

# Fiber OWL / Dual OWL / Laser OWL Test Kit

Multi-mode and Single Mode  
Fiber Certification Test Kit

## Overview

Many fiber optic network bids and Requests For Quote (RFQ) are citing cabling standards to specify the set of guidelines (such as fiber length) that the network installer must follow during the network installation. Adherence to such standards is meant to ensure the quality of the installation and guarantee that the network will perform as it was designed.

The process of testing a network installation to ensure its adherence to specified standards is called certification, and often requires hard-copy documentation as proof of adherence to standards.

The **Fiber OWL / Dual OWL / Laser OWL** contains the tools necessary for certifying fiber optic links against a myriad of popular cabling standards in both multi-mode and single mode networks.

The **Fiber OWL 2+ optical power meter** is multi-mode and single mode ready, and contains a user-friendly Fiber Link Wizard that performs link budget calculation, and sets a reference value using the characteristics of the link. This reference is the PASS/FAIL threshold and is calculated against the chosen standard. Up to 900 fiber runs may be stored, and serially downloaded to a PC for report generation using our OWL Reporter software.

The **Laser OWL** is our single mode light source. Its dual wavelength outputs (1310nm / 1550nm) are temperature-stabilized for accurate measurements. Three connector options are available (ST, SC, and FC). The Laser OWL is also available with 2.5mm Universal connectors, but is not included with this kit for physics reasons.

The **Dual OWL** is our multi-mode light source. Its dual wavelength outputs (850nm / 1300nm) are temperature-stabilized for accurate measurements. Two connector options are available (ST and SC).



## Kit Contents

- Power Meter:** Fiber OWL
- Light Source:** Dual OWL (multi-mode)  
Laser OWL (single mode)
- Accessories:** OWL Reporter software  
Product manuals  
Download cable  
9-volt batteries  
NIST certificate  
Carrying case

Protective rubber boots for the Fiber OWL are not yet available.

## Features

- Certification of multi-mode fiber links at 850nm and 1300nm, and single mode links at 1310nm and 1550nm
- Data storage for up to 900 data points including run labels, fiber type, and link information including link name, date, reference power values, fiber length, and number of splices and interconnects
- Built-in loss wizard for calculation of maximum allowable loss values (link budget)
- RS-232 interface for continuous data logging, report printing, or data downloading
- OWL Reporter software for printing formatted fiber certification reports
- Absolute or relative mode for giving you instant pass/fail results
- Selectively view, delete or resample data points

### Supported Cabling Standards:

EIA/TIA 568-B	ISO/IEC 11801
1000Base-SX	1000Base-LX
100Base-FX	10Base-FB
10Base-FL	FDDI
ATM-155	ATM-622
Fibre Channel	Token Ring

Also supports 2 user-definable standards

### Additional Measurement Wavelengths:

980nm                      1480nm

Product manuals come in PDF format on CD. Adobe Acrobat Reader™ is required to view these documents.



Patch cables are available for an additional charge. Call 262-473-0643 for more information.



MADE IN USA

NIST  
Traceable



**o.w.l.** optical Wavelength Laboratories

Manufacturer of Quality Optical Fiber Test Equipment



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## Specifications

### Fiber OWL Optical Power Meter

<b>Detector Type</b>	Ge (2mm)
<b>Supported Fiber Types</b>	62.5/125 $\mu$ m multi-mode 50/125 $\mu$ m multi-mode 100/140 $\mu$ m multi-mode 7-9/125 $\mu$ m single mode
<b>Calibrated Wavelengths</b>	850nm, 980nm, 1300nm / 1310nm, 1550nm
<b>Additional Wavelengths</b>	1480nm
<b>Measurement Range</b>	+5 to -70 dBm (FO2+) +25 to -50 dBm (FO-2C+)
<b>Accuracy</b>	$\pm$ 0.15 dB
<b>Resolution</b>	0.01 dB
<b>Battery Life</b>	up to 200 hours (9V)
<b>Connector Type</b>	2.5mm Universal
<b>Data Storage Points</b>	up to 900
<b>Download Data Points</b>	OWL Reporter Software
<b>Power Units Displayed</b>	dBm, dB, $\mu$ W
<b>Modes of Operation</b>	Simple / Certification
<b>Battery Capacity Display</b>	Yes
<b>Backlight</b>	Yes
<b>NIST Traceable</b>	Yes
<b>Auto-shutdown</b>	Yes
<b>Serial Port Diagnostic</b>	Yes
<b>Operating Temperature</b>	-10 to 55 C
<b>Storage Temperature</b>	-30 to 70 C
<b>Width</b>	3.48"
<b>Height</b>	6.48"
<b>Depth</b>	1.1"
<b>Weight</b>	373g (12 oz.)

### Dual OWL Multi-mode Light Source

<b>Launch Method</b>	LED
<b>Connector</b>	ST or SC
<b>Center Wavelength (850nm)</b>	850 $\pm$ 20nm
<b>Center Wavelength (1300nm)</b>	1290nm min 1350nm max
<b>Spectral Width (FWHM; 850 nm)</b>	35 nm
<b>Spectral Width(FWHM; 1300nm)</b>	170nm
<b>Output Power (62.5<math>\mu</math>m core)</b>	-20.0 dBm
<b>Initial Accuracy</b>	0.1 dB
<b>Fiber Type</b>	Multi-mode
<b>Battery Life</b>	40 hrs.
<b>Battery Capacity Display</b>	Yes
<b>Operating Temperature</b>	0 to 55° C
<b>Storage Temperature</b>	0 to 75° C
<b>Width</b>	2.75"
<b>Height</b>	4.94"
<b>Depth</b>	1.28"
<b>Weight</b>	154g

### Laser OWL Single Mode Laser Source

<b>Launch Method</b>	FP Laser
<b>Connector</b>	ST, SC, or FC
<b>Center Wavelength (1310nm)</b>	1310 $\pm$ 30nm
<b>Center Wavelength (1550nm)</b>	1550 $\pm$ 30nm
<b>Spectral Width (FWHM; 1310 / 1550 nm)</b>	2 nm
<b>Output Power (9<math>\mu</math>m core)</b>	-10.0 dBm
<b>Initial Accuracy</b>	0.1 dB
<b>Fiber Type</b>	Single Mode
<b>Battery Life</b>	25 hrs.
<b>Battery Capacity Display</b>	Yes
<b>Operating Temperature</b>	0 to 55° C
<b>Storage Temperature</b>	0 to 75° C
<b>Width</b>	2.75"
<b>Height</b>	4.94"
<b>Depth</b>	1.28"
<b>Weight</b>	154g