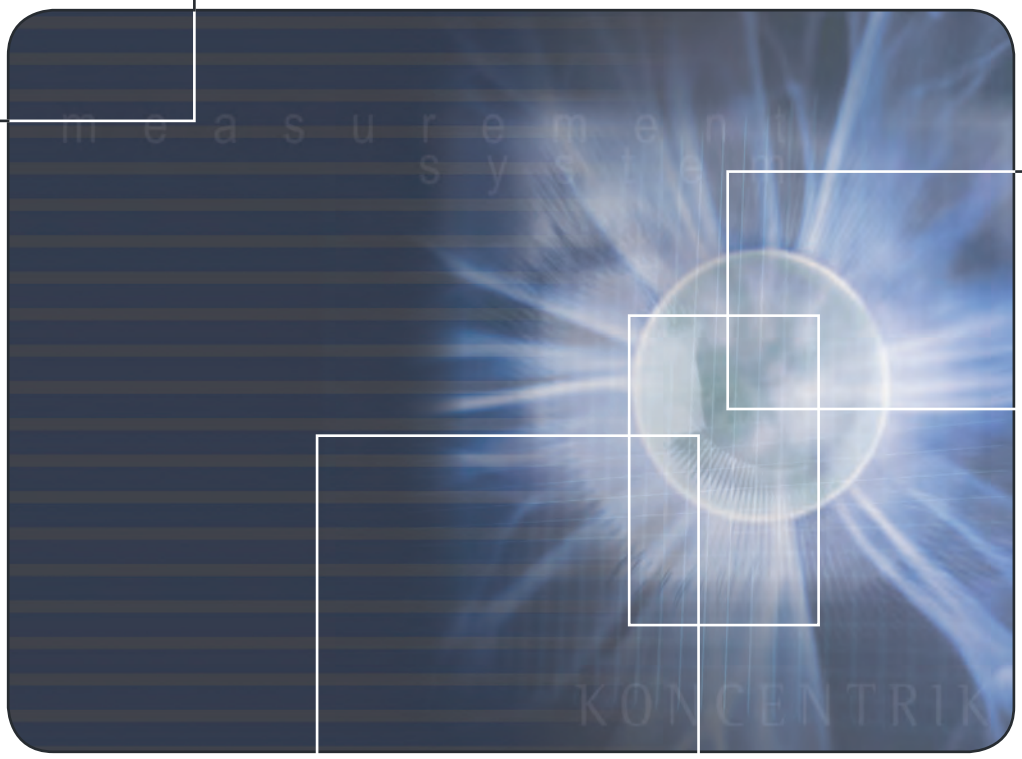
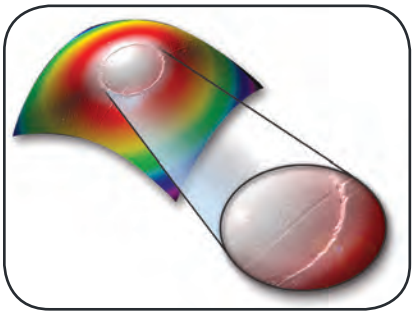
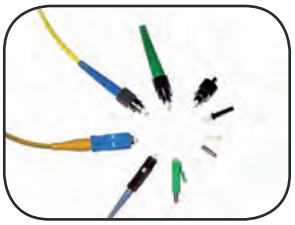
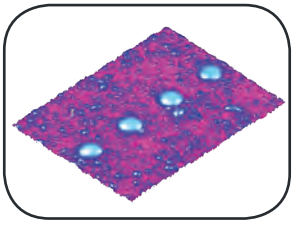
INDUSTRIAL VISION SOLUTIONS









data·pixel

pixels at work

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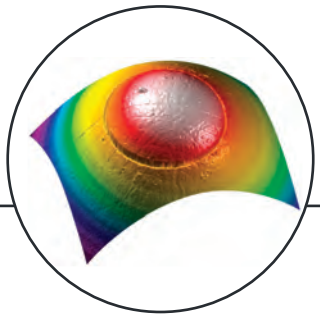
DAISI

Digital Automated Interferometer for Surface Inspection

The ultimate production interferometer for measuring end-face geometry on single fiber and MT-RJ connectors, equipped with a revolutionary "no-exterior-moving-parts" mechanical design.



