SUMIX

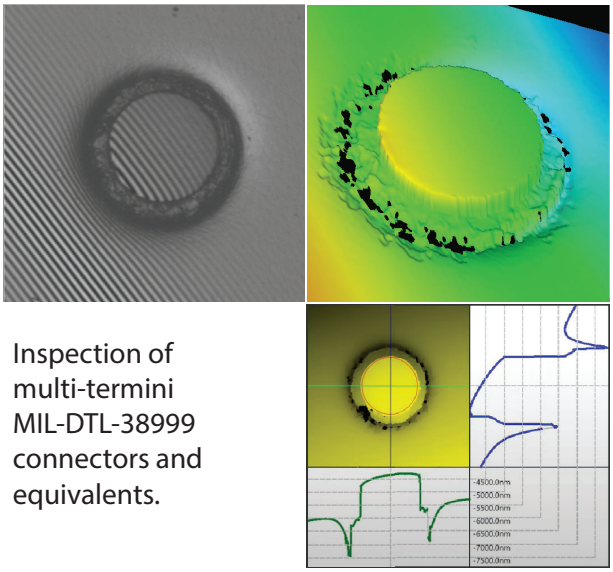
03/26/2024

Octopus 2

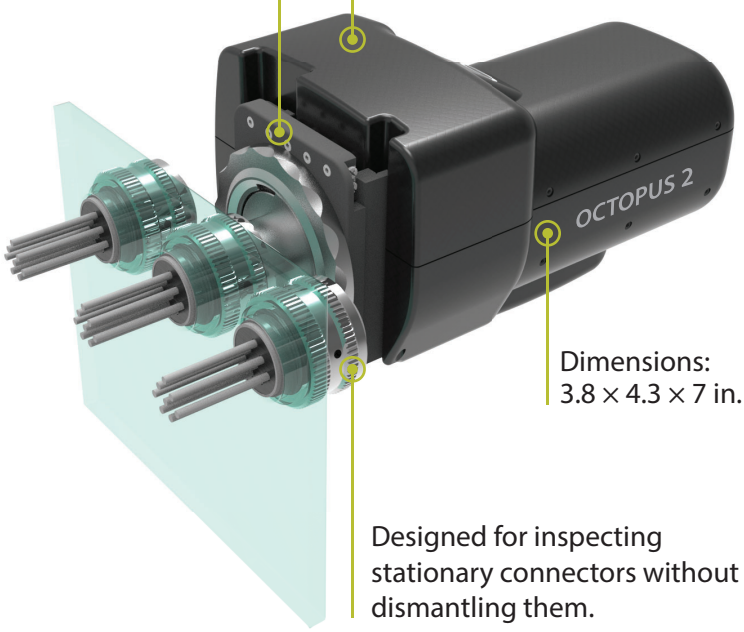
Robotic interferometer
for maintenance inspection of multi-termini fiber optic connectors.

Automated focusing and movement from one terminus to another in a multi-core connector.

Compact handheld design for limited space applications.



Inspection of multi-termini MIL-DTL-38999 connectors and equivalents.



Dimensions: 3.8 × 4.3 × 7 in.

Designed for inspecting stationary connectors without dismantling them.

Inspect mounted MIL style connectors in 3D.
Ensure reliability and accurate performance of a critical connection.

End face inspection is vital for MIL style connections in mission-critical systems subjected to vibration, temperature changes, and other harsh conditions.

A mere 2D assessment of a terminus end face won't suffice for critical applications. Interferometry is essential to:

- Provide 3D information on a defect that can’t be removed by cleaning;
- Identify fiber chips and cracks;
- Monitor fiber height to prevent mating issues.

The Sumix OCTOPUS 2 robotic interferometer employs a multi-axis motion system for thorough geometry inspection of fiber optic termini in military and harsh environment connectors installed in aircraft or marine vessels' patch-panels, server boxes, and other optical-network units.

PATENTED

Application

- Aerospace, marine and military vehicle field service;
- On-site inspection in harsh environments like oil & gas, backbone telecom etc.

