FiBO™ 250

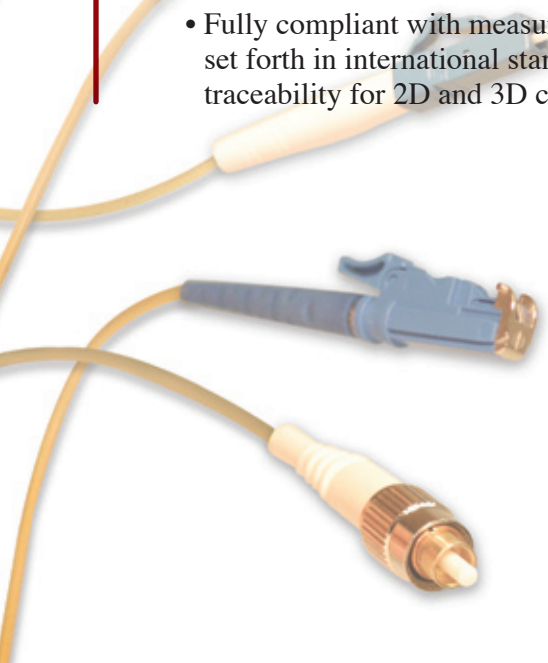
Fixed Magnification

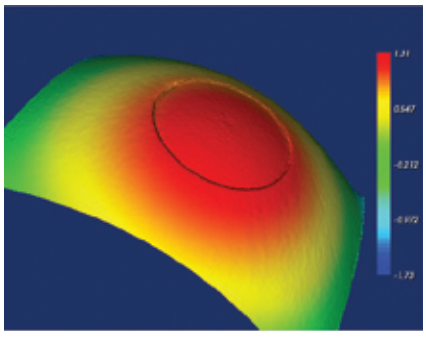
Interferometric Fiber Optic Connector Testing System

FiBO™ is a true phase-shifting Michelson interferometer for automated non-contact fiber optic connector endface testing that combines interferometric 3D surface mapping and 2D visual inspection capabilities in one compact, rugged, and portable design.

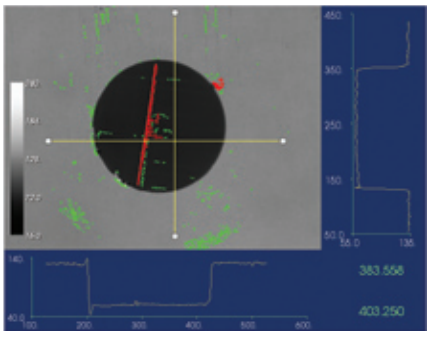
Features

- 3D measurements of radius, fiber height, apex offset, and roughness as well as full 2D defect analysis.
- Fixed focal length magnifier and diffraction-limited optical design deliver high contrast images, maximum system stability, and accurate readings.
- Pre-aligned, kinematic adapters guarantee exact fiber positioning automatically. No tedious adjustments or calibration is necessary when changing between different connector types.
- Extremely compact. Use as a portable device in the field or on the bench. No additional power supply or external interface board is required.
- Advanced, yet easy-to-use FiBO Code™ software fully controls all hardware functions and saves resulting data in a flexible Access® database format that is easily imported into Excel®.
- Fully compliant with measurement requirements set forth in international standards. Optional NIST traceability for 2D and 3D calibration targets.





