SUMIX

Manta HM

High Magnification

Automated microscope for inspection of single and multi-fiber patch cords, bulkhead and QSFP modules

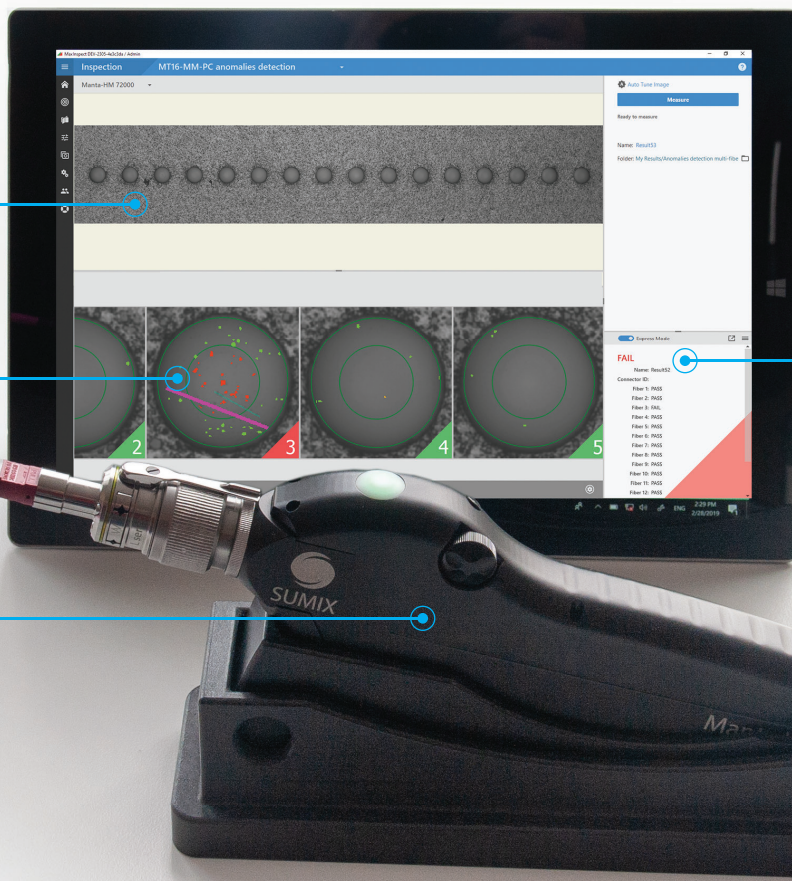Up to 96 fibers in one screen (FOV: 4.2 × 2.8 mm)

360× magnification

Autofocus

20 MP

20 MP sensor inside

Pass/Fail verdict per IEC standards

Compact in size, big on capability

Unsurpassed optical performance*

High-contrast precision optics, optimal axial illumination and 20MP sensor provide for accurate measurements of small anomalies.

*among handheld microscopes for multi-fiber inspection with a similar FOV.

Large field of view

Pass/Fail analysis of an MPO connector is done in a single scan taking just 3 seconds (for MPO12/16).

Guide holes and ferrule surface are inspected at the same magnification as fibers.

Versatility from bench to patch panel

Manta HM can be used as a handheld probe for testing transceivers and bulkhead connectors in patch panels, as well as a benchtop solution for production lines and labs.
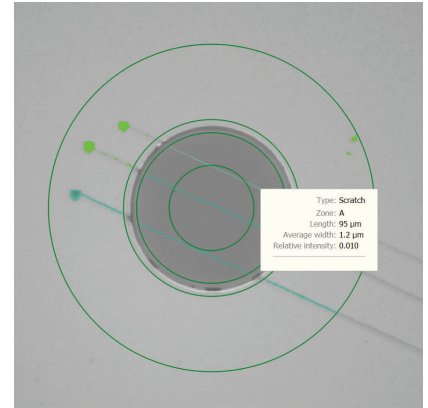
Application: production lines, laboratories, incoming inspection, maintenance in data-centers.

Recommended for: high-power laser applications, single mode connector inspection, final verification, and other cases where small details matter.

Specification

Connectors inspected:	Male and female MPO connectors (SM and MM), MT ferrules, LC, FC, SC, E2000™, QSFP, ARINC, MIL-38999, High-power SMA, Avim, mini-Avim, 3M™Expanded Beam Optical Connector, ODC®, Q-ODC®, MXC®, HMFOC, CS®, SN® and more
Measurement time*: * doesn't include autofocusing time	2.6 sec for MT12, 3.5 sec for MT16, 4.5 sec for MT24, 10 sec for MT72
Field of view:	4.2 × 2.8 mm
Defect size detection:	0.5 µm
Effective resolution:	1.5 µm (based on MTF calculations)
Magnification:	0.75 µm/px or 360× (for a 24″ display 1920x1080)
Focus:	Autofocus
Camera type:	CMOS, 20MP, monochrome
Power source:	USB 3.0 port of PC
Dimensions (H × W × L):	77 × 36 × 246 mm (3 × 1.4 × 9.8 inches)
Weight:	491 g (1.08 lbs)
Material:	aluminum housing, stainless steel barrel
Compatible with:	desktop PC, laptop, tablet, Android phone
Operating system:	Windows 10, Windows 11
Software integration tools:	Excel/CSV, SQL, WebSocket API
Centralized data-base connectivity:	Yes
Compliance with IEC requirements:	Yes

Scratches detected on SF end face

Measurement result for a 24-fiber MPO connector