

Light Sources



OLS 1 LED Light Source

The OLS 1 series of LED light sources are inexpensive, practical instruments designed for performing insertion loss measurements on fiber optic links when used with an optical power meter. The LED output is stabilized to ensure accurate test results per current TIA/EIA requirements. The OLS 1 is easy to operate with only a power/wavelength select switch. Weighing only 0.65 lb, the OLS 1 is compact and convenient for field use.



OLS 1-Dual LED Light Source with Wave ID

The OLS 1-Dual light source features 850 nm and 1300 nm LED output from a single output port and is easy to operate with only a power button and a wavelength select button. This light source offers 3 modes of operation: Dual wavelengths sending ID, single wavelength sending ID, and CW. The output port is equipped with a removable SC (FC & ST available) adapter to allow the output connector to be inspected and cleaned. The LED output is stabilized to ensure accurate test results per current TIA/EIA requirements.



OLS 2 Laser Light Source

The OLS 2 laser source is a cost-effective, rugged, handheld instrument designed for performing insertion loss measurements on single-mode fiber optic links when used with an optical power meter. When paired with an optical fiber identifier, the OLS 2 may be used for fiber identification. The LASER output is stabilized to ensure accurate test results per current TIA/EIA requirements. Three versions of the OLS 2 are available for measurements at 1310 nm, 1550 nm, 1625 nm. These compact units operate in either continuous wave (CW) mode or 2 kHz modulated mode.



OLS 2 - Dual Laser Light Source with Wave ID

The OLS 2-Dual features 1310 nm and 1550 nm LASER output from a single output port and is easy to operate. The LASER output is stabilized to ensure accurate test results per current TIA/EIA requirements. This light source offers 4 modes of operation: Dual wavelengths sending ID, single wavelength sending ID, CW, and modulated tone. When paired with an optical fiber identifier, the OLS 2-Dual may be used for fiber identification. The output port is equipped with UCI based removable adapters to allow the output connector to be inspected and cleaned.

Light Sources (continued)



OLS 4 Integrated LED & Laser Light Source with Wave ID

The OLS 4 is an integrated, two-port LED and LASER light source. The LED and LASER outputs are stabilized to ensure accurate test results per current TIA/EIA requirements. The OLS 4 features 850 nm and 1300 nm LED output from a multimode output port and 1310 nm and 1550 nm LASER output from a single-mode output port. This light source offers 4 modes of operation: Dual wavelengths sending ID, single wavelength sending ID, CW, and modulated Tone. [Active Output], [Tone], [Battery], and [External Power] indicators identify the currently enabled operating mode, battery charge status, and external power presence. Both output ports are equipped with UCI based removable adapters to allow the output connectors to be inspected and cleaned.



OLS7 Triple Wavelength Laser Sources with Wave ID

The OLS7 laser source features 1310/1550/1625 nm triple wavelength LASER output from a single port and is easy to operate. Each wavelength may be transmitted individually at CW or with tone modulation at frequencies of 270Hz, 330Hz, 1kHz and 2kHz. Also, each wavelength may be transmitted with Wave ID. The OLS7-FTTH output port is equipped with UCI based removable adapters to allow the output connectors to be inspected and cleaned.

OLS7- FTTH Triple Wavelength Laser Source with Wave ID

The OLS7-FTTH laser source is designed specifically for today's FTTH network architectures. It features a triple wavelength LASER output from a single port: 1310nm output for testing in the upstream direction and 1490 or 1550nm, for testing in the downstream direction. The OLS7-FTTH output port is equipped with UCI based removable adapters to allow the output connectors to be inspected and cleaned.

Light Sources (continued)

Specifications

PARAMETER	OLS 1-1C	OLS 1-2C	OLS 2-1300	OLS 2-1550
Output wavelengths (nm)	650 - red, 850 + 35/-40	850 + 35/-40, 1300 + 50/-10	1310 ±20	1550 ±20
Output ports	2	2	1	1
Emitter type	LED	LED	Laser	Laser
Safety class	IEC 1	IEC 1	FDA 1, IEC 1	FDA 1, IEC 1
Output power (nominal, dBm)	-10 @ 660 nm >-20 @ 850 nm	-20	-5 *	-5 *
Stability	± 0.1 dB over 8 hours	± 0.1 dB over 8 hours	± 0.1 dB over 1 hour ± 0.15 dB over 8 hours	± 0.1 dB over 1 hour ± 0.15 dB over 8 hours
Available connector types	ST	ST	FC, SC, ST	FC, SC, ST
Power	9 volt or AC	9 volt or AC	9 volt or AC	9 volt or AC

* Adjustable ± 1dB

PARAMETER	OLS 1-DUAL	OLS 2-DUAL	OLS 4	OLS7-FTTH	OLS7
Output wavelengths (nm)	850 ±30, 1300 +50/-10	1310 ±20 1550 ±20	850 ± 30 nm, 1300 -10/+50 nm (MM port) 1310 ± 20 nm,, 1550 ± 20 nm (SM port)	1310 ±20, 1490 ±20, 1550 ±20	1310 ±20, 1550 ±20, 1625 ±20
Output ports	1	1	2	1	1
Emitter type	LED	Laser	LED & Laser	Laser, Class I (FDA 21 CFR 1040.10 and 1040.11)	Laser, Class I (FDA 21 CFR 1040.10 and 1040.11)
Safety class	IEC 1	FDA 1, IEC 1	FDA 1, IEC 1	FDA 21 CFR 1040.10 and 1040.11	FDA 21 CFR 1040.10 and 1040.11
Output power (dBm)	>-20*	0**	>-20* @ 850 nm; >-20* @ 1300 nm 0 @ 1310; 0 @ 1550 nm	-5 (typical) into 9/125 fiber	-5 (typical) into 9/125 fiber
Stability	± 0.1 dB over 8 hours	± 0.05 dB over 1 hour ± 0.15 dB over 8 hours	± 0.1 dB over 1 hour (MM port) ± 0.05 dB over 1 hour; ± 0.15 dB over 8 hours (SM port)	± 0.05 dB over 1 hr. (after 15 min warm-up, after 30 sec typical) ± 0.1 dB over 8 hrs (after 15 min warm-up, after 30 sec typical)	± 0.05 dB over 1 hr. (after 15 min warm-up, after 30 sec typical) ± 0.1 dB over 8 hrs (after 15 min warm-up, after 30 sec typical)
Wave ID transmit	yes	yes	yes	yes	yes
Available connector types	FC, SC, ST	FC, SC, ST, LC	FC, SC, ST, LC	SC standard, FC & ST available, LC optional	SC standard, FC & ST available, LC optional
Power	2 x AA batteries, optional NiMH or AC	2 x AA batteries, optional NiMH or AC	2 x AA batteries, optional NiMH or AC	2 x AA batteries, optional NiMH or AC	2 x AA batteries, optional NiMH or AC

* 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 2dB