Optical Wavelength Laboratories

NEW!

Cabling documentation breakthrough

OWL DataCenter 12 MPO Test Sets

Panduit and Epson™ Wireless Label Printers

Factory in the Heartland

Optical Wavelength Laboratories • The WISE Choice in Optical Fiber Testers • OWL

Greatly streamline your workflow with OWL's MPO Label to Cable Method

OWL's Unique MPO Label to Cable Method

Whole new approach to test results!

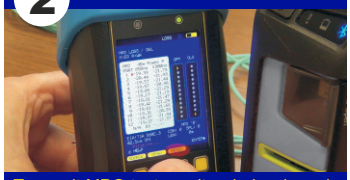
With OWL's ***MPO Label to Cable Method***, installers attach MPO fiber test results by wrapping durable labels and I.D. tags directly onto the jacket. This gives instant access to test results in the future: to verify work done, keep an eye on cable degradation over time, and determine if the cable is rated for future higher bandwidth applications. Of course, traditional records stored as PDF files from OwlView software are the primary way to store your test results, but ***MPO Label to Cable Method*** could still be considered the ultimate time saving back-up and proof of work done!

How it all works with eight easy steps:

1 Test

Test your MPO Cable with **OWL DataCenter 12** MPO Meter & Source.

2 Data Transfer



Transmit MPO test results wirelessly and directly to the label printer.

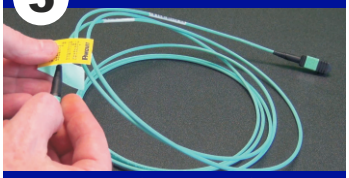
3 Print

Print full MPO test results on durable labels.

4 Peel

Peel off backing from durable labels and prepare for MPO Cable wrap.

5 Fold



Fold label in half over the MPO cable.

6 Wrap

Wrap and adhere MPO test result label to the MPO Cable.

7 Identify

Further secure your MPO test result label with clip-on I.D. markers.

8 Install

Plug the cable into MPO cassette or MPO patch panel to finish the job.

Test result printing options

OWL DataCenter 12 MPO Meters can print durable labels to select label printers including **Panduit MP100** and **Epson™ LW-PX400**, or to professional test reports with a Windows PC via OWLView software. The OWL DataCenter 12 rises above other test sets with its unique ability to transmit test results *directly* to these label printers without requiring a separate Android app like other testers on the market.

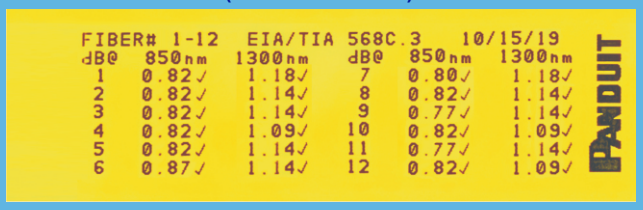
Greatly streamline your workflow with OWL's MPO Label to Cable Method.

Panduit MP100 and Epson™ LW-PX400 Printers

Direct device-to-printer connectivity eliminates need for middle-man smartphone apps and PC software. For more details see OWL's website:

http:\\OWL-inc.com

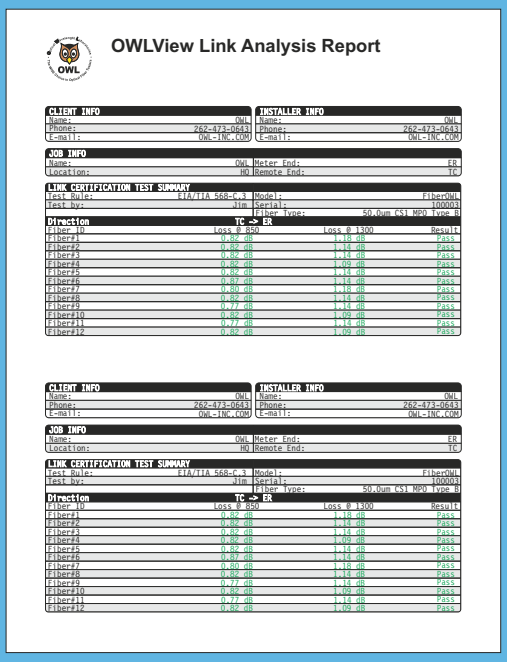
(Actual Label Size)