Key Features

> Single unit for measurement of PC and APC ferrules, connectors and bare fibers
> Non-contact measurement
> Fast autofocus
> One-button easy operation
> Servo-controlled reference mirror for automatic Apex calibration
> Strongest ferrule holder in the industry with automated open/close feature. Can perform measurements while handling the cable
> No exterior moving parts or adjustment screws -> No apex decalibration
> Vibration insensitive. Measurements can be made when holding the system by hand
> Easy and fast switching from PC to APC, no change of ferrule holder required
> Connector key adaptors for most connector types. Special design provides easy loading feature
> Interfaceable to laptop computers, only one USB2.0 link required
> White-Light scanning option for extended fiber height range

Parameter	Repeatability / Reproducibility	Range
Radius (mm)	±0.1% / ±0.2%	3 to flat
Apex Offset (µm)	±0.5 / ±1	0 to 500
Fiber Height (nm)	±1 / ±1.5	±160 (±20000 in WL mode)
Fiber Cleave Angle (°)	± 0.03°	0 to 12°
Measurement Speed (sec.)		2
Magnification		x300
Wavelength (nm)		633
Power requirements		12V 25VA

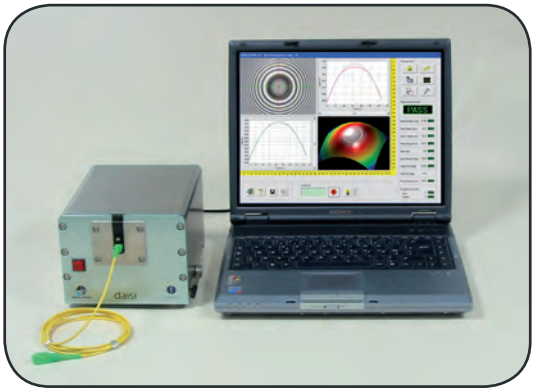
*Repeatability and
**Reproducibility :
1 sigma values

Repeatability values calculated from 50 consecutive measurements without removal of connector from interferometer

Reproducibility values calculated from 50 consecutive measurements with removal of connector from interferometer

Measurements:

> Fast and automated measurement of radius, apex offset, fiber height + more
> Measure fiber and ferrule roughness (Sq parameter)
> Measure angle of cleaving of bare fibers with great precision
> Accurate and repeatable measurements
> High resolution 2D & 3D surface profiles
> Measurement report and history report in Excel
> Compliance with Industry Standards for interferometer measurements



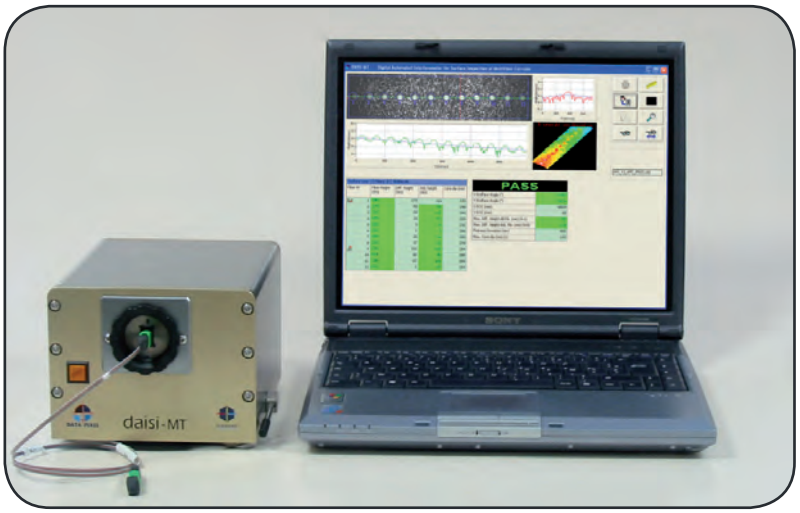
DAISI-MT

Digital Automated Interferometer for Surface Inspection of Multi-Fiber connectors

The new DAISI-MT interferometer, based on the design and philosophy that made the DAISI a success.

