

Test & Inspection

OLS Series Light Sources

**5 YEAR
WARRANTY**



OLS7 Optical Laser Source

Features

- Rugged, dependable, and backed by industry-best 5-year warranty
- Generates up to three Wave ID wavelengths simultaneously - slashing test time
- Field-swappable connector adapters for maximum flexibility
- Long battery life from globally available AA batteries

Applications

- Certify multimode and single-mode links per TIA/EIA standards
- Link loss measurements
- Pair with power meters, OTDRs or OFIs for testing
- Fiber identification for splicing and continuity checking

AFL is a trusted supplier of optical testing equipment with more than 30 years of experience and tens of thousands of units in use in the field. AFL's full range of light sources are used for testing single-mode and/or multimode fiber networks. Sources with wave ID can transmit two or more wavelengths simultaneously – decreasing test time and reducing user errors when paired with AFL wave ID power meters.

Designed for the real world: AFL's light sources were designed to meet the demands of the outside plant environment. They withstand the one-meter drop and have splash resistant controls that are easy to use, even with gloves on.

Flexible and efficient: A range of field-swappable output adapters enables access for cleaning optical ports and supports multiple connector styles. The efficient design provides long test time from globally available AA batteries. External power adapter available for extended testing or lab situations.

Reduce test time and errors: Wave ID (Triple, Dual, or Single) decreases test time while reducing technician errors and CW mode provides continuous output (no encoding).

Supported output modes: Test Tone (2000, 1000, 330, 270 Hz) for use in fiber identification with AFL brand power meters, OTDRs (with fiber end access) or Optical Fiber Identifier (OFI) products for non-intrusive, mid-span testing.

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Specifications are subject to change without notice.

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Optical Loss Testing

OLS Series Light Sources

OLS Series Models and Applications

| MODEL | MM / SM | WAVELENGTHS (nm) | APPLICATIONS |
|-----------|---------|------------------------|--|
| OLS1-Dual | MM | 850, 1300 | Ethernet, Token Ring, and FDDI Fiber Links |
| OLS2-Dual | SM | 1310, 1550 | SM Networks, LAN/WAN Testing |
| OLS4 | MM / SM | 850, 1300 / 1310, 1550 | Loss Testing of SM/MM networks |
| OLS7-FTTH | SM | 1310, 1490, 1550 | FTTH Networks |
| OLS7-3 | SM | 1310, 1550, 1625 | Telecom & CATV Networks |

Specifications ^{a,e}

| OPTICAL SPECIFICATIONS: OLS4, OLS2-DUAL & OLS1-DUAL MODELS | | | | | | | | |
|--|--|-----------------|--|-------------|---------------------------|-------------|---|-----------------|
| MODEL | OLS1-DUAL (Single Port ^b) | | OLS2-DUAL (Single Port) | | OLS4 (SM Optical Port) | | OLS4 (MM Optical Port) | |
| Wavelength | 850 ±30 nm | 1300 +30/-20 nm | 1310 ±20 nm | 1550 ±20 nm | 1310 ±20 nm | 1550 ±20 nm | 850 ±30 nm | 1300 +30/-20 nm |
| Spectral Width | 45 nm (typ) | 120 nm (typ) | 5 nm (max) | | 5 nm (max) | 5 nm (max) | 45 nm (typ) | 120 nm (typ) |
| Emitter Type | LED | | Laser | | Laser | | LED | |
| Safety Class | Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03 | | | | | | | |
| Output Power | >-20 dBm, 62.5 µm multimode ^c | | 0 dBm, 9 µm single-mode ^d | | 0 dBm, 9 µm single-mode | | >-20 dBm, 62.5 µm multimode ^c | |
| Output Stability | ±0.1 dB over 8 hours (after 5 minutes warm-up) | | ±0.05 dB over 1 hour (after 15 minutes warm-up) ±0.1 dB over 8 hours (after 15 minutes warm-up) | | | | ±0.1 dB over 8 hours (after 5 minutes warm-up) | |
| Tone Output | N/A | | 270 Hz, 330 Hz, 1 kHz, 2 kHz | | 2 kHz | | N/A | |

| OPTICAL SPECIFICATIONS: OLS7 MODELS | | | | | | |
|-------------------------------------|--|---------|---------|----------------------|---------|---------|
| MODEL | OLS7-FTTH (Single Port) | | | OLS7-3 (Single Port) | | |
| Wavelength (±20 nm) | 1310 nm | 1490 nm | 1550 nm | 1310 nm | 1550 nm | 1625 nm |
| Spectral Width | 5 nm | 3 nm | 5 nm | 5 nm | 5 nm | 2 nm |
| Emitter Type | Laser | | | | | |
| Safety Class | Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03 | | | | | |
| Output Power | -5 dBm (typical), 9/125 fiber | | | | | |
| Output Stability | ±0.05 dB over 1 hour (after 15 minutes warm-up) ±0.1 dB over 8 hours (after 15 minutes warm-up) | | | | | |
| Tone Output | 270 Hz, 330 Hz, 1 kHz, 2 kHz | | | | | |

| GENERAL SPECIFICATIONS: ALL OLS MODELS | |
|--|--|
| Available Adapters | SC FC, ST, LC |
| Power | 2 AA batteries, optional AC adapter |
| Battery Life | SM port: 72 hours typical (40 hours minimum). MM port: 30 hours typical (20 hours minimum) |
| Operating Temperature | -10 °C to 50 °C, 95 % RH (non-condensing) |
| Storage Temperature | -30 °C to 60 °C, 95 % RH (non-condensing) |
| Size (H x W x D) | 14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in) |
| Weight | 0.29 kg (0.65 lb) |

Notes:

- All specifications valid at 25°C unless otherwise specified.
- May be used to test 50 or 62.5 µm fiber with supplied mandrels.
- Output power will be approximately 3 dB less if a 50 µm mandrel-wrapped jumper is used instead of a 62.5 µm mandrel-wrapped jumper.
- Adjustable 2 dB.
- All OLS products come with the UPC optical port.

