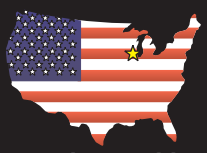
Optical Wavelength Laboratories

OTDR
testing solutions
page 4-9

20 Years
ACCURACY
QUALITY



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FTTH - ORL - Certification Testing - Optical Power Loss - Length Testing - Optical Talk Sets - Visual Fault Locators

Fiber Optics Test Equipment Catalog

ABOUT OWL - Going on our twelfth year, Optical Wavelength Laboratories, Inc. (OWL) was founded with the idea that high-quality, accurate, and user-friendly test equipment can be affordable for everyone. Since then, OWL has become well accepted globally in the fiber optics industry, upholding its commitment to providing quality, yet affordable fiber test equipment.

Utilizing industry standards such as TIA, EIA, ISO/IEC and Telcordia standards and Fiber Optic Test Procedures (FOTPs), OWL fiber optic test equipment is calibrated and traceable to National Institute of Standards & Technology (N.I.S.T.). OWL has proven quite able to give fiber optic professionals reliable test results for network quality assurance. These results are readily downloadable by most OWL meters to produce meaningful fiber optic certification reports via free OWL Reporter software.

ABOUT OWL PRODUCTS - OWL's fiber optic test equipment line includes optical power meters, optical loss test sets, optical return loss meters, multimode and singlemode test kits, light sources, talk sets, optical length testers, and visual fault locators, as well as a range of accessories for cleaning and connectivity. Applications include: LAN, WAN, MAN, Telco, CATV, Laboratory, and FTTH. All OWL test equipment comes with a two-year limited warranty, covering manufacturing and assembly defects. Re-calibration is reasonably priced at 50.00 dollars per unit.

WHO USES OWL METERS - In nearly twelve years on the market, OWL has achieved a high profile list of professional organizations that utilize OWL meters for vital test results. OWL fiber optic certification reports assure customers of the quality of service of their mission critical fiber optic networks. Below is a sample of a few high-profile organizations that use OWL fiber optic test equipment.

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EMC Computer Systems
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JDS Uniphase
Level (3) Communications
Nextel Communications
NTT Advanced Technology
OFS
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University of California-Santa Barbara
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plus many other community colleges and local school districts

NOTICE: All company names above are trademarked and are the sole property of their respective owners.

Contact OWL

Optical Wavelength Laboratories, Inc.
N9623 OldHwy 12
Whitewater, WI 53190

Phone: **262-473-0643**
Fax: **262-473-8737**
Website: **OWL-INC.COM**

US Government CAGE code:
35XR0

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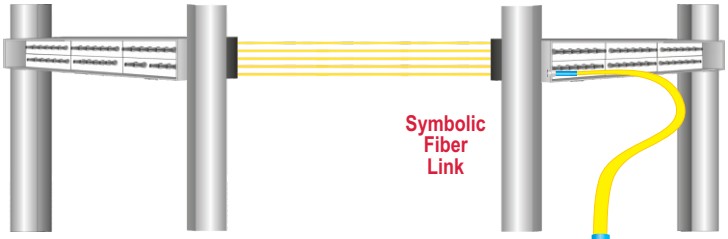
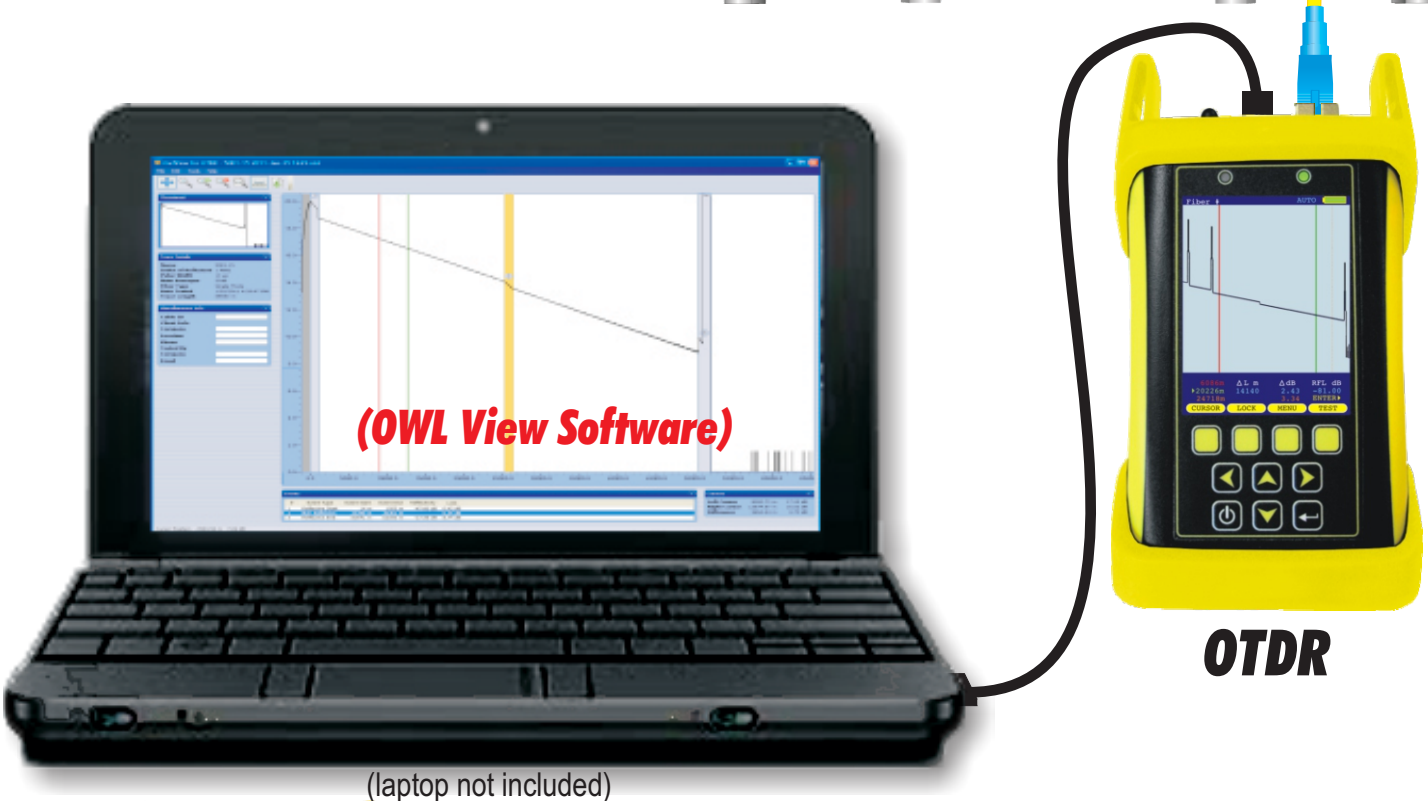
OTDR Dead-zone Boxes and Fiber Rings . . . 43
Universal Adapter Caps . . . 44

LIVE MODE

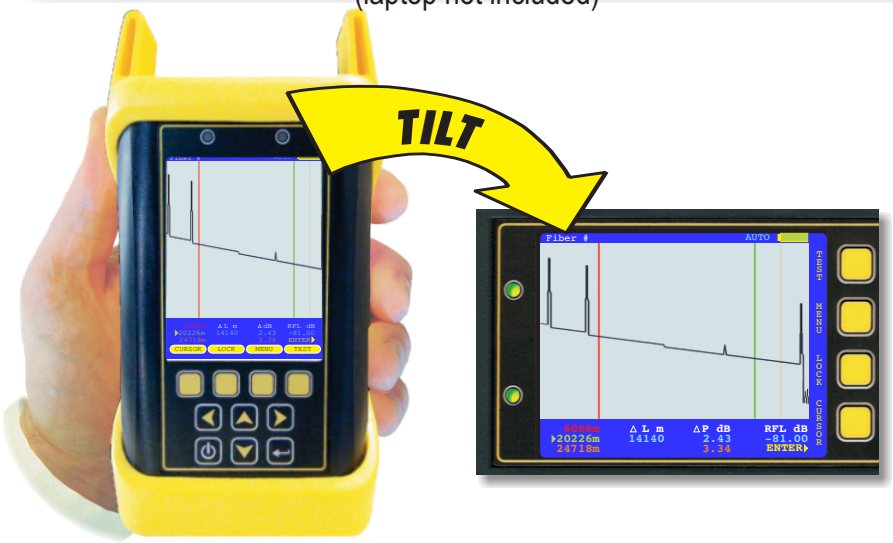
Display live traces on laptop!

LIVE MODE is an advanced feature normally found in high-end OTDRs. LIVE MODE continuously shoots OTDR traces every few seconds, allowing users to monitor changes in the optical fiber in real-time. In addition, when the OWLTrek 2 OTDR is attached to a PC, OWLView software includes a Live Viewer mode that takes the OTDR trace and expands it onto the PC display for easier viewing.





(laptop not included)



View traces in portrait mode...

...or landscape mode for greater trace viewing detail!

AUTOMATIC SCREEN ROTATION

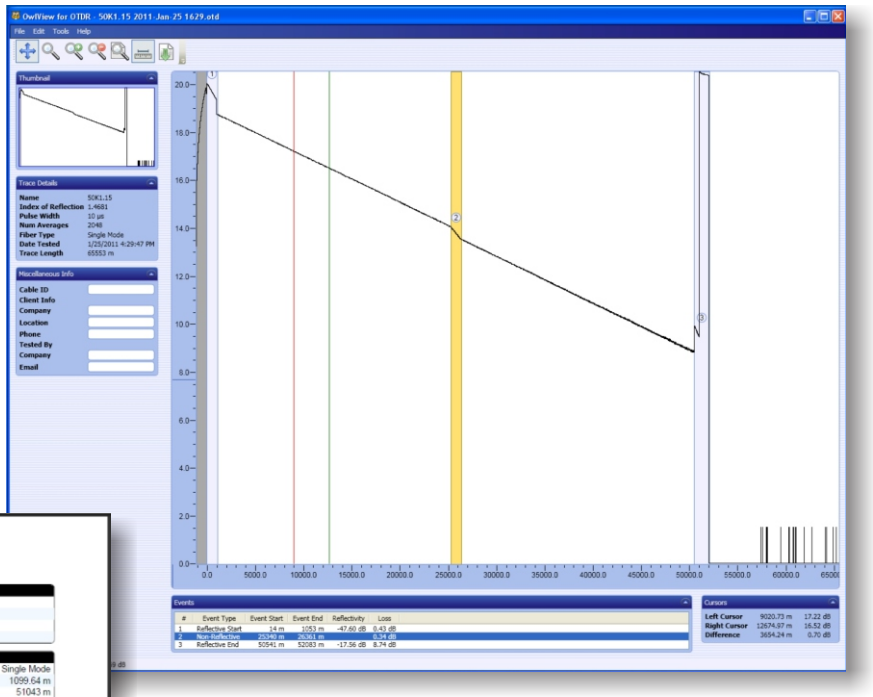
For greater viewing flexibility and trace detail, OWL has implemented state-of-the-art MEMS technology which "flips" the high-resolution color LCD display between portrait and landscape mode automatically. In landscape mode, a wider viewing area means greater viewing detail when zooming in on events.

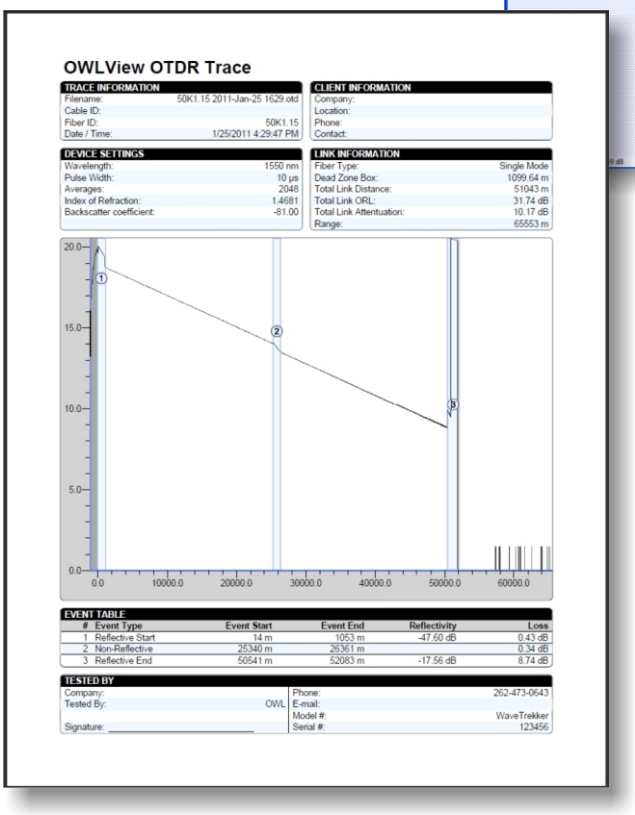
OWLVIEW OTDR SOFTWARE

OWLView software provides users with a powerful tool for analysis of fiber traces, and is included free of charge with each OWLTrek 2 OTDR.

Features include:

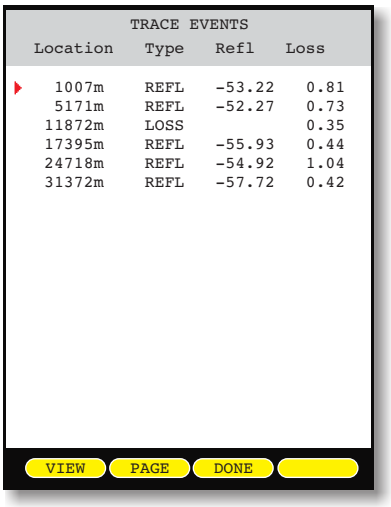
- Hard-disk trace storage
- Professional printed reports
- Event tables
- Event auto-marking
- Zoom in / out functionality
- Dual cursor positioning / locking
- Telcordia GR-196 .SOR version 2 file format
- Live Mode



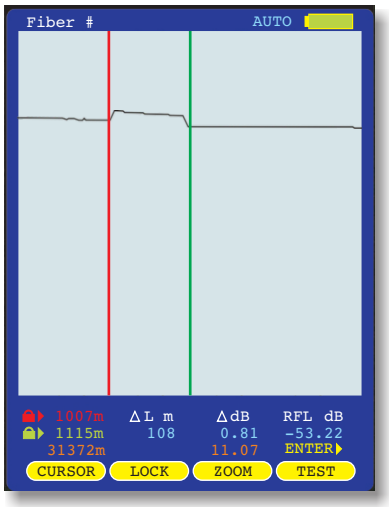


AUTOMATIC EVENT LOCATION / EVENT TABLES

Automatic event location is an advanced feature normally found only in expensive, high-end OTDRs. OWLTrek 2 OTDRs now bring this feature to the entry-level OTDR market. The OWLTrek 2 OTDR includes an event table showing the location, type, reflectance level, and loss of each event. Users can select an event to view, and automatically zoom in on the event on the OTDR display.



Select an event...



...zoom in automatically!

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Optical Time Domain Reflectometer (OTDR)

SPECIFICATIONS

Optical Specifications				
Fiber Type:	Multimode		Singlemode	
Output Wavelength:	850nm	1300nm	1310nm	1550nm
Dynamic Range (SNR=1)[2]:	27 dB	29 dB	28 dB	27 dB
Data Point Spacing (m):	1		Up to 64 km: 1 Over 64 km: 2	
Pulse Width (m):	1,2,5,10,20,50,100,200		1,2,5,10,20,50,100,200,500,1000	
Distance Accuracy (m):	1 + (distance in meters/10000)		Over 64km: 1 + (distance in meters/10000) Over 64km: 2 + (distance in meters/10000)	
Distance Range (km):	20		128	
Number of Stored Traces:	Minimum Trace Distance: 3000+ Maximum Trace Distance: up to 400		Minimum Trace Distance: 3000+ Maximum Trace Distance: up to 200	
Event Dead Zone(m):[3]	2			
Attenuation Dead Zone(m):[4]	5			
Index of Refraction:	1.4000 to 1.6000			
Maximum Data Points:	64000			

General Specifications	
Display:	2.8" Color LCD
Battery Type:	Lithium Polymer
Battery Life:	up to 20 hours
Dimensions:	2.87" x 4.42" x 1.25"
Weight:	10 oz. (284 g)
Visual Fault Locator Specifications	
Output Wavelength:	650nm
Output Power:	1 mW
Operating Modes:	CW / Flash
Optical Power Meter Specifications (Optional)	
Photodetector:	InGaAs
Fiber Type:	Multimode / Singlemode
Wavelengths:	850, 980, 1300, 1310 1490, 1550, 1625
Accuracy:	0.15 dB
Resolution:	0.01 dB
Measurement Units:	dBm / dB
Measurement Range:	+5 to -50 dBm (typical; varies with wavelength)

1: All price shown are in US Dollars (USD). List price is shown for US customers only. Prices outside the US may vary based on individual countries' import duties and taxes, currency conversion, and other value added charges.
2: Using maximum pulse width
3: Width measured 1.5dB down on each side of a reflective event using 1 meter pulse width
4: Distance from event beginning to within 0.5dB where backscatter resumes using 1 meter pulse width
5: Out to furthest reflective event

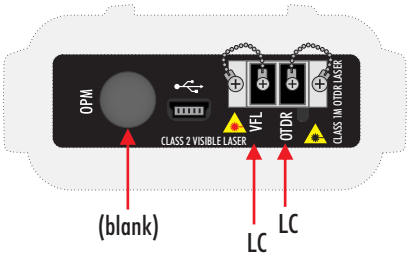
OTDR Connector Port Diagram

Use this diagram to determine the appropriate connector types required when acquiring OTDR fiber rings and other test cables

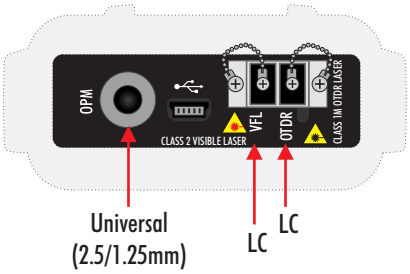
OTDR	LC	All models
VFL	LC	All models
OPM*	Universal	Models ending with 'M'

*Some models include an integrated power meter

NO INTEGRATED POWER METER



INTEGRATED POWER METER *
(model # ends with 'M')



Application Note: Why do some OTDRs have an integrated power meter?*

Before testing with an OTDR, power meters should be used to verify that there is no light energy present in the fiber under test, for two important reasons:

TEST RESULTS: light energy in the fiber that was not generated by the OTDR laser will mix with the OTDR laser pulse and "garble" the OTDR trace; and
SAFETY: intense light levels coming from high-power transmitters (such as telco and CATV) could potentially destroy the sensitive avalanche photodiode in the OTDR.

