



# PEM-340

## Polarization Extinction Ratio Meter

### 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

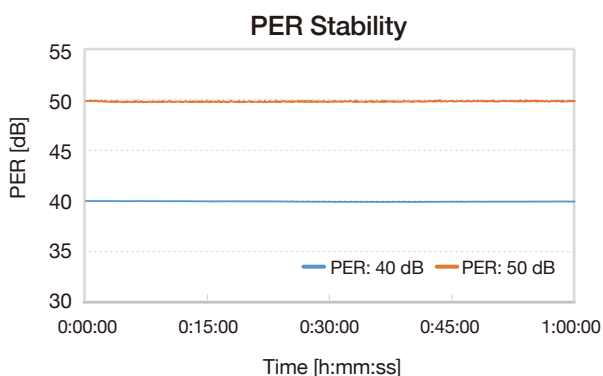
- Alignment of polarization axis of optical devices
- Connectorized PMF patch cord evaluation
- PMF pigtailed laser diodes evaluation
- PM fiber fusion splicing

### Product Overview

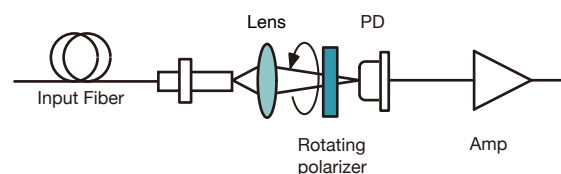
The PEM-340 polarization extinction ratio (PER) meter enables rapid and accurate polarization axis alignment of optical components to a PMF (Polarization Maintaining Fiber). The PEM-340 incorporates a powerful GPIB interface enabling full system integration and production line automation. In addition, 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.

### 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



**Santec Japan Corporation**  
5823 Ohkusa-Nenjozaka, Komaki,  
Aichi, 485-0802, Japan  
Tel: +81-568-79-3535

**Santec Europe Ltd.**  
99 Park Drive, Milton Park, Abingdon,  
Oxfordshire, OX14 4RY, UK  
Tel: +44-20-3176-1550

**Santec USA Corporation**  
400 Kelby Street Suite 1501 Fort Lee,  
NJ 07024, USA  
Toll-Free: +1-800-726-8321

**Santec (Shanghai) Corporation Limited**  
21F Room H, Hua Du Bldg., No.838 Zhangyang Road,  
Pudong District, Shanghai, 200122, China  
Tel: +86-21-58361261