Above is actual size of the durable label with 12 fiber MPO test results

OwlView Software

Free OwlView lets you make PDFs and print reports



OWLView Link Analysis Report

CLIENT INFO		INSTALLER INFO	
Name:	OWL	Name:	OWL
Phone:	262-473-0643	Phone:	262-473-0643
E-mail:	OWL-INC.COM	E-mail:	OWL-INC.COM

JOB INFO			
Name:	OWL	Meter End:	ER
Location:	HQ	Remote End:	TC

LINK CERTIFICATION TEST SUMMARY			
Test Rule:	EIA/TIA 568-C.3	Model:	FiberOWL
Test by:	Jim	Serial:	100003
		Fiber Type:	50.0um CS] MPO Type B

Direction	TC -> ER		
Fiber ID	Loss @ 850	Loss @ 1300	Result
Fiber#1	0.82 dB	1.18 dB	Pass
Fiber#2	0.82 dB	1.14 dB	Pass
Fiber#3	0.82 dB	1.14 dB	Pass
Fiber#4	0.82 dB	1.09 dB	Pass
Fiber#5	0.82 dB	1.14 dB	Pass
Fiber#6	0.87 dB	1.14 dB	Pass
Fiber#7	0.80 dB	1.18 dB	Pass
Fiber#8	0.82 dB	1.14 dB	Pass
Fiber#9	0.77 dB	1.14 dB	Pass
Fiber#10	0.82 dB	1.09 dB	Pass
Fiber#11	0.77 dB	1.14 dB	Pass
Fiber#12	0.82 dB	1.09 dB	Pass

CLIENT INFO		INSTALLER INFO	
Name:	OWL	Name:	OWL
Phone:	262-473-0643	Phone:	262-473-0643
E-mail:	OWL-INC.COM	E-mail:	OWL-INC.COM

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Fiber#11	0.77 dB	1.14 dB	Pass
Fiber#12	0.82 dB	1.09 dB	Pass

For more details about OwlView Link Analysis Report see OWL's website.

Phone: 262-473-0643 **Web: OWL-inc.com**

Features

Convenient power / loss measurement of 12-fiber MPO cables and links
Ensure compliance to industry standards with PASS/FAIL certification
Multimode / Singlemode ready
Industry-first “label-to-cable” methodology
Print durable labels directly to wireless label printers
Store test results for later retrieval and report printing
Quick check mode to verify output power from multi-fiber transceivers
Shuttered MPO port helps prevent accumulation of debris in MPO port
Unique feature to also test/certify single-fiber cables in same unit

Applications

MPO backbone cable measurement *
MPO link measurement *
MPO cable acceptance testing *
Traditional single-fiber testing *†
Multi-fiber transceiver power measurement

* - requires separate MPO source or optical switch
† - with separate single-fiber source

DataCenter12 MPO Optical Power Meter (P/N: MPO-OPM)

Key Specifications	
Detector Type	InGaAs
Calibrated Wavelengths[1]	**850**, 980, **1300**, **1310**, 1490, **1550**, 1625
Measurement Range	+5 to -70 dBm
Accuracy	±1.0 dB
Display Resolution	0.01 dB
Battery Life	Up to 50 hours (Lithium Polymer)
Detector Connector Type	12-fiber MPO / SC
Data Storage	Up to 10000 data points
Displayed Measurement Units	dBm, dB, mW, µW, nW
Modes of Operation	CERT, LOSS, OPM
Display Type	Hi-resolution Color LCD
Auto-shutdown	Yes
Operating Temperature	-10 to 55° C
Storage Temperature	-30 to 70° C
Dimensions	2.9 x 4.49 x 1.3 in. (72.9 x 112.3 x 31.8 mm)
Weight	12 oz. (373g)