Power meters are integrated into OTDRs in case the user: 1) does not have a stand-alone power meter; or 2) would prefer having the power meter built in to the OTDR as a matter of convenience.

Optical Time Domain Reflectometer (OTDR)

SINGLEMODE / MULTIMODE

Small, pocket-sized OTDRs do same job as larger, more expensive OTDRs, for a fraction of the cost

Features

- 2.8" color LCD display automatically rotates based on orientation of OTDR (portrait vs. landscape)
- LIVE MODE allows users to expand OTDR display onto larger laptop screen
- Automatically locates events and places them in an internal event table
- Full horizontal and vertical pan/zoom function
- User-selectable parameters such as index of refraction, test mode, pulse width, and averaging
- Integrated user help screens
- USB interface for downloading stored readings
- Integrated visual fault locator
- Re-chargeable Lithium Polymer battery allows for up to 20 hours of normal usage
- FREE OWLView for OTDR software prints OTDR trace reports and stored OTDR readings on hard disk for later retrieval

Applications

- Optical fault location in multimode and singlemode fibers
- Loss measurement of reflective and backscatter events
- Link attenuation measurement
- Reflectance measurement of reflective events
- Optical fiber length measurement
- Optical power measurement (with optional optical power meter)

Two Units are Better than One!

Most OTDR manufacturers tend to implement an inflexible approach by over-integrating four wavelengths into a single OTDR unit. OWL takes an innovative approach that very few OTDR manufacturers even consider – by including separate dual-wavelength multimode and singlemode OTDRs. There are two key disadvantages to using an over-integrated quad-wave OTDR. First, most installer firms need to have at least two crews working simultaneously to be profitable. Second, most fiber optic jobs rarely include both multimode and singlemode fibers. So, if one crew is installing multimode and another crew is installing singlemode, it makes sense to have separate multimode and singlemode OTDRs so one crew does not have to wait on the other to finish their job. And even with two separate units, the OWLTrek 2 Quad Kit OTDR is still more cost-effective than other manufacturer's quad-wavelength OTDR options.

Factory located in the Heartland of America

Pricing

Model #:	Description	List Price:
WTO2-Q	OWLTrek 2 Quad Kit OTDR	5275.00
WTO2-QM*	OWLTrek 2M Quad Kit OTDR	5495.00

* – 'M' models include optical power meter

Related Accessories

OTDR Fiber Rings	see page 43
OTDR Dead Zone Boxes	see page 43
Cables / Power Supplies	see page 41
Universal Adapters	see page 44
Cleaning / Inspection	see page 40

Optical Time Domain Reflectometer (OTDR)

SINGLEMODE

Features

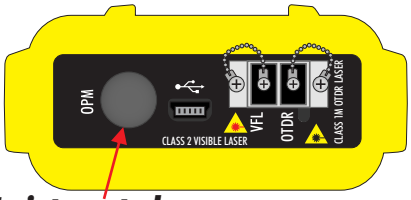
- 2.8" color LCD display automatically rotates based on orientation of OTDR (portrait vs. landscape)
- LIVE MODE allows users to expand OTDR display onto larger laptop screen
- Automatically locates events and places them in an internal event table
- Full horizontal and vertical pan/zoom function
- User-selectable parameters such as index of refraction, test mode, pulse width, and averaging
- Integrated user help screens
- USB interface for downloading stored readings
- Integrated visual fault locator
- Re-chargeable Lithium Polymer battery allows for up to 20 hours of normal usage
- FREE OWLView for OTDR software prints OTDR trace reports and stored OTDR readings on hard disk for later retrieval

Applications

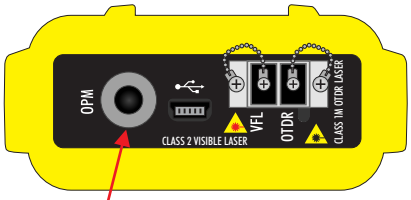
- Optical fault location in singlemode fibers
- Loss measurement of reflective and backscatter events
- Link attenuation measurement
- Reflectance measurement of reflective events
- Optical fiber length measurement
- Optical power measurement (with optional optical power meter)

Pricing		
Model #:	Description	List Price:
WTO2-S13	OWLTrek 2 1310	1975.00
WTO2-S15	OWLTrek 2 1550	1975.00
WTO2-S35	OWLTrek 2 1310/1550	2965.00
WTO2-S13M	OWLTrek 2M* 1310	2195.00
WTO2-S15M	OWLTrek 2M* 1550	2195.00
WTO2-S35M	OWLTrek 2M* 1310/1550	3185.00

* – 'M' models include optical power meter



No integrated power meter



Option: universal power meter port (2.5mm / 1.25mm)

Related Accessories

OTDR Fiber Rings see page 43
OTDR Dead Zone Boxes see page 43
Cables / Power Supplies see page 41
Universal Adapters see page 44
Cleaning / Inspection see page 40

Factory located in the Heartland of America

Optical Time Domain Reflectometer (OTDR)

MULTIMODE

Features

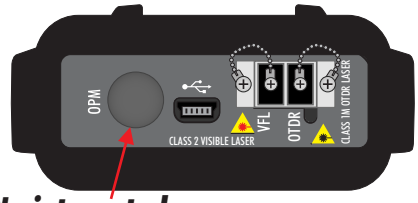
- 2.8" color LCD display automatically rotates based on orientation of OTDR (portrait vs. landscape)
- LIVE MODE allows users to expand OTDR display onto larger laptop screen
- Automatically locates events and places them in an internal event table
- Full horizontal and vertical pan/zoom function
- User-selectable parameters such as index of refraction, test mode, pulse width, and averaging
- Integrated user help screens
- USB interface for downloading stored readings
- Integrated visual fault locator
- Re-chargeable Lithium Polymer battery allows for up to 20 hours of normal usage
- FREE OWLView for OTDR software prints OTDR trace reports and stored OTDR readings on hard disk for later retrieval

Applications

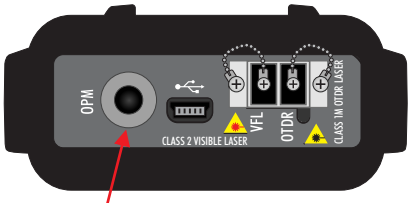
- Optical fault location in multimode fibers
- Loss measurement of reflective and backscatter events
- Link attenuation measurement
- Reflectance measurement of reflective events
- Optical fiber length measurement
- Optical power measurement (with optional optical power meter)

Pricing		
Model #:	Description	List Price:
WTO2-M13	OWLTrek 2 1300	2085.00
WTO2-M83	OWLTrek 2 850/1300	2965.00
WTO2-M13M	OWLTrek 2M* 1300	2305.00
WTO2-M83M	OWLTrek 2M* 850/1300	3185.00

* – 'M' models include optical power meter



No integrated power meter



Option: universal power meter port (2.5mm / 1.25mm)

Related Accessories

OTDR Fiber Rings	see page 43
OTDR Dead Zone Boxes	see page 43
Cables / Power Supplies	see page 41
Universal Adapters	see page 44
Cleaning / Inspection	see page 40

Factory located in the Heartland of America

C-band DWDM Optical Channel Monitor

TELCO NETWORK TESTING

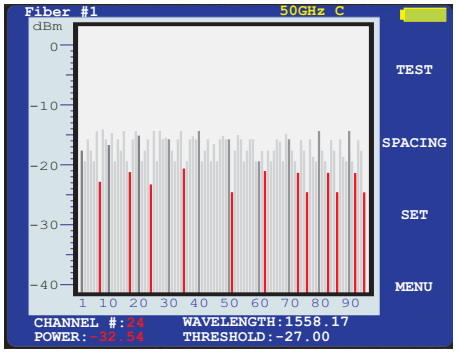
Pricing		
Model #:	Description	List Price:
OCM-C	C-band optical channel monitor	5495.00
Quantity discounts negotiable		

Applications

- C-band DWDM optical channel monitoring
- C-band optical spectrum analysis

Features

- Optical channel monitoring of ITU DWDM grid wavelengths with 50GHz and 100GHz spacing
- 2.8″ color LCD display
- SC/UPC connector port
- USB interface for downloading stored readings
- Re-chargeable Lithium Polymer battery allows for up to 20 hours of normal usage



Viewing data in landscape mode allows for greater viewing detail

Description

OWL optical channel monitors (OCM) provide users with quick and accurate optical channel measurement for DWDM networks using the wavelengths specified in the ITU G.694.1. Features include: user-definable optical power threshold, selectable channel spacing (50 & 100 Ghz), and data storage. Data can be viewed either as a bar graph or in tabular format, and the LCD display automatically rotates based on the orientation of the OCM unit. Viewing in landscape mode allows for more viewing detail.

Optical Specifications	
Operating Frequencies	191.35 to 196.10 Thz (C-band)
Total Channels	48 (100GHz spacing) 96 (50GHz offset)
Nominal Channel Spacing	50/100 GHz
Channel Input Power	-10 to -40 dBm
Total Input Power	+7 dBm
Absolute Power Accuracy	±-1.0 dB
Relative Power Accuracy	1.0 dB
Total Power Accuracy	±-1.0 dB
Display Type	Backlit graphical LCD
Auto-shutdown	Yes
Operating Temperature	-5 to 70° C
Operating Humidity	5 to 85%
Storage Temperature	-40 to 85° C
Storage Temperature	5 to 95%

General Specifications	
Display Type:	High-resolution Color LCD
Display Size:	2.8″ diagonal
Battery Type:	Lithium Polymer
Battery Life:	up to 20 hours normal usage
Dimensions:	2.87″ x 4.42″ x 1.25″
Weight:	10 ounces (284 g)

Factory located in the Heartland of America

Related Accessories

Cleaning / Inspection see page 40

IS YOUR PON METER LACKING NIST TRACEABILITY?

WHY IS NIST TRACEABILITY IMPORTANT?

1) High-end corporate and government bids require that test equipment used to test network installations, including fiber optics testers, be NIST traceable.

2) Quality standards such as ISO 9000 often require annual re-certification of test equipment and that such records be available for audit.

3) Certification and NIST traceability often become a vital shield in potential litigation or arbitration of quality of work done for clients.

WHAT IS NIST TRACEABILITY?

Many OWL products are traceable to the National Institute of Standards and Technology (NIST). Traceability to NIST means that a product has been calibrated against a known US government standard, and ensures that the product's calibration procedure can be verified through an unbroken chain of documents.

NIST calibrates a single piece of test equipment and provides manufacturers with a report of calibration as proof of calibration according to their standard for this equipment. This report of calibration gives us a point of reference by which we can set the accuracy of our optical fiber test equipment.

All of our meters and sources are set to this point of reference with the US government equipment. Our customers can rest assured that their equipment is calibrated to US government standards, and provides them with the greatest amount of accuracy possible.

Features

- Handheld PON power meter
- Simultaneous measurement of PON signals
- Upstream (from ONT): 1310nm
- Downstream (from OLT): 1490 & 1550nm
- Data storage for up to 1000 data points
- Stores up to 10 threshold sets
- 36-hour battery life (3x AAA batteries)
- 10-minute auto shutdown

Overview

The PON-2M PON power meter allows users to simultaneously measure signals upstream (1310nm) from the ONT and downstream (1490nm & 1550nm) from the OLT in FTTH/PON networks.

Up to 1000 data points can be stored in internal memory, which can be recalled on the LCD display at a later time.

Up to 10 threshold sets can be stored in internal memory, allowing users to measure PON signals against pre-set thresholds based on different measurement points in the FTTH network.

This unit runs 36 hours on 3 AAA batteries, and has 10-minute shutdown feature.

Specifications	
Measurement Range	1310nm: +10 to -35 dBm
	1490nm: +10 to -50 dBm
	1550nm: +25 to -45 dBm
ORL	APC: 55 dB; UPC: 35 dB
Pass-through Insertion Loss	< 1.5 dB
Accuracy (burst signal)	± 0.5 dB (burst signal)
Accuracy	± 0.2 dB
Threshold Sets	10
Data Storage	100
Connector	SC/PC
Auto Power Off	10 minutes of inactivity
Battery Charge	Yes
Operate Time	~ 36 hours
Storage Temperature	-20 to +60° C; 90% relative humidity
Operating Temperature	-10 to +50° C; 90% relative humidity
Power Supply	(3) AAA batteries or AC adapter
Size	7.48 x 3.54 x 1.57 inches
Weight	~ 1 pound

Related Accessories

Cleaners see page 40
Inspection Scopes see page 39

OPTICAL POWER METER / TEST KIT FEATURE LIST

	FIBER OWL 7+ SERIES	FIBER OWL 7 BIDI SERIES	FIBER OWL 7V SERIES	FIBER OWL 7X BOLT SERIES	FIBER OWL 7 SERIES	INSTALLER SERIES	WAVETESTER SERIES	ZOOM 2 SERIES
Power Meters	page 13	–	page 18	page 20	page 22	–	page 24	page 26
Test Kits	page 14	page 17	page 19	page 21	page 23	page 16	page 25	page 27
FEATURES								
NIST Traceable	✓	✓	✓	✓	✓	✓	✓	✓
Optical Power	✓	✓	✓	✓	✓	✓	✓	✓
Optical Loss	✓	✓	✓	✓	✓	✓	✓	✓
Data Storage	Up to 10000	Up to 10000	Up to 10000	Up to 10000	Up to 10000	Up to 10000	Up to 200	
Certification Reports	✓	✓	✓	✓	✓	✓	✓	
On-screen PASS/FAIL	✓	✓	✓	✓	✓	✓		
Optical Length Measurement	✓	✓	✓	✓				
Number of Projects/jobs	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited		
Color LCD	✓	✓	✓	✓	✓	✓		
Built-in Help	✓	✓	✓	✓	✓	✓		
Built-in OTDR	✓							
Auto BIDI Testing		✓						
Integrated VFL	✓	Optional	✓	Optional			Optional	Optional
SPECIFICATIONS								
Supported Fiber Types	Multimode / Singlemode							
Calibrated Wavelengths (nm)	850, 980, 1300, 1310, 1490, 1550, 1625						850, 1300, 1310, 1490, 1550	
Measurement Range (dBm)	+5 to -70						+5 to -60	
Accuracy (dB)	±0.15						±0.20	
Display Resolution (dB)	0.01							

Optical Power Meter/OTDR

SINGLEMODE / MULTIMODE

The **Fiber OWL 7+** is a highly accurate hand-held optical power meter, capable of performing a wide range of functions from simple optical power and loss measurements to OTDR testing to **full-featured standards-based Tier 2 (OTDR) link certification** (when used with a WaveSource Pro light source*).

OWLView Software. Fiber OWL 7+ Tier 2 certification test results can be downloaded to OWLView certification software.

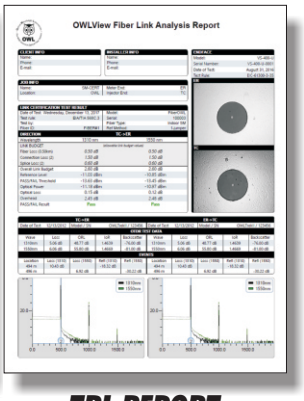
OWLView software includes a comprehensive set of features for all of your certification requirements:

- Tier 1 certification
- Tier 2 certification
- IEC 61300-3-35 endface quality analysis

All together, these three reports can be combined into a comprehensive **TRI-REPORT!**

TRI-REPORTS are quickly becoming a requirement for modern installers that want to stay competitive in bidding for big corporate and government jobs, or when applying for long-term cabling system warranties.

OWLVIEW SOFTWARE



TRI-REPORT

Key Specifications	
Detector Type	InGaAs
Calibrated Wavelengths[1]	**850**, 980, **1300**, **1310**, 1490, **1550**, 1625
Measurement Range	+5 to -70 dBm
Accuracy	±0.15 dB
Display Resolution	0.01 dB
Battery Life	Up to 50 hours (Lithium Polymer)
Connector Type	2.5mm/1.25mm universal
Data Storage	Up to 10000 data points
Displayed Measurement Units	dBm, dB, mW, µW, nW
Modes of Operation	CERT, LOSS, OPM
Length Measurement Range / Accuracy	up to 25 km / ±2.5 m
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.

