

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.

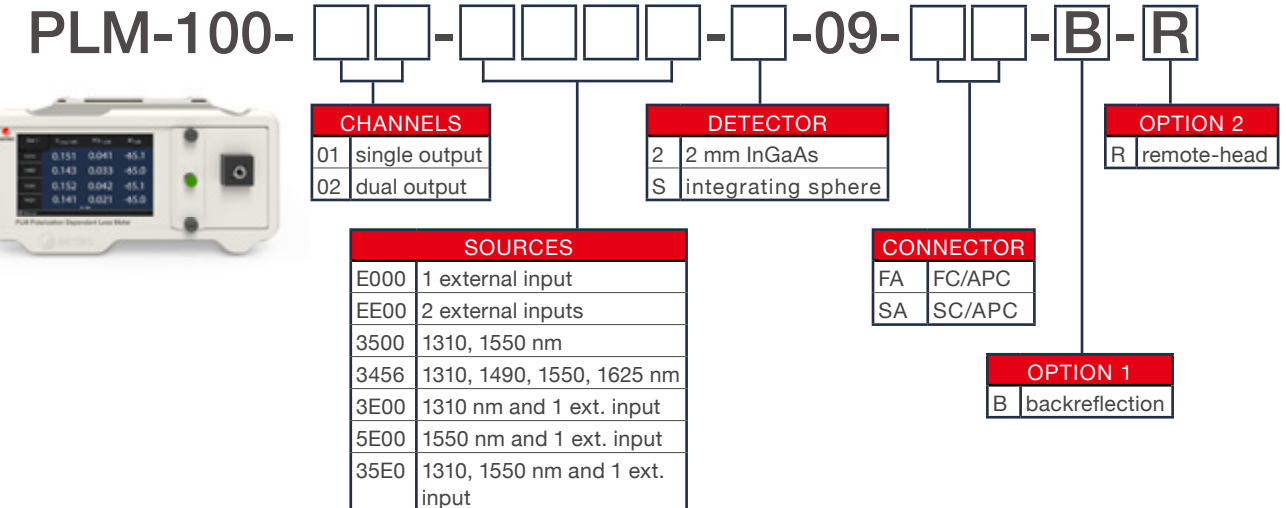
The base model is capable of PLM, IL and average IL measurements with a resolution of 0.001 dB and an unmatched PDL accuracy of up to $\pm (0.005 + 2\% \text{ of PDL})$. The backreflection option allows BR measurements down to -75 dB with an accuracy of $\pm 0.4 \text{ dB}$. The PLM allows for a combination 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)



Santec Regional Sales Offices

SANTEC CORPORATION

5823 Ohkusa-Nenjojzaka, Komaki,
Aichi, 485-0802, Japan
Tel: +81-568-79-3536 | Fax: +81-568-79-1718

Santec Europe Ltd.

99 Park Drive, Milton Park, Abingdon,
Oxfordshire, OX14 4RY, United Kingdom
Tel: +44-20-3176-1550

SANTEC U.S.A. CORPORATION

433 Hackensack Ave., Hackensack
NJ, 07601, USA. Toll Free: +1-800-SANTEC1 (726-8321)
Tel: +1-201-488-5505 | Fax: +1-201-488-7702

Santec (Shanghai) Corporation Limited

21F Room H, Hua Du Bldg., No.838 Zhangyang Road
Pudong District, Shanghai, 200122, China
Tel: +86-21-5836-1261 | Fax: +86-21-5836-1263

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