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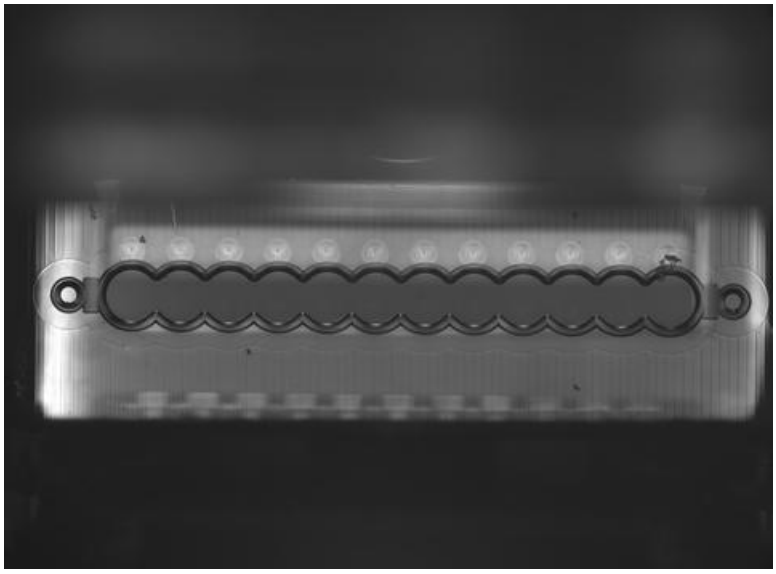
# Inspection of Expanded Beam and Lensed MT Connectors and Ferrules

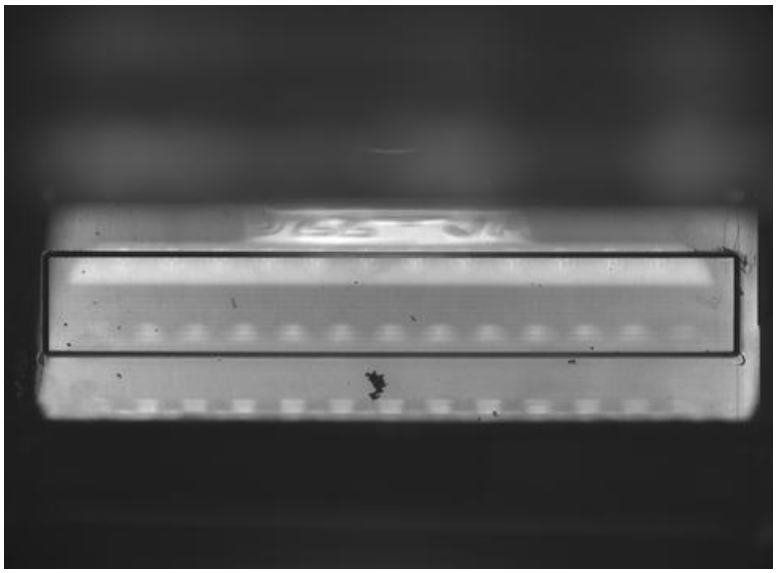
Sumix offers inspection solutions for expanded beam and lensed MT connectors and ferrules using its microscopes with wide field of view:

- **Manta HM** and **Manta W+** support high-resolution visual inspection of expanded beam optical (EBO) connectors. With MaxInspect software, they also provide automated inspection of lensed MT connectors and ferrules, including surface analysis, defect-area calculation, and pass/fail verdicts. Automated support for additional EBO variants is currently under development.
- **Glide MT** works with MaxInspect software to perform automated analysis of lensed MT connectors and ferrules.