Related Accessories

Cleaners	see page 40
Universal Adapters	see page 44
Chargers/Cables	see page 41
OTDR Launch Cables	see page 43

Factory located in the Heartland of America

Pricing		
F7+M	Fiber OWL 7+ Multimode Tier 2 Certifier	3950.00
F7+S	Fiber OWL 7+ Singlemode Tier 2 Certifier	3950.00

Applications

- Optical power measurement
- Optical loss (attenuation) measurement*
- Patch cord verification*
- Full-featured Tier 1 / Tier 2 fiber link certification*
- Full-featured OTDR testing
- Fiber optic link length measurement

Features

- InGaAs photodetector
- Multimode and singlemode ready
- 2.5mm and 1.25mm universal port
- Integrated OTDR
- Integrated visual fault locator (VFL)†
- User-friendly Link Wizard*
- Set reference ("zeroing") function*
- Shows PASS/FAIL readings*
- Display absolute and relative power measurements in dBm, dB, and W
- Hi-resolution full-color LCD
- Up to 50 hours battery life (9V)
- USB interface for downloading stored readings
- FREE OWLView software
- NIST Traceable

* requires additional light source (see light sources below)

Bundles:

- Fiber OWL 7+ Bundles page 14

Test Kits:

- Fiber OWL 7+ Test Kits page 15

Light Sources*:

- WaveSource Pro (MM &SM) page 29

Fiber Videoscopes*:

- VS-400-U page 39

Complete Tier 2 Certification Bundles

SINGLEMODE / MULTIMODE

BUNDLES INCLUDE FIBER RINGS AND FIBER VIDEOSCOPE TO COMPLETE TRI-REPORT CAPABILITY!

Pricing

Model[1]	Tier 2 Multimode	Tier 2 Singlemode	Light Source[1]	Multimode	Singlemode	Integrated VFL[3] Meter	Integrated VFL[3] Source	Auto Test[2]	Price[4]
KF7+QB	F7+M	F7+S	WPMS	850nm 1300nm	1310nm 1550nm	●	—	●	9900.00
KF7+MB	F7+M	—	WPMX	850nm 1300nm	—	●	—	●	5975.00
KF7+SB	—	F7+S	WPSX	—	1310nm 1550nm	●	—	●	6810.00

1 Light source connector type: SC
2 Auto-testing allows users to measure two wavelengths simultaneously.
3 Visual Fault Locators may be integrated into certain source models. VFLs can also be purchased separately. Contact OWL for more information.
4 Price shown in US Dollars (USD).
Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Shown here: **KF7+QB**

Includes: Fiber OWL 7+ multimode and/or singlemode Tier 2 certifier(s) • WaveSource Pro light source • 2.5mm/1.25mm universal adapter caps • multimode and/or singlemode fiber rings • USB video scope • USB chargers / cables • USB flash drive containing documentation and OWLView software • NIST certificate of calibration • hard-shell carrying case

Not every installer needs to certify fiber links to Tier 2 requirements, but for those installers who want to successfully compete for prominent fiber bids without breaking the bank, they will need a Tier 2 certifier with TRI-report capability like the **Fiber OWL 7+**.

WHY IS TIER 2 CERTIFICATION IMPORTANT? Many end-users are now requiring Tier 2 certification because it offers a more comprehensive measure of the quality of a fiber network installation. Cabling system manufacturers are also requiring pass/fail, OTDR, and endface analysis for awarding long-term system warranties.

In addition to Tier 2 certification, these users and cabling system manufacturers are also requesting pictures of endfaces to ensure the quality of the endface terminations comply the IEC 61300-3-35 endface quality standard.

WHAT IS THE BENEFIT OF THE FIBER OWL 7+? Many prominent, recognizable test manufacturers offer Tier 2 certification and endface analysis, just like OWL does. However, these manufacturers' options are far more expensive, generally costing over 20,000.00 dollars!

WIN MORE BIDS AND SAVE THOUSANDS WITH FIBER OWL 7+ TIER 2 CERTIFIERS AND OWLVIEW TRI-REPORTS!

Related Accessories

Battery Chargers see page 41
Cleaners see page 40
Encircled Flux Cables see page 42
OTDR Launch Cables see page 43

Applications

- Full-featured Tier 1 and **Tier 2** fiber link certification
- **OTDR testing and fault location**
- Optical loss (attenuation) measurement
- Patch cord verification
- Fiber optic link length measurement
- Visual fault location

Features

- Multimode, singlemode, and Quad options
- Built-in OTDR
- User-friendly Link Wizard
- PASS / FAIL in the field
- Simultaneous dual-wavelength measurements
- Prints official certification reports via OWLView certification software
- NIST Traceable

OWLView Software. Fiber OWL 7+ Series test kits with OWLView software are essential for modern fiber optic installers.

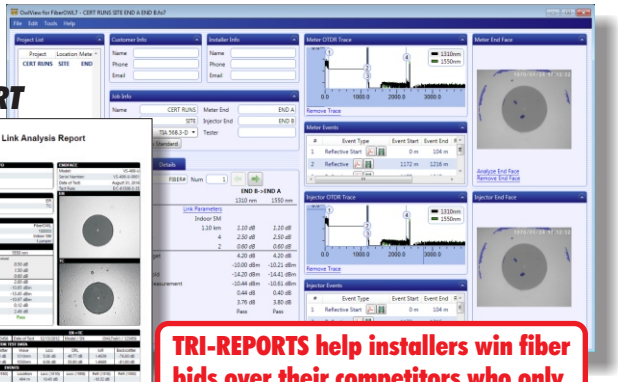
OWLView software includes a comprehensive set of features for all of your certification requirements:

- Tier 1 certification (included with Fiber OWL 7 Series test kits)
- Tier 2 certification: Import OTDR traces with OWLTrek 2 OTDRs
- IEC 61300-3-35 endface quality analysis: add a fiber videoscope

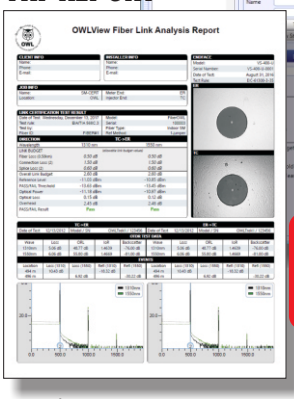
All together, these three reports can be combined into a comprehensive **TRI-REPORT**!

TRI-REPORTS are quickly becoming a requirement for modern installers that want to stay competitive in bidding for big corporate and government jobs, or when applying for long-term cabling system warranties.

OWLVIEW SOFTWARE



TRI-REPORT



TRI-REPORTS help installers win fiber bids over their competitors who only offer Tier 1 certification reports!

Factory located in the Heartland of America

Fiber Optic Test Kits

SINGLEMODE / MULTIMODE

WIN MORE BIDS AND SAVE THOUSANDS WITH FIBER OWL 7+ TIER 2 CERTIFIERS AND OWLVIEW TRI-REPORTS!

Pricing

Model[1]	Tier 2 Multimode	Tier 2 Singlemode	Light Source[1]	Multimode	Singlemode	Integrated VFL[3] Meter	Integrated VFL[3] Source	Auto Test[2]	Price[4]
KF7+MS	F7+M	F7+S	WPMS	850nm 1300nm	1310nm 1550nm	●	—	●	8900.00
KF7+MX	F7+M	—	WPMX	850nm 1300nm	—	●	—	●	4405.00
KF7+SX	—	F7+S	WPSX	—	1310nm 1550nm	●	—	●	5175.00

1 Light source connector type: SC

2 Auto-testing allows users to measure two wavelengths simultaneously.

3 Visual Fault Locators may be integrated into certain source models. VFLs can also be purchased separately. Contact OWL for more information.

4 Price shown in US Dollars (USD).

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Shown here: **KF7+MX**

Includes:

- Fiber OWL 7+ Tier 2 multimode and/or singlemode fiber certifier(s)
- WaveSource Pro light source
- 2.5mm/1.25mm universal adapter caps
- USB chargers and cables
- 1.25mm in-adapter ferrule connector cleaner
- 2.5mm in-adapter ferrule connector cleaner
- USB flash drive including documentation and OWLView certification software
- NIST Certificate of Traceability
- Rugged hard-shell carrying case

Applications

- Full-featured Tier 1 and **Tier 2** fiber link certification
- **OTDR testing and fault location**
- Optical loss (attenuation) measurement
- Patch cord verification
- Fiber optic link length measurement
- Visual fault location

Features

- Multimode, singlemode, and Quad options
- Built-in OTDR
- User-friendly Link Wizard
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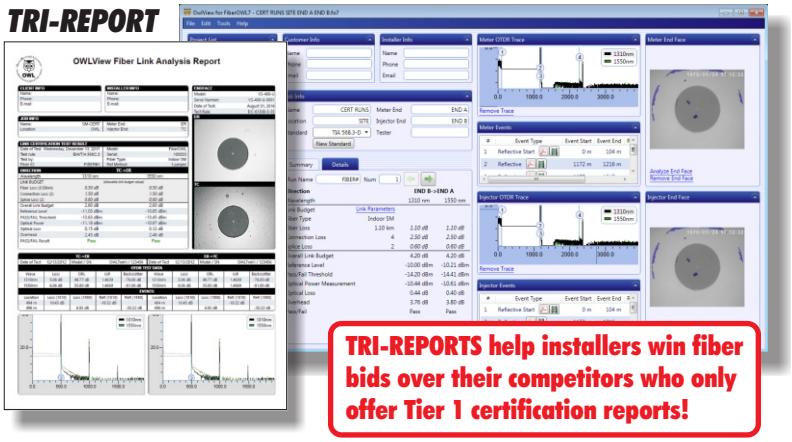
WIN MORE BIDS AND SAVE THOUSANDS WITH FIBER OWL 7+ TIER 2 CERTIFIERS AND OWLVIEW TRI-REPORTS!

TRI-REPORT

OWLVIEW SOFTWARE



TRI-REPORTS help installers win fiber bids over their competitors who only offer Tier 1 certification reports!

Fiber Videoscopes*:

- VS-400-U page 39

Related Accessories

Battery Chargers see page 41
Cleaners see page 40
Encircled Flux Cables see page 42
OTDR Launch Cables see page 43

Factory located in the Heartland of America

Fiber Optic Test Kits

SINGLEMODE / MULTIMODE

Sooner or later, installer jobs will require certification report testing!

Pricing

Model[1]	Power Meter	Light Source[1]	Multimode	Singlemode	Integrated VFL[3] Meter	Integrated VFL[3] Source	Auto Test[2]	Length	Price[4]
IS-KIT-Q	F7	WPMS	850nm 1300nm	1310nm 1550nm	—	—	●	—	1805.00
IS-KIT-M	F7	WPMX	850nm 1300nm	—	—	—	●	—	870.00

1 Light source connector type: SC
2 Auto-testing allows users to measure two wavelengths simultaneously.
3 Visual Fault Locators may be integrated into meter and/or source. VFLs can also be purchased separately. Contact OWL for more information.
4 Price shown in US Dollars (USD).
Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Shown here: **IS-KIT-Q**

Applications

- Full-featured Tier 1 fiber link certification
- Optical loss (attenuation) measurement
- Patch cord verification

Features

- Multimode and singlemode ready
- User-friendly Link Wizard
- PASS / FAIL in the field
- Simultaneous dual-wavelength measurements
- Prints official certification reports via OWLView certification software
- NIST Traceable

OWLView Software. Installer Series test kits with OWLView software are essential for modern fiber optic installers.

OWLView software includes a comprehensive set of features for all of your certification requirements:

- Tier 1 certification (included with Fiber OWL 7 Series test kits)
- Tier 2 certification: Import OTDR traces with OWLTrek 2 OTDRs
- IEC 61300-3-35 endface quality analysis: add a fiber videoscope

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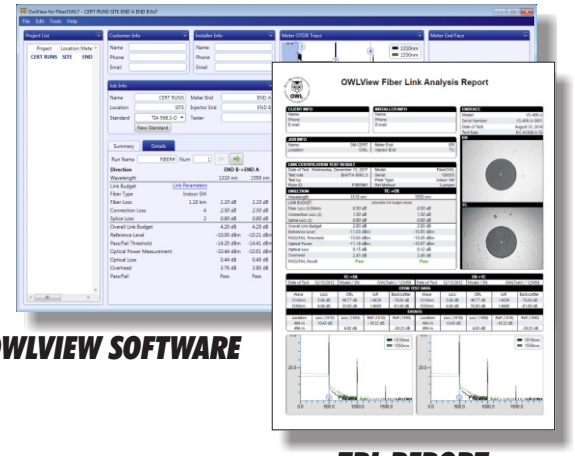


OWLVIEW SOFTWARE

TRI-REPORT

Fiber Videoscopes*:

- VS-400-U page 39

OTDRs*:

- OWLTrek 2 multimode page 9
- OWLTrek 2 singlemode page 8
- OWLTrek 2 Quad page 7

Related Accessories

Battery Chargers see page 41
Cleaners see page 40
Encircled Flux Cables see page 42

Factory located in the Heartland of America

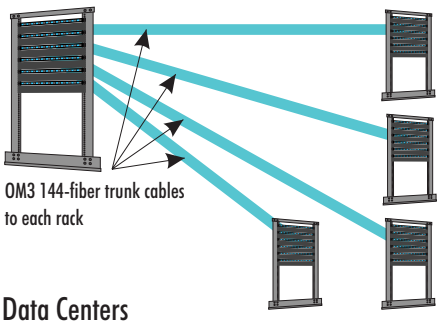
Bi-directional OLTS

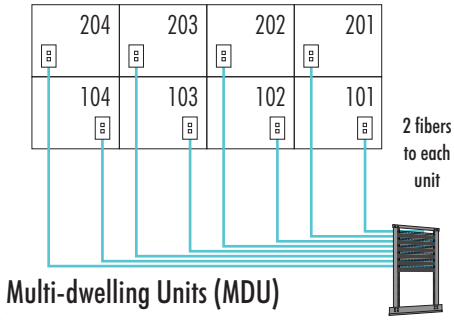
SINGLEMODE / MULTIMODE

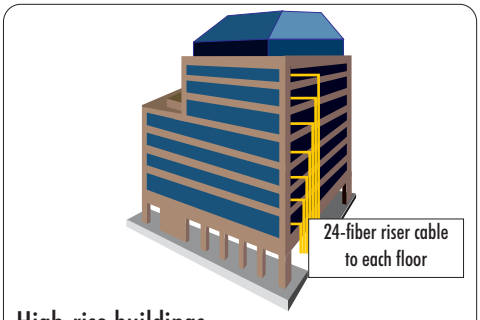
Pricing				
Model	Multimode	Singlemode	Integrated VFL	Price
F7BMS	850nm 1300nm	1310nm 1550nm	—	4400.00
F7BMX	850nm 1300nm	—	—	3335.00
F7BMV	850nm 1300nm	—	●	3970.00
F7BSX	—	1310nm 1550nm	—	3660.00
F7BSV	—	1310nm 1550nm	●	4210.00

Full-featured dual-fiber bi-directional certification!

Fiber OWL 7 BIDI certifiers are ideal for testing environments where the fibers all have the same basic configuration, but individual cables have various lengths. No need to set up individual jobs or perform separate length measurements! Simply move from cable to cable, and the **Fiber OWL 7 BIDI** will automatically measure the length!







Applications

- Full-featured Tier 1 fiber link certification
- Optical loss (attenuation) measurement
- Patch cord verification
- Fiber optic link length measurement

Features

- Affordable alternative to competitive bi-directional testers
- Available in multimode, singlemode, and quad versions
- Dual-fiber testing measures length with each test
- PASS / FAIL in the field for up to 8 readings simultaneously
- Includes main and remote units
- Prints official bi-directional reports via OWLView software
- NIST Traceable

Related Accessories

Battery Chargers	see page 41
Cleaners	see page 40
Encircled Flux Cables	see page 42
Universal Adapters	see page 44

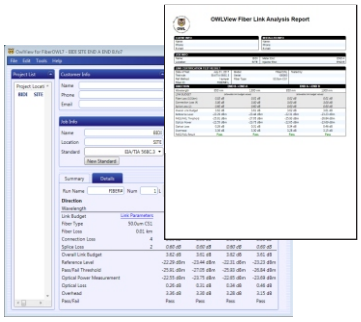
Decreases Testing Time!

Fiber OWL 7 BIDI certifiers have fully automated bi-directional communications, with helpful diagrams and visual prompts to guide technicians through the often-confusing bi-directional testing process.

To further decrease testing time, **Fiber OWL 7 BIDI** certifiers utilize a test mode called **PAIR MODE**, where both fibers in a pair are tested simultaneously in one direction only, as per cabling standard requirements.

PAIR MODE is the fastest way to certify your network to TIA-568 Tier 1 requirements!

Call OWL at 262-473-0643 for more information about using the Fiber OWL 7 BIDI for fast and easy bi-directional, dual-fiber certification!



OWLView Software

Fiber OWL 7 BIDI certifiers come with FREE OWLView certification software!

Factory located in the Heartland of America

Optical Power Meter

SINGLEMODE / MULTIMODE

The **Fiber OWL 7V** is a highly accurate hand-held optical power meter, capable of performing a wide range of functions from simple optical power and loss measurements to full-featured standards-based link certification (when used with a WaveSource Pro light source*) with built-in visual fault location.

OWLView Software. Fiber OWL 7V certification test results can be downloaded to OWLView certification software.

