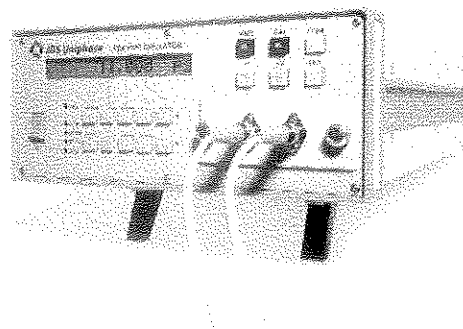


PMD Emulator

The JDS Uniphase Polarization Mode Dispersion (PMD) Emulator produces a controlled amount of differential group delay (DGD). It is used for fiberoptic systems testing, calibration of PMD measurement instruments, and PMD sensitivity measurements in high-speed optical transmission systems.

The instrument separates the incoming light into two discrete polarization paths. One of the paths passes through an optical delay element, the other through a matching attenuator, and they are recombined at the output of the unit. The optical delay element allows precise control of the time delay between the two polarization state paths, the DGD. The state of polarization at the output of the instrument is not controlled.

The emulator is a programmable instrument that can be controlled from the front panel or by the GPIB and RS232 interfaces.



Key Features & Benefits

High accuracy generation of PMD

Repeatability of ± 0.02 ps

PE3 emulation range > 125 ps

PE4 emulation range > 250 ps

GPIB and RS232 remote control

Complies to CE requirements plus UL3101-1 and CAN/CSA-C22.2 No. 1010.1

Applications

Testing PMD effects on systems

Calibration of PMD measuring equipment

PMD Emulator

Specifications

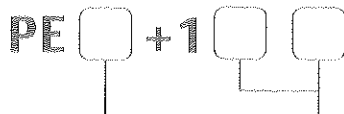
PARAMETER	PE3	PE4
Operating wavelength range	1250-1700 nm	
PMD emulation range	- 30 to 125 ps	50 to 250 ps
PMD emulation accuracy at 0 ps setting ¹	± 0.1 ps	
PMD emulation resolution	0.002 ps nominal	
PMD emulation repeatability ²	± 0.02 ps	
PMD emulation relative accuracy ³	± (0.02 ps + 0.5 % of PMD)	
Insertion loss ^{3,3}	- 30 to 0 ps ≤ 3.0 dB 0 to 30 ps ≤ 2.5 dB 30 to 125 ps ≤ 3.0 dB	- 50 to 0 ps ≤ 4.0 dB 0 to 100 ps ≤ 3.0 dB 100 to 250 ps ≤ 4.0 dB
PDL ^{3,3}	- 30 to 0 ps ≤ 0.5 dB 0 to 30 ps ≤ 0.2 dB 30 to 125 ps ≤ 0.5 dB	- 50 to 0 ps ≤ 1.0 dB 0 to 100 ps ≤ 0.5 dB 100 to 250 ps ≤ 1.0 dB
Return loss	> 45 dB	
IN/OUT fiber type	single-mode 9/125-µm fiber with bulkhead FC connector	
Input voltage	100-240 V AC, 50-60 Hz	
Power consumption	100 VA maximum	
Control	GPIB and RS232 interfaces	
Dimensions (W x H x D)	21.2 x 8.9 x 35.5 cm	
19-inch (48.26 cm) rackmounting	2U high, half-rack width	
Weight	4 kg	
Operating temperature	0 to 40 °C	
Storage temperature	- 40 to 60 °C	
Humidity	maximum 95 % non-condensing	

1. At 1550 nm and 25 ± 5 °C.
2. At constant temperature.
3. Excluding connectors.

Ordering Information

Indicate your requirements by selecting one option from each configuration table. Print the corresponding codes in the available boxes to form your part number.

SAMPLE ORDER: PE3+1FP



code	model
3	PE3 (125 ps range)
4	PE4 (250 ps range)

code	connector type
FP	FC/PC
FA	FC/APC

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