OptoTest
Your Partner in Fiber Optic Test Solutions

OP940

Multichannel
Insertion Loss & Return Loss Meter

PRODUCT OVERVIEW

The multichannel OP940 is an internally switched Insertion Loss (IL) and Return Loss (RL) meter designed for testing ribbon cables and multi-pin termini. Used worldwide by some of the largest companies, this system offers the **fastest and most accurate multichannel IL and RL testing experience in the industry.**

KEY FEATURES & BENEFITS

- **Simplified Test Setup**

  The OP940 measures quickly and accurately without the need for mandrel wrapping or the use of index matching gel.

- **Fastest IL/RL Measurement**

  A single channel, dual wavelength, IL and RL test with the multichannel OP940 takes less than 4 seconds.

- **Most Accurate RL Measurement**

  By making use of a wide dynamic range (SM, FTTX: -10dB to -80dB | MM: -10dB to -58dB) for RL measurements, the multichannel OP940 is able to adjust for attenuation in the reference setup,which results in the most accurate Return Loss results in the industry.

- **Easy Maintenance For Minimal Downtime**

  To minimize downtime on high volume production lines due to optical end-face damage, the removable front panel gives you access to the source connector, allowing you to re-polish the connector if it gets damaged.

- **Customizable**

  The multichannel OP940 can be built in numerous channel counts from 4 to 24. The system is available with Single Mode, Multimode, and FTTX wavelengths and a variety of core sizes and detector options.

CALIBRATION
This product can be calibrated in-house, on-site, or remotely.

TECH SUPPORT
Our team of experts is ready to assist with your setup.

WARRANTY
OptoTest offers a three-year warranty on this product.

APPLICATIONS

- Manufacturing Testing
- R&D Testing

Advancing the World of Fiber Optics®

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SOFTWARE

When paired with OptoTest software, the OP940 gains additional benefits as part of a larger and multi-faceted test system. For instance, paired with our OPL-Max software, the system can test a 12-channel MPO cable in less than 40 seconds.

- **Automation**
  Every step of the test process is fully controlled by the software, making your testing experience simple, repeatable, and reliable.
- **Expandability**
  Multiple units and different kinds of units can be controlled simultaneously to expand the channel count and testing capabilities of the setup.
- **Customization**
  Test configurations, pass/fail criteria, and test reports are fully customizable to create a tailored experience for you.
- **DLLs Available**
  The multichannel OP940 can be operated through custom software to easily integrate into already established systems.

ISO CERTIFIED
Our Quality Management System is certified in ISO 9001:2015.

MADE IN THE USA
We proudly design & manufacture our equipment in California, United States.

COMPATIBLE SOFTWARE

- **OPL-Max** multifiber connectors with production applications
- **OPL-CLX** multifiber connectors with production applications with database integration
- **OPL-Log** optical datalogging for temperature and humidity

Distribution in the UK & Ireland

Lambda

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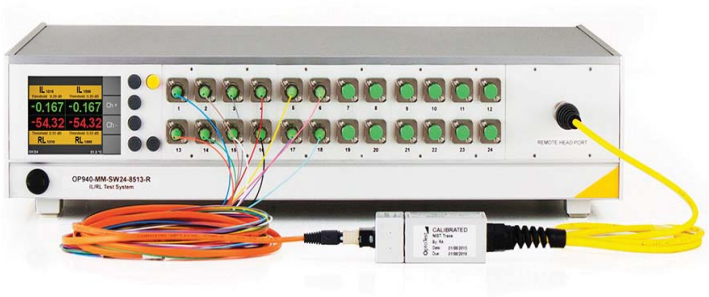
PRODUCT SPECIFICATIONS

Return Loss	Single Mode, FTTX	Multimode
Source Wavelength	1310nm, 1550nm 1490nm*, 1625nm*	850nm, 1300nm
Calibrated Measurement Range	-10dB to -80dB	-10dB to -58dB
Measurement Linearity	±1dB (-12dB to -72dB)	±1dB (-10dB to -45dB)
Distance Range	up to 2500 meters	
Mandrel-free minimum distance	1.7 meters (both reflections <-45dB)	

**FTTX only.*



Insertion Loss	Single Mode	FTTX	Multimode
Source Center Wavelength	±30nm from nominal	±30nm from nominal	±30nm from nominal
Source Bandwidth	<10nm	<10nm	<140nm (850nm) <200nm (1300nm)
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	-2.5dBm	-18dBm(850nm) -20dBm(1300nm): 62.5/125µm
Insertion Loss Stability**	±0.02dB	±0.02dB	±0.02dB
Measurement Linearity (Relative Accuracy)* **			
Deviation ± 0.05dB	0dBm to -65dBm at 1490nm		
Deviation ± 0.01dB	<10dB power variation		

**For single channel systems. **Over 1 hour with a max. change of 1°C. ***For 1, 2, and 3mm detectors.*

Measurement Timing	Single Mode	FTTX	Multimode
IL and RL, Dual Wavelength	3s*	6s	3s*
Switching Time (Multichannel)	100ms		

** Using the front panel in Dual ILRL mode or running OPL-Pro with real-time update enabled.*

Mainframe	OP940-SW
Dimensions	16 ¾" x 3.5" x 14"
Power Supply	90VAC ... 264VAC; 47Hz to 63Hz; 0.7Amps (115VAC) 0.4Amps (230VAC); Fuse: T1A, 250V
Warm-up time	5-15 minutes
Operating Temperature	5°C to 40°C
Maximum Relative humidity*	80%

** For temperatures up to 31°C, decreasing linearly to 50% relative humidity at 40°C.*

Laser Classifications

All **OP940 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.

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