INSTRUMENTS

Polarization Extinction Ratio Meter



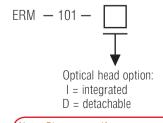
The ERM-101 is a high performance polarization extinction ratio (PER) meter designed specifically for both production and laboratory environments. With a PER dynamic range greater than 50 dB, a wide wavelength range (1260-1650 nm), and an angular resolution of 0.06°, this instrument outperforms any competitors in its class. One attractive option is a separate measuring head that can be detached from the main instrument enclosure for user convenience in applications such as pigtailing of laser diodes. The instrument has 5 measurement speeds ranging from 0.1 to 10 seconds/cvcle, with the high

speed for live alignment and the low speed for accuracy. The measurement data can also be stored and recalled at the touch of a button for comparison purposes. In automatic measurement mode, PER, axis angle, and optical power are automatically measured and displayed in the LCD window. In manual measurement mode, the user can manually rotate the internal polarizer using the arrow keys on the front panel to search for the maximum transmission. The instantaneous power and polarizer rotation angle are simultaneously displayed. The ERM-101 is ideal for PM fiber pigtailing of laser diodes, PM fiber patch cord manufacturing, PM fiber connectorization, PM fiber fusion splicing, PM fiber coil production and quality assurance for fiber gyros.

Specifications:

Wavelength Range ¹		1260 to 1650 nm	Features:	
Calibrated Wavelengths ²		1550 and 1310 nm	 High PER dynamic range Wide wavelength range 	
PER Dynamic Range		50 dB		
PER Ranges ³ :	Integrated optical head	0 ~ 50 dB for input power - 5 to 10 dBm 0 ~ 30 dB for input power - 25 to - 5 dBm	 High angular resolution Detachable optical head option Variable speed measurement 	
	Remote optical head	0 ~ 45 dB for input power - 5 to 10 dBm 0 ~ 30 dB for input power - 25 to - 5 dBm		
PER Resolution		0.1 dB	Data storage and recall functions Manual Alignment function	
PER Accuracy ³ : Integrated optical head Remote optical head		0.15 dB for ER <30 dB 0.35 dB for ER <25 dB		
Angular Resolution		0.06°	A 11 11	
Angular Accuracy		± 1°	 Applications: PM fiber pigtailing of laser diodes PM fiber connectorization PM fiber patch cord production PM fiber fusion splicing QA PM fiber coil QA Fiber gyro QA Notes: Other wavelength ranges available by special request. Contact General Photonics for details Other solitotad wavelength a usidable 	
Power measurement accuracy		± 0.5 dB		
Optical power resolution		0.02 dBm (PER < 30) 0.2 dBm (PER > 30)		
Input Optical Power Range		- 30 dBm to 10 dBm		
Measurement Speeds		0.1, 0.2, 0.4, 1, 10 seconds/cycle		
Connector Type		Free Space Adapter for FC connectors		
Optical Power Damage Threshold		300 mW		
Operating Temperature		0 ~ 40 °C		
Storage Temperature		- 20 ~ 60 °C		
Communication Interface		USB, RS-232, Ethernet, GPIB		
Electrical Power Supply		100 - 120 VAC, 50 - 60 Hz or 200 - 240 VAC, 50 - 60 Hz		
Dimensions: Mai Rei	in body mote head	2U 19" half rack width:14" (L) x 8.5" (W) x 3.5" (H) 4.15" (L) x 2.35" (W) x 1.06" (H)	 Other calibrated wavelengths available. For measurements at or slower tha 0.4 s/cycle. 	

Ordering Information:



Note: Please specify power supply when ordering.



Accessories:

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High ER polarizer (ER=35 to 50dB) with long PM pigtails available. Contact General Photonics for details.