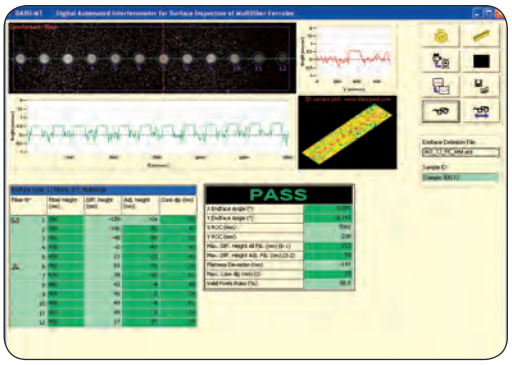
Capable of measuring both single fiber and multi-fiber ferrules

Designed for use in production and field applications.



Key Features

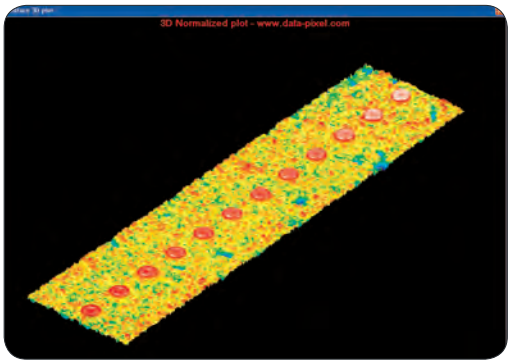
> Combined White-Light and Red-Light phase-shifting interferometer
> Closed-loop high precision 30 microns Z-scan
> Vibration insensitive
> Rapid Auto-Focus
> Automatic calibration of reference mirror
> Patent-pending unique ferrule holder for precise measurements and easy handling
> Measures all types of PC & APC Single & Multi-Fibre connectors
> Low heat LED illumination
> Mega-pixel high resolution camera



DAISI-MT simple and user friendly software interface

Benefits :

> One interferometer for all your needs !
> Up to 100 fibers in a single scan !
> Full Compliance with international standards
> Unique Data-Pixel Rapid-Measure software
> Less than10 seconds measurement for a 12 fibers ferrule
> Suitable for factory and on-site applications
> Portable
> Simple One-button control
> Single Link Cable (USB2.0)



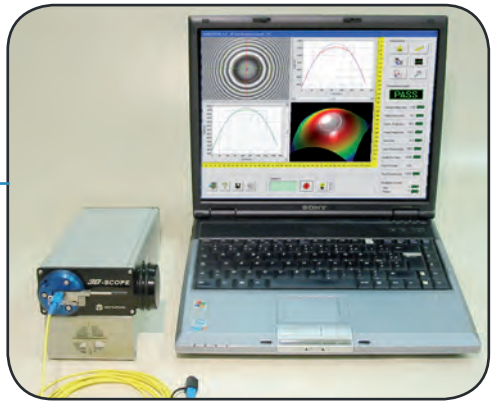
High resolution 3D display of an MT-12 ferrule

Parameter	Repeatability / Reproducibility	Range
Radius (mm)	1% / 3%	1 to flat
X & Y angles (°)	0.002 / 0.02	±1° deviation from 0° (PC) or 8° (APC)
Fibre Height (microns)	0.005 / 0.015	up to 20
Measurement Speed (sec. for a 12 fibers ferrule)		8
AutoFocus speed (sec.)		10
Field of View (mm)		configurable 3.2 x 2.5 max.
Lateral Resolution (microns)		configurable 2.5 max.
Wavelength (nm)		White & Red (632 nm) LED
Power requirements		12V 25VA

3DScope

The low-cost volume production interferometer for ferrule end-face symmetry measurements

Data-Pixel is pleased to introduce the 3D-Scope interferometer. 3D-Scope is the new interferometer really designed for the use in the production environment. It was designed with speed, precision, simplicity, robustness and cost in mind.

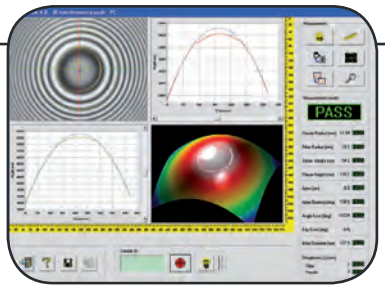


Key Features

> Single unit for measurement of single-fiber, PC and APC ferrules, connectors and bare fibers
> Non-contact measurement
> True phase-shifting interferometer
> Simple and robust mechanical design for a high reliability and low maintenance cost
> No exterior moving parts or adjustment screw -> No apex decalibration
> Completely vibration insensitive. Measure while holding system in hand
> Connector key adaptors for most connector types
> Fast and automated measurement of radius, apex offset, fiber height + more
> Accurate and repeatable measurements
> Interfaceable to laptop computers, only one USB2.0 link required, including power
> Low power requirements; can be used on battery-operated laptop in the field
> Compliance with Industry Standards for Interferometer Measurements
> Measure angle of cleaving of bare fibers with great precision
> High resolution 2D & 3D surface profiles
> Measurement Report and History Report in Excel
> Measure Fiber and Ferrule Roughness (Sq parameter)
> Low cost!

