm to -72dBm at 1490nm	0dBm to -65dBm at 1490nm	0dBm to -55dBm at 1490nm	0dBm to -65dBm at 980nm
Wavelength Range	850nm to 1650nm				400nm to 1100nm
Selectable Wavelength	Standard wavelengths (850nm, 980nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm)				Standard wavelengths (650nm, 850nm, 980nm)
Measurement Resolution (Display)	0.001dB				
Absolute Accuracy	±0.25 dB at calibration conditions for all NIST traceable wavelengths				
Measurement Linearity (Relative Accuracy)					
Deviation ± 0.05dB	+3dBm to -65dBm at 1490nm	0dBm to -65dBm at 1490nm	0dBm to -55dBm at 1490nm	0dBm to -45dBm at 1490nm	0dBm to -55dBm at 980nm
Deviation ± 0.01dB	<10dB power variation	<10dB power variation	<10dB power variation	<10dB power variation	<10dB power variation

Return Loss	1310nm/1550nm	1310nm/1490nm/1550nm/1625nm	850nm/1300nm
Source Wavelength	1310nm, 1550nm	1310nm, 1550nm, 1490nm, 1625nm	850nm, 1300nm
Calibrated Measurement Range	-10dB to -80dB	-10dB to -80dB	-10dB to -58dB
Measurement Linearity	±1dB (-12dB to -72dB)	±1dB (-12dB to -72dB)	±1dB (-10dB to -45dB)
Distance Range	100 meters (standard)/ 2500 meters (Rep Rate adjusted)	100 meters (standard)/ 2500 meters (Rep Rate adjusted)	100 meters (standard)/ 2500 meters (Rep Rate adjusted)

Insertion Loss	1310nm/1550nm LASER	1310nm/1490nm/1550nm/1625nm LASER	850nm/1300nm LED
Source Center Wavelength	±30nm from nominal	±30nm from nominal	±30nm from nominal
Source Bandwidth	<10nm	<10nm	<140nm
Internal Fiber	9/125µm (SMF28)	9/125µm (SMF28)	50/125µm, 62.5/125µm, 105/125µm
Launch Condition	N/A	N/A	Available upon request
Output Power	Typical -1.5dBm	Typical -2.5dBm	-18dBm: 62.5/125µm
Source Stability*	±0.02dB	±0.02dB	±0.02dB

* Over 1 hour with a max. change of 1°C

Laser Classifications

All **OP930 Insertion Loss and Return Loss Test Sets** utilize a **Class I Laser Source**. Unless otherwise noted, all **OP250**, **OP715**, and **OP750** source units with internal laser sources utilize a **Class I Laser Source**. Unless otherwise noted, all **OP815** and **OP850 Insertion Loss Test Sets** with internal laser sources utilize a **Class I Laser source**. All **OP280 Visual Fault Finder** units utilize a **Class III Laser Source**.

OptoTest strongly suggests that all necessary precautions be taken whenever any Class I or Class III laser source is used.

Specifications are subject to change, please confirm specific performance characteristics of the product at the time of ordering. All specifications are valid within temperature range of 18°C to 24°C unless otherwise noted. For additional specifications please contact OptoTest.