

PLM-100

Polarization Dependent Loss Meter



Features

- Ultra stable and accurate PDL, BR & IL measurements
- Up to 4 internal lasers/ external inputs
- 4 or 6 states Mueller Matrix methods
- Resolution down to 0.001 dB
- <1 second PDL measurements

Applications

- Testing IL/PDL/BR of optical components
- Incoming inspection
- QA and R&D testing

Compliance

- UL/CSA 61010
- IEC 61010
- IEC 60825-1 (Class 1)
- FCC Part 15 (Class A)
- EN 61326 (Class A)

Product Overview

Santec's Polarization Dependent Loss Meter, PLM-100, builds upon the BRM's stable and proven technology and takes it to the next level. Improved source isolation, electronics, optics and continuous laser power referencing enhance the performance to allow for the most repeatable and stable measurements.

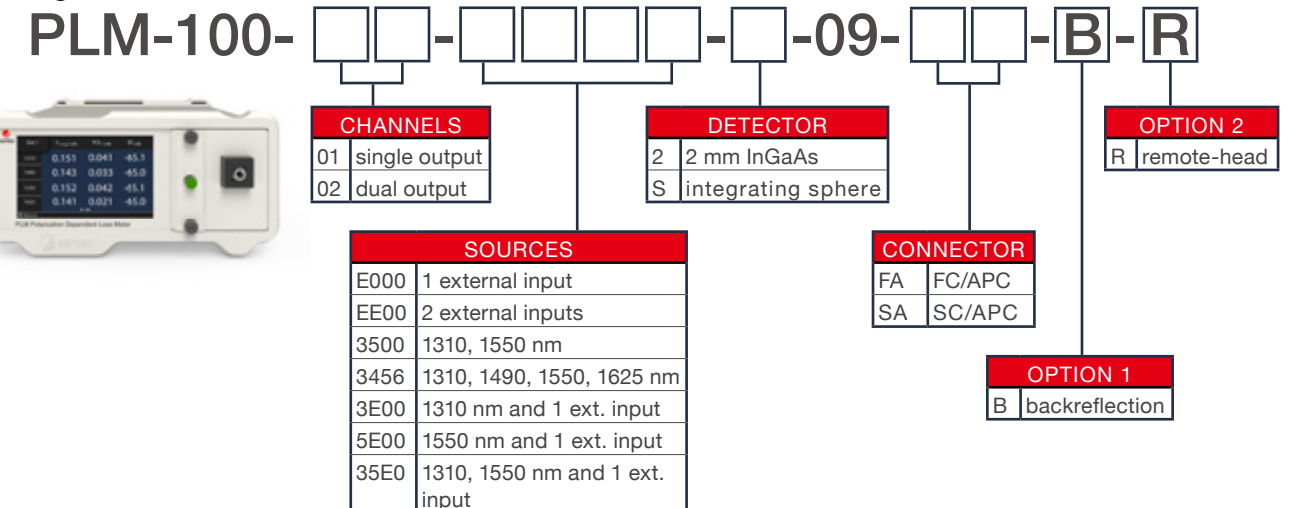
The base model is capable of PLM, IL and average IL measurements with a resolution of 0.001 dB and an unmatched PDL accuracy of up to $\pm (0.005 + 2\% \text{ of PDL})$. The backreflection option allows BR measurements down to -75 dB with an accuracy of $\pm 0.4 \text{ dB}$. The PLM allows for a combination of up to 4 external inputs (1260 – 1650 nm) or internal sources (1310/1490/1550/1625 nm) and a dual output option for maximum flexibility. Custom wavelengths are available upon request.

An intuitive touchscreen display simplifies the operation. The meter may also be controlled through remote interface (Ethernet or USB) and used with our free GMS software to automate measurements.

Ordering Scheme & Instructions

1. Configure PLM Polarization Dependent Loss Meter

Single-mode version



*Up to any combination of 4 lasers or external inputs can be selected
*Other wavelengths available upon request

2. Add Accessories

Slide Detector Adapters

SD - [] [] []



TYPE							
CAP	Cap	DSN	Duplex SN	BRF-BARREL	Barrel for SD-BRF	MT	MT
FC	FC	MPO	Universal MPO	FH-60	Fujikura FJ-60	MDC	MDC
SC	SC	U12	Universal 1.25 mm	FHM-12	Sumitomo FHM-12	MDCMT	MDC MT
LC	LC	U25	Universal 2.5 mm	SLED-BARREL	Barrel for SD-SLED-x	MPO-MICRO	Microlatch MPO
DLC	Duplex LC	BSF	Bare single fiber	ST	ST		
TLC	Tri-LC	BFA-BARREL	Barrel for SD-BRF	E2000	E2000		
DCS	Duplex CS	BRF	Bare ribbon fiber	MTRJ	MT-RJ		

*many more detector adapters available upon request.

PLM Optical / Electrical Specifications

Parameter	Specification
Fiber Type (μm)	SMF-28e (9/125)
Wavelength Range (nm)	1260 - 1650
Detector Type	2 mm InGaAs
Power Range (dBm)	5 to -80
PDL Accuracy ^{1, 2}	± (0.005 dB + 2% of PDL)
PDL Calculation Method	Mueller Matrix
PDL Dynamic Range (dB)	0 to 3
Relative Power Accuracy (dB)	± 0.05
PDL Measurement Time (s) ³	0.7
Remote Interface	Ethernet / USB
Input Voltage	100 - 240 V AC, 50 - 60 Hz
Power Consumption (VA)	80 maximum
Display	Ethernet / USB

Notes:
¹ 6-state mode; x.xxx + 5% in 4-state mode
² Measured at 1550 +/-0.01 dB for all other wavelengths
³ 4-state mode; 1.2 s in 6 state Mueller Matrix mode

Mechanical / Environmental Specifications

Parameter	Specification
Unit Dimension W x H x D (cm)	36 x 15 x 34
Shipping Box Dimensions W x H x D (cm)	43 x 27 x 47
Unit Weight (kg)	9
Total Shipment Weight (kg)	10
Operating Temperature (°C)	0 to 40
Storage Temperature (°C)	-40 to 60
Humidity (Non-Condensing) (°C)	Maximum 95% RH from 0 to 40



In the Box

- PLM-100** - Polarization Dependent Loss Meter
- PLM-100
 - SD-CAP detector cap
 - SD-FC FC detector adapter
 - FC/APC to FC/UPC 3 m calibrated jumper (BR option only)
 - FC/APC to FC/APC 3 m test jumper
 - USB A to USB B cable (1.5 m)
 - Ethernet cable (1.5 m)



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