OWLView software includes a comprehensive set of features for all of your certification requirements:

- Tier 1 certification
- Tier 2 certification
- IEC 61300-3-35 endface quality analysis

All together, these three reports can be combined into a comprehensive **TRI-REPORT!**

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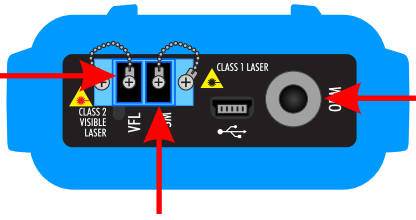
Optical Ports

VISUAL FAULT LOCATOR PORT
red laser for visual fault location and visual fiber identification (LC connector)



UNIVERSAL DETECTOR PORT
Includes:
2.5mm adapter (SC,ST, FC)
1.25mm adapter (LC)

LENGTH TEST PORT
allows end-to-end length measurement for both multimode and singlemode fibers (LC connector)

Pricing		
F7V	Fiber OWL 7V optical power meter†	1315.00

Applications

- Optical power measurement
- Optical loss (attenuation) measurement*
- Patch cord verification*
- Full-featured fiber link certification*
- Fiber optic link length measurement
- Integrated visual fault locator (VFL)

Features

- InGaAs photodetector
- Multimode and singlemode ready
- 2.5mm and 1.25mm universal port
- Integrated optical length tester
- User-friendly Link Wizard*
- Set reference ("zeroing") function*
- Shows PASS/FAIL readings*
- Display absolute and relative power measurements in dBm, dB, and W
- Hi-resolution full-color LCD
- Up to 50 hours battery life (9V)
- USB interface for downloading stored readings
- FREE OWLView software
- NIST Traceable

* requires additional light source (see light sources below)

Test Kits:

- Fiber OWL 7V Test Kits page 19

Light Sources*:

- WaveSource Pro (MM &SM) page 29

OTDRs*:

- OWLTrek 2 multimode page 9
- OWLTrek 2 singlemode page 8
- OWLTrek 2 Quad Kit OTDR page 7

Fiber Videoscopes*:

- VS-400-U page 39

Key Specifications	
Detector Type	InGaAs
Calibrated Wavelengths[1]	**850**, 980, **1300**, **1310**, 1490, **1550**, 1625
Measurement Range	+5 to -70 dBm
Accuracy	±0.15 dB
Display Resolution	0.01 dB
Battery Life	Up to 50 hours (Lithium Polymer)
Connector Type	2.5mm/1.25mm universal
Data Storage	Up to 10000 data points
Displayed Measurement Units	dBm, dB, mW, µW, nW
Modes of Operation	CERT, LOSS, OPM
Length Measurement Range / Accuracy	up to 25 km / ±2.5 m
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.

Related Accessories

Cleaners	see page 40
Universal Adapters	see page 44
Chargers/Cables	see page 41

Factory located in the Heartland of America

Fiber Optic Test Kits

SINGLEMODE / MULTIMODE

Sooner or later, installer jobs will require certification report testing!

Pricing

Model[1]	Power Meter	Light Source[1]	Multimode	Singlemode	Integrated VFL[3] Meter	Integrated VFL[3] Source	Auto Test[2]	Length	Price[4]
KF7VMS	F7V	WPMS	850nm 1300nm	1310nm 1550nm	●	—	●	●	2960.00
KF7VMX	F7V	WPMX	850nm 1300nm	—	●	—	●	●	1770.00
KF7VMV	F7V	WPMV	850nm 1300nm	—	●	●	●	●	1990.00
KF7VSX	F7V	WPSX	—	1310nm 1550nm	●	—	●	●	2540.00
KF7VSV	F7V	WPSV	—	1310nm 1550nm	●	●	●	●	2760.00

1 Light source connector type: SC

2 Auto-testing allows users to measure two wavelengths simultaneously.

3 Visual Fault Locators may be integrated into meter and/or source. VFLs can also be purchased separately. Contact OWL for more information.

4 Price shown in US Dollars (USD).

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Applications

- Full-featured Tier 1 fiber link certification
- Optical loss (attenuation) measurement
- Patch cord verification
- Fiber optic link length measurement
- Visual fault location

Features

- Multimode and singlemode ready
- User-friendly Link Wizard
- PASS / FAIL in the field
- Simultaneous dual-wavelength measurements
- Prints official certification reports via OWLView certification software
- NIST Traceable

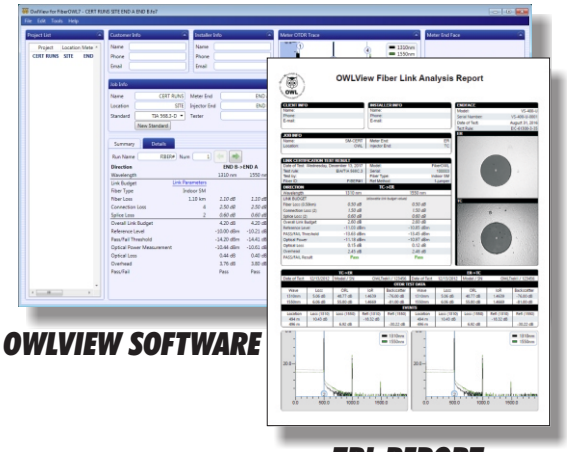
OWLView Software. Fiber OWL 7 Series test kits with OWLView software are essential for modern fiber optic installers.

OWLView software includes a comprehensive set of features for all of your certification requirements:

- Tier 1 certification (included with Fiber OWL 7 Series test kits)
- Tier 2 certification: Import OTDR traces with OWLTrek 2 OTDRs
- IEC 61300-3-35 endface quality analysis: add a fiber videoscope

All together, these three reports can be combined into a comprehensive **TRI-REPORT**!

TRI-REPORTS are quickly becoming a requirement for modern installers that want to stay competitive in bidding for big corporate and government jobs, or when applying for long-term cabling system warranties.



OWLVIEW SOFTWARE

TRI-REPORT

OTDRs*:

- OWLTrek 2 multimode page 9
- OWLTrek 2 singlemode page 8
- OWLTrek 2 Quad page 7

Fiber Videoscopes*:

- VS-400-U page 39

Related Accessories

Battery Chargers see page 41
Cleaners see page 40
Encircled Flux Cables see page 42
Universal Adapters see page 44

Factory located in the Heartland of America

Optical Power Meter

SINGLEMODE / MULTIMODE

The **Fiber OWL 7X** is a highly accurate hand-held optical power meter, capable of performing a wide range of functions from simple optical power and loss measurements to full-featured standards-based link certification (when used with a WaveSource Pro light source*).

OWLView Software. Fiber OWL 7X certification test results can be downloaded to OWLView certification software.

OWLView software includes a comprehensive set of features for all of your certification requirements:

- Tier 1 certification
- Tier 2 certification
- IEC 61300-3-35 endface quality analysis

All together, these three reports can be combined into a comprehensive **TRI-REPORT!**

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Pricing		
F7X	Fiber OWL 7X Extended optical power meter	1095.00

Applications

- Optical power measurement
- Optical loss (attenuation) measurement*
- Patch cord verification*
- Full-featured fiber link certification*
- Fiber optic link length measurement

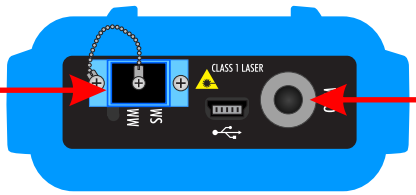
Features

- InGaAs photodetector
- Multimode and singlemode ready
- 2.5mm and 1.25mm universal port
- Integrated optical length tester
- Optional integrated visual fault locator (VFL)†
- User-friendly Link Wizard*
- Set reference ("zeroing") function*
- Shows PASS/FAIL readings*
- Display absolute and relative power measurements in dBm, dB, and W
- Hi-resolution full-color LCD
- Up to 50 hours battery life (9V)
- USB interface for downloading stored readings
- FREE OWLView software
- NIST Traceable

* requires additional light source (see light sources below)

Optical Ports

LENGTH TEST PORT
works with both multimode and singlemode fibers (SC connector)



UNIVERSAL DETECTOR PORT
Includes:
2.5mm adapter (SC,ST, FC)
1.25mm adapter (LC)

Test Kits:

- Fiber OWL 7X Test Kits page 21

Light Sources*:

- WaveSource Pro (MM &SM) page 29

OTDRs*:

- OWLTrek 2 multimode page 9
- OWLTrek 2 singlemode page 8
- OWLTrek 2 Quad Kit OTDR page 7

Fiber Videoscopes*:

- VS-400-U page 39

Key Specifications	
Detector Type	InGaAs
Calibrated Wavelengths[1]	**850**, 980, **1300**, **1310**, 1490, **1550**, 1625
Measurement Range	+5 to -70 dBm
Accuracy	±0.15 dB
Display Resolution	0.01 dB
Battery Life	Up to 50 hours (Lithium Polymer)
Connector Type	2.5mm/1.25mm universal
Data Storage	Up to 10000 data points
Displayed Measurement Units	dBm, dB, mW, µW, nW
Modes of Operation	CERT, LOSS, OPM
Length Measurement Range / Accuracy	up to 25 km / ±2.5 m
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.

Related Accessories

Cleaners	see page 40
Universal Adapters	see page 44
Chargers/Cables	see page 41

Factory located in the Heartland of America

Fiber Optic Test Kits

SINGLEMODE / MULTIMODE

Sooner or later, installer jobs will require certification report testing!

Pricing

Model[1]	Power Meter	Light Source[1]	Multimode	Singlemode	Integrated VFL[3] Meter	Integrated VFL[3] Source	Auto Test[2]	Length	Price[4]
KF7XMS	F7X	WPMS	850nm 1300nm	1310nm 1550nm	—	—	●	●	2740.00
KF7XMX	F7X	WPMX	850nm 1300nm	—	—	—	●	●	1550.00
KF7XMV	F7X	WPMV	850nm 1300nm	—	—	●	●	●	1770.00
KF7XSX	F7X	WPSX	—	1310nm 1550nm	—	—	●	●	2320.00
KF7XSV	F7X	WPSV	—	1310nm 1550nm	—	●	●	●	2540.00

1 Light source connector type: SC

2 Auto-testing allows users to measure two wavelengths simultaneously.

3 Visual Fault Locators may be integrated into meter and/or source. VFLs can also be purchased separately. Contact OWL for more information.

4 Price shown in US Dollars (USD).

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Shown here: **KF7XMS**

Applications

- Full-featured Tier 1 fiber link certification
- Optical loss (attenuation) measurement
- Patch cord verification
- Fiber optic link length measurement

Features

- Multimode and singlemode ready
- User-friendly Link Wizard
- PASS / FAIL in the field
- Simultaneous dual-wavelength measurements
- Prints official certification reports via OWLView certification software
- NIST Traceable

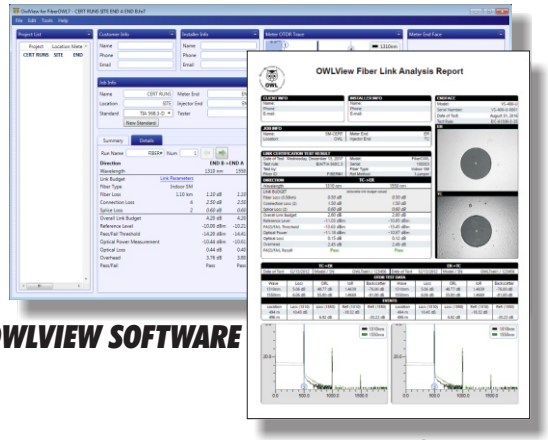
OWLView Software. Fiber OWL 7 Series test kits with OWLView software are essential for modern fiber optic installers.

OWLView software includes a comprehensive set of features for all of your certification requirements:

- Tier 1 certification (included with Fiber OWL 7 Series test kits)
- Tier 2 certification: Import OTDR traces with OWLTrek 2 OTDRs
- IEC 61300-3-35 endface quality analysis: add a fiber videoscope

All together, these three reports can be combined into a comprehensive **TRI-REPORT**!

TRI-REPORTS are quickly becoming a requirement for modern installers that want to stay competitive in bidding for big corporate and government jobs, or when applying for long-term cabling system warranties.



OWLVIEW SOFTWARE

TRI-REPORT

OTDRs*:

- OWLTrek 2 multimode page 9
- OWLTrek 2 singlemode page 8
- OWLTrek 2 Quad page 7

Fiber Videoscopes*:

- VS-400-U page 39

Related Accessories

Battery Chargers see page 41
Cleaners see page 40
Encircled Flux Cables see page 42
Universal Adapters see page 44

Factory located in the Heartland of America

Optical Power Meter

SINGLEMODE / MULTIMODE

The **Fiber OWL 7** is a highly accurate hand-held optical power meter, capable of performing a wide range of functions from simple optical power and loss measurements to full-featured standards-based link certification (when used with a WaveSource Pro light source*).

OWLView Software. Fiber OWL 7 certification test results can be downloaded to OWLView certification software.

OWLView software includes a comprehensive set of features for all of your certification requirements:

- Tier 1 certification
- Tier 2 certification
- IEC 61300-3-35 endface quality analysis

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Pricing		
F7	Fiber OWL 7 optical power meter	765.00

Applications

- Optical power measurement
- Optical loss (attenuation) measurement*
- Patch cord verification*
- Full-featured fiber link certification*

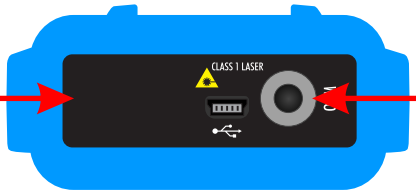
Features

- InGaAs photodetector
- Multimode and singlemode ready
- 2.5mm and 1.25mm universal port
- User-friendly Link Wizard*
- Set reference ("zeroing") function*
- Shows PASS/FAIL readings*
- Display absolute and relative power measurements in dBm, dB, and W
- Hi-resolution full-color LCD
- Up to 50 hours battery life (9V)
- USB interface for downloading stored readings
- FREE OWLView software
- NIST Traceable

* requires additional light source (see light sources below)

Optical Ports

OPTIONAL
Upgradeable to include length tester and/or VFL ports



UNIVERSAL DETECTOR PORT
Includes:
2.5mm adapter (SC,ST, FC)
1.25mm adapter (LC)

Key Specifications	
Detector Type	InGaAs
Calibrated Wavelengths[1]	**850**, 980, **1300**, **1310**, 1490, **1550**, 1625
Measurement Range	+5 to -70 dBm
Accuracy	±0.15 dB
Display Resolution	0.01 dB
Battery Life	Up to 50 hours (Lithium Polymer)
Connector Type	2.5mm/1.25mm universal
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.

Related Accessories

Cleaners see page 40
Universal Adapters see page 44
Chargers/Cables see page 41

Test Kits:

- Fiber OWL 7 Test Kits page 23

Light Sources*:

- WaveSource Pro (MM &SM) page 29

OTDRs*:

- OWLTrek 2 multimode page 9
- OWLTrek 2 singlemode page 8
- OWLTrek 2 Quad Kit OTDR page 7

Fiber Videoscopes*:

- VS-400-U page 39

Factory located in the Heartland of America

Fiber Optic Test Kits

SINGLEMODE / MULTIMODE

Sooner or later, installer jobs will require certification report testing!

Pricing

Model[1]	Power Meter	Light Source[1]	Multimode	Singlemode	Integrated VFL[3] Meter	Integrated VFL[3] Source	Auto Test[2]	Length	Price[4]
KF7-MS	F7	WPMS	850nm 1300nm	1310nm 1550nm	—	—	●	—	2410.00
KF7-MX	F7	WPMX	850nm 1300nm	—	—	—	●	—	1220.00
KF7-MV	F7	WPMV	850nm 1300nm	—	—	●	●	—	1440.00
KF7-SX	F7	WPSX	—	1310nm 1550nm	—	—	●	—	1990.00
KF7-SV	F7	WPSV	—	1310nm 1550nm	—	●	●	—	2210.00

1 Light source connector type: SC
2 Auto-testing allows users to measure two wavelengths simultaneously.
3 Visual Fault Locators may be integrated into meter and/or source. VFLs can also be purchased separately. Contact OWL for more information.
4 Price shown in US Dollars (USD).
Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Shown here: **KF7-MS**

Applications

- Full-featured Tier 1 fiber link certification
- Optical loss (attenuation) measurement
- Patch cord verification

Features

- Multimode and singlemode ready
- User-friendly Link Wizard
- PASS / FAIL in the field
- Simultaneous dual-wavelength measurements
- Prints official certification reports via OWLView certification software
- NIST Traceable

OWLView Software. Fiber OWL 7 Series test kits with OWLView software are essential for modern fiber optic installers.