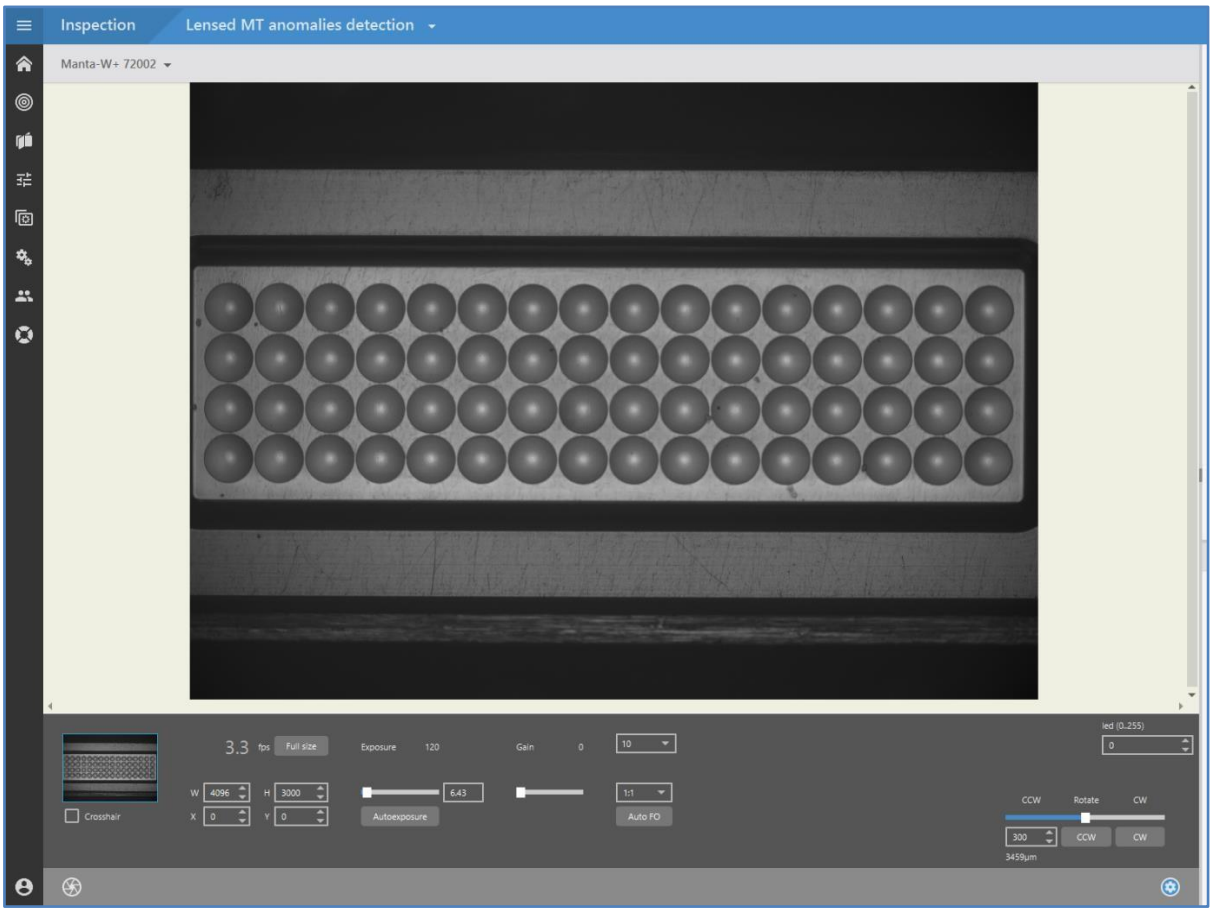
The pictures below show some examples of expanded beam and lensed MT inspections.



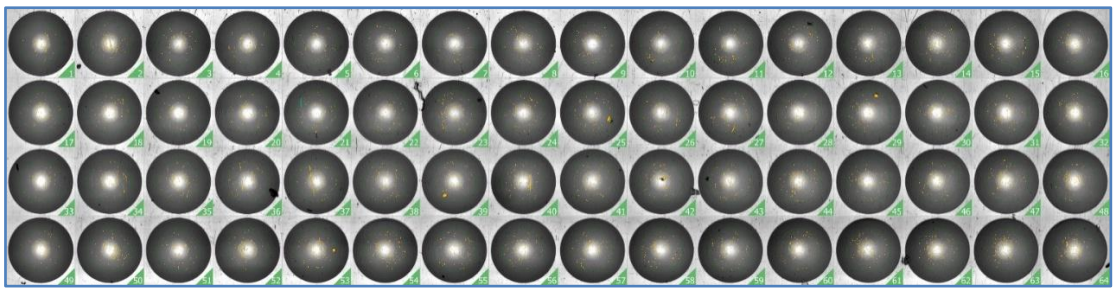
**Picture 1. EBO Latch 12 connector - ferrule endface view**



