

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.



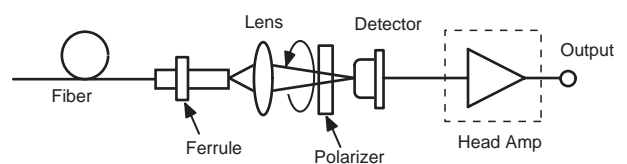
Features

- ▶ 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)
- ▶ 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 nm versions available
- ▶ PER measurement available at the fixed two axis. (0° and 90°)

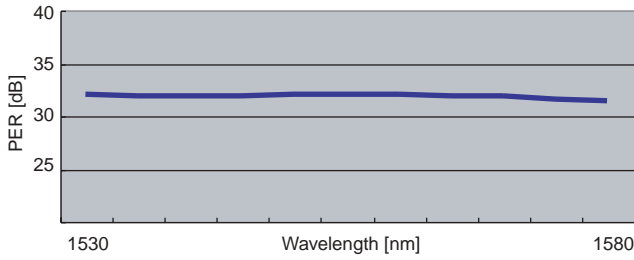
Applications

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

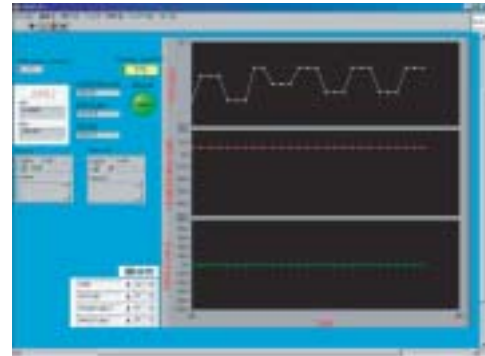
Principle of Operation



Wavelength Dependency of Measurement Extinction



LabView Software Support



Specifications

Parameter	Unit	Spec		
Wavelength Range	nm	1310	1480	1550
PER Range	dB	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	-	GPIO, RS-232C		
Size	mm	210 x 80 x 300		
Weight	kg	3		
Supply Voltage	V	100-240		
Maximum Power	W	40		

Ordering Code

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

- E : Analog Through : **0** : None / **T** : Direct PD analog output
- D : Power Input : **0** : (-30 - +10dBm)
- C : Connector Polish : **S** : SPC / **A** : APC
- B : Connector Type : **F** : FC/SC (Rtype-FC available)
- A : Waverrange : **1** : 1550nm range / **2** : 1480nm range / **3** : 1310nm range

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