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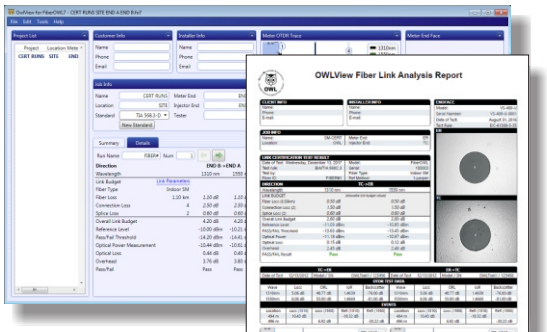


OWLVIEW SOFTWARE

TRI-REPORT

Fiber Videoscopes*:

- VS-400-U page 39

OTDRs*:

- OWLTrek 2 multimode page 9
- OWLTrek 2 singlemode page 8
- OWLTrek 2 Quad page 7

Related Accessories

Battery Chargers see page 41
Cleaners see page 40
Encircled Flux Cables see page 42
Universal Adapters see page 44

Factory located in the Heartland of America

Optical Power Meter

SINGLEMODE / MULTIMODE

Pricing		
WT-1	WaveTester optical power meter	495.00
WT-1V†	WaveTester VFL optical power meter	715.00

Applications

- Optical power measurement
- Optical loss (attenuation) measurement*
- Patch cord verification*
- Full-featured fiber link certification*
- FTTx link loss verification*

Features

- InGaAs photodetector
- Multimode and singlemode ready
- Universal detector port supports 2.5mm and 1.25mm connectors
- Set reference ("zeroing") function*
- Display absolute and relative power measurements in dBm, dB, and W
- Backlit LCD
- Over 250 hours battery life (9V)
- USB interface for downloading stored readings
- FREE OWL Reporter software
- NIST Traceable
- Optional integrated visual fault locator (VFL) port

† includes integrated visual fault locator (VFL) port
* requires additional light source

Light Sources*:

- Dual OWL (Multimode) page 32
- Laser OWL (Singlemode) page 34

Description

The WaveTester is a highly accurate hand-held optical power meter, capable of performing a wide range of functions from simple optical power and loss measurements to full-featured standards-based link certification. When used with OWL WaveSource fiber optic light sources, the WaveTester provides fiber optic professionals with automatic wavelength switching so that the power meter and light source are always set to the same wavelength, and automatic dual-wavelength storage cuts down on testing time and human error. Up to 200 fiber runs can be stored in memory which can be downloaded to a PC using FREE OWL Reporter software via the supplied download cable. A 2.5mm universal and 1.25mm universal connector port are included to connect to a wide variety of popular fiber optic connectors, including SC, ST, FC, LC, MU, and other SFF. As an option, a visual fault locator (VFL) can be integrated into the WaveTester. VFLs are useful for locating faults behind patch panels, and for identifying optical ports at the far end of a fiber link.

Key Specifications	
Detector Type	InGaAs
Calibrated Wavelengths[1]	**850**, **1300**, **1310**, 1490, **1550**
Measurement Range	+5 to -60 dBm
Accuracy	±0.20 dB
Display Resolution	0.01 dB
Battery Life	Up to 1000 hours (Re-chargeable Lithium Polymer)
Connector Type	2.5mm/1.25mm universal
Data Storage	Up to 200 data points
Displayed Measurement Units	dBm, dB, mW, μW
Display Type	Backlit LCD
Auto-shutdown	Yes
Operating Temperature	-10 to 55° C
Storage Temperature	-30 to 70° C
Dimensions	2.75 x 4.94 x 1.28 inches (69.85 x 125.48 x 32.51 mm)
Weight	10 oz. (284g)

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

Related Accessories

Universal Adapters see page 44
Battery Chargers see page 41
Download Cables see page 41

Factory located in the Heartland of America

Fiber Optic Test Kits

SINGLEMODE / MULTIMODE

Sooner or later, installer/contractor jobs will require certification report testing!

Pricing

Model[1]	Power Meter	Light Source[1]	Multimode	Singlemode	Auto Test[2]	Length[3]	Integrated VFL[4]	Price[5]
KIT-WT-WSMDxx	WT-1	WS-MDxx	850nm 1300nm	—	●	—	—	875.00
KIT-WT-WSMDVxx	WT-1	WS-MDVxx	850nm 1300nm	—	●	—	●	1085.00
KIT-WT-WSSDxx	WT-1	WS-SDxx	—	1310nm 1550nm	●	—	—	1610.00
KIT-WT-WSVSDxx	WT-1	WS-VSDxx	—	1310nm 1550nm	●	—	●	1815.00
KIT-WT-WSMDSDxx	WT-1	WS-MDSDxx	850nm 1300nm	1310nm 1550nm	●	—	—	2010.00
KIT-WT-D285xx	WT-1	DO2-85xx	850nm	—	—	—	—	670.00
KIT-WT-D2xx	WT-1	DO2xx	850nm 1300nm	—	—	—	—	915.00
KIT-WT-L213xx	WT-1	LO2-13xx	—	1310nm	—	—	—	875.00
KIT-WT-L2xx	WT-1	LO2xx	—	1310nm 1550nm	—	—	—	1230.00
KIT-WT-D285xx-L213xx	WT-1	DO2-85xx	850nm	—	—	—	—	1080.00
		LO2-13xx	—	1310nm				
KIT-WT-D2xx-L2xx	WT-1	DO2xx	850nm 1300nm	—	—	—	—	1670.00
		LO2xx	—	1310nm 1550nm				

1 xx : specify ST or SC depending upon preferred light source connector type.
2 Auto-testing allows users to measure two wavelengths simultaneously.
3 Stand-alone optical length testers can be purchased separately. Contact OWL for more information.
4 Light source includes integrated visual fault locator (VFL) port. VFLs can also be integrated into the WaveTester optical power meter, or purchased as a separate unit. Contact OWL for more information.
5 Price shown in US Dollars (USD).
Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Shown here: **KIT-WT-WSMDSDsc**

Applications

- Full-featured fiber link certification
- Optical loss (attenuation) measurement
- Patch cord verification

Features

- Multimode and singlemode ready
- Simultaneous dual-wavelength measurements
- User-friendly Link Wizard (via OWL Reporter software)
- Prints official certification reports
- NIST Traceable

Description

No professional fiber cable installer can afford to go without certification testing capability. Without it, installers/contractors will not be able to submit bids for important government and corporate fiber jobs, and spreadsheets or hand-written results are not acceptable for cabling system warranties because there is no assurance that the report is genuine or has not been tampered with. Not only are customers increasingly demanding printed certification reports for their fiber installations, signed certification reports are also proof of an installer's job well done in case of the quality of their work is being disputed. WaveTester Series test kits are ideal for the fiber optic professional who requires standards-based certification of multimode and/or singlemode fiber links, including TIA-568, ISO 11801, and Ethernet. When used with WaveSource series fiber optic light sources, the WaveTester's Auto-testing feature allows user to test two wavelengths simultaneously, cutting testing time nearly in half. Up to 200 test results can be internally stored in the WaveTester, which can then be later downloaded to a PC running OWL Reporter software using the supplied USB cable. OWL's user-friendly Link Wizard walks the user through the key parameters of the link under test — cabling standard, fiber type, fiber length, patch panels, splices, etc. — indicating a PASS or FAIL test result. Certification reports can then be printed, and data can be stored on hard disk for later retrieval.

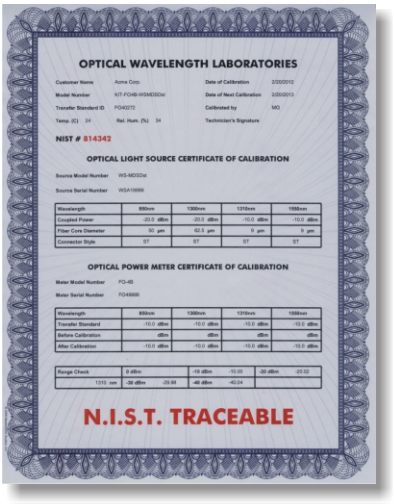
Related Accessories

Battery Chargers see page 41
Cleaners see page 40
Encircled Flux Cables see page 42
Universal Adapters see page 44

Factory located in the Heartland of America

Optical Power Meter

SINGLEMODE / MULTIMODE



Pricing		
ZO-2	ZOOM 2 optical power meter	320.00
ZO-2V†	ZOOM 2 VFL optical power meter	540.00

Applications

- Optical power measurement
- Optical loss (attenuation) measurement*
- Patch cord verification*
- FTTx link loss verification*

Features

- InGaAs photodetector
- Multimode and singlemode ready
- Universal detector port supports 2.5mm and 1.25mm connectors
- Set reference ("zeroing") function*
- Display absolute and relative power measurements in dBm, dB, and W
- Over 250 hours battery life (9V)
- NIST Traceable
- Optional integrated visual fault locator (VFL) port

† includes integrated visual fault locator (VFL) port
* requires additional light source

Light Sources*:

- Dual OWL (Multimode) page 32
- Laser OWL (Singlemode) page 34

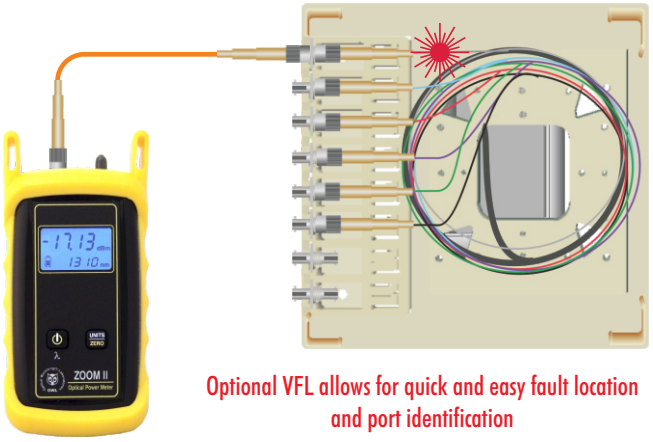
The ZOOM 2 is a highly accurate hand-held optical power meter, capable of measuring optical power and optical loss in a wide range of test environments, including LAN, MAN, WAN, Telco, CATV, Manufacturing, and Laboratory. A 2.5mm universal and 1.25mm universal connector port are included to connect to a wide variety of popular fiber optic connectors, including SC, ST, FC, LC, MU, and other SFF.

The ZOOM 2 is enclosed in high-impact plastic, and a protective rubber boot provides additional shock protection. Its easy-to-read 4-digit LCD display shows optical power in dBm and dB, selected wavelength, and battery power, and it has an intuitive 2-button interface for controlling power ON/OFF and wavelength selection.

As an option, a visual fault locator (VFL) can be integrated into the ZOOM 2. VFLs are useful for locating faults behind patch panels, and for identifying optical ports at the far end of a fiber link.

Key Specifications	
Detector Type	InGaAs
Calibrated Wavelengths[1]	**850**, **1300**, **1310**, 1490, **1550**
Measurement Range	+5 to -60 dBm
Accuracy	±0.20 dB
Display Resolution	0.01 dB
Battery Life	Up to 1000 hours (Re-chargeable Lithium Polymer)
Connector Type	2.5mm/1.25mm universal
Measurement Units	dBm, dB, mW, µW
Display Type	LCD
Auto-shutdown	Yes
Operating Temperature	-10 to 55° C
Storage Temperature	-30 to 70° C
Dimensions	2.75 x 4.94 x 1.28 inches (69.85 x 125.48 x 32.51 mm)
Weight	10 oz. (284g)

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



Optional VFL allows for quick and easy fault location and port identification

Related Accessories

Universal Adapters see page 44
Battery Chargers see page 41
Cleaning Accessories see page 40

Factory located in the Heartland of America

Fiber Optic Test Kits

SINGLEMODE / MULTIMODE

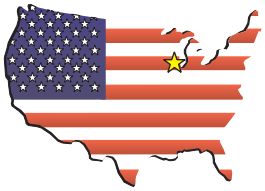
Pricing

Model[1]	Power Meter	Light Source[1]	Multimode	Singlemode	Auto Test[2]	Length[3]	Integrated VFL[4]	Price[5]
KIT-Z2-D285xx	Z0-2	D02-85xx	850nm	—	—	—	—	500.00
KIT-Z2-D2xx	Z0-2	D02xx	850nm 1300nm	—	—	—	—	750.00
KIT-Z2-L213xx	Z0-2	L02-13xx	—	1310nm	—	—	—	710.00
KIT-Z2-L2xx	Z0-2	L02xx	—	1310nm 1550nm	—	—	—	1060.00
KIT-Z2-D285xx-L213xx	Z0-2	D02-85xx	850nm	—	—	—	—	915.00
		L02-13xx	—	1310nm				
KIT-Z2-D2xx-L2xx	Z0-2	D02xx	850nm 1300nm	—	—	—	—	1505.00
		L02xx	—	1310nm 1550nm				
KIT-Z2S-D285xx	Z0-2S[6]	D02-85xx	850nm	—	—	—	—	385.00

1 xx : specify ST or SC depending upon preferred light source connector type.
2 Auto-testing allows users to measure two wavelengths simultaneously.
3 Stand-alone optical length testers can be purchased separately. Contact OWL for more information.
4 Light source includes integrated visual fault locator (VFL) port. VFLs can also be integrated into ZOOM 2 Series optical power meters, or purchased as a separate unit. Contact OWL for more information.
5 Price shown in US Dollars (USD).
6 Z0-2S optical power meters are calibrated at 650, 850, and 980nm.

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Shown here: **KIT-Z2-D2sc**



Factory located in the Heartland of America

Applications

- Optical loss (attenuation) measurement
- FTTx link verification
- Patch cord verification

Features

- Economical option for quick attenuation (loss) measurement of multimode and/or singlemode networks
- Easy-to-read 4-digit 7-segment LCD display
- Stores reference values for all calibrated wavelengths
- Intuitive 2-button interface
- On-screen wavelength, measurement units, and low battery indicator
- NIST Traceable

Description

ZOOM 2 Series test kits are ideal for fiber optic professionals who require quick and easy optical power and loss measurements of multimode and/or singlemode networks. The easy-to-read LCD display shows optical power/loss measurements in dBm, dB, mW, and uW, as well as selected wavelength and battery indicator. The intuitive 2-button interface on both units allow for easy wavelength selection and setting of optical references (or "zeroing"). References can be set for all calibrated wavelengths.

Related Accessories

Battery Chargers see page 41
Cleaners see page 40
Universal Adapters see page 44

FIBER OPTIC LIGHT SOURCE COMPARISON CHART

Light Source	DUAL OWL	DUAL OWL PRO	LASER OWL	LASER OWL PRO	WAVESOURCE	WAVESOURCE PRO
	page 32	page 31	page 34	page 33	page 30	page 29
FEATURES						
NIST Traceable	✓	✓	✓	✓	✓	✓
Connector Type	SC, ST		SC, ST, FC			
Multimode	✓	✓			✓	✓
Singlemode			✓	✓	✓	✓
Quad					✓	✓
Wavelength Auto-switching					✓	✓
Optional VFL (on single-port units)	✓	✓	✓	✓	✓	✓
Display	7-segment LED					
Battery	Li Polymer Re-chargeable					
Battery Life	up to 120 hours	up to 150 hours	up to 120 hours	up to 150 hours	up to 120 hours	up to 150 hours
Dimensions	4.94 x 2.75 x 1.28 in.				2.87 x 4.42 x 1.25 in.	
Weight	10 ounces					

LIGHT SOURCE WAVELENGTH SPECIFICATIONS

Fiber Type	Multimode Sources		Singlemode Sources	
Transmitter Type	LED		FP Laser	
Output Power	-20 dBm		-10 dBm	
Initial Accuracy	± 0.1 dB		± 0.1 dB	
Center Wavelength	850 ± 30nm	1300 ± 50nm	1310 ± 20nm	1550 ± 30nm
Spectral Width	50nm	180nm	2nm	2nm
Typical 1-hour Drift	0.05 dB	0.05 dB	0.05 dB	0.04 dB

TEST KIT INFORMATION

	ZOOM 2 SERIES	WAVETESTER SERIES	INSTALLER SERIES	FIBER OWL 7 SERIES	FIBER OWL 7X SERIES	FIBER OWL 7V SERIES	FIBER OWL 7+ SERIES
	page 27	page 25	page 16	page 23	page 21	page 19	page 14,15
Dual OWL	✓	✓					
Dual OWL Pro				✓	✓	✓	
Laser OWL	✓	✓					
Laser OWL Pro				✓	✓	✓	
WaveSource		✓					
WaveSource Pro			✓	✓	✓	✓	✓

Fiber Optic Light Source

SINGLEMODE / MULTIMODE

Description

WaveSource Pro series fiber optic light sources offer fiber optic professionals a cost-effective option for high quality multimode and/or singlemode fiber testing in a compact, handheld package, include a quad-wave version with all four wavelengths in the same unit!

The sources are simple to operate with an intuitive four-button interface controlling power, port selection, transmission mode, and wavelength/AUTO selection.

When used with Fiber OWL 7 series power meters, AUTO mode allows simultaneous dual-wavelength testing, cutting testing time in half over single-wavelength sources.

LED indicators highlight the selected source port and verify that battery power is sufficient to maintain the calibrated output power. Wavelength is indicated by 7-segment LED display.

WaveSource Pro series light sources come configured with SC connector ports (other connector types available upon request), as well as a protective rubber boot, re-chargeable Lithium Polymer battery and charger, NIST-traceable certificate of calibration, and CD-ROM with operations manual.