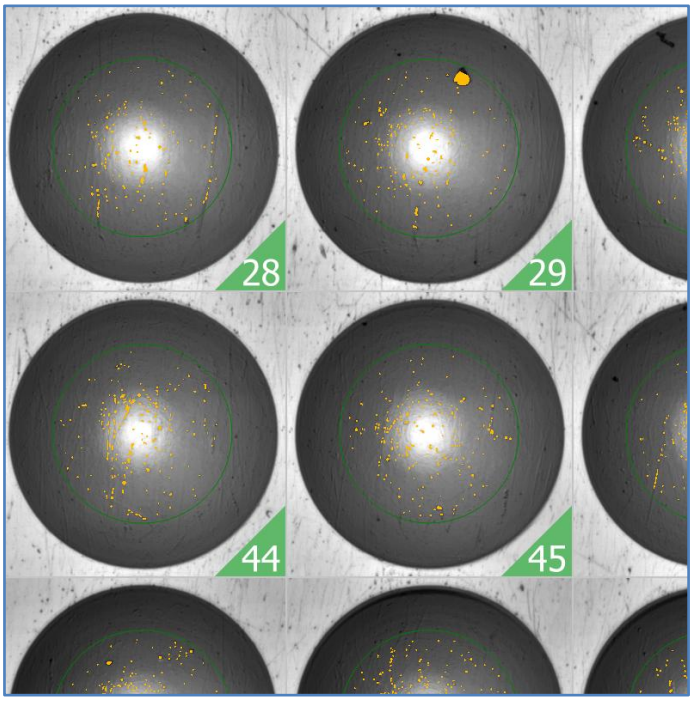
**Picture 2. EBO Latch 12 connector - ferrule endface view (alternative angle)**




**Picture 3. Full-size lensed MT ferrule endface view in Manta W+ microscope**



**Picture 4. Test result of a lensed MT ferrule endface with defect masks - Manta W+ microscope**




**Picture 5. Zoomed-in lensed MT ferrule endface with defect masks - Manta W+ microscope**

# Measurement Report

PASS

**Name:** Result 24346
**Date & Time:** 09/03/2026 12:11:47 PM
**Task name:** GLIDE-15-3MT Lensed 16 (receptacle with socket) anomalies detection
**Device SN** Glide MT 83009
**Connector ID:**
**Customer:**
**Technician:** Admin
**Company:** Sumix
**SD Pass/Fail standard:** Custom

## ANOMALIES DETECTION 1

| Fiber No | Verdict | A (0 - 160 µm) |
|---|---|---|
| | | Total Defects Area, µm² Allowed: 20096 µm² |
| 1 | PASS | 485.74 |
| 2 | PASS | 310.17 |
| 3 | PASS | 190.20 |
| 4 | PASS | 252.23 |
| 5 | PASS | 104.76 |
| 6 | PASS | 100.07 |
| 7 | PASS | 144.55 |
| 8 | PASS | 74.32 |
| 9 | PASS | 51.50 |
| 10 | PASS | 106.51 |
| 11 | PASS | 86.03 |
| 12 | PASS | 181.42 |
| 13 | PASS | 126.41 |
| 14 | PASS | 146.31 |
| 15 | PASS | 379.81 |
| 16 | PASS | 579.37 |

**Picture 6. Measurement report with Glide MT microscope - ferrule 1 result**

ANOMALIES DETECTION 2

| Fiber No | Verdict | A (0 - 160 µm) |
|---|---|---|
| | | Total Defects Area, µm² Allowed: 20096 µm² |
| 1 | PASS | 1326.71 |
| 2 | PASS | 960.35 |
| 3 | PASS | 595.76 |
| 4 | PASS | 580.54 |
| 5 | PASS | 469.94 |
| 6 | PASS | 332.41 |
| 7 | PASS | 270.37 |
| 8 | PASS | 263.35 |
| 9 | PASS | 294.37 |
| 10 | PASS | 273.89 |

1/2

| | | |
|---|---|---|
| 11 | PASS | 348.79 |
| 12 | PASS | 406.73 |
| 13 | PASS | 965.62 |
| 14 | PASS | 413.75 |
| 15 | PASS | 757.87 |
| 16 | PASS | 1554.36 |

**Picture 7. Measurement report with Glide MT microscope - ferrule 2 result**

ANOMALIES DETECTION 3

| Fiber No | Verdict | A (0 - 160 µm) |
|---|---|---|
| | | Total Defects Area, µm² Allowed: 20096 µm² |
| 1 | PASS | 1202.05 |
| 2 | PASS | 814.63 |
| 3 | PASS | 334.75 |
| 4 | PASS | 512.66 |
| 5 | PASS | 369.28 |
| 6 | PASS | 385.08 |
| 7 | PASS | 249.89 |
| 8 | PASS | 270.96 |
| 9 | PASS | 252.23 |
| 10 | PASS | 327.73 |
| 11 | PASS | 248.14 |
| 12 | PASS | 303.73 |
| 13 | PASS | 467.01 |
| 14 | PASS | 507.39 |
| 15 | PASS | 595.17 |
| 16 | PASS | 1322.61 |

Anomalies 1

Anomalies 2

Anomalies 3

**Picture 8. Measurement report with Glide MT microscope - ferrule 3 result and ferrule images with detected anomalies**