ILM-100

Insertion Loss Meter

Product Overview

The Insertion Loss Meter, ILM-100, was designed to measure insertion loss on fiber optic components quickly and accurately. The system has a built-in stabilized laser source for single-mode applications or LED source for multi-mode applications. With a dual wavelength configuration, insertion loss can be measured for two wavelengths in less than 1 second. ILM-100 system comes with both USB and ethernet control for ease of integration into test systems.

Features

- Compact benchtop instrument for all-in-one operation
- USB and Ethernet interface
- Test software OPL-CLX available for logging measurements
- Fully automated single and dual wavelength insertion loss measurements
- Multi-mode instruments available with define launch conditions (EF, AS100, 70/70, etc.)
- Various detector options
- Customizable sources and fiber types
- Interchangeable adapter interface

Applications

- Cable assembly testing
- Optical alignment
- Signal monitoring

Compliance

- IEC-61300-3-4

USB and Ethernet Communication

With both USB and Ethernet communication interfaces, the ILM-100 can be easily integrated into any production automation environment. The ILM-100 is compatible with the OPL-CLX software, perfect for performing cable assembly measurements, recording results in database and printing results.

Multi-mode Launch Condition Control

ILM-100 multi-mode sources can be internally configured to meet launch condition requirements for specific applications. No need to have an external modal conditioner.

Customizable Source and Detector Types

ILM-100 can accommodate many different fiber optic source types depending on your requirements: DFB, FP, LED, etc. Along with many different fiber types and optical power meter types, ILM-100 is one of the most configurable insertion loss meters on the market.

ILM Optical / Electrical Specifications

Parameter	Specification	
	Single-mode	Multi-mode
Fiber Type (µm)	9/125	50/125, 62.5/125 or 100/140
Launch Condition	N/A	Available upon request
Nominal Wavelengths (nm)[1]	1310 / 1490 / 1550 / 1625	850 / 1300
Output Power (typical) (dBm)	0	-18 / -21
Source Stability (dB)[2]	± 0.02	
Detector Type	1 mm InGaAs / 3 mm InGaAs	
Power Range (dBm)	6 to -72 / 3 to -72	
Detector Linearity (dB)[3]	± 0.02 (< 10 dB)	
	± 0.05 (> 10 dB)	
Detector Total Uncertainty (dB)[4]	± 0.25	
Remote Interface	USB or Ethernet	
Display	4.3" touch screen	
Power Supply	Input: 90 - 264 V AC, 47 - 63 Hz	
	Output: 18V DC, 5 A	
Power Consumption (VA)	36 maximum	

Notes:
[1] Custom sources available upon request
[2] Over 1 hour with maximum temperature variation of 1 °C
[3] Measured at 1490 nm, between 3 to -65 for 1 mm, 0 to -65 for 3 mm
[4] At calibration conditions for all NIST traceable wavelengths

Mechanical / Environmental Specifications

Parameter	Specification
Max Channel Count	24
Unit Dimension W x H x D (cm)	42.5 x 8.9 x 20.3
Operating Temperature (°C)	5 to 40
Humidity (Non-condensing)	Maximum 80% RH[1]

Notes:
[1] From 5 to 31 °C, decreasing linearly to 50% RH at 40 °C

Ordering Scheme & Instructions

1. Configure ILM Insertion Loss Meter

Single-mode version

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CHANNELS	
01	1
08	8
12	12
16	16
24	24

SOURCES	
3	1310 nm
4	1490 nm
5	1550 nm
6	1625 nm
35	1310 / 1550 nm
46	1490 / 1625 nm
3456	1310 / 1490 / 1550 / 1625 nm

DETECTOR	
IN1	1 mm InGaAs
IN3	3 mm InGaAs
R	Remote-head

CONNECTOR	
FA	FC/APC
FP	FC/UPC
SA	SC/APC
SP	SC/UPC
EA	E/2000

Multi-mode version

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CHANNELS	
01	1
08	8
12	12
16	16
24	24

DETECTOR	
IN1	1 mm InGaAs
IN3	3 mm InGaAs
R	Remote-head

CONNECTOR	
FA	FC/APC
FP	FC/UPC
SA	SC/APC
SP	SC/UPC
EA	E/2000

SOURCES	
8	850 nm
3	1310 nm
83	850 / 1310 nm

FIBER	
50	50/125 µm
62	62.5/125 µm
100	100/140 µm

In the Box

ILM-100- Insertion Loss Meter

- ILM-100
- Power Cable
- 18V AC-DC Power Supply
- USB Cable

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