Software DAISI interferometry

3DScope uses the industry-proven DAISI software. Non-compressed, real time and high quality images are transfered from the hardware to the software via a USB 2.0 high speed link in addition to the automation and control commands. 3DScope is portable and can be interfaced to laptop or desktop computers through one single USB link only (including power).
All calibration steps are automated and embedded into a user-friendly software interface in order to yield error-free and reliable measurements.



Software interface

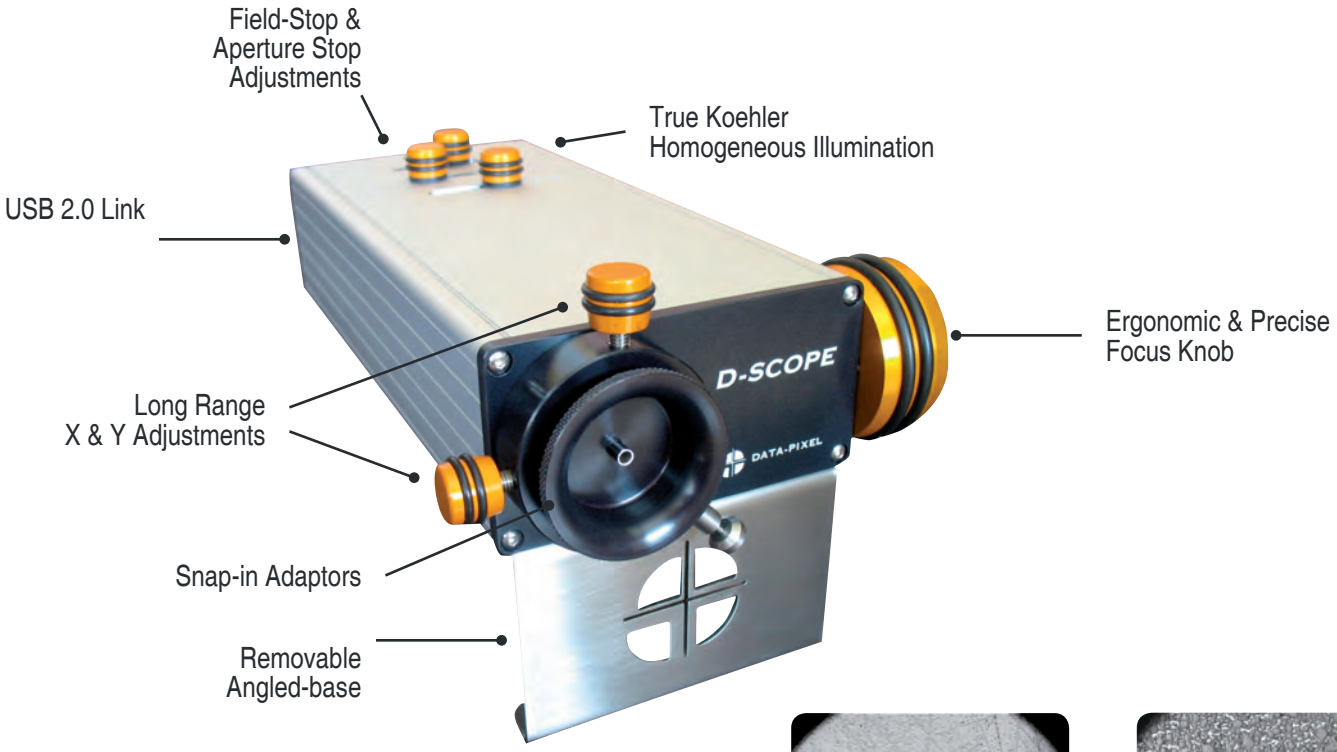
Parameter	Repeatability / Reproducibility	Range
Radius (mm)	±0.2% / ±0.4%	3 to flat
Apex Offset (µm)	±0.7 / ±1.5	0 to 500
Fiber Height (nm)	±1.5 / ±2	±160
Fiber Cleave Angle (°)	± 0.03°	0 to 12°
Measurement Speed (sec.)		2
Magnification		x200
Wavelength (nm)		633
Power requirements		Provided by USB port
Dimensions (cm^3)		25 x 7 x 13
Weight (Kg)		1.9