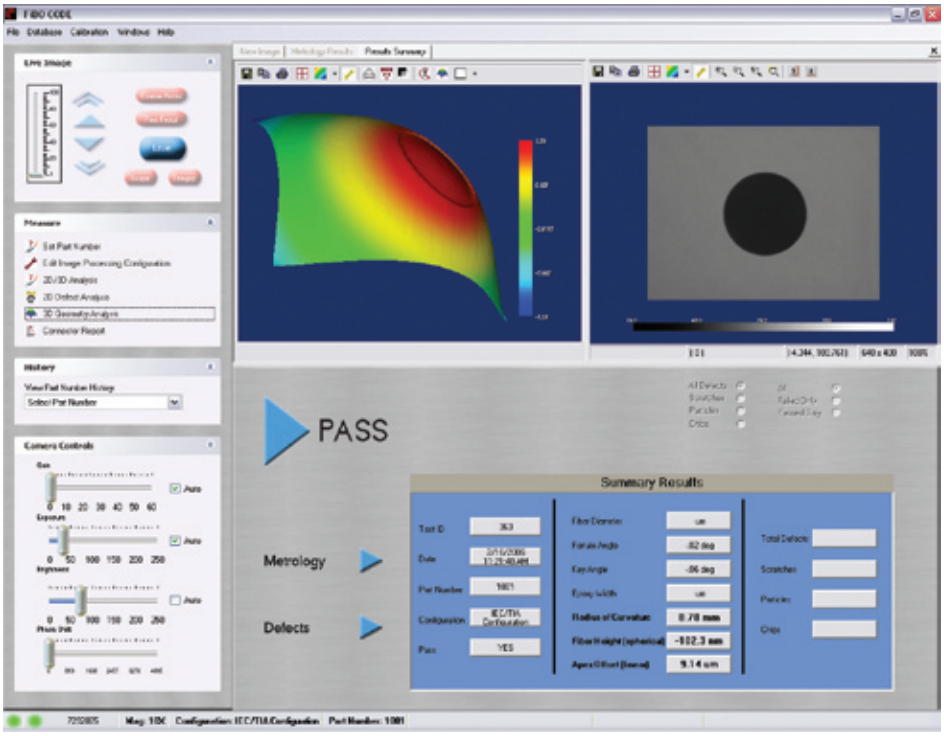
Powerful 3D metrology capabilities



Full featured 2D defect detection

FiBO Code™ Software

- Displays live image of connector endface in interferometric as well as visual inspection modes, up to 30 frames per second.
- Provides auto focus and manual focus.
- Offers parameter setup for customizable pass/fail limits and measurement zones.
- Performs interferometric 3D and visual inspection 2D measurements.
- Allows system calibration of 2D, 3D, phase-shift, and apex offset parameters.
- Saves measured data in a flexible Microsoft Access® database format.
- Displays results in a printable report.
- Furnishes an Engineering Mode to block certain functions.



Technical Specifications

Measurement Technique	Non contact, phase-shifting Michelson interferometry
Configuration	Portable or tabletop; special mount for polishing plate interface
Connector Adapters	ST, FC/PC, FC/APC, SC/PC, SC/APC, LC/PC, LC/APC, LSH/PC, LSH/APC, MU/PC, 1.25mm and 2.5mm bare ferrule (other connector styles and custom angle mounts available)
Computer Interface	USB 2.0
Power Supply	None (all power delivered over USB cable)
Included Software	FiBO Code™ software running under Windows XP®
Size	Height 6.5” (165mm) Diameter 2.5” (64mm)
Weight	2 lbs. 5 oz. (1040 grams)
LED Wavelength	640nm
Optical Magnification	10x
On Screen Magnification	480x (19 inch screen)
Lateral Resolution (μm/px)	0.56
FOV Diagonal (μm)	450

Repeatability/Reproducibility

Radius (mm): 0.1 / 0.25%
Apex Offset (μm): 0.5 / 1
Fiber Height (nm): 1 / 1.5

The FiBO Package Includes:

FiBO 250 Series hardware	Carrying Case
Laptop computer	USB 2.0 cable
Two kinematic adapters	Hardware key
Three calibration targets	Printed manual
FiBO Code™ software	

PROMET International Inc.™
Precision Optical and Mechanical Technology

4611 Chatsworth Street, Shoreview, Minnesota, 55126-5813, USA
Tel: +1-651-481-9661 | Fax: +1-651-481-9565
www.promet.net | fibo@promet.net