A1200 PER Analyzer

- **Accurate PER-measurement up to 50dB**
- **Realtime display**
- **Easy-to-use: Reliable results independent of operator skillset**
- **Swept-wavelength and heating / stretching method available**
- **Measurement of the PER versus wavelength**
- **Fast / slow axis detection**
- **Internal light sources available**
- **Instruments available for 850nm up to 1640nm**

A1200-BT PER-Analyzer
(Benchtop Version)

A1200-R2 PER-Analyzer
(Rack Mountable Version)

Adaptif's A1200 series of PER Analzyers has been designed for high speed and highly accurate testing of the polarization extinction ratio (PER) in PM fibers. The polarimetric measurement principle guarantees reliable measurements of PER values of up to 50dB.
The real time measurement capability in combination with automation interfaces makes this unit ideally suited for integration in manufacturing systems, for example pigtailing stations for laser diodes and planar waveguide components. Analog interfaces are provided for integration of the system in control loop applications.

Applications

Laser Diode PMF Pigtailing	Alignment of the PM fiber during the pigtailing process is supported by realtime display of the PER and the optical power.
PMF Splicing	In order to support the alignment during the splicing process of PM fibers the A1200 provides real time display of the optical power and of the angular misalignment of the two fibers
PM component Characterization	measurement of the PER on PM components like fiber polarizers, PMF couplers, PMF splitters, etc.
Characterization of PMF crosscoupling	Polarization crosstalk in a PM fiber is measured and displayed as PER
PM splice Characterization	The angular misalignment of a PM splice can be measured in a non-destructive way. Even multiple splices in a chain can be characterized independently.

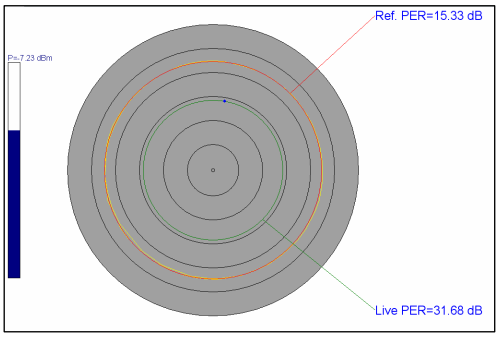
Technology

The Wavelength Scanning Method

Using a tunable laser source in combination with the A1200 PER-Analyzer allows measuring the PER as a function of wavelength.
Adaptif's polarizationNAVIGATOR™ software package includes drivers for most of the tunable laser sources commonly used in industry.

The Heating / Stretching Method

The Heating / Stretching method provides accurate measurements of the PER at a single wavelength.
This method supports in particular well the measurement using narrow-band laser sources.
An optional internal laser source allows stand-alone operation of the system.

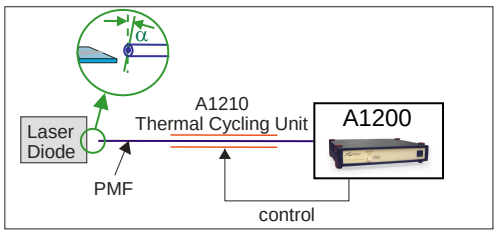


Thermal Cycling Unit

Adaptif's Thermal Cycling Unit A1210 is fully controlled by the A1200 and allows accurate and repeatable cycling of the temperature of the fiber under test. The PER measurement system consisting of the A1200 and the A1210 shows excellent accuracy and repeatability. Ease of use and automation interfaces, such as analog output ports for active alignment, make it particularly useful for production environments.

A1210 Thermal Cycling Unit

Example Setup:



A1200 PER Analyzer

Characteristics

Model	A1200 PER Analyzer				
Option	**A1**	**A2**	**B**	**C**	**D**
Wavelength Operating Range	850-1000nm	950-1100nm	1260-1640nm		
Factory Calibration Range	850, 980nm	980nm	1270-1375nm	1460-1620nm	1270-1375nm and 1460-1620nm
PER Range	0 … 50 dB				
Input Power Range	-35 …10dBm	-40 …10dBm	-50 dBm … +7 dBm		
Measurement Update Rate	>10Hz				
Displayed Parameters	PER, Power, Angle				
Optical Connectors	FC/PC, FC/APC, Multipurpose Adapter System				
Operating Temperature	+5°C … +40°C				
Interfaces	USB, GPIB, Analog ports for measurement output (0 … 5 V)				
Power	100 – 240 VAC, <36W				
Dimensions	BT: 330 x 270 x 70 mm^3 (12“ wide, 10.6“ deep, 2,75“ high) R2: 48.3 mm x 8.9mm (19“ wide, 3.5“ high)				

Model	A1210 Thermal Cycling Unit
Fiber jacket diameter	up to 3 mm
Thermal cycling time	1 to 10 seconds (adjustable)
Thermal cycling range	0°C to 60°C
Power	100 – 240 VAC, <36W
Dimensions	160 mm X 64 mm X 61 mm

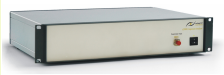
Order Information

A1200 – H H – X – M – Y

Housing

BT: Benchtop

R2: 2U Rack Unit



Wavelength Range

A1: 850nm - 1000nm
A2: 950nm - 1100nm
B: 1270nm - 1375nm
C: 1460nm - 1620nm
D: 1270nm - 1375nm and 1460nm - 1620nm

Connector Type

0: FC
1: Multipurpose Adapter

If connector type “1: Multipurpose Adapter” is selected:
The type of Adapter has to be selected from:
FC, SC, DIN, ST, LC, E2000

Optical Port

0: straight
1: angled

A1210

Thermal Cycling Unit

Comment: For PM splice measurements 2 units are required

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