

Brochure

# FVAm Series Benchtop Microscopes

## Automated multifiber connector inspection and analysis

The new FVAm™ series expands on the industry-leading FV product family from VIAVI Solutions with a completely automated inspection solution for multifiber connectors such as MPO. This all-in-one system automatically inspects and analyzes every fiber of an MPO or other multifiber connector with reliability and speed. With FVAm series benchtop microscopes, manufacturing facilities can ensure optimized quality and performance of MPO trunk cables and assemblies at every stage of production.

### Guarantee reliable MPO production quality

Contaminated connectors are the #1 cause of 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. With 100% autonomous operation, lab and production technicians have everything they need to inspect and analyze MPO connector end faces to ensure quality.

- Automated focus, panning, and pass/fail analysis, all at the press of a button
- The optional integrated touchscreen display gives users full control to view live images and analysis results, pan across the end face to view each fiber, configure test requirements, and easily navigate results
- Select your desired acceptance criteria including IEC-61300-3-35 or customer-specific requirements

### Benefits

- Guarantee reliable MPO production quality
- Optimize production workflows at every stage
- Certify MPO end face quality to customer requirements and industry standards
- Streamline inspection methods with fast and reliable functionality

### Features

- Fully automated MPO inspection and analysis
- No PC required for analysis
- Generate certification reports and archive test data
- Locate and identify defects and scratches
- Easily switch between connector configurations with new FMAG series magnetic adapters
- Intuitive UI either on-board or in FiberChekPRO™
- Integrates with VIAVI PCT system
- Available with or without on-board touch screen video display



## Optimize production workflows at every stage

Managing clean MPO connections through the production process requires systematic and proactive methods that many technicians find troublesome, confusing and time-consuming. The FVAm is designed with high-volume production use in mind so that inspection can be quickly and easily incorporated at any stage. From ensuring proper MPO end face polish quality, to conducting performance tests, or preparing final shipment, technicians at every stage of the MPO production process can customize the FVAm to best fit their inspection needs.

Stage of Production	FVAm functionality	Benefit
Post Polish	<ul style="list-style-type: none"> <li>• Auto Focus</li> <li>• Auto Pan</li> <li>• Auto Test</li> </ul>	Run Automated pass/fail analysis to ensure all fibers were currently polished without any scratches or defects
		Save results if needed
Mid Span Tests	<ul style="list-style-type: none"> <li>• Auto Focus</li> <li>• Auto Pan</li> <li>• View all fibers at once</li> </ul>	Prevent damage to cables during test process
		Improve test yields in first pass with fast and proactive inspection methods
		Protect your reference cables by ensuring they are safe to connect to DUT
		Quickly detect any contamination or problematic MPO end faces BEFORE performing Insertion Loss/Return Loss tests
		Protect the quality of your Test Reference Cords during tests
Final Test	<ul style="list-style-type: none"> <li>• Auto Focus</li> <li>• Auto Pan</li> <li>• Auto Test</li> <li>• Save Results</li> <li>• Generate Report</li> </ul>	Run Automated pass/fail analysis to ensure all fibers pass requirements before packaging and shipment
		Generate certification reports to include with product shipments
		Keep test results and images on file for all MPO cables manufactured in your facility

## Automated inspection with fast results!

FVAm fully automates every step of the multi-fiber inspection and test process, including focus, pan/scroll, and fiber end-face analysis. With the ability to test a 12 fiber MPO connector in under 20 seconds, the FVAm streamlines and simplifies production efficiency.

