Encircled Flux (EF) Compliant Light Sources and Test Kits

Features

- EF Complaint light sources and test kits per TIA 526-14-B and IEC 61280-4-1 Ed. 2.0
- EF Compliant by design – no additional equipment required
- Full 5-year warranty
- Wave ID for error free testing of multiple wavelengths simultaneously
- Test cords included

Designed for outside plant environments

- Splash resistant controls
- Withstands one-meter drop test
- Controls designed for easy operation with gloves
- Field swappable connector adapters provide flexibility and access for cleaning optical ports at time of test

Wave ID - Increase test speed with less errors

- Simultaneous multi-wavelength testing cuts loss measurement time in half or more
- Automatic wavelength identification eliminates setup errors and simplifies coordination between users at opposite ends of fiber

Applications

- Multimode testing requiring EF Compliant equipment
- Passive Optical Network (PON) testing
- Certify multimode and single-mode links to TIA/EIA standards
- Certification report generation with TRM® 2.0 software

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Specifications [a]

OPTICAL SPECIFICATIONS - POWER METERS	
MODEL	**OPM5-2D AND OPM4-2D MODELS**
Calibrated Wavelengths	850, 1300, 1310, 1490, 1550 nm
Detector Type	Germanium (Ge)
Measurement Range	+6 to -60 dBm
Tone Detect Range	+6 to -50 dBm +6 to -45 dBm for 850 nm
Wavelength ID Range	+6 to -50 dBm +6 to -45 dBm for 850 nm
Accuracy	±0.25 dB
Resolution	0.01 dB
Measurement Units	dB, dBm, µW

OPTICAL SPECIFICATIONS: OLS4 AND OLS1-DUAL MODELS					
MODEL	**OLS4** **(MM Optical Port)**		**OLS4** **(SM Optical Port)**		**OLS1-DUAL** **(MM Optical Port)**
Wavelength	850 ±30 nm	1300 +30/-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)	45 nm (typ)	120 nm (typ)
Emitter Type	LED		Laser		LED	
Safety Class	Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03					
Output Power	≥ -21 dBm, 50 µm multimode		0 dBm, 9 µm single-mode		≥ -21 dBm, 50 µm multimode	
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		2 kHz		N/A	

GENERAL SPECIFICATIONS: ALL OPM AND OLS MODELS	
Available Adapters	SC FC, ST, LC
Power	2 AA batteries
Operating Temperature	-10 °C to 50 °C, 90 % RH (non-condensing)
Storage Temperature	-30 °C to 60 °C, 90 % 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:

a. All specifications valid at 25°C unless otherwise specified.

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Ordering Information

Encircled Flux (EF) Compliant Light Sources

Since adoption by the IEC, Encircled Flux (EF) multimode launch requirements are increasingly specified into fiber loss testing job requirements. Meeting EF specification requires technicians use EF qualified test sets. It is important to note IEC 61280-1-4 and TIA-568-14-B, specify EF multimode launch conditions at the end of an EF qualified Reference Grade Test Cord (RGTC) – not directly out source test port. Thus, EF compliance requires an EF Light Source and RGTC used together.

AFL offers multimode light sources with designed in Encircled Flux (EF) optics supplied with EF qualified RGTC.

- OLS1-DUAL EF is supplied with one multimode RGTC
- OLS4 EF is supplied with one multimode RGTC and one standard 9/125 single-mode test cord.

WAVELENGTHS	TEST CORDS INCLUDED	AFL NO.
MM 850/1300 nm	(1) RGTC, 50 µm, MM, 2-meter	OLS1-DUAL-EF
MM 850/1300 nm SM 1310/1550 nm	(1) RGTC, 50 µm, MM, 2-meter (1) 9/125 µm, SM, 2-meter	OLS4-EF

Encircled Flux (EF) Compliant Test Kits

AFL EF compliant loss test kits include:

Multimode Test Ports: (SMLP and MLP kits)

- Light Source with designed in Encircled Flux (EF) optics paired with one EF qualified RGTC.
- 50/125 µm receive test cord

Single-mode Test Ports (SMLP kits)

- Light Source with two 9/125 µm test cords (launch / receive)

POWER METER	LIGHT SOURCE	FIBER TYPE	WAVELENGTH (nm)	DYNAMIC RANGE (dB)	AVAILABLE CONNECTORS		INCLUDED 2-METER TEST CORDS		AFL NO.
					SOURCE PORT	TEST CORD	LAUNCH (µm)	RECEIVE (µm)	
OPM5-2D	OLS4-EF	MM SM	850, 1300 1310, 1550	39 @ 850/1300 nm 60 @ 1310/1550 nm	FC, SC	FC, SC, ST, LC	MM: RGTC, 50/125 SM: 9/125	MM: 50/125 SM: 9/125	SMLP5-5-EF
OPM4-2D	OLS4-EF	MM SM	850, 1300 1310, 1550	39 @ 850/1300 nm 60 @ 1310/1550 nm	FC, SC	FC, SC, ST, LC	MM: RGTC, 50/125 SM: 9/125	MM: 50/125 SM: 9/125	SMLP4-4-EF
OPM5-2D	OLS1-DL-EF	MM	850, 1300	39 @ 850/1300 nm	FC, SC	FC, SC, ST, LC	MM: RGTC, 50/125	MM 50/125	MLP5-2-EF
OPM4-2D	OLS1-DL-EF	MM	850, 1300	39 @ 850/1300 nm	FC, SC	FC, SC, ST, LC	MM: RGTC, 50/125	MM 50/125	MLP4-2-EF

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Accessories

DESCRIPTION	AFL NO.
LIGHT SOURCE CONNECTOR ADAPTERS	
FC connector adapter	2900-50-0002MR
SC connector adapter	2900-50-0003MR
ST connector adapter	2900-50-0004MR
LC connector adapter	2900-50-0006MR
POWER METER CONNECTOR ADAPTERS	
FC connector adapter	8800-00-0200
SC connector adapter	8800-00-0209
ST connector adapter	8800-00-0202
LC connector adapter	8800-00-0225
REFERENCE GRADE LAUNCH CORDS (RGLC) (50/125 µm – 2 meters)	
FC to FC	8700-04-0001MR
FC to SC	8700-04-0002MR
FC to LC	8700-04-0003MR
FC to ST	8700-04-0004MR
SC to FC	8700-04-0005MR
SC to SC	8700-04-0006MR
SC to LC	8700-04-0007MR
SC to ST	8700-04-0008MR
MULTIMODE TEST CORDS (50/125 µm – 2 meters)	
FC/FC	8700-00-0093
SC/ST	8700-00-0064
SC/SC	8700-00-0065
LC/LC	8700-00-0082

DESCRIPTION	AFL NO.
SINGLE-MODE TEST CORDS (9/125 µm – 2 meters)	
FC/FC	8700-00-0005
FC/ST	8700-00-0016
ST/ST	8700-00-0017
SC/SC	8700-00-0018
FC/SC	8700-00-0021
SC/ST	8700-00-0022
SC/LC	8700-00-0046
FC/LC	8700-00-0071
LC/LC	8700-00-0097
MATING ADAPTERS (Bulkheads)	
FC/FC	8400-00-0004MR
SC/SC	8400-00-0045MR
ST/ST	8400-00-0020
LC/LC	8400-00-0075
CLEANING SUPPLIES	
One-Click Cleaner SC/ST/FC	8500-05-0001MZ
One-Click Cleaner LC	8500-05-0002MZ
Cletop –SB Cassette Cleaner	8500-10-0016MZ
Cletop –SB Refill Cartridge	8500-10-00017MZ

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts