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# OP960 SERIES

## Insertion Loss & Return Loss Meters



## PRODUCT OVERVIEW

OptoTest's new OP960 Series Insertion Loss (IL) and Return Loss (RL) Meters build on the well proven capabilities of the fastest RL meters in the industry, the OP940 Series, with increased speed and enhancements that make them even easier to use. A larger and sharper touchscreen, built-in Ethernet capability, and upgraded cases and components make the OP960 the preferred choice for fiber optic cable manufacturers looking for a complete, simple, and accurate testing solution with a small footprint.

## KEY FEATURES & BENEFITS

### • Faster Testing Speeds

A measurement time of two seconds per channel, using the front panel in Dual ILRL mode or via software, is **over 30% faster** than the previous industry leader, the OP940. Testing 24 fiber MPO using the OP960 in the same mode yields a **24 second savings** compared to the OP940.

### • Simple and Touch-Free RL Measurements

The OP960 performs RL measurements without mandrel wraps or index matching gel for quicker tests with fewer manual operations.

### • Bigger and Sharper Touchscreen

The OP960 touchscreen has **35% more area and 70% more pixels** than the OP940 for improved ease of use. Simple front panel controls are easy to navigate without sacrificing functionality. IL and RL can be **tested simultaneously with results updating in real time**. Help menus are readily accessible on every screen to guide you through the features and options.

### • Built-in Ethernet Capability

**Remote operation** is now possible when you design a custom testing solution via OPL-SDK.

### • Upgraded Cases and Components

The OP960 is designed with durability in mind and housed in a new case that is **sturdier than ever**, making it possible to stack equipment on top. Improved components and circuitry **increase reliability and extend service life** long into the future.



### CALIBRATION

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



### TECH SUPPORT

Our team of experts is ready to assist you.



### WARRANTY

OptoTest offers a three-year warranty on this product.

## APPLICATIONS

- Manufacturing Testing
- R&D Testing



### ISO CERTIFIED

Our Quality Management System is certified and in compliance with ISO 9001:2015.



### MADE IN THE USA

We proudly design & manufacture our equipment in California, United States.



Visit [www.optotest.com](http://www.optotest.com) or contact one of our sales engineers at +1 (805) 987-1700 | [sales@optotest.com](mailto:sales@optotest.com) to learn more.

Advancing the World of Fiber Optics®

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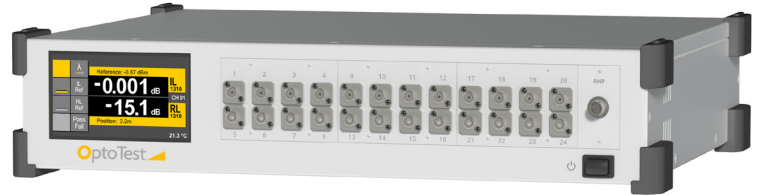
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### PRODUCT SPECIFICATIONS

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
<b>Measurement Linearity (Relative Accuracy)***</b>			
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	<2s*	4s	<2s*
Switching Time (Multichannel)	100ms		

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

Mainframe	OP965 Benchtop	OP960 Rackmount
Dimensions	8.5" x 3.5" x 13"	w/silicone corners: 17.8" x 3.8" X 14" with ears (rack): 19" x 3.47" X 14.1" w/out corners or ears: 17" x 3.5" X 13.9"
Display	4.3" Touch Screen	
Power Supply	<b>Input:</b> 90VAC ... 246VAC; 47Hz to 63Hz <b>Output:</b> 18V 5AV	
Warm-up time	5-15 minutes	
Operating Temperature	0°C to 50°C	
Maximum Relative humidity*	95%	
Remote Interface	USB/Ethernet	

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

### Laser Classifications

All **OP960 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.