WaveSource Pro

Pricing

WaveSource Series Light Sources

Model #	Fiber Type MM	Fiber Type SM	VFL	Price
WPMS	●	●		1645.00
WPMX	●			455.00
WPMV	●		●	675.00
WPSX		●		1225.00
WPSV		●	●	1445.00

Features

- Multimode, Singlemode, Quad, and VFL options
- Temperature-stabilized output
- Multimode: 850/1300nm (50 & 62.5 μm)
- Singlemode: 1310/1550nm
- Quad: 850/1300/1310/1550nm
- AUTO wavelength switching
- SC connectors (other types available upon request)
- Intuitive 4-button interface
- Battery power indicator LED
- Re-chargeable Lithium Polymer battery
- NIST Traceable

Applications

- Optical loss measurement*
- Fiber optic link certification*
- Visual fault location†
- Visual fiber identification†

* When used with an optical power meter

† Requires VFL option

Key Specifications		
Output Type	Multimode	Singlemode
Launch Method	LED	FP Laser
Center Wavelength	**850 nm:** 850 ± 30 nm **1300 nm:** ± 50 nm	**1310 nm:** 1310 ± 20 nm **1550 nm:** 1550 ± 30 nm
Spectral Width	**850 nm:** 50 nm **1300 nm:** 180 nm	**1310nm:** 2 nm **1550nm:** 2 nm
Output Power	-20 dBm	-10 dBm
Output Modes	CW / Modulated	CW / Modulated
Initial Accuracy	± 0.1 dB	± 0.1 dB
Battery Life	Up to 150 hours (Rechargeable Li Polymer)	
Operating Temperature	0 to 55° C	
Storage Temperature	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)	

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Included in the following test kits:

- Fiber OWL 7 series page 23
- Fiber OWL 7X series page 21
- Fiber OWL 7V series page 19
- Fiber OWL 7+ series page 14,15
- Installer Series page 16

Related Accessories

Battery Chargers see page 41
Cleaners see page 40
Encircled Flux Cables see page 42

Factory located in the Heartland of America

Fiber Optic Light Source

SINGLEMODE / MULTIMODE

Description

WaveSource series fiber optic light sources offer fiber optic professionals a cost-effective option for high quality multimode and/or singlemode fiber testing in a compact, handheld package, include a quad-wave version with all four wavelengths in the same unit!

The sources are simple to operate with an intuitive four-button interface controlling power, port selection, transmission mode, and wavelength/AUTO selection.

When used with Fiber OWL 4, Micro OWL 2, and WaveTester power meters, AUTO mode allows simultaneous dual-wavelength testing, cutting testing time in half over single-wavelength sources.

LED indicators highlight the selected source port and verify that battery power is sufficient to maintain the calibrated output power. Wavelength is indicated by 7-segment LED display.

WaveSource series light sources come configured with your choice of SC, ST, or FC connector ports, as well as a protective rubber boot, re-chargeable Lithium Polymer battery and charger, NIST-traceable certificate of calibration, and CD-ROM with operations manual.

WaveSource

Pricing

WaveSource Series Light Sources

Model #	Fiber Type MM	Fiber Type SM	VFL	Price
WS-MDSDxx*	●	●		1620.00
WS-MDxx*	●			425.00
WS-MDVxx*	●		●	645.00
WS-SDxx*		●		1195.00
WS-SDVxx*		●	●	1415.00

Features

- Multimode, Singlemode, Quad, and VFL options
- Temperature-stabilized output
- Multimode: 850/1300nm (50 & 62.5 μm)
- Singlemode: 1310/1550nm
- Quad: 850/1300/1310/1550nm
- AUTO wavelength switching
- SC, ST, or FC connector options*
- Intuitive 4-button interface
- Battery power indicator LED
- Re-chargeable Lithium Polymer battery
- NIST Traceable

Applications

- Optical loss measurement*
- Fiber optic link certification*
- Visual fault location†
- Visual fiber identification†

* When used with an optical power meter
† Requires VFL option

Included in the following test kits:

- WaveTester series page 25

Key Specifications		
Output Type	Multimode	Singlemode
Launch Method	LED	FP Laser
Center Wavelength	**850 nm:** 850 ±30 nm **1300 nm:** ± 50 nm	**1310 nm:** 1310 ± 20 nm **1550 nm:** 1550 ± 30 nm
Spectral Width	**850 nm:** 50 nm **1300 nm:** 180 nm	**1310nm:** 2 nm **1550nm:** 2 nm
Output Power	-20 dBm	-10 dBm
Output Modes	CW / Modulated	CW / Modulated
Initial Accuracy	± 0.1 dB	± 0.1 dB
Battery Life	Up to 120 hours (Rechargeable Li Polymer)	
Operating Temperature	0 to 55° C	
Storage Temperature	0 to 75° C	
Dimensions	2.75 x 4.94 x 1.28 inches (69.85 x 125.48 x 32.51 mm)	
Weight	10 oz. (284g)	

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Related Accessories

Battery Chargers see page 41
Cleaners see page 40
Encircled Flux Cables see page 42

Factory located in the Heartland of America

Fiber Optic Light Source

MULTIMODE

Description

Dual OWL Pro series fiber optic light sources offer fiber optic professionals a cost-effective option for high quality multimode fiber testing in a compact, handheld package.

The temperature-compensated outputs are calibrated to couple -20dBm of optical power into multimode fiber. Light source options are offered with either 850nm or 1300nm, or both 850nm and 1300nm sources installed. Single-port versions can also include a VFL option.

The sources are simple to operate with an intuitive two-button interface controlling power and port selection. LED indicators highlight the selected source port and verify that battery power is sufficient to maintain the calibrated output power. Wavelength is indicated by 7-segment LED display.

Dual OWL Pro series light sources come configured with your choice of SC or ST connector ports, as well as a protective rubber boot, re-chargeable Lithium Polymer battery and charger, NIST-traceable certificate of calibration, and CD-ROM with operations manual.

Dual OWL Pro

Pricing

Dual OWL Pro Series Multimode Light Sources

Model #	Wave (nm) 850	Wave (nm) 1300	VFL	Price
DP8X	●			210.00
DP8V	●		●	430.00
DP3X		●		375.00
DP3V		●	●	595.00
DP83	●	●		455.00

Features

- Multimode LED Source
- Temperature-stabilized output
- 850 and/or 1300nm wavelength options
- Integrated VFL option (single-wave sources only)
- SC connectors
- Intuitive 2-button interface
- Battery power indicator LED
- Re-chargeable Lithium Polymer battery
- NIST Traceable

Applications

- Optical loss measurement*
- Fiber optic link certification*
- Visual fault location†
- Visual fiber identification†

* When used with an optical power meter

† Requires VFL option

Included in the following test kits:

- Fiber OWL 7 series page 23

Key Specifications	
Series	Dual OWL Pro Series
Fiber Type	Multimode
Launch Method	LED
Center Wavelength	**850 nm:** 850 ± 30 nm **1300 nm:** 1300 ± 50 nm
Spectral Width	**850 nm:** 50 nm **1300 nm:** 180 nm
Output Power	-20 dBm
Initial Accuracy	0.1 dB
Battery Life	up to 150 hours (Re-chargeable Lithium Polymer)
Operating Temperature	0 to 55° C
Storage Temperature	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)

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Related Accessories

Battery Chargers see page 41
Cleaners see page 40
Encircled Flux Cables see page 42

Factory located in the Heartland of America

Fiber Optic Light Source

MULTIMODE

Description

Dual OWL series fiber optic light sources offer fiber optic professionals a cost-effective option for high quality multimode fiber testing in a compact, handheld package.

The temperature-compensated outputs are calibrated to couple -20dBm of optical power into multimode fiber. Light source options are offered with either 850nm or 1300nm, or both 850nm and 1300nm sources installed. Single-port versions can also include a VFL option.

The sources are simple to operate with an intuitive two-button interface controlling power and port selection. LED indicators highlight the selected source port and verify that battery power is sufficient to maintain the calibrated output power. Wavelength is indicated by 7-segment LED display.

Dual OWL series light sources come configured with your choice of SC or ST connector ports, as well as a protective rubber boot, re-chargeable Lithium Polymer battery and charger, NIST-traceable certificate of calibration, and CD-ROM with operations manual.

Dual OWL

Key Specifications	
Series	Dual OWL Series
Fiber Type	Multimode
Launch Method	LED
Center Wavelength	**850 nm:** 850 ± 30 nm **1300 nm:** 1300 ± 50 nm
Spectral Width	**850 nm:** 50 nm **1300 nm:** 180 nm
Output Power	-20 dBm
Initial Accuracy	0.1 dB
Battery Life	up to 120 hours (Re-chargeable Lithium Polymer)
Operating Temperature	0 to 55° C
Storage Temperature	0 to 75° C
Dimensions	2.75 x 4.94 x 1.28 inches (69.85 x 125.48 x 32.51 mm)
Weight	10 oz. (284g)

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Pricing

Dual OWL Series Multimode Light Sources

Model #	Wave (nm) 850	1300	VFL	Price
DO2-85st	●			175.00
DO2-85Vst	●		●	375.00
DO2-85sc	●			205.00
DO2-85Vsc	●		●	405.00
DO2-13st		●		360.00
DO2-13Vst		●	●	560.00
DO2-13sc		●		375.00
DO2-13Vsc		●	●	575.00
DO2st	●	●		425.00
DO2sc	●	●		465.00

Features

- Multimode LED Source
- Temperature-stabilized output
- 850 and/or 1300nm wavelength options
- Integrated VFL option (single-wave sources only)
- ST or SC connector options
- Intuitive 2-button interface
- Battery power indicator LED
- Re-chargeable Lithium Polymer battery
- NIST Traceable

Applications

- Optical loss measurement*
- Fiber optic link certification*
- Visual fault location†
- Visual fiber identification†

* When used with an optical power meter
† Requires VFL option

Included in the following test kits:

- ZOOM 2 series page 27
- WaveTester series page 25

Related Accessories

Battery Chargers see page 41
Cleaners see page 40
Encircled Flux Cables see page 42

Factory located in the Heartland of America

Fiber Optic Light Source

SINGLEMODE

Description

Laser OWL Pro series fiber optic laser sources offer fiber optic professionals a cost-effective option for high quality singlemode fiber testing in a compact, handheld package.

The temperature-compensated outputs are calibrated to couple -10dBm of optical power into singlemode fiber. Light source options are offered with either 1310nm or 1550nm, or both 1310nm and 1550nm sources installed. Single-port versions can also include a VFL option. High-power versions (0 dBm) are available.

The sources are simple to operate with an intuitive two-button interface controlling power and port selection. LED indicators highlight the selected source port and verify that battery power is sufficient to maintain the calibrated output power. Wavelength is indicated by 7-segment LED display.

Laser OWL Pro series light sources come configured with your choice of SC, ST, or FC connector ports, as well as a protective rubber boot, re-chargeable Lithium Polymer battery and charger, NIST-traceable certificate of calibration, and CD-ROM with operations manual.

Laser OWL Pro

Key Specifications	
Series	Laser OWL Pro Series
Fiber Type	Singlemode
Launch Method	FP Laser
Center Wavelength	**1310 nm:** 1310 ± 20 nm **1550 nm:** 1550 ± 30 nm
Spectral Width	**1310 nm:** 2 nm **1550 nm:** 2 nm
Output Power	-10 dBm
Initial Accuracy	0.1 dB
Battery Life	up to 150 hours (Re-chargeable Lithium Polymer)
Operating Temperature	0 to 55° C
Storage Temperature	0 to 75° C
Dimensions	2.87 x 4.42 x 1.25 inches (72.9 x 112.3 x 31.8 mm)
Weight	10 oz. (284g)

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Pricing

Laser OWL Pro Series Singlemode Laser Sources				
	Wave (nm)			
Model #	1310	1550	VFL	Price
LP3X	●			465.00
LP3V	●		●	685.00
LP5X		●		560.00
LP5V		●	●	780.00
LP35	●	●		1225.00
High-power (0 dBm) Option				
LP3X-HP	●			905.00
LP3V-HP	●		●	1125.00
LP5X-HP		●		1125.00
LP5V-HP		●	●	1345.00
LP35-HP	●	●		1625.00

Features

- Singlemode Laser Source
- Temperature-stabilized output
- 1310 and/or 1550nm wavelength options
- High-power (0 dBm) versions available
- Integrated VFL option (single-wave sources only)
- SC, ST, or FC connector options
- Intuitive 2-button interface
- Battery power indicator LED
- Re-chargeable Lithium Polymer battery
- NIST Traceable

Applications

- Optical loss measurement*
- Fiber optic link certification*
- Visual fault location†
- Visual fiber identification†

* When used with an optical power meter

† Requires VFL option

Included in the following test kits:

- Fiber OWL 7 series page 23

Related Accessories

Battery Chargers see page 41

Cleaners see page 40

Factory located in the Heartland of America

Fiber Optic Light Source

SINGLEMODE

Description

Laser OWL series fiber optic laser sources offer fiber optic professionals a cost-effective option for high quality singlemode fiber testing in a compact, handheld package.

The temperature-compensated outputs are calibrated to couple -10dBm of optical power into singlemode fiber. Light source options are offered with either 1310nm or 1550nm, or both 1310nm and 1550nm sources installed. Single-port versions can also include a VFL option. High-power versions (0 dBm) are available.

The sources are simple to operate with an intuitive two-button interface controlling power and port selection. LED indicators highlight the selected source port and verify that battery power is sufficient to maintain the calibrated output power. Wavelength is indicated by 7-segment LED display.

Laser OWL series light sources come configured with your choice of SC, ST, or FC connector ports, as well as a protective rubber boot, re-chargeable Lithium Polymer battery and charger, NIST-traceable certificate of calibration, and CD-ROM with operations manual.

Laser OWL

Key Specifications	
Series	Laser OWL Series
Fiber Type	Singlemode
Launch Method	FP Laser
Center Wavelength	**1310 nm:** 1310 ± 20 nm **1550 nm:** 1550 ± 30 nm
Spectral Width	**1310 nm:** 2 nm **1550 nm:** 2 nm
Output Power	-10 dBm
Initial Accuracy	0.1 dB
Battery Life	up to 120 hours (Re-chargeable Lithium Polymer)
Operating Temperature	0 to 55° C
Storage Temperature	0 to 75° C
Dimensions	2.75 x 4.94 x 1.28 inches (69.85 x 125.48 x 32.51 mm)
Weight	10 oz. (284g)

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Pricing

Laser OWL Series Singlemode Laser Sources				
	Wave (nm)			
Model #	1310	1550	VFL	Price
LO2-13xx	●			435.00
LO2-13Vxx	●		●	635.00
LO2-15xx		●		530.00
LO2-15Vxx		●	●	730.00
LO2xx	●	●		795.00
High-power (0 dBm) Option				
LO2-13xx-HP	●			875.00
LO2-13Vxx-HP	●		●	1095.00
LO2-15xx-HP		●		1095.00
LO2-15Vxx-HP		●	●	1315.00
LO2xx-HP	●	●		1595.00

Features

- Singlemode Laser Source
- Temperature-stabilized output
- 1310 and/or 1550nm wavelength options
- High-power (0 dBm) versions available
- Integrated VFL option (single-wave sources only)
- SC, ST, or FC connector options
- Intuitive 2-button interface
- Battery power indicator LED
- Re-chargeable Lithium Polymer battery
- NIST Traceable

Applications

- Optical loss measurement*
- Fiber optic link certification*
- Visual fault location†
- Visual fiber identification†

* When used with an optical power meter

† Requires VFL option

Included in the following test kits:

- ZOOM 2 series page 27
- WaveTester series page 25

Related Accessories

Battery Chargers see page 41

Cleaners see page 40

Factory located in the Heartland of America

Precision-Coupled Visual Fault Locator

SINGLEMODE / MULTIMODE

Description

The PCVFL (precision-coupled visual fault locator) is a light-weight, hand-held fiber tester used to quickly troubleshoot faults in the near-end of both multimode and singlemode fibers, as well as for port identification and fiber continuity. The PCVFL holds its own against the best visual fault locators (VFL) in the industry.

As with any quality VFL, the PCVFL uses a precision-coupled laser diode to inject a maximum amount of optical energy into an optical fiber. A multi-million dollar semiconductor machine is used in the manufacture of a special precision coupled micro sized ball lens, which focuses the high-intensity red laser at the optimum point of the optical fiber core. Since low-cost laser light pens do not use precision-coupling optics, their red lasers are not focused at the correct point, and thus produce sub-par results.

Pricing		
PCVFL-1	Precision-Coupled Visual Fault Locator	325.00

Applications

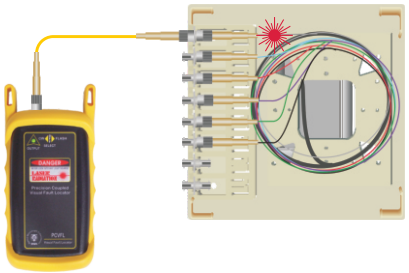
- Visual Fault Location
- Visual Fiber Identification

Features

- 650nm laser source
- Multimode / singlemode ready
- Continuous Wave (CW) and flashing output modes
- Visual range: up to 5 kilometers
- 15 hour battery life
- Low battery indicator
- 2.5mm universal connector port

Factory located in the Heartland of America

Visual Fault Location

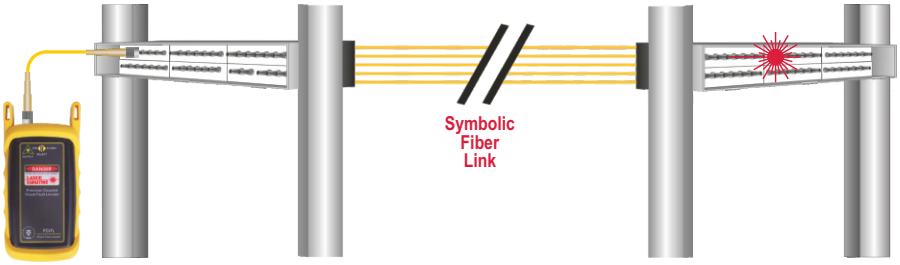


The PCVFL can be used as a troubleshooting tool to determine if there are breaks, micro-bends, or any other anomalies causing excessive loss within the first few feet of the fiber under test located in the splice tray. The laser diode in the PCVFL injects high-intensity red laser light into the near-end connector. If this light encounters any anomalies, such as a break or a micro-bend, the light is deflected into the fiber jacket, producing a red glow at the point of the anomaly. Some optical fiber jackets are colored so that it is difficult to see red light shining through, so it is recommended to keep the room light at a minimum when using the PCVFL for visual fault location.

