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DAISI-MT-V3

Digital Automated Interferometer for Surface Inspection of Multi-Fiber Connectors

The DAISI-MT interferometer is the industry reference for MT product measurements, based on the same design 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
- Supports MT-16 and MT-32
- Measures all types of PC & APC Single & Multi-Fiber connectors
- Low heat, long-life LED illumination
- Mega-pixel high resolution camera

Benefits:
- One interferometer for all your needs!
- Up to 100 fibers in a single scan!
- Unique Data-Pixel Rapid-Measure software
- Less than 10 seconds measurement for a 12 fibers ferrule
- Suitable for factory and on-site applications
- Portable
- Simple One-button control
- High-speed USB 3.0 connection

DAISI-V3

Digital Automated Interferometer for Surface Inspection

The ultimate production interferometer for measuring end-face geometry on single fiber 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
- Fast autofocus
- One-button easy operation
- Servo-controlled reference mirror for automatic Apex calibration
- Robust Motor driven automated Flange locking Mechanism
- 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
- Connection to laptop computer via high Speed USB3.0 link
- 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
- BLINK-Automated Visual Inspection software detects in real-time the fiber location and analyses surface defect

Parameter | Repeatability* / Reproducibility** | Range
---|---|---
Radius (mm) | ±0.05% / ±0.05% | 3 to flat
Apex Offset (µm) | ±0.5 / ±1 | 0 to 500
Fiber Height (nm) | ±1 / ±1.5 | ±160
Fiber Cleave Angle (°) | ±0.01° / ±0.015° | 0 to 12°
Measurement Speed (sec.) | 0.5 sec | 633nm
Magnification | x400 | 1 sec for interferometer
Wavelength (nm) | 633nm | 1 sec for inspection
Power requirements | 12V external - 12VA | 1sec for inspection
Dimensions (mm³) | 140x78x250 | 1.9
Weight (Kg) | 1.9 | 3DScope-V2

All Data-Pixel interferometers offer the following key features:

- Non-contact measurement
- True phase-shifting interferometer
- Compliance with Industry Standards for Interferometer Measurements
- High resolution 2D & 3D surface profiles
- PDF, CSV and HTML formats reporting
- Data-base connectivity
DScope
High quality digital benchtop microscope
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.

Key features
- True Koehler optical design for perfectly homogeneous lighting
- BLINK-Automated Visual Inspection software detects in real-time the fiber location and analyses surface defects
- 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 stray-light source for surface cleanliness inspection
- Ergonomic fine focus control
- Focus quality indicator in D-Scope software
- Software and Hardware automation capabilities
- Also available as analog output for use with a CRT screen only

PM ALIGNER & DScope-PM
A complete solution to align Polarisation Maintaining fiber in a connector
PM ALIGNER and DScope-PM are two products which will enable you to accurately mechanically align the stress elements of a PANDA Polarisation-Maintaining fibre with the key of a connector. PM ALIGNER features an exceptional long working distance of 65mm giving the operator a spacious workspace between the optical measuring head and the connector endface.
DScope-PM combines the high quality inspection image of the DScope microscopes with its low cost advantage.

The BLINK-PM software module will measure in real-time the angular alignment of the stress elements and let the operator rapidly position them to the required angular position.

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### Visual Inspection

<table>
<thead>
<tr>
<th></th>
<th>DScope-x1</th>
<th>DScope-x2</th>
<th>DScope-x4</th>
<th>DScope-x10</th>
<th>DScope-x20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnification</td>
<td>50*</td>
<td>100*</td>
<td>200*</td>
<td>400*</td>
<td>800*</td>
</tr>
<tr>
<td>Field-of-View (mm²)</td>
<td>6.7 x 5.3</td>
<td>3.3 x 2.7</td>
<td>1.7 x 1.3</td>
<td>0.7 x 0.5</td>
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<tr>
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<tr>
<td>Connector types</td>
<td>PC/APC single fiber + Multi-Fiber*</td>
<td>PC/APC single fiber + Multi-Fiber</td>
<td>PC/APC single fiber + Multi-Fiber</td>
<td>PC/APC single fiber + Multi-Fiber</td>
<td>PC/APC single fiber + Multi-Fiber</td>
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<tr>
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<td>manual (optional auto)</td>
<td>manual (optional auto)</td>
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<tr>
<td>Aperture/Field stops</td>
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<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
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<tr>
<td>Supported BLINK software plugin</td>
<td>BLINK-Automated Visual Inspection (Autofocus required)</td>
<td>BLINK-PM ALIGNER</td>
<td>BLINK-PM ALIGNER</td>
<td>BLINK-PM ALIGNER</td>
<td></td>
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<tr>
<td>BLINK - image viewer</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Power supply</td>
<td>via USB link</td>
<td>via USB link</td>
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<td>Net weight (kg)</td>
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<tr>
<td>Dimensions (WxHxD) (mm)</td>
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<td>140x78x250</td>
<td>140x78x250</td>
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<tr>
<td>comments</td>
<td>Equivalent magnification for a display video screen of 43cm diagonal</td>
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</table>
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.