Specification

Connectors inspected:	MIL-DTL-38999 and other MIL style and harsh environment connectors
Field of view:	D = 1.6 mm
Area covered:	Y, X-axis motion: ± 12.5 mm
Optical resolution:	3.2 µm
Magnification:	300×
Focus:	Autofocus
Focus range:	6 mm
Measurement mode:	white light
Data transfer and power:	USB 3.0 cable, 12 V DC power adapter
Dimensions (H × W × L):	97 × 110 × 176 mm (3.8 × 4.3 × 7 in)
Weight:	1.3 kg (2.86 lbs)
Compatible with:	desktop PC, laptop, tablet
Operating system:	Windows 10

NIST traceable factory calibration

Capabilities

- Fiber Height and Radius of Curvature measurement
- 3D anomalies detection.

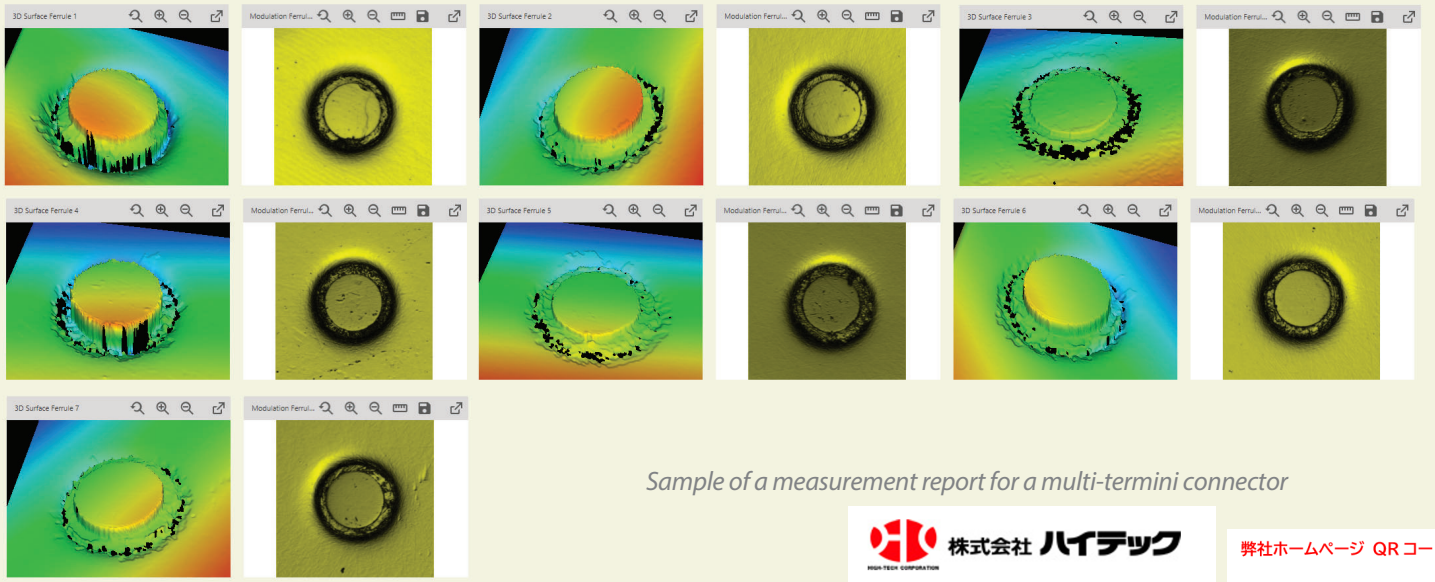
Name:	Result7747
Date & Time:	4/14/2021 10:42:7 AM
Task name:	MiniInterferometer SF scenario.
Device SN, Fixture SN:	MINI 65003
Connector ID:	
Customer:	
Technician:	Mykola
Company:	Sumix

FIBERS

Measurement Parameter	Units	Pass/Fail Limits		Fiber Number / Measured Value / Verdict						
		Min	Max	1	2	3	4	5	6	7
Height	nm			1571.92	2192.13	1343.22	1692.61	1614.40	2556.26	1728.28
ROC	mm			17.56	8.08	8.85	3.02	15.78	16.27	4.89

MaxInspect

Industry-leading MaxInspect™ software



Sample of a measurement report for a multi-termini connector

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