Legacy/Manual MPO Inspection Process		FVAm MPO Inspection Process		
Step	Time	Step	Time	
x12	Focus Image	0:04	Focus Image	0:02
	Scroll/Pan each fiber	0:04	Scroll/Pan all fibers	0:08
	Test ONE fiber	0:03	Tests <b>all 12</b> fibers	0:08
	Save	0:02	Save	0:02
	<b>TOTAL (1 fiber)</b>	<b>0:13</b>		
	<b>TOTAL (12 fibers)</b>	<b>2:36</b>	<b>TOTAL (12 fibers)</b>	<b>0:20</b>
<b>Test 144 MPO Connectors: &gt; 6 hours</b>		<b>Test 144 MPO Connectors: ~45 minutes</b>		

## Streamline inspection procedures with time saving capabilities

### 100% Autonomous MPO inspection and analysis

With built-in features such as a 2.5" color touchscreen, automated scrolling, and end face analysis, the FVAm gives production crews the ability to easily inspect MPO end faces anywhere in their facility. While compatible with external PCs, the FVAm can be configured to operate independently.

### Review test results on the FVAm

Access test results stored on the device using the built-in color touchscreen and on-board controls. Store over 1,200 fiber images (~100 12-fiber connectors) on-board with the ability to pan across the entire connector end face, view analysis results, toggle overlay views, and view both low & high magnification images.



### Test multiple different connector configurations

With many pre-configured analysis profiles and adapters, the FVAm can test a wide variety of multi- and single-fiber configurations - including 1x12, 4x4 (SR4), 1x16, 2x12 configurations for MPO connectors, MT ferrules, or QSFP modules or even single-fiber connectors.



MPO



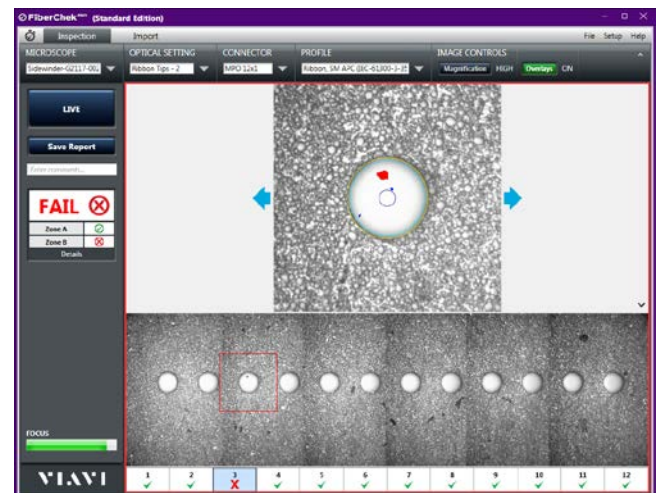
QSFP module



Single Fiber

### Integrates with FiberChekPRO Software

In addition to working as an all-in-one system, the FVAm can also be used in conjunction with FiberChekPRO PC software; giving users several added features and capabilities including the ability to view all fibers on the endface at the same time. This capability is ideal in mid-span testing applications for quickly viewing an endface before connecting to other test devices.



## Easily switch connector configurations with new FMAG series adapters

FVAm benchtop microscopes feature the new FMAG series adapters, an innovative new design utilizing a magnetic connection so operators can quickly switch adapter types and ensure precision alignment. Each FMAG series adapter has the ability to inspect both SM (angled polish) and MM (flat polish) connectors. Simply press on the color coded indicator to switch between SM APC (green) and flat polish MM (aqua) end face inspection without any hassle.



## Ordering Information

Description	Part Number
<b>Kitted Packages</b>	
FVAm Series Benchtop Microscope with Touch-Screen, FMAG-MPO Adapter	FVAm-1000-S
FVAm Series Benchtop Microscope, FMAG-MPO adapter	FVAm-1000
<b>Accessories and Related Items</b>	
FMAG Series Adapter, MPO MM/SM, PC/APC	FMAG-MPO
FMAG Series Adapter, MT Ferrule MM/SM, PC/APC	FMAG-MT
FMAG Series Adapter, MPO QSFP, MM/SM, PC/APC	FMAG-QSFP
FMAG Series Adapter, 2.5mm Simplex PC/APC	FMAG-U25
FMAG Series Adapter, 1.25mm Simplex PC/APC	FMAG-U12
FMAG Series Adapter, LC/PC and LC/APC	FMAG-LC
FMAG Series Adapter, SC/PC and SC/APC	FMAG-SC



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