DScope

Digital Automated Interferometer for Surface Inspection of Multi-Fiber connectors

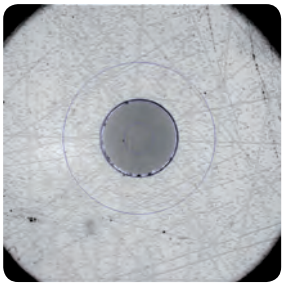
This unique microscope combines high quality optics with a modern and ergonomic design ideally suited to fiber optic inspection applications.

Until the D-Scope, most microscopes were suffering from poor illumination quality yielding variable and non-reproducible image quality even amongst scopes of the same kind.

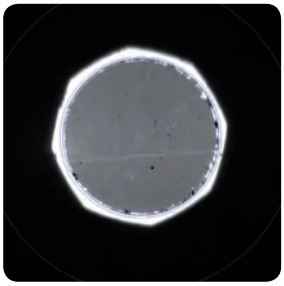


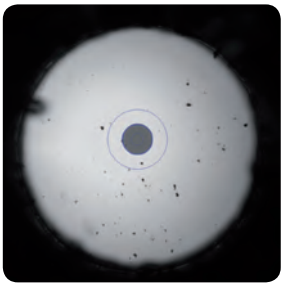
The D-Scope main features are :

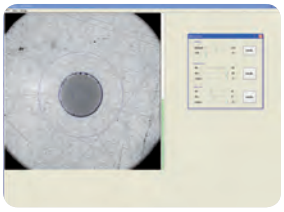
- > True Koehler optical design for perfectly homogeneous lighting
- > D-Scope software detects in real-time the fiber location and overlays inspection zones
- > Unique ability to define independent gain and contrast levels for the fiber and ferrule regions for optimized simultaneous viewing of both areas
- > Adaptors for all PC & APC, SF & MF connectors
- > High-speed USB 2.0 for live digital image
- > Field-stop and Aperture-stop diaphragms
- > Deep-blue long-life LED light source
- > Second light source at low incidence for surface cleanness inspection
- > Ergonomic fine focus control
- > Focus quality indicator in D-Scope software
- > Software and Hardware automation capabilities
- > Real-time PM Fibers angular alignment measurement capability


D-Scope x10 : 500 µm field of view


Multi-Fiber adaptors available


D-Scope x20 : 250 µm field of view


D-Scope x4 : 1000 µm field of view

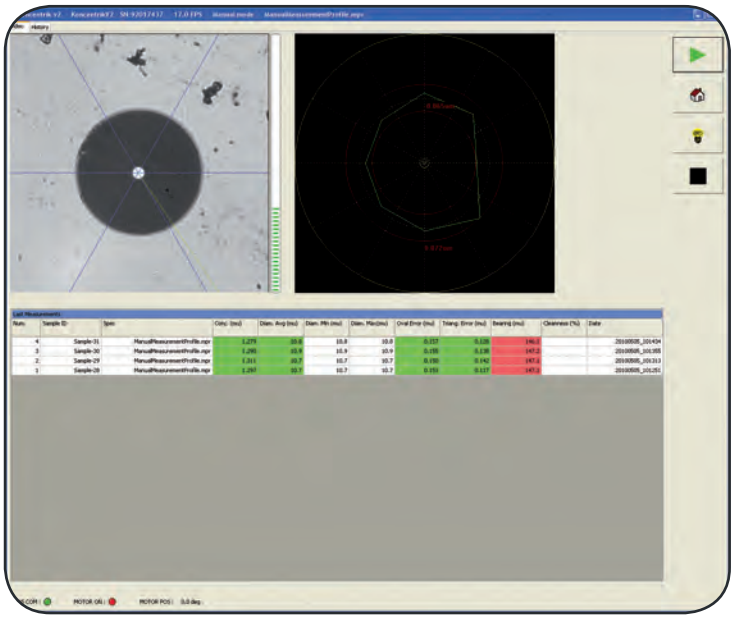

D-Scope software

Koncentrik-/V2/Connector

High precision fiber-core to ferrule-envelope eccentricity and indexing measurements

The new KONCENTRIK-V2 is a modular measurement system. Several mechanical modules adapt on it so that either fiber or ferrule eccentricity measurements can be performed.