1: Bold wavelengths are NIST Traceable
Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Pricing	
Model	Price
MPO-OPM	4665.00

Features

Stable and accurate output power into 12-fiber MPO cables and links
Multimode & Singlemode versions available
Single & Dual-wavelength versions available
Auto-wavelength switching & manual source switching
Shuttered MPO port helps prevent accumulation of debris in MPO port
Separate single-fiber port for easy single-fiber testing

Applications

MPO backbone cable measurement *
MPO link measurement *
MPO cable acceptance testing *
Traditional single-fiber testing†

* - requires separate MPO power meter
† - use single-fiber source port with any OPM

Pricing

Model	Description	Fiber Type		MPO Type	Price
		Multimode	Singlemode		
MPO-OLS-M83	850/1300nm Multimode MPO Source	•		12-fiber	4245.00
MPO-OLS-M85	850nm Multimode MPO Source	•		12-fiber	4170.00
MPO-OLS-S35	1310/1550nm Singlemode MPO Source		•	12-fiber	4320.00
MPO-OLS-S13	1310nm Singlemode MPO Source		•	12-fiber	4095.00
MPO-OLS-S15	1550nm Singlemode MPO Source		•	12-fiber	4110.00

DataCenter12 Series MPO Light Sources

Key Specifications		
Output Type	Multimode	Singlemode
Launch Method	LED	Laser
Center Wavelength	850 nm: 850 ±30 nm 1300 nm: ± 50 nm	1310 nm: 850 ±30 nm 1550 nm: ± 30 nm
Spectral Width	850 nm: 50 nm 1300 nm: 180 nm	1310 nm: 2 nm 1550 nm: 2 nm
Output Power [1]	-20 dBm	-10 dBm
Channel Precision [2]	± 1.0 dB	± 1.0 dB
Channel Switching	Manual / Automatic	
Battery Life	Up to 10 hours (re-chargeable Lithium Polymer)	
Operating Temp.	0 to 55° C	
Storage Temp.	0 to 75° C	
Dimensions	2.87 x 4.42 x 1.25 in. (72.9 x 112.3 x 31.8 mm)	
Weight	10 oz. (284g)	
Connector Type	MPO Port: 12-fiber MPO // Single-fiber port: SC	

1) Single-fiber port
2) Compared to single-fiber port
Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

IEC 60825-1

LED source (8501300nm):
Class 1M
Laser source (1310/1550nm):
Class 1M

MPO Test Kits

Fiber Optic
Test Equipment

DataCenter12 Series

MPO CABLE TESTING

DataCenter 12 MPO power meter / light source test kits provide quick and easy power, loss, and polarity verification of MPO trunk cables, patch cords, and installed links both before and after installation, eliminating the need for complicated and cumbersome breakout cables.

Add select wireless label printers to your kit to take advantage of OWL's Label to Cable Method.

MPO Trunk /
Patch Cable Testing

Link Loss
Measurement

Pricing						
			Sources			
Model	Description	Meter	Multimode	Singlemode	MPO Type	Price
MPO-KIT-Q	MPO Quad MM/SM Loss Test Kit	MPO-OPM	MPO-OLS-M83	MPO-OLS-S35	12-fiber	13230.00
MPO-KIT-M85-S13	MPO 850 MM / 1310 SM Loss Test Kit	MPO-OPM	MPO-OLS-M85	MPO-OLS-S13	12-fiber	12930.00
MPO-KIT-M85-S15	MPO 850 MM / 1550 SM Loss Test Kit	MPO-OPM	MPO-OLS-M85	MPO-OLS-S15	12-fiber	12945.00
MPO-KIT-M83	MPO 850/1300 MM Loss Test Kit	MPO-OPM	MPO-OLS-M83		12-fiber	8910.00
MPO-KIT-M85	MPO 850 MM Loss Test Kit	MPO-OPM	MPO-OLS-M85		12-fiber	8835.00
MPO-KIT-S35	MPO 1310/1550 SM Loss Test Kit	MPO-OPM		MPO-OLS-S35	12-fiber	8985.00
MPO-KIT-S13	MPO 1310 SM Loss Test Kit	MPO-OPM		MPO-OLS-S13	12-fiber	8760.00
MPO-KIT-S15	MPO 1550 SM Loss Test Kit	MPO-OPM		MPO-OLS-S15	12-fiber	8775.00

