

Polarization Extinction Ratio Meter PEM-320

The PEM-320 polarization extinction ratio (PER) meter has been designed to enable accurate and rapid alignment of optical components to polarization maintaining fiber. The PEM-320 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.



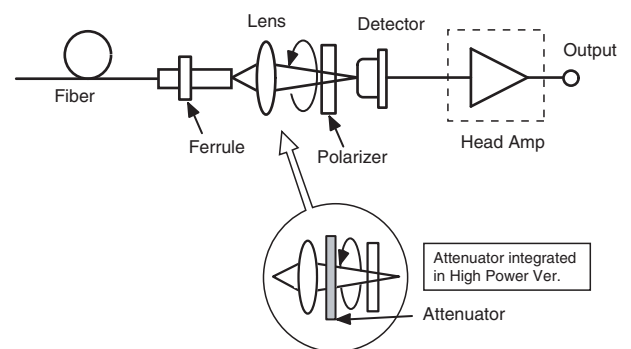
Features

- ▶ Simultaneous display of extinction ratio, optical power, and polarization angle
- ▶ 40 dB dynamic range for PER measurement
- ▶ Wide dynamic range for input power (-30 to +10 dBm standard, -10 to +20 dBm high power option)
- ▶ Analog output
- ▶ GPIB and RS-232C interface
- ▶ Real-time (up to 10Hz) update rate
- ▶ Selectable FC/SC or LC/MU or ST connector interface
- ▶ Angle-polish option available
- ▶ Utility software (for controlling instrument and acquiring/storing data) included
- ▶ Broadband and narrowband source measurements 1550, 1480, 1310, 980 nm versions available
- ▶ PER measurement available at the fixed two axis. (0° and 90°)
- ▶ CE mark acquisition

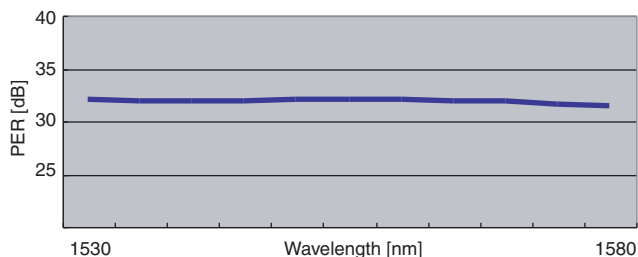
Applications

- ▶ Alignment of polarization axis
- ▶ PMF code with connector valuation

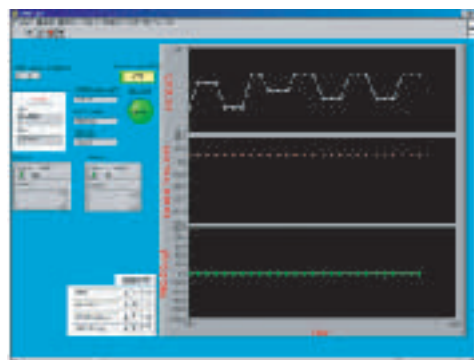
Principle of Operation



Wavelength Dependency of Measurement Extinction



LabView Software Support



Specifications

Type	Unit	Value			
Wavelength Range	nm	980	1310	1480	1550
PER Range	dB	Typ. 0-30	0 - 30 (when input power > -30 dBm)		
			30 - 40 (when input power > -20 dBm)		
PER Resolution	dB	0.1 (when PER < 30 dB)			
		0.3 (when PER > 30 dB)			
Power Measurement	dBm	-30 - +10*			
Power Resolution	dB	0.1 (when Power > -30 dBm)			
		0.3 (when Power < -30 dBm)			
Polarization Angle Resolution	deg	0.45			
Measurement Speed	sec	0.1, 0.2, 0.4 (selectable)			
Operating Temperature	°C	25 ± 5			
Connector Type	-	FC, SC (SPC/APC)			
Communication Interface	-	GPIB, RS-232C			
Size	mm	210 x 80 x 300			
Weight	kg	3			
Supply Voltage	V	100-240			
Maximum Power	W	40			

* -10 dB - +20 dB version also available

Ordering Code

PEM-320 - **A** - **B** - **C** - **D** - **E**

- E: Analog Through : **0** : None / **T** : Direct PD analog output
- D: High Power Input : **0** : (-30~-+10dBm) **H** : (-10~-+20dBm)
- C: Connector Polish : **S** : SPC / **A** : APC
- B: Connector Type : **F** : FC/SC(Rtype-FC available) / **L** : LC/MU / **S** : ST
- A: Wavrange : **1** : 1550nm range / **2** : 1480nm range / **3** : 1310nm range
☐ ☐ **4** : 980nm range

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