

Product Brief

VIAVI SmartClass Fiber MPOLx

MPO Optical Loss Test Sets

First Dedicated Tier 1 (Basic)
MPO Certification Solution

The VIAVI SmartClass™ Fiber MPOLx is the industry's first dedicated optical loss test set that can perform all the test requirements for Tier 1 (Basic) certification using MPO fiber connectivity. The MPOLx provides a source and power meter that integrate essential MPO test capabilities together to ensure a fast and reliable workflow when testing and certifying network links with native MPO connectivity.

With the MPOLx, field technicians can perform all the necessary test requirements for Tier 1 (Basic) certification in a single solution:

- Measure MPO length
- Measure optical loss
- Check polarity
- Inspect fiber end faces
- Generate certification reports

Drive best test practices by integrating essential functions together with the MPOLx and help technicians finish jobs faster by optimizing their workflow.

Full Control and Visibility for Technicians

The MPOLx gives technicians the ability to achieve a completely new level of productivity for MPO testing and certification. Like all of our solutions for Tier 1 (Basic) fiber certification, identical local and remote units are provided to enable full visibility and control by performing tests from both the Light Source and Power Meter. All devices feature a 3.5" color touch screen and integrated inspection for both bulkhead and trunk connectors. The MPOLx allows a single technician to inspect MPO end faces and perform tests from either end of the connection, reducing walking back and forth between the two units.



Benefits

- Fast and reliable test and certification workflow
- Full visibility and control at both the source and power meter
- Complete MPO end face inspection and analysis at both ends
- Integrates with FiberChekPRO

Key Features

- Measures length
- Measures optical loss at multiple wavelengths
- Checks polarity for all 12 MPO fibers
- Provides native MPO testing directly on devices
- Delivers test results for all 12 MPO fibers in <6 seconds
- Provides native MPO end-face inspection and automated analysis for both trunk cables and bulkheads
- Dual wavelength optical light sources
- Encircled flux compliant
- 3.5" color touch screen interface on all MPOLx devices
- Generate certification reports
- All-day battery life

Comprehensive Test Results in Under 6 Seconds

The MPOLx ensures fast workflows by delivering comprehensive test results in **less than 6 seconds for all 12 fibers** of the MPO connector.

- Color coded pass/fail test results
- Test limit
- Fiber length
- Test wavelengths
- Loss values
- Margins
- Polarity results for each MPO fiber
 - Polarity types (A, B, or C) with visual example
 - Compare actual vs. expected polarity

PASSED

Limit Link Validation

Polarity	Length	Margin
A B C	13.8 ft	86.3 ft
1300 nm	Loss	Margin
	1.69 dB	0.21 dB
850 nm	Loss	Margin
	1.83 dB	0.27 dB

Test Results Summary

Limit Link Validation						Max. Loss 1.9 dB
Pol.	Fib.	Loss	Margin	Fib.	Loss	Margin
1310	1	0.88	1.02	7	0.58	1.32
	2	0.90	1.00	8	1.01	0.89
	3	0.23	1.67	9	0.72	1.18
	4	0.39	1.51	10	1.18	0.72
1550	5	1.26	0.64	11	0.32	1.58
	6	0.60	1.30	12	1.04	0.86

Individual Results: Table View

Connect test cord 2 to MPOLP-85.

Test cord 1 Test cord 2

MPOLS-85 MPOLP-85

Reference Method 1-cord

Step-by-Step Reference Instructions

Polarity Check

Polarity A

KEY MPOLP

1 2 3 4 5 6 7 8 9 10 11 12

KEY MPOLS

1 2 3 4 5 6 7 8 9 10 11 12

Individual Results: Polarity View

Manage Individual Channel Selection for Specific Fibers in an MPO Connector

In many cases, like 40GBASE-SR4, not all 12 fibers are utilized. The MPOLx gives users the ability to select which specific fibers they want to perform pass/fail testing on, aligning their certification requirements to the applications they will be using.

Please select the fibers for pass/fail testing.

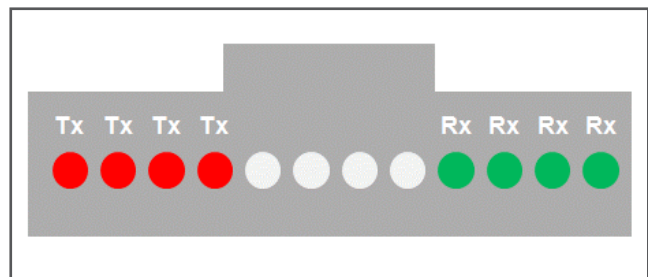
1 ✓ 2 ✓ 3 ✓ 4 ✓ 5 6

7 8 9 ✓ 10 ✓ 11 ✓ 12 ✓

Pass/Fail enabled

DONE

Selection Controls for Each MPO Fiber



40G BASE-SR4 Lane Assignments

Inspect All Fibers in an MPO Endface

Contaminated connectors are the #1 cause for troubleshooting in optical networks. This problem has driven the industry and International Electrotechnical Commission (IEC) to release IEC 61300-3-35, a global standard that establishes acceptance criteria for the quality and cleanliness of the fiber connector end face. This standard has been widely adopted and incorporated into other standards including both TIA-568 and ISO/IEC 11801.