Warning

Bright red visible laser radiation when power switch is set to the ON position – Avoid eye exposure to direct or scattered radiation

Port Identification



VFLs can help take the guesswork out of identifying ports in a fiber patch panel or checking polarity of a duplex connector. Connect the PCVFL to one end of a fiber link, and the high-intensity, precision-coupled red laser diode will allow the user to visually identify the port by the presence of a red glow emitting from the connector on the other end. The PCVFL allows for visual port identification of fiber optic links up to 5 kilometers (3.1 miles) away!

Related Accessories

Cleaners see page 40

Fiber Optic Talk Sets

MULTIMODE

Description

HOOTS stands for High Output Optical Talk Set. **HOOTS** Series fiber optic talk sets convert your voice into optical signals and provide full-duplex communications using a pair of terminated multimode fibers, and offer a reliable alternative to wireless communications systems due to their electromagnetic immunity.

There are several advantages to using a fiber talk set versus wireless devices such as walkie talkies:

1) when I.T. personnel are setting up voice or data equipment, they may give away passwords and secret net addresses over un-secure walkie-talkie channels to a nearby neighborhood of listening ears;

2) everyone is buying these cheap walkie-talkies from the local discount stores, making it much more difficult to find free channels over the air waves; and

3) the noise and walls in many plants inhibit radio transmissions. Fiber communications is more secure and most of all, immune to the effects of EMI/RFI.

Two models are available: 850nm and 1300nm. Each set comes with a pair of headsets and headset adapters, hard-shell carrying case, protective rubber boots, 9-volt batteries, NIST-traceable certificate of calibration, and CD-ROM with operations manual.

Key Specifications		
Model	HO-850	HO-1300
Fiber Type	Multimode	Multimode
Launch Method	LED	LED
Center Wavelength	850 + 30 / -10 nm	1300 ± 50 nm
Spectral Width	50 nm	180 nm
Output Power	-20 dBm	
Receiver Dynamic Range	20 dB (-20 to -40 dBm)	
Battery Life	up to 20 hours (9V)	
Operating Temperature	0 to 55° C	
Storage Temperature	0 to 75° C	
Dimensions (each unit)	2.75 x 4.94 x 1.28 inches (69.85 x 125.48 x 32.51 mm)	
Weight (full set)	32 oz. (907g)	

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Related Accessories

Cleaners see page 40

Pricing		
HO-850	HOOTS 850 multimode talk set	540.00
HO-1300	HOOTS 1300 multimode talk set	990.00

Applications

- Full duplex voice communications using a pair of multimode (50 & 62.5μm) optical fibers

Features

- Each talkset includes a pair of talkset units
- Offers secure communications that is immune to EMI/RFI
- Automatic volume control
- Wide receiver dynamic range
- Long battery life
- Signal level indicator
- Battery level indicator
- 850nm or 1300nm option
- ST connectors
- Headsets and headset adapters included
- Intuitive operation

To calculate talkset distance: $D = R / A$

where: D = talkset distance
R = dynamic range (HOOTS = 20 dB)
A = typical fiber attenuation at specified λ

Example (λ = 1300nm, R = 20 dB, A = 1.0 dB/km):
$D = 20\ dB / (1.0\ dB/km) = 20\ km$

Factory located in the Heartland of America

Fiber Optic Talk Sets

SINGLEMODE

Pricing		
LH-1310	Laser HOOTS 1310 singlemode talk set	1310.00
LH-1550	Laser HOOTS 1550 singlemode talk set	1860.00

Applications

- Full duplex voice communications using a pair of singlemode optical fibers

Features

- Each talkset includes a pair of talkset units
- Offers secure communications that is immune to EMI/RFI
- Automatic volume control
- Wide receiver dynamic range
- Long battery life
- Signal level indicator
- Battery level indicator
- 1310nm or 1550nm option
- ST connectors
- Headsets and headset adapters included
- Intuitive operation

To calculate talkset distance: $D = R/A$

where: D = talkset distance
R = dynamic range (Laser HOOTS = 20 dB)
A = typical fiber attenuation at specified λ

Example (λ = 1310nm, R = 20 dB, A = 1.0 dB/km):
D = 20 dB / (1.0 dB/km) = 20 km

Description

HOOTS stands for High Output Optical Talk Set. Laser HOOTS Series fiber optic talk sets convert your voice into optical signals and provide full-duplex communications using a pair of terminated singlemode fibers, and offer a reliable alternative to wireless communications due to their electromagnetic immunity.

There are several advantages to using a fiber talk set versus wireless devices such as walkie talkies:

1) when I.T. personnel are setting up voice or data equipment, they may give away passwords and secret net addresses over un-secure walkie-talkie channels to a nearby neighborhood of listening ears;

2) everyone is buying these cheap walkie-talkies from the local discount stores, making it much more difficult to find free channels over the air waves; and

3) the noise and walls in many plants inhibit radio transmissions. Fiber communications is more secure and most of all, immune to the effects of EMI/RFI.

Two models are available: 1310nm and 1550nm. Each set comes with a pair of headsets and headset adapters, hard-shell carrying case, protective rubber boots, 9-volt batteries, NIST-traceable certificate of calibration, and CD-ROM with operations manual.

Key Specifications		
Model	LH-1310	LH-1550
Fiber Type	Singlemode	Singlemode
Launch Method	FP Laser	FP Laser
Center Wavelength	1310 ± 20 nm	1550 ± 30 nm
Spectral Width	2 nm	2 nm
Output Power	-10 dBm	
Receiver Dynamic Range	20 dB (-10 to -30 dBm)	
Battery Life	up to 20 hours (9V)	
Operating Temperature	0 to 55° C	
Storage Temperature	0 to 75° C	
Dimensions (each unit)	2.75 x 4.94 x 1.28 inches (69.85 x 125.48 x 32.51 mm)	
Weight (full set)	32 oz. (907g)	

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Factory located in the Heartland of America

Related Accessories

Cleaners see page 40

Optical Length Testers

SINGLEMODE / MULTIMODE

BOLT-NL

VOLT-1

Description

OWL optical length testers offers a unique, low-cost alternative for users who need to measure the length of optical fibers. Fiber installations are increasingly required to have fiber length measurements to comply with bid requirements. Rather than purchasing a costly new certification test set, these items can be added to an installer's existing fiber test kit. OWL length testers use a "round-robin" method of measuring fiber length. The round trip time that the light takes to travel through both fibers is converted to length in kilometers, then divided by two to show the end-to-end length of the fiber cable. This method of length testing provides accurate measurements, and saves time and money, since there is no need to measure the length of all the fibers; the length measurement can be applied to all fibers in the cable.

Optical measurement of fiber links is especially useful when cable jacket markings are not visible, or when the fiber link runs through multiple interconnects, requiring each segment to be inspected for jacket markings. Optical measurement of fiber produces accurate results without the need for jacket markings or manual length measurement.

Key Specifications		
Model	BOLT-NL	VOLT-1
Output Type	FP Laser	Red Laser
Output Wavelength	1310nm	650nm
Measurement Range	up to 25 kilometers	up to 1.5 kilometers
Fiber Type	Multimode / Singlemode	
Display Resolution	0.001 km	
Measurement Accuracy	± 2.5 meters	
Connector Type	ST	
Display Type	4-digit red LED	
Battery Life	Up to 10 hours (9V)	
Dimensions	2.75 x 4.94 x 1.28 inches (69.9 x 125.5 x 32.5 mm)	
Weight	10 oz. (284g)	
Additional Function	2 kHz tone for use with Live Fiber Identifiers	Visual fault location Visual fiber identification

Conforms to the Harmonized European Standards EN 61326-1 and EN 61010-1.

Related Accessories

Cleaners see page 40

Pricing		
BOLT-NL	Beaming Optical Length Tester	635.00
VOLT-1	Visual Optical Length Tester	435.00

Applications

BOLT-NL

- Optical length measurement
- 2 kHz tone for use with Live Fiber Identifiers

VOLT-1

- Optical length measurement
- Visual Fault Locator (VFL)
- Visual Fiber Identification

APPLICATION NOTE: To avoid confusion, OWL optical length testers are is NOT designed to measure distance to a fault like an OTDR.

OWL optical length testers are designed to measure the end-to-end length of a fiber cable. A pair of terminated fibers – looped back at the far end of the cable – are required for end-to-end fiber cable length measurement.

Watch OWL's "OPTICAL LENGTH MEASUREMENT" video (T1052) for more information about optical length measurement methods.

Features

BOLT-NL

- Measures the length of both multimode and singlemode fibers up to 25 kilometers
- ± 2.5 meter accuracy
- Generates a 2 kHz tone for use with fiber identifiers

VOLT-1

- Measures the length of both multimode and singlemode fibers up to 1.5 kilometers
- ± 2.5 meter accuracy
- Red laser doubles as visual fault locator and visual fiber identifier

Factory located in the Heartland of America

400x Fiber Optic Field Inspection Microscope

SINGLEMODE / MULTIMODE

400x Singlemode / Multimode Field Inspection Scope

A dependable connector endface inspection scope is a vital part of any fiber optic professional's tool kit. Inspecting patch cord connector endfaces before attaching them to equipment or patch panels saves time and effort, and ensures a clean, quality connection. This 400x fiber inspection scope is an excellent low-cost option for inspecting both multimode and singlemode fiber connectors, and includes a protective infrared (IR) filter designed for eye safety. Connector adapters for 2.5 and 1.25mm ferrule diameters are also included.

Pricing		
FS400	400X fiber optic field inspection scope	140.00

Features

- 400x magnification
- Multimode and singlemode fiber connector inspection
- PC, UPC, and APC
- Protective IR filter for eye safety
- 2.5mm and 1.25mm ferrule adapters

400x USB Video Inspection Scope

A dependable connector endface inspection scope is a vital part of any fiber optic professional's tool kit. Inspecting patch panels or equipment ports before connecting a patch cable ensures a clean, quality connection. The VS400-U video inspection scope allows users to view connector endfaces on a PC or laptop screen, preventing harmful invisible light from entering the users eye, and ensuring maximum eye protection,while showing fiber endface anomalies in great detail. Images are stored on hard disk, and can be retrieved for later playback. These endface images can also be imported into certification and/or OTDR results in OWLView software to ensure endface quality meets the requirements of the IEC 61300-3-35 endface quality standard.

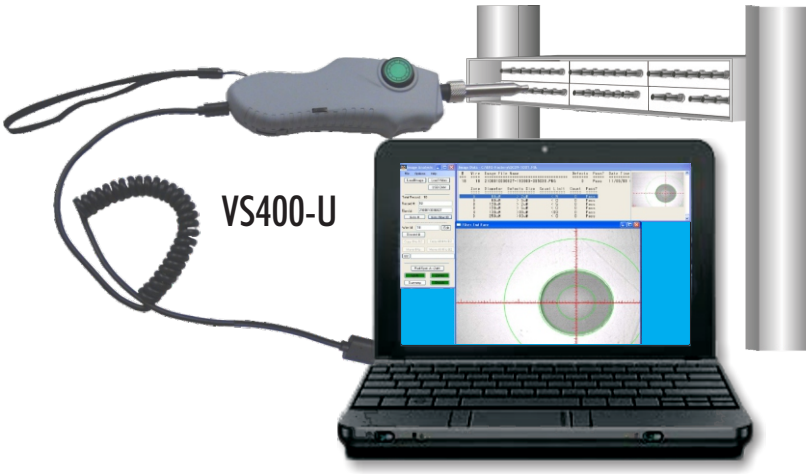
LETS YOU SEE INSIDE PATCH PANEL!

Pricing		
VS400-U	400x USB video inspection scope	1315.00
Quantity discounts negotiable		

Features

- 400x magnification for use in both multimode and singlemode fiber endface analysis
- High level of eye safety since the user does not directly view the fiber endface
- Endfaces can be viewed on PC or laptop screen, enabling greater viewing detail
- Endfaces can be recorded on PC for later playback

HELPS PREVENT EYE INJURY



(laptop not included)

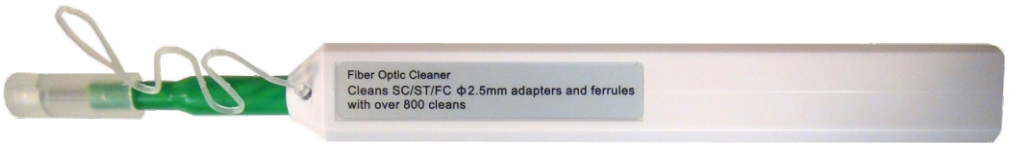
Cleaning Supplies

Dirty patch cord connectors and equipment ports can cause unreliable test results, thus it is vitally important to keep connectors and ports clean. Cleanliness is especially important during OTDR and Optical Return Loss (ORL) measurements. OWL offers cleaning supplies to ensure that patch cords and equipment ports are kept clean, thus ensuring accurate and reliable test results.

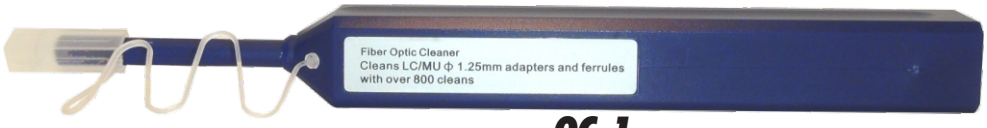
Ferrule Connector Cleaners

The OWL connector ferrule cleaner is used to clean the endface of a fiber optic connector. Each FCC-2 and FCC-2R can be used for up to 500 wipes.

Pricing		
FCC-2	OWL fiber connector cleaner	50.00
FCC-2R	Tape refill for FCC-2	20.00



OC-2



OC-1

In-adaptor Ferrule Cleaners

OC series pen-style in-adaptor ferrule cleaners implement a new popular and innovative product design for cleaning inside connector ports. Models include a version for 2.5mm ports, and one for 1.25mm ports.

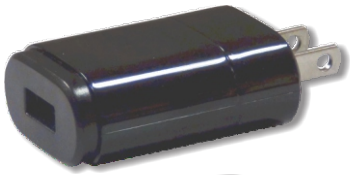
Pricing		
OC-2	2.5mm in-adapter ferrule cleaner	50.00
OC-1	1.25mm in-adapter ferrule cleaner	60.00

Download Cables

USB-1 OWLTrek OTDRs, and Fiber OWL 4, Micro OWL 2, and WaveTester optical power meters come configured with a USB port for connection to a PC for downloading data.

DB9-D Previous models of certain OWL optical power meters use this RS-232 serial cable for connection to a PC for downloading stored data. The meter connection is a 1/8" phono plug, and the PC connection is a DB9 female serial connector.

Pricing		
USB-1	Replacement USB download cable	9.00
DB9-D	Duplex serial download cable	15.00



WS-USB
(appearance may vary)

Power Transformers

WS-USB USB power charger (**USB-1** cable not included)

Certain legacy models of OWL test equipment are equipped with a non-USB charger port that can be used for continuous wall operation or for charging re-chargeable 9V batteries.

WS-9V-1.3 Fiber OWL 4 BOLT series power meters, and Dual OWL, Laser OWL, and WaveSource light sources

WS-9V-2.1 ZOOM 2, WaveTester and Micro OWL 2 series power meters

CAUTION: using transformers while non-rechargeable batteries are installed may produce an unsafe condition, and may cause harm to the equipment or the user.

WS-9V-1.3

WS-9V-2.1

Pricing		
WS-USB	USB wall transformer (US only)	20.00
WS-9V-1.3	9v wall transformer (US only)-1.3mm	20.00
WS-9V-2.1	9v wall transformer (US only)-2.1mm	20.00

Encircled Flux Mode Controller Cables

Encircled Flux is a recent evolution in standards-based multimode fiber testing developed as an attempt to further decrease uncertainty between optical loss measurements taken with different manufacturer's test equipment, or with the same test equipment but at a different time.

Encircled Flux-compliant testing requires a special multimode reference cable called a Mode Controller that ensures light exiting any EF-compliant Mode Controller reference cable always has a consistent modal pattern, no matter which manufacturer's multimode light source was used.

The use of EF-compliant test cables is typically focused on testing OM3/OM4 multimode fiber networks running at 10-gigabit or greater, and usually only when a cabling standard specifies it. Technicians should consult customer documents or applicable cabling standards to verify if EF-compliant testing is required.

However, EF-compliant testing can be performed on any multimode network provided the correct mode controller cable is used.

Pricing

Core Size Options	Input Connector Options *(connection to light source)*	Output Connector Options *(connection to link or extender cord)*	Price
M5 = 50/125 M6 = 62.5/125	SC LC ST	SC LC ST	690.00
Part #: EF-*core size-input-output* (example: EF-***M5-SC-LC***)			

Encircled Flux Extender Cords

If the output endface of an EF mode controller cable becomes damaged, it is no longer compliant to EF requirements. Due to the fragile nature of these endfaces and the cost of EF Mode Controllers, it is important to protect the output endface from damage.

