

Polarization Extinction Ratio Meter PEM-340

The PEM-340 polarization extinction ratio (PER) meter enables rapid and accurate polarization axis alignment of optical components to a PMF (Polarization Maintaining Fiber). The PEM-340 incorporates a powerful GPIB interface enabling full system integration and production line automation. In addition, to facilitate automatic alignment of diode lasers to optical fibers, an analog power monitor with 1 kHz response time is available. With this addition, both translational and rotational fiber alignment can be controlled automatically.

The PEM-340 has two separate versions: the Normal Power version with 50 dB of PER dynamic range is ideal for PM fiber connectorization and alignment of polarization axis of optical devices. The High Power version has a high input power range of up to +20 dBm and is best suited for PMF pigtailed laser diodes evaluation.

Features

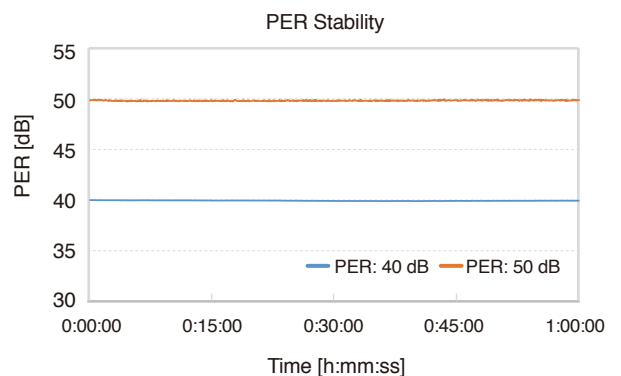
- ▶ Full band 1260 to 1630 nm
- ▶ Simultaneous display of extinction ratio, optical power, and polarization angle
- ▶ 50 dB dynamic range for PER measurement
- ▶ Wide dynamic input power range
 - 40 to +10 dBm / Normal power
 - 25 to +20 dBm / High power
- ▶ Direct PD analog output
- ▶ Real-time (up to 10 Hz) measurement
- ▶ Interchangeable connectors: FC, SC or LC

Applications

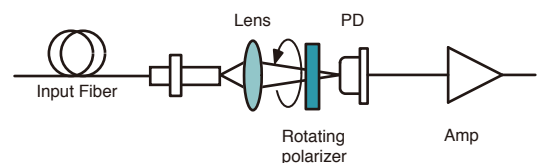
- ▶ Alignment of polarization axis of optical devices
- ▶ Connectorized PMF patch cord evaluation
- ▶ PMF pigtailed laser diodes evaluation
- ▶ PM fiber fusion splicing



Measurement Data



Principle of Operation



Specifications

Parameter		Unit	Performance			
			Normal power		High power	
Wavelength Range		nm	1260 to 1630			
PER Dynamic Range		dB	50		40	
PER Range		dB	0 to 50	-5 to +10 dBm	-	-
			0 to 40	-15 to +10 dBm	0 to 40	-5 to +20 dBm
			0 to 30	-25 to +10 dBm	0 to 30	-15 to +20 dBm
			0 to 20	-35 to +10 dBm	0 to 20	-25 to +20 dBm
PER Resolution		dB	0.01			
PER Accuracy *1	PER < 30 dB	dB	< ±0.3			
Input Power Range		dBm	-40 to +10		-25 to +20	
Power Resolution		dB	0.01			
Power Accuracy *2		dB	< ±0.3			
Polarization Angle Resolution *3		deg	0.12			
Polarization Angle Accuracy		deg	< ±0.45			
Measurement Speed		sec	0.1 / 0.2 / 0.4			
Interface		-	GP-IB, RS-232C			
Optical Connector		-	FC, SC or LC			
Connector Polish		-	SPC or APC *4			
Operating Temperature		°C	0 to 40			
Size (w) x (D) x (H)		mm	210 x 300 x 80			
Weight		kg	3			
Supply Voltage		V	AC100 to 240			
Maximum Power Consumption		W	35			

* 1 : Temperature: 20 to 30 °C, Measurement Speed: 2.5 Hz

* 2 : Calibrated wavelength: 1310 nm / 1550 nm

* 3 : Measurement Speed: 2.5 Hz

* 4 : SPC: Super Physical Contact, APC: Angled PC

Ordering Code

PEM-340 - A - B - C - 00

Input Power : **0** : Normal power (-40 to +10 dBm)
1 : High power (-25 to +20 dBm)

Connector Polish : **S** : SPC / **A** : APC (Angled PC)

Connector Type : **F** : FC / **S** : SC / **L** : LC

www.santec.com

2021© SANTEC CORPORATION Santec reserves the right to make changes in equipment design, components or specifications without notices.



SANTEC CORPORATION

5823 Ohkusa-Nenjozaka, Komaki, Aichi 485-0802, Japan Tel. +81-568-79-3536 Fax +81-568-79-1718

SANTEC USA CORPORATION

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

SANTEC EUROPE LIMITED

Grand Union Studios, 332 Ladbroke Grove, London W10 5AD, UK Tel. +44-20-3176-1550

SANTEC (SHANGHAI) Co., Ltd.

21F Room H, Hua Du Bldg., No.838 Zhangyang Road, Pudong District, Shanghai 200122 China Tel. +86-21-58361261, Fax +86-21-58361263