Without the right tools, comparing fiber connectors to a standard or specification is difficult and time consuming; however these challenges are eliminated with SmartClass Fiber tools. Whether using an industry standard or customer-specific requirements, the MPOLx-85P and a P5000i probe microscope makes it easy!



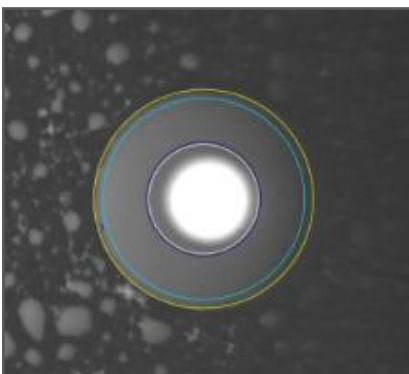
Inspect MPO cassettes with P5000i Probe Microscope

- Test and certify to industry standards without confusion
- Eliminate subjectivity with automated pass/fail analysis
- Get fast results from both the local and remote devices
- Instantly store both local and remote results on the local device
- Integrate results into your certification reports



Save time with the Integrated Patch Cord Microscope (PCM)

- Eliminates need to change tips
- Cuts inspection time in half
- Safely stores your test reference cords inside



Automated pass/fail analysis of MPO connector end faces

- Ensures objective analysis of connector end faces
- Tests to industry standards at the push of a button
- Results in seconds
- Locates defects and scratches
- Shows zone locations

Zone Name (Diameter)	Scratches	Defects
A. CORE Zone (0-65µm)	no limit <= 5µm 0 > 5µm	4 <= 5µm none > 5µm
B. CLADDING Zone (65-115µm)	no limit <= 5µm 0 > 5µm	no limit <= 2µm 5 from 2-5µm none > 5µm

Pre-Configured with IEC 61300-3-35, which is referenced by TIA-568.3 and ISO/IEC 11801

Ordering Information

Description	Part Number
Stand Alone Items	
MPOLS-85 - Single mode, dual-wavelength source (1310/1550)	2329/11S
MPOLS-85P - Single mode, dual-wavelength source (1310/1550), with PCM	2330/11S
MPOLS-84 - Multimode, dual-wavelength source (850/1300)	2329/14S
MPOLS-84P - Multimode, dual-wavelength source (850/1300), with PCM	2330/14S
MPOLP-85 - Broadband power meter (850/1300/1310/1550)	2329/01S
MPOLP-85P - Broadband power meter (850/1300/1310/1550), with PCM	2330/01S
Kitted Packages	
Single mode loss kit (1310/1550), LS/PM, without P5000i probes	2329/21
Single mode loss kit (1310/1550), LS/PM, two P5000i probes	2329/31
Single mode loss kit (1310/1550), LS/PM with PCM, without P5000i probes	2330/21
Single mode loss kit (1310/1550), LS/PM with PCM, two P5000i probes	2330/31
Multimode loss kit (850/1300), LS/PM, without P5000i probes	2329/24
Multimode loss kit (850/1300), LS/PM, two P5000i probes	2329/34
Multimode loss kit (850/1300), LS/PM with PCM, without P5000i probes	2330/24
Multimode loss kit (850/1300), LS/PM with PCM, two P5000i probes	2330/34
Quad loss kit (850/1300, 1310/1550), SM LS, MM LS, PM, without P5000i probes	2329/25
Quad loss kit (850/1300, 1310/1550), SM LS, MM LS, PM, two P5000i probes	2329/35
Quad loss kit (850/1300, 1310/1550), SM LS, MM LS, PM with PCM, without P5000i probes	2330/25
Quad loss kit (850/1300, 1310/1550), SM LS, MM LS, PM with PCM, two P5000i probes	2330/35

Notes:

- Standalone items include instrument, battery, and charger
- Kitted packages include P5000i (x2), MPO cleaning tool, carry case (soft and hands free), and test cords
- Quad kitted package includes: SM Source, MM Source, Broadband Power Meter (850/1300/1310/1550)
- PCM = Patch Cord Microscope



MPOLS-85P



MPOLS-84P



MPOLP-85P



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