Measure 2.5 & 1.25mm
PC-type connectors



Key Features

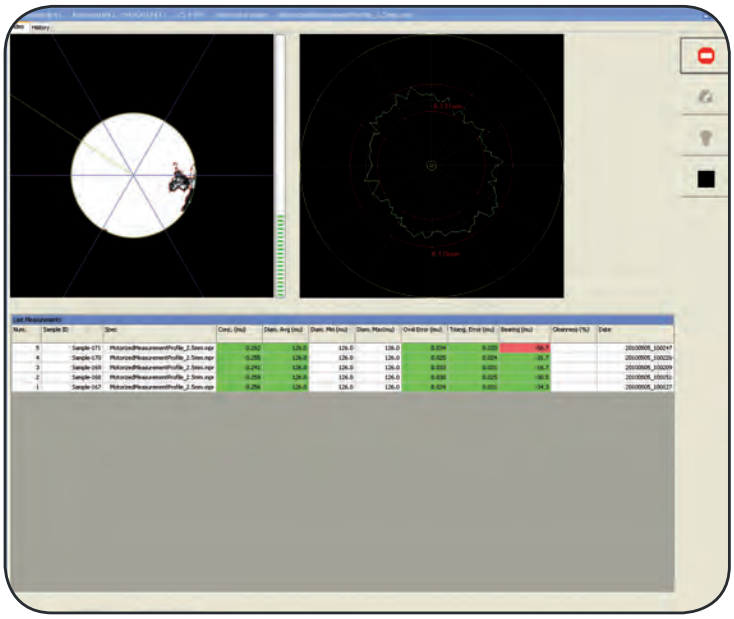
> Measure Ø2.5mm and 1.25mm PC-type connectors, other diameters available
> Ferrule end-face visual inspection at x400 magnification
> Accurate and repeatable measurements
> User adjustable quality level for high-speed measurements
> Easy calibration Koncentrik Software
> Measurement data exported in standard CSV format
> Statistics on measurements available

Measured parameter (unit)	Range	Reproducibility
Eccentricity measurement (µm)	0 to 100 µm	+/- 0.05 µm
Indexing measurement (degrees)	0 to 360°	±5° if eccentricity > 0.2µm
Measurement speed (seconds)	10 + (user variable)	
Magnification	x 400	
Wavelenght (nm)	450 nm	
Power requirements	12V external supply	
Link to PC	USB 2.0, no card required	

Koncentrik-/V2/Ferrule

High Precision ferrule-bore to ferrule-envelope eccentricity and indexing measurements

Measure ceramic & metal ferrules



Key Features

> Measure ceramic and metal PC-type ferrules
> Ferrule end-face visual inspection at x400 magnification
> Automatic measurement + re-positioning of ferrule at tuned position.
> Ferrule envelope & bore shape-error measurement
> Accurate and repeatable measurements
> User adjustable quality level for high-speed measurements
> Easy calibration KONCENTRIK Software
> Measurement data exported in standard CSV format
> Statistics on measurements available

Measured parameter (unit)	Range	Reproducibility
Eccentricity (µm)	0 to 100 µm	+/- 0.05 µm
Indexing (degrees)	0 to 360°	±5° if eccentricity > 0.2µm
Measurement speed (seconds)	3 sec + (user variable)	
Magnification	x 400	
Ferrule outside Ø (mm)	1 to 3.17	
Ferrule bore Ø (µm)	5 to 500	
Power requirements	12V external supply	
Link to PC	USB2.0, no card required	

