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MULTI-CHANNEL BENCHTOP POLARIZATION DEPENDENT LOSS EMULATOR

PRELIMINARY

Features:

- Wide variable Polarization Dependent Loss (PDL) range
- Low PMD and wavelength dependency
- Low insertion loss and backreflection
- High resolution
- Rugged and compact design
- Wide wavelength range
- Wide range of receptacles
- Computer interface (USB as standard)
- Your choice of up to four per unit in benchtop and up to 16 in full rack mount

Applications:

- PDL compensation
- Reference PDL source
- Test equipment PDL calibration
- Quality control and measurement

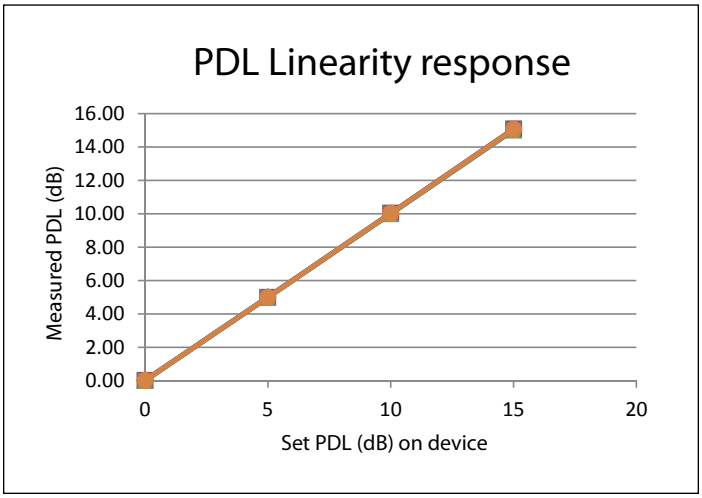
PDLE-1000 Front View

Product Description:

OZ Optics offers a turnkey, rugged and low cost benchtop digital multichannel polarization dependent loss emulator (PDLE) with high resolution, and high dynamic range. The built-in motor controlled PDLE units have low insertion loss, low backreflection, low PMD and flat wavelength response. This system can be configured with up to 4 individual motor driven PDLE in a benchtop unit and up to 16 channels in a full rack mount unit. The system comes with a color touch screen in the front panel and with a USB interface on the back panel.

The PDLE is useful to emulate PDL effects due to passive/active optical devices in an optical link, such as attenuators, modulators, array waveguides, fiber Bragg gratings, switches, fused couplers, etc. The PDLE enables physical emulation of the PDL in an optical system to quantify available PDL budget margins.

The benchtop PDLE coupled with other OZ Optics products such as a motorized variable attenuator, an optical switch, a polarization dependent loss meter, a polarized stable source, or a polarization controller, can significantly assist in defining and quantifying polarization dependent losses and other fiber impairments in fiber-optic networks.



Standard Product Specifications[1]:

Part Number	PDLE-1000-CH-X-W-9/125-S-20
Wavelength Range[2]	1520 nm to 1620 nm
Fiber Type	9/125 µm single mode fiber.
PDL Dynamic Range	0.1 dB to 20 dB
Insertion Loss (Residual)	< 1.00 dB
Optical Return Loss	> 60 dB
PMD	< 0.5 ps
Maximum Input Power	500 mW
Response Time	10 dB change in less than 1 second. 0.3 dB change in less than 0.1 second.
Power Supply	Universal 110/220 V AC 50/60 Hz, 40 W
Computer Interface	USB
Dimensions (L x W x D)	280 x 300 x 100 mm
Weight	8.8 lb. + 0.55 lb./channel (4 kg + 0.25 kg/channel)
Operating Temperature	14°F to 131°F (-10°C to 55°C)
Storage Temperature	-22°F to 158°F (-30°C to 70°C)
Display	Touch screen

Notes: [1] Reference condition: 23°C measured with 1 mW, 1550 nm fiber optic stable source after 30 minutes warm-up period.
[2] Other wavelengths such as 1310 nm or 1480 nm are also available upon request.

Description: Multi-Channel Benchtop Polarization Dependent Loss Emulator

Part Number: **PDLE-1000-*CH*-*X*-*W*-9/125-S-20**

CH = Channel count (1 to 16)
Note: For 5 channels and up, the unit will come in a full rack mount chassis.

W = Wavelength: Specify in nanometers
Example: 1520/1620 for standard telecom wavelength range.

X = Receptacle code

3S = Super NTT-FC/PC	LCA = Angled LC
3U = Ultra NTT-FC/PC	8 = AT & T-ST
3A = Angled NTT-FC/PC	SC = SC
LC = Super LC/PC	SCA = Angled SC
LCU = Ultra LC/PC	

See the *Standard Tables* data sheet for other connectors.
https://www.ozoptics.com/ALLNEW_PDF/DTS0079.pdf

Ordering Example For Standard Parts:

Ordering a unit to control the PDL on four separate channels at 1550 nm, with 20 dB dynamic range, and FC/APC connectors can be applied as follows:

Bar Code	Part Number	Description
69780	PDLE-1000-4-3A3A-1520/1620-9/125-S-20	4 channels Benchtop electrically controlled polarization dependent loss emulator with 20 dB dynamic range optimized to be used for C&L band [1520-1620 nm], with 9/125 um singlemode fiber terminated with FC/APC receptacles on front panel, IL < 0.8 dB, RL < -60 dB and device PMD (polarization mode dispersion) < 0.5 ps per channel. This unit comes with a touch-screen controlled display, USB interface enable on rear panel and with integrated power supply.

Custom Parts:

OZ Optics welcomes the opportunity to provide custom designed products to meet your application needs. As with most manufacturers, customized products do take additional effort so please expect some differences in the pricing compared to our standard parts list. In particular, we will need additional time to prepare a comprehensive quotation, and lead times will be longer than normal. In most cases non-recurring engineering (NRE) charges, and/or lot charges will be necessary. These points will be carefully explained in your quotation, so your decision will be as well-informed as possible. We strongly recommend buying our standard products.

Questionnaire For Custom Parts:

1. What type of fiber do you wish to use?
2. What is the worst acceptable return loss?
3. Will this system be used in Europe or in the United Kingdom?
4. Are there any special performance requirements that you need to meet?
5. At what wavelengths do you want the system calibrated?