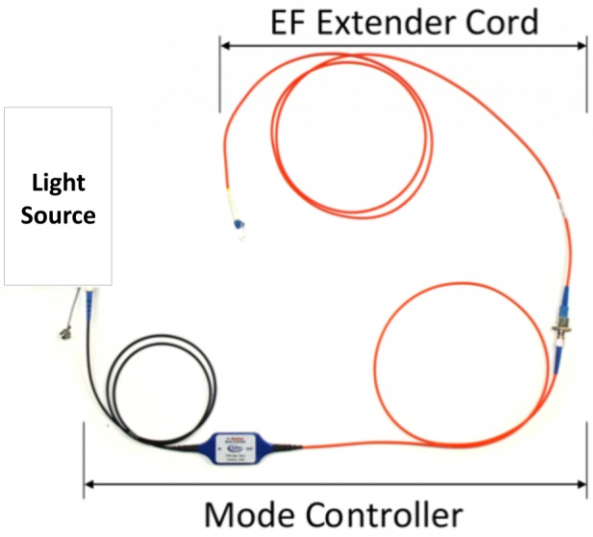
Encircled Flux extender cords are low-loss reference grade patch cables that provide two economical advantages:

1) EF extender cords act as sacrificial cords that protect the fragile output endface of the more expensive mode controller cable from damage

i.e. replacing extender cords costs less than replacing EF mode controllers

2) adapt the EF Mode Controller output to different connector types

i.e. one mode controller and several extender cords are less expensive than multiple mode controllers



Pricing

Core Size Options	Connector Option 1 (C1)* *(choose 1)*	Connector Option 2 (C2)* *(choose 1)*	Price
M5 = 50/125 M6 = 62.5/125	SC LC ST	SC LC ST	325.00
Part #: EFXC-*core size-C1-C2* (example: EF-***M5-SC-LC***)			

* Note: when used with EF Mode Controllers, one of the connector options must match the output port of the EF cable, and the other must match the link under test.

Fiber Rings and Dead Zone Boxes

OTDR launch cables, such as fiber rings and dead zone boxes, are vital to the success of OTDR measurements and address two key issues:

REFLECTIONS. Reflections caused by connector interfaces "blind" OTDRs for a short period of time. The period of time it takes for an OTDR to recover from this "blindness" is commonly referred to as a "dead-zone". Within this dead-zone period, OTDRs are unable to distinguish one anomaly (e.g. breaks, shatters, bends, or even another connector) from another. Without a sufficiently long launch cable, the reflection from the near-end patch panel will be undetectable because it is within the dead-zone caused by the OTDR port.

LOSS MEASUREMENT THROUGH INTER-CONNECTIONS. To measure the optical loss of any event found on an OTDR trace, there must be sufficient measurable backscatter both before and after the inter-connection. Lack of a launch means there is no measurable backscatter outside the fiber link under test, preventing the OTDR from measuring the relative loss through both near-end and far-end patch panel connections.

WHAT IS THE DIFFERENCE BETWEEN FIBER RINGS AND DEAD ZONE BOXES?

FIBER RINGS. Fiber rings are long cables with connectors on the ends, allowing the OTDR to sufficiently address the two key issues above. Fiber rings are thus the BEST CHOICE for superior OTDR test results.

Various fiber rings will be necessary when the technician works with different patch panel connections (e.g SC, LC, ST, etc.).

DEAD ZONE BOXES. Dead zone boxes, on the other hand, have adapters installed on the ends of a long spool, and short patch cables are required to make the final connection to the OTDR and the link under test.

Only one dead zone box (per fiber type) is required, since patch cables convert the dead zone box adapters to whatever link connector is required.

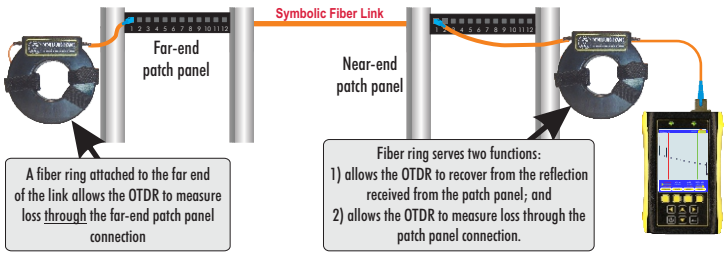
However, dead zone boxes are inferior to fiber rings because the adapter at the end of the dead zone box prevents the OTDR from sufficiently addressing the two issues listed above.

Fiber Ring Pricing

Part #	Length	Fiber	Connector (OTDR)	Connector (link)	Price
Singlemode					
FR-SM-500-LCLC	500m	Singlemode	LC/UPC	LC/UPC	320.00
FR-SM-500-LCSC	500m	Singlemode	LC/UPC	SC/UPC	320.00
50/125 Multimode					
FR-M5-150-LCLC	150m	50/125 multimode	LC/UPC	LC/UPC	255.00
FR-M5-150-LCSC	150m	50/125 multimode	LC/UPC	SC/UPC	255.00
62.5/125 Multimode					
FR-M6-150-LCLC	150m	62.5/125 multimode	LC/UPC	LC/UPC	255.00
FR-M6-150-LCSC	150m	62.5/125 multimode	LC/UPC	SC/UPC	255.00

Dead Zone Box Pricing

Model #:	Length	Fiber	Connectors	Price
DZB-SM-1100	1100m	9/125 singlemode	SC/UPC	415.00
DZB-M5-450	450m	50/125 multimode	SC/UPC	370.00
DZB-M6-450	450m	62.5/125 multimode	SC/UPC	370.00



Factory located in the Heartland of America

Universal Adapter Caps

OWL universal adapter caps fit the detector port on the current models of OWL optical power meters, including:

- ZOOM 2 Series
- WaveTester Series
- Micro OWL 2 Series
- Fiber OWL 4 Series
- Fiber OWL 7 Series
- Fiber OWL 7 BIDI Series

Pricing		
U2.5-4	2.5mm universal adapter cap	40.00
U1.25-4	1.25mm universal adapter cap	40.00

U2.5-4

U1.25-4

The U2.5-4 connects to 2.5mm connectors such as ST, SC, and FC, and the U1.25-4 connects to LC, MU, and other 1.25mm SFF connectors.

TECHNICAL NOTE: UNIVERSAL CONNECTOR PORTS

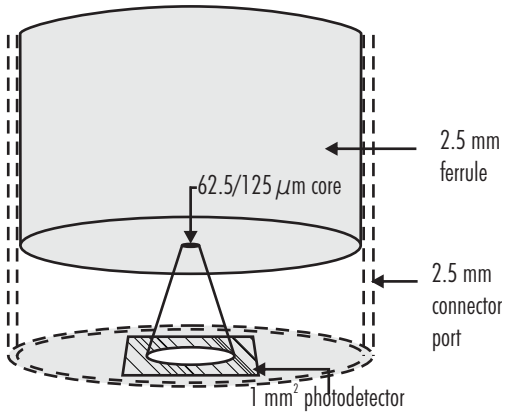
OWL optical power meters take advantage of a flexible universal connector port system which allows multiple fiber optic connector styles to connect to the same port. Fiber optic connector ferrules come in two common sizes: 2.5mm (for ST, SC, FC, etc.) or 1.25mm (LC, MU, and other SFF connectors). A universal adapter cap is available for each ferrule size.

What gives our universal port its flexibility is that only the ferrule is inserted into the port. Since there is no latching mechanism to speak of, most connectors can connect to this port as long as the ferrule size matches the adapter cap.

Each cap is designed so that once the ferrule is completely inserted, the cone of light from a fiber connector falls completely onto the photodetector, regardless of how the connector may turn, twist, or wiggle in the port. Because of this, you can be assured that the optical power reading will always be accurate.

By allowing connection to multiple connector types, OWL's universal port method minimizes costs and maintenance requirements.

Please call our knowledgeable technical staff at 262-473-0643 with any questions you may have about our universal ports or any of our other fiber optic test products.



2.5mm Universal Connector Port Diagram

Factory located in the
Heartland of America

Fiber Optic Test Kits

END OF LIFE NOTICE

Fiber OWL 4 Series

Micro OWL Series

END-OF-LIFE NOTICE

Popular Fiber OWL 4 and Micro OWL 2 series power meters and test kits have reached their end of life.

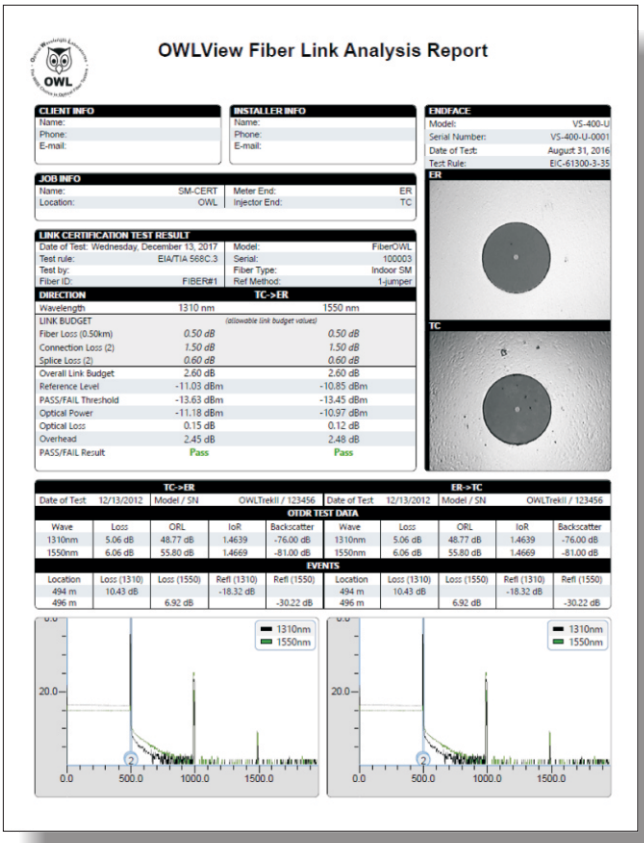
Warranty issues will be honored as normal, and OWL will continue to offer repair and calibration support for as long as possible.

These products are being replaced by various versions of the new and improved Fiber OWL 7 series power meters and test kits:

Old Part #	Replaced by:
FO-4	F7 (page 22)
FO-4B	F7X (page 20)
Kits starting with KIT-FO4	F7X Kits (page 21)
MO-2	F7 (page 22)
MO-2V	F7V (page 18)
Kits starting with KIT-M2	F7 Kits (page 23)
Kits starting with IS-KIT	New Installer Series (page 16)

Factory located in the Heartland of America

IF YOU WERE A CLIENT, WHICH REPORT WOULD YOU CHOOSE?



OWLView Fiber Link Analysis Report

CLIENT INFO
Name:
Phone:
E-mail:

INSTALLER INFO
Name:
Phone:
E-mail:

ENDFACE
Model: VS-400-U
Serial Number: VS-400-U-0001
Date of Test: August 31, 2016
Test Rule: EIC-61300-3-35
ER
TC

JOB INFO
Name: SM-CERT
Location: OWL
Meter End: ER
Injector End: TC

LINK CERTIFICATION TEST RESULT
Date of Test: Wednesday, December 13, 2017
Test rule: EIA/TIA 568C.3
Test by:
Fiber ID: FIBER#1
Model: FiberOWL
Serial: 100003
Fiber Type: Indoor SM
Ref Method: 1-jumper

DIRECTION	TC->ER		ER->TC	
Wavelength	1310 nm	1550 nm	1310 nm	1550 nm
LINK BUDGET (allowable link budget values)				
Fiber Loss (0.50km)	0.50 dB	0.50 dB	0.50 dB	0.50 dB
Connection Loss (2)	1.50 dB	1.50 dB	1.50 dB	1.50 dB
Splice Loss (2)	0.60 dB	0.60 dB	0.60 dB	0.60 dB
Overall Link Budget	2.60 dB	2.60 dB	2.60 dB	2.60 dB
Reference Level	-11.03 dBm	-10.85 dBm	-11.03 dBm	-10.85 dBm
PASS/FAIL Threshold	-13.63 dBm	-13.45 dBm	-13.63 dBm	-13.45 dBm
Optical Power	-11.18 dBm	-10.97 dBm	-11.18 dBm	-10.97 dBm
Optical Loss	0.15 dB	0.12 dB	0.15 dB	0.12 dB
Overhead	2.45 dB	2.48 dB	2.45 dB	2.48 dB
PASS/FAIL Result	Pass	Pass	Pass	Pass

TC->ER: Date of Test 12/13/2012, Model / SN, OWLTrekII / 123456
ER->TC: Date of Test 12/13/2012, Model / SN, OWLTrekII / 123456

OTDR TEST DATA

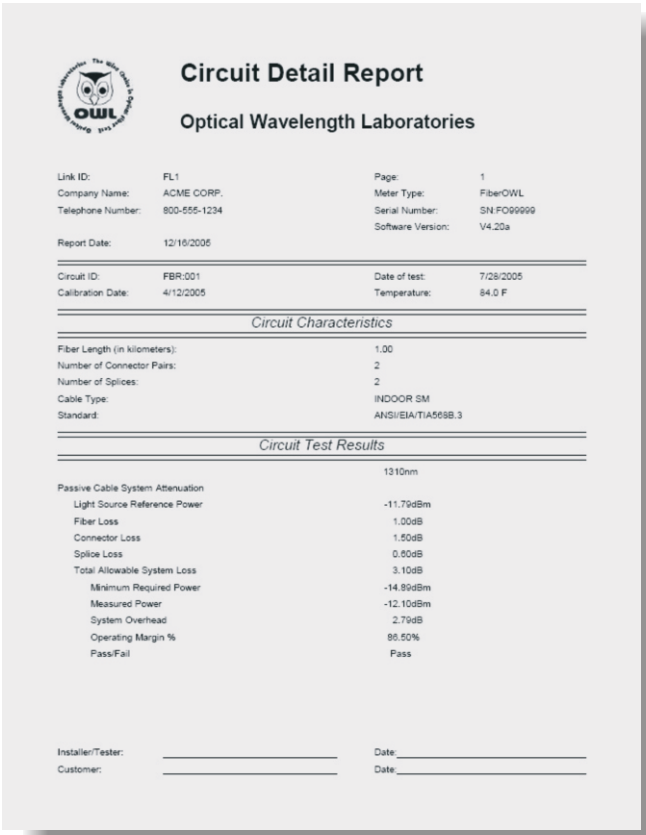
Wave	Loss	ORL	IoR	Backscatter	Wave	Loss	ORL	IoR	Backscatter
1310nm	5.06 dB	48.77 dB	1.4639	-76.00 dB	1310nm	5.06 dB	48.77 dB	1.4639	-76.00 dB
1550nm	6.06 dB	55.80 dB	1.4669	-81.00 dB	1550nm	6.06 dB	55.80 dB	1.4669	-81.00 dB

EVENTS

Location	Loss (1310)	Loss (1550)	Refl (1310)	Refl (1550)	Location	Loss (1310)	Loss (1550)	Refl (1310)	Refl (1550)
494 m	10.43 dB		-18.32 dB		494 m	10.43 dB		-18.32 dB	
496 m		6.92 dB		-30.22 dB	496 m		6.92 dB		-30.22 dB

1310nm
1550nm
20.0
0.0
500.0
1000.0
1500.0

TRI-REPORT



Circuit Detail Report

Optical Wavelength Laboratories

Link ID:	FL1	Page:	1
Company Name:	ACME CORP.	Meter Type:	FiberOWL
Telephone Number:	800-555-1234	Serial Number:	SN:FO99999
		Software Version:	V4.20a
Report Date:	12/16/2005		
Circuit ID:	FBR:001	Date of test:	7/28/2005
Calibration Date:	4/12/2005	Temperature:	84.0 F

Circuit Characteristics

Fiber Length (in kilometers):	1.00
Number of Connector Pairs:	2
Number of Splices:	2
Cable Type:	INDOOR SM
Standard:	ANSI/EIA/TIA568B.3

Circuit Test Results

	1310nm
Passive Cable System Attenuation	
Light Source Reference Power	-11.79dBm
Fiber Loss	1.00dB
Connector Loss	1.50dB
Splice Loss	0.60dB
Total Allowable System Loss	3.10dB
Minimum Required Power	-14.89dBm
Measured Power	-12.10dBm
System Overhead	2.79dB
Operating Margin %	86.50%
Pass/Fail	Pass

Installer/Tester: _____ Date: _____
Customer: _____ Date: _____

Traditional Report

Let's say you are an installer bidding out with a major client, along with some of your competitors.

Your bid provides them with the traditional test report shown above on the right, while your competitor's bid provides the client with all three types of important test data in a single comprehensive **TRI-REPORT**, including Pass/Fail, OTDR link characterization, and endface analysis data.

WHICH TEST REPORT DO YOU THINK THE CLIENT WILL CHOOSE?

In addition, many cabling system manufacturers prefer to receive all three types of data when granting long-term system warranties – with good reason, since these warranties are sometimes 25 years or even longer.

Thus, installers who want to stay competitive in the industry must have the ability to provide TRI-REPORTS, and equipment that helps them do so.

WIN BIDS WHILE SAVING THOUSANDS!

CALL OWL TO LEARN MORE ABOUT TRI-REPORTS AND FIBER OWL 7+ CERTIFIERS!

Optical Wavelength Laboratories
OWL
The WISE Choice in Optical Fiber Testers

OWL-inc.com