

OP940-CSW

Compact Multichannel Insertion Loss & Return Loss Meter



PRODUCT OVERVIEW

The compact multichannel OP940 is an internally switched Insertion Loss (IL) and Return Loss (RL) meter designed for MPO/MTP® testing. With a design that reduces setup time, cost, risk, and footprint, the **OP940-CSW** is the evolution of the MPO/MTP® testing experience that is used worldwide by industry leaders. **The fastest and most accurate IL and RL test system in the industry is better than ever.**

KEY FEATURES & BENEFITS

- **Simplified Test Setup**

The compact multichannel OP940 measures quickly and accurately without the use of mandrels or index matching gel.

- **Fastest IL/RL Measurement**

A 12 channel, dual wavelength, IL and RL test with the compact multichannel OP940 takes less than 60 seconds.

- **MPO/MTP® Interface**

The compact design of the OP940-CSW significantly reduces time and cost. With an MPO/MTP® front panel interface, there is no need to use expensive fanout cables that over-complicate the cable setup and more time-consuming to prepare. The reference and measurement processes are faster, more efficient, and less prone to error than ever before.

- **Most Accurate RL Measurement**

The compact size of the OP940-CSW was achieved without compromising quality or accuracy. By making use of a wide dynamic range (SM, FTTX: -10dB to -80dB) for RL measurements, the OP940-CSW is able to adjust for attenuation in the reference setup, which results in the most accurate RL results in the industry.

* MTP is a registered trademark of US Conec Ltd.



MADE IN THE USA

We proudly design & manufacture our equipment in Camarillo, California



ISO CERTIFIED

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



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

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PRODUCT SPECIFICATIONS

Return Loss

	Single Mode, FTTX
Source Wavelength	1310nm, 1550nm 1490nm ⁽¹⁾ , 1625nm ⁽¹⁾
Calibrated Measurement Range	-10dB to -80dB
Measurement Linearity	±1dB (-12 to -72dB), ±2dB (-72dB to -75dB), ±5dB (-75dB to -80dB)
Distance Range	up to 2500 meters
Mandrel-free minimum distance	1.7 meters (both reflections <-45dB)

⁽¹⁾ FTTX only.

Insertion Loss

	Single Mode	FTTX
Source Center Wavelength	±30nm from nominal	±30nm from nominal
Source Bandwidth	<10nm	<10nm
Internal Fiber	9/125µm (SMF28)	9/125µm (SMF28)
Launch Condition	N/A	N/A
Output Power (typical)	-3.5dB	-4.5dB
Insertion Loss Stability ⁽¹⁾	±0.02dB	±0.02dB
Measurement Linearity (Relative Accuracy)⁽²⁾		
Deviation ± 0.05dB	0dBm to -65dBm at 1490nm	
Deviation ± 0.01dB	<10dB power variation	

⁽¹⁾ Over 1 hour with a max. change of 1°C. ⁽²⁾ For 1, 2, and 3mm detectors.

Measurement Timing

	Single Mode	FTTX
IL and RL, Dual Wavelength	3s ⁽¹⁾	6s
Switching Time (Multichannel)	100ms	

⁽¹⁾ Measurement timing is per channel

Mainframe

	OP940-CSW
Dimensions	30.5cm x 14.5cm x 22cm
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 ⁽¹⁾	80%

⁽¹⁾ 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.

Product specifications and descriptions in this document are subject to change without notice.
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