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Ordering Information

When ordering, specify connector type at the end of model number (e.g. OLS2-DUAL-SC). All OLS models include protective rubber boot, 2 AA batteries, carry case. AC adapters are available (ordered separately), see table below. Test jumpers and connector adapters are required for operation (purchased separately). Test jumpers with a variety of connector styles and fiber types and adapter caps for most common connectors may be purchased from AFL.

| OUTPUT WAVELENGTHS (nm) | | | | | | OUTPUT PORTS | EMITTER TYPE | WAVE ID TRANSMIT | AVAILABLE CONNECTORS | POWER | AFL NO. |
|-------------------------|------|------|------|------|------|--------------|---------------|------------------|----------------------|------------|-----------|
| 850 | 1300 | 1310 | 1490 | 1550 | 1625 | | | | | | |
| ◆ | ◆ | | | | | 1 | LED | ◆ | FC, SC, ST, LC | (2) AA, AC | OLS1-DUAL |
| | | ◆ | | ◆ | | 1 | Laser | ◆ | FC, SC, ST, LC | (2) AA, AC | OLS2-DUAL |
| ◆ | ◆ | ◆ | | ◆ | | 2 | LED and Laser | ◆ | FC, SC, ST, LC | (2) AA, AC | OLS4 |
| | | ◆ | ◆ | ◆ | | 1 | Laser | ◆ | FC, SC, ST, LC | (2) AA, AC | OLS7-FTTH |
| | | ◆ | | ◆ | ◆ | 1 | Laser | ◆ | FC, SC, ST, LC | (2) AA, AC | OLS7-3 |

OLS Connector Adapters and AC Adapter

| DESCRIPTION | AFL NO. |
|---|----------------|
| FC connector adapter | 2900-50-0002MR |
| SC connector adapter | 2900-50-0003MR |
| ST connector adapter | 2900-50-0004MR |
| LC connector adapter | 2900-50-0006MR |
| Universal flip-top dust cap for UCI outputs | 8800-00-0072PR |
| 100-240 VAC to 9 VDC, AC adapter | 4050-00-0119PR |

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Recommended Products



OFI-BIPM Optical Fiber Identifier

- World class signal sensitivity
- Trigger lock, positive stop for optimum detection
- Integrated optical power meter option



One-Click® Cleaners

- Patented single-action
- Variety of sizes and types
- Low cost per clean

Qualifications

| CATEGORY | REGULATION/STANDARD | QUALIFICATION |
|----------------|---------------------|--|
| CE Marking | EU | Compliant to relevant EU Directives on health, safety, and environmental protection, and certified with CE marking |
| Safety/EMC/EMI | IEC | Compliant to IEC 61010-1 for safety requirements for electrical equipment |
| | EN | Compliant to EN 61010-1 for safety requirements for electrical equipment |
| | IEC | Compliant to IEC 61326-1 for EMC requirements for electrical equipment |
| | EN | Compliant to EN 61326-1 for EMC requirements for electrical equipment |
| | EN | Compliant to EN 55011 for EMC requirements for industrial, scientific and medical equipment |
| | FDA | Compliant to code of federal regulations FDA 21 CFR 1040.10 and 1040.11 on laser products |
| RoHS | IEC | Compliant to IEC 60825-1 for safety of laser products |
| | EU | Compliant to EU regulations Directive 2011/65/EU (RoHS 2) and Directive 2015/863 (RoHS 3) |
| Test Method | TIA | Compliant to TIA-568.3-D for test and measurement requirements for premises optical fiber cabling and components* |
| | IEC | Compliant to IEC 11801 for test and measurement requirements for optical fiber cabling for use within premises* |
| | EN | Compliant to EN 50173 for test and measurement requirements for optical fiber cabling for use within premises* |
| | AS/NZS | Compliant to AS/NZS 3080 for test and measurement requirements for optical fiber cabling for use within premises* |
| | TIA | Compliant to TIA-526-7 for test procedures for installed optical fiber cable plant |
| | TIA | Compliant to TIA-526-14 for test procedures for installed optical fiber cable plant* |
| | IEC | Compliant to IEC 14763-3 for systems and methods for the inspection and testing of installed optical fiber cabling* |
| | AS/NZS | Compliant to AS/NZS 14763.3 for systems and methods for the inspection and testing of installed optical fiber cabling* |
| | IEC | Compliant to IEC 61280-4-1 for test procedures for installed optical fiber cable plant* |
| | IEC | Compliant to IEC 61280-4-2 for test procedures for installed optical fiber cable plant |

* A complementary encircled flux mode conditioner may be needed to comply with encircled flux launch conditions for testing multimode optical fiber cabling and components

Contact Sales@AFLglobal.com to schedule a demonstration or learn how to buy.

Visit www.AFLglobal.com/Test to learn more about OLS series light sources.

International Sales and Service Contact Information available at www.AFLglobal.com/Test/Contacts

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