Call OWL to inquire about how to streamline your workflow with OWL's Label to Cable Method!

MPO Optical Switches

Fiber Optic Test Equipment

DataCenter12 Series

MPO CABLE TESTING

OWL's handheld MPO optical switches provide an efficient method for automatically testing MPO/MTP™ fiber installations. They can communicate wirelessly with Bluetooth-enabled Fiber OWL 7 series optical power meters to automatically test all 12 fibers in an MPO/MTP™ cable with a single button push.

OWL's optical switches can also be used manually with any single fiber optical power meter or OTDR to instantly switch to the MPO/MTP™ fiber strand being tested with a single button push. Both single mode and multimode versions are available. For MPO connectors with more than 12 fibers, MPO breakout cables can be used to test the cable 12 fibers at a time.

Features

Allows single-fiber testers to test MPO cabling without breakout cables
Automatic channel switching with Bluetooth-enabled Fiber OWL 7 meters
Manual channel switching to select specific MPO fibers
Multimode and singlemode options available
Shuttered MPO port helps prevent accumulation of debris in MPO port

Applications

MPO backbone cable measurement
MPO link measurement
MPO cable acceptance testing

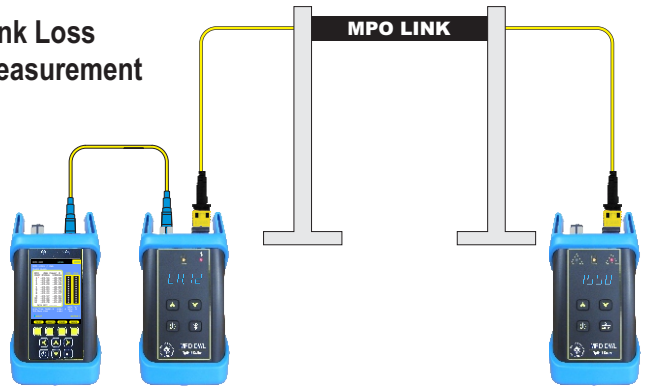
Pricing

Model	Description	Fiber Type		MPO Type	Price
		Multimode	Singlemode		
MPO-OSW-M12	12-fiber Multimode MPO Switch	•		12-fiber	4065.00
MPO-OSW-S12	12-fiber Singlemode MPO Switch		•	12-fiber	4065.00

Testing Examples

OTDR Testing

Link Loss Measurement



MPO CABLE TEST EQUIPMENT

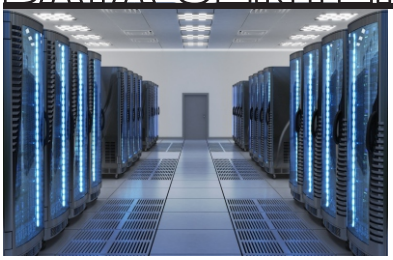
Fiber Optic Test Equipment

DataCenter12 Series

MPO CABLE TESTING

Automatically test 12-fiber multi-fiber push on (MPO) cables and links for power, loss, and polarity, and diagnose transmission of multi-pair transceivers; no fanout cables required. Enhance your bottom line by keeping funds available for day-to-day operations. OWL's industry-first label-to-cable methodology provides the pinnacle of convenience by attaching key power and loss results directly to the cable – allowing installers to compare pre- and post-installation data, and for fiber personnel to keep track of cable quality over time.