Blink

Real-time automated visual inspection software

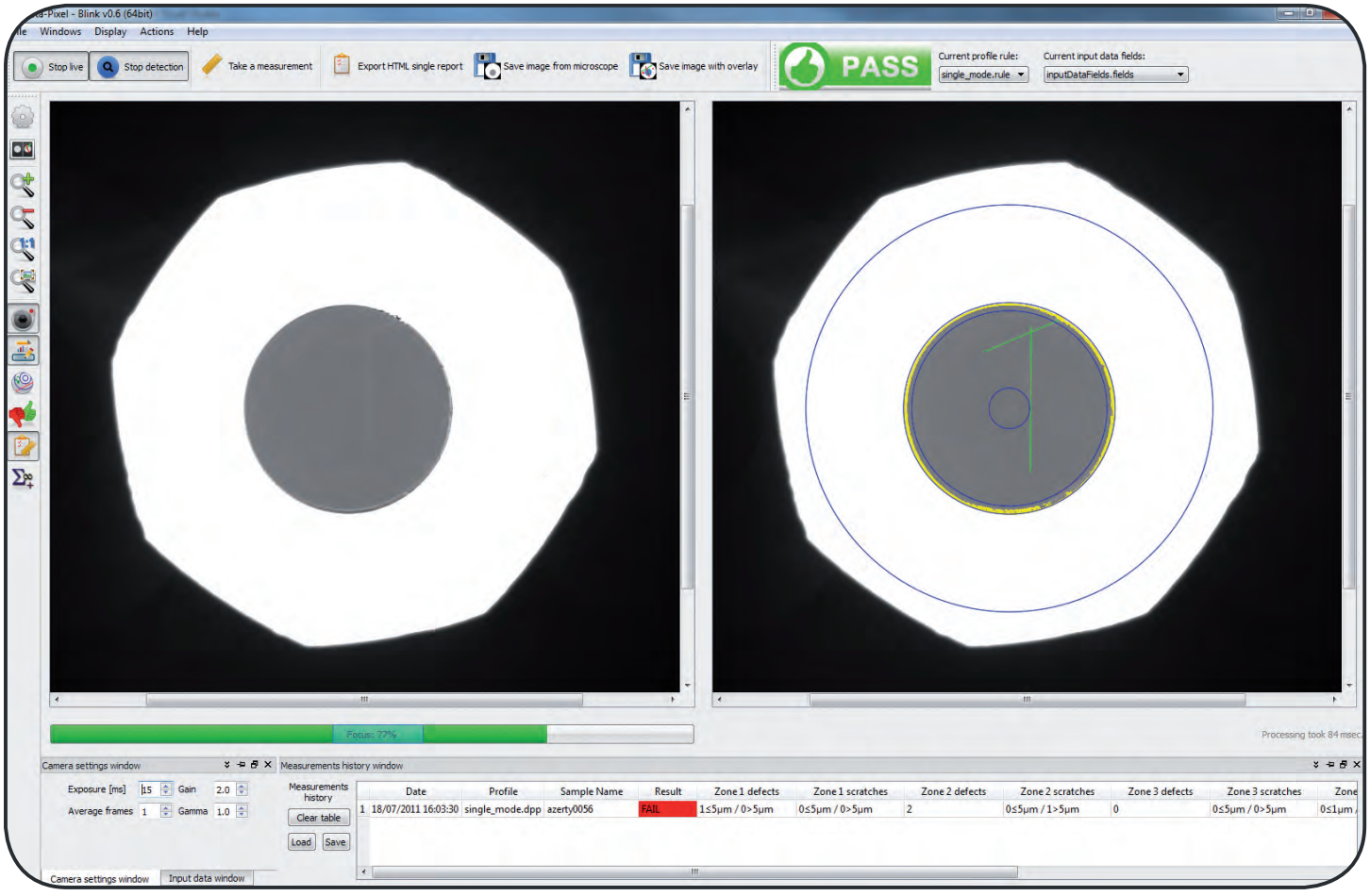
The combination of the Data-Pixel Blink software and DScope microscope provides the ultimate visual inspection station for fiber optic connector surface defect analysis providing an instantaneous pass or fail.

This is accomplished by using the latest innovations in image processing providing a system that is unparalleled in the industry for speed. With the addition of the auto-focus this system will produce operator independent results based on user defined templates in just a fraction of a second from inserting the connector into the fixture (the blink of an eye).

Results are automatically exported to a customisable measurement report.

Key Features

> Complies with IEC/TIA standards
> Windows XP and 7 supported
> Autofocus option available
> HTML reports
> Export to databases



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