Fiber OWL / Dual OWL / Laser OWL 1550 / BOLT 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 **KIT-FO+/LOst/DOst** 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 OWL1550** is our 1550nm single mode light source. Its 1550nm output is temperature-stabilized for accurate measurements. Three connector options are available (ST, SC, and FC). The Laser OWL 1550 is also available with 2.5mm Universal connectors, but is not included with this kit for physics reasons.

A dual wavelength laser source is not necessary for this kit because the 1310nm source is included in the BOLT length tester.

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).

The **BOLT** has multiple functions. It is a 1310nm laser light source designed to couple -10 dBm into single mode fiber. It also functions as a fiber link length tester. Optical measurement of a fiber link is very accurate, and ensures that fiber attenuation calculations are using the correct length. It also produces a 2-kilohertz modulated signal for use with fiber identifiers.

Kit Contents

Power Meter: Fiber OWL

Light Source: Dual OWL (multi-mode)
                    Laser OWL (single mode)

Length Tester: BOLT

Accessories: OWL Reporter software
                   Product manuals
                   Download cable
                   9-volt batteries
                   NIST certificate
                   Carrying case

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

- Optical measurement of fiber links up to 25 kilometers

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

MADE IN USA   **NIST Traceable**

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Specifications

Fiber OWL Optical Power Meter

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

Dual OWL Multi-mode Light Source

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

Laser OWL 1550 Single Mode Laser Source

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

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.

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

O.W.L. **Optical Wavelength Laboratories**
Manufacturer of Quality Optical Fiber Test Equipment
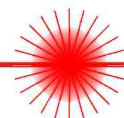
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Specifications

BOLT Optical Length Tester

Launch Method	FP Laser
Connector	ST
Center Wavelength	1310 ±30nm
Spectral Width (FWHM)	2nm
Output Power (9 µm core)	-10.0 dBm
Initial Accuracy	0.1 dB
Fiber Type	Single Mode
Laser Drift	0.05 dB (12 hours)
Measurement Resolution	up to 1 meter
Measurement Accuracy	± 2.5 meters
Measurement Range	25 kilometers
Battery Life	15 hours
Battery Capacity Display	Yes
Operating Temperature	0 to 55° C
Storage Temperature	0 to 75° C
Low Battery Indicator	Yes
Modes of Operation	Continuous Wave / 2kHz pulsed
Width	2.75"
Height	4.94"
Depth	1.28"
Weight	154g