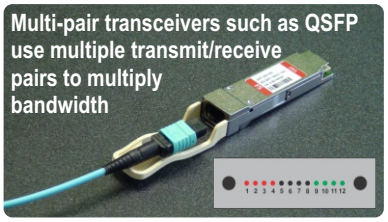
DATA CENTERS



A popular technique for increasing bandwidth in fiber optics systems is parallel transmission; e.g. 4 multiplexed pairs x 10GB/s = 40 GB/s. However, four pairs of duplex LC connectors takes up four times the rack space.

As the primary provider of network bandwidth, **DATA CENTERS** are the primary users of MPO cabling due to their need for parallel transmission in the same space as traditional single-pair connections.

Modern data centers can utilize literally thousands of MPO connections to support extreme amounts of bandwidth. Thus, testing, documenting, and labeling of MPO cables becomes a critical part of data center infrastructure management.

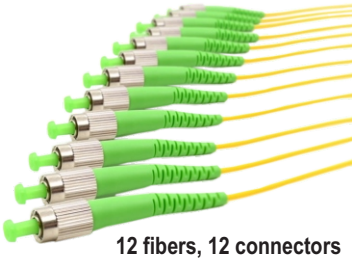


TELCO/OSP

TELCO/OSP (**O**ut**S**ide **P**lant) is another application that benefits from the increased bandwidth and reduced size that MPO cabling provides, especially considering the limited space in the central office, and in network pedestals, which can become extremely cramped as fibers are added.

MPO cabling provides three key benefits in this regard: (1) the total size of connections is significantly reduced by having one connector instead of 12; (2) less space is taken up by fusion splice tubes. A single 12-fiber ribbon splice tube takes up much less space than 12 individual single-fiber splice tubes; and (3) reduced cable size results in optimal bend radius, or even reduced pedestal sizes.

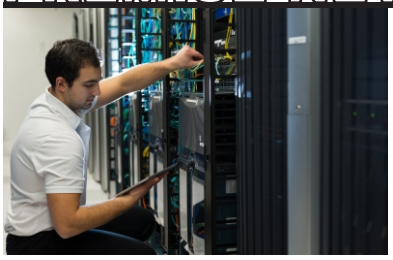
It should be noted that MPO connectors can accommodate up to 72 fibers per connector, another very attractive feature for OSP applications.



12 fibers, 12 connectors

12-fibers, one connector

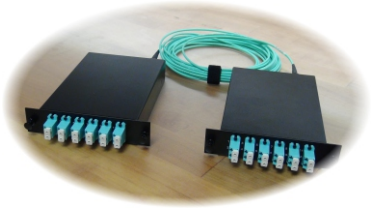
PREMISE NETWORKS



MPO cabling also is a good fit as backbone cabling in **PREMISE NETWORKS**, providing the following benefits:

Easy to Pull and Terminate: just pull the cable and plug in to cassettes; equipment and experience related to field termination not required
Lower Material Cost: Material cost provides modest savings over traditional methods; no need to purchase fiber ends or termination equipment
Lower Labor Cost: Labor cost is significantly reduced due to faster install time (no extra time required for field connector termination)
Factory-grade Endface Quality: MPO cables and cassettes are terminated at the factory, ensuring high-quality connections
Reduced fill ratio and bend radius: MPO cables typically use same 3mm jacket as traditional patch cables

Many installers who want to get into MPO cabling don't have access to data center or OSP jobs. Using MPO cabling as a backbone for their premise network customers can provide installers with valuable experience and familiarity with this important innovation in fiber optic networks.



12-fiber MPO backbone cable attached to 6-pair duplex LC cassettes

MPO-12 connector compared to duplex LC

Regardless of application, testing cabling with multi-fiber connectors such as MPO present an interesting challenge to technicians, whereby MPO cabling cannot be tested in the same manner as single-fiber systems.

DataCenter12 Series MPO testers eliminate the need for using fanout cables, and especially benefit premise installers by performing pre-installation acceptance testing, as well as testing after the cable is pulled to ensure the cable was undamaged during installation.