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

Parameter Reproducibility Range
Eccentricity measurement (µm) ±0.05 µm 0 to 100 µm
Indexing measurement (degrees) ±5° if eccentricity > 0.2µm 0 to 360°
Measurement speed (seconds) 10 + (user variable)
Magnification x 400
Ferrule outside Ø (mm) 1 to 3.17
Ferrule bore Ø (µm) 5 to 400
Wavelength (nm) 450 nm
Power requirements 12V external supply
Link to PC USB 2.0, no card required

The Koncentrik-V2/Ferrule will enable you to measure the angular misalignment between the fiber and the ferrule axes in an optical connector as per the IEC 61300-3-26 standard.

The optical performance (Insertion loss) of a connector is mainly influenced by the fiber eccentricity (measured with Data-Pixel’s Koncentrik-V2) and fiber misalignment (also known as “fiber angle” and now measurable with Data-Pixel’s Koncentrik-FarField).

You can now fully evaluate and manage the optical performance of your connections with Data-Pixel products.

Applications range from quality assurance and supplier-verification to ultra-low insertion loss connections.
**Blink**

A software platform common to all Data-Pixel products

BLINK is a modern software with a plugin architecture. It supports all Data-Pixel products, each product having a dedicated plugin (Visual Inspection, Interferometry, Concentricity, etc.)

This unique approach has numerous advantages, including:

- A common platform for all our products (DAISI, DAISI-MT, DScope, Koncentrik-V2 and some customized products).
- Operators only need to get familiar with one software to handle all Data-Pixel products
- PDF, HTML and CSV reporting capability, extensive database support (SQL, MySQL, ODBC, ORACLE...)
- Multi-language support. A translation pack is also available to distributors and customers
- All hardware setup, parametrisation and reporting are common to all products in this new single platform
- Support for OptoTest IL/RL popular testers
- Customizable with multiple administrator and end user levels.
- GUI is dynamic and configurable per customer/operator, dockable toolbars, etc
- OLE AUTOMATION support
- A JAVA SCRIPTING plugin is available for advanced users to allow customization of the application functionalities beyond the GUI (eg. a customized measurement sequence to match your requirements)
- New SUPERVISOR plugin for the management and traceability of workflow, hardware and data in production lines
- Supports Windows XP, 7, 8 and 10

<table>
<thead>
<tr>
<th>BLINK software plugins vs products correspondance table</th>
<th>BLINK</th>
<th>BLINK - Image viewer</th>
<th>BLINK - Interferometry</th>
<th>BLINK - Automated Visual Inspection</th>
<th>BLINK - PM Aligner</th>
<th>BLINK - Concentricity</th>
<th>BLINK - Far-Field</th>
<th>BLINK - External Light Source</th>
<th>BLINK - Script</th>
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<tbody>
<tr>
<td>Product</td>
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New SUPERVISOR plugin for the management and traceability of workflow, hardware and data in production lines.

Supports Windows XP, 7, 8 and 10.

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BLINK software plugins vs products correspondance table:

- **3DScope-V2**: •
- **DAISI-V3**: •
- **3DScope-MT**: •
- **DAISI-MT-V3**: •
- **Dscope-x1**: •
- **Dscope-x2**: •
- **Dscope-x4**: •
- **Dscope-x10**: •
- **Dscope-x20**: •
- **Koncentrik-Connector**: •
- **Koncentrik-Ferrule**: •
- **Koncentrik-Far-Field**: •