

Patent Pending

The ultimate on-line measurement solution

Low Birefringence Analyzer (LBA)

BA 7000

FIBERPRO announces its latest innovative tool for polarization analysis. The new Low Birefringence Analyzer (LBA) is designed to offer an accurate field analysis of birefringence. This new solution is a major breakthrough for enabling glass manufacturers to overcome difficulties in the production line while also providing faster and more accurate birefringence measurement in the laboratory.

The LBA offers the industry's highest precision measurements at the fastest available speeds. For example, with 80 Hz of measurement speed at sub-micro radian accuracy, it can provide precise data for 2000-mm glass in just 30 seconds. While others measure in time, FIBERPRO measures in frequency.

FIBERPRO LBA is uniquely designed to provide accurate birefringence analysis, based on balanced detection—even in harsh environments, including factories and mechanical labs where extreme noise and vibration might present issues for other measurement equipment.

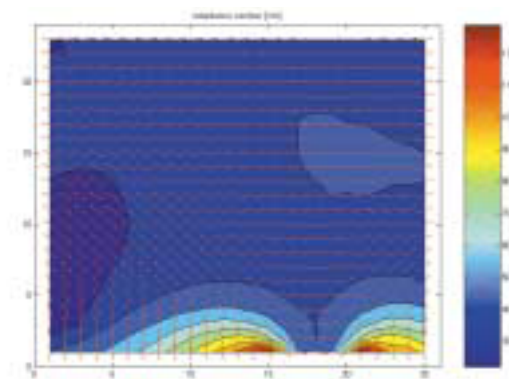
The LBA's micro radian-grade capabilities make it extremely versatile for working with most transparent materials, such as glass and semiconductors.

With LBA, FIBERPRO helps ensure the success and competitiveness of glass manufacturers.



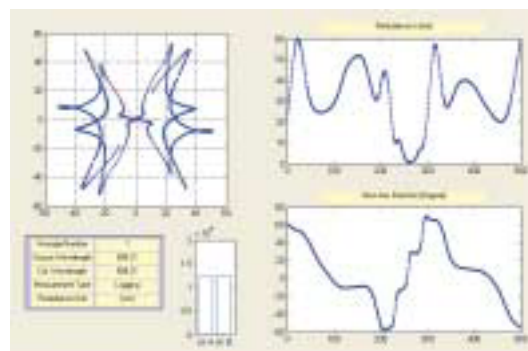
Key Features

Fastest available speeds (80Hz)
 High resolution ($\mu\text{rad} / \sqrt{\text{Hz}}$)
 Intensity noise-free
 Modular design for moving head
 Selectable light source by application
 Versatile use - i.e. glass, semiconductor, wave plates, visible, infrared materials
 Light weight
 All-in-one feature with integrated circuit
 Custom-made graphical user interface (GUI)



Applications

On-line measurement for glass plate
 Defect-induced localized birefringence
 Big glass plate measurement
 Finding excess stress at edge
 Glass cutting
 Stress analysis of optical materials, including polymer films
 Metrology for quality control
 Wafer/photolithography components analysis
 Finding small defects in the plate
 High-accuracy birefringence analysis in laboratory



Example : PMMA plate

Specifications

Parameters	Specifications	Note
Wavelength(λ)	680nm, SLD ¹⁾	Other wavelengths are available according to applications
Retardance range	$0 \sim \pi$	2π radian is equivalent to λ
Retardance resolution	<10 uradian	@ 80 Hz measurement
Maximum measurement speed	80 Hz	
Spot size	<1mm	
Communication	GPBIB	
Structure	Modular	X-Y moving stage can be supplied upon request
Physical dimension		
Power input	90-250V AC @50-60Hz	

¹⁾ Spectral width 10nm