Optical Loss Test Set

FOT-300

Fiber-optic T&M, monitoring, manufacturing and assembly solutions

- Highly optimized OLTS integrating a power meter port and up to three singlemode sources or two multimode sources on a single port
- Power autonomy of 260 hours
- Three-year warranty and recommended calibration interval, for dramatically reduced cost of ownership
- Ergonomic, eye-catching handheld package

Part of EXFO's new line of handheld units, the FOT-300 Optical Loss Test Set is the only tool of its kind to solely offer basic OLTS features and functions, providing it unparalleled cost-effectiveness.

Auto-Wavelength Recognition

The FOT-300's built-in source can transmit with a wavelength-identification digital encrypted protocol, so that any compatible unit—the FPM-300 Power Meter and the FOT-300's receiver—can automatically use the proper calibration parameters. This feature reduces the need for communication between the two technicians and decreases the potential for error.

Distance Referencing

Signal encrypting can also give the receiving end information on the power to be used as reference, helping ensure efficient referencing, even when the two units are far apart.

No Offset Nulling

Thanks to its unique design, the FOT-300 Optical Loss Test Set reduces measurement time in typical measurement situations, as the need for an offset nulling is eliminated.

FTTx Ready

EXFO's FLS-300 allows for the testing of passive optical networks (PONs) at 1310, 1490 and 1550 nm, the three ITU-T G.983.3 recommended wavelengths for PONs.

FTTx Test Solutions

EXFO

Specifications[1]

Model	FOT-302	FOT-302X
Power meter port[2]	**Ge**	**GeX**
Power range (dBm)[3]	10 to -60	26 to -50
Range displayed (dBm)	Down to -65	Down to -50
Number of calibrated wavelengths[4]	10	10
Power uncertainty[5]	± 5 % ± 1 nW	± 5 % ± 10 nW
Resolution (dB)	0.01[6]	0.01[7]
Automatic offset nulling[8]	Yes	Yes
Warmup time (s)[9]	0	0
Display units	dB/dBm/W	dB/dBm/W
Automatic wavelength recognition[10]	Yes	Yes
Screen refresh rate (Hz)	3	3
Tone detection (Hz)	270, 1 k, 2 k	270, 1 k, 2 k
Battery life (hours) (typical)	260	260
Warranty and recommended calibration interval (years)	3	3

Model[11]	23BL	234BL	235BL	12D
Central wavelength (nm)	1310 ± 20 1550 ± 20	1310 ± 20 1550 ± 20 1625 ± 15	1310 ± 20 1490 ± 5 1550 ± 20	850 ± 25 1300 +50/-10
Spectral width (nm)[12]	≤ 5	≤ 5	≤ 5	35/135
Output power (dBm)	≥ 1/≥ 1	≥ 1/≥ -3/≥ -5	≥ 1/≥ -4.5/≥ -3	≥ -18/≥ -18 (62.5/125 µm)
Power stability (dB)[13]				
8 hours	± 0.10	± 0.10	± 0.10	± 0.10
Battery life (hours)[14]	120	100	120	120
Automatic wavelength recognition	Yes	Yes	Yes	Yes
Tone generation (Hz)	270, 1 k, 2 k	270, 1 k, 2 k	270, 1 k, 2 k	270, 1 k, 2 k
Warranty and recommended calibration interval (years)	3	3	3	3

General Specifications

Size (H x W x D)		18.5 cm x 10.0 cm x 5.5 cm	(7 1/4 in x 4 in x 2 1/8 in)
Weight		0.4 kg	(0.9 lb)
Temperature	operating	-10 °C to 50 °C	(14 °F to 122 °F)
	storage	-40 °C to 70 °C	(-40 °F to 158 °F)
Relative humidity		0 % to 95 % non-condensing	

Standard Accessories

User guide, Certificate of Calibration, instrument stickers in six languages, AC adapter, connector adapter (FOA-XX), three AA batteries, wrist strap, alcohol cleaning pads.

Safety

21 CFR 1040.10 and IEC 60825-1:1993+A1:1997+A2:2001:
CLASS 1 LASER PRODUCT CLASS 1 LED PRODUCT

Notes

1. Guaranteed unless otherwise specified.
2. All specifications valid at 1550 nm and 23 °C ± 1 °C, with an FC connector.
3. In CW mode; sensitivity defined as 6 x rms noise level.
4. Wavelengths: 830 nm, 850 nm, 980 nm, 1300 nm, 1310 nm, 1450 nm, 1490 nm, 1550 nm, 1590 nm and 1625 nm.
5. Traceable to NIST; FOT-302X: up to 20 dBm.
6. From 10 dBm to -50 dBm.
7. From 26 dBm to -35 dBm.
8. Power of > -40 dBm for FOT-302, and of > -25 dBm for FOT-302X.
9. For ± 0.05 dB, for temperatures of > 18 °C.
10. At 850 nm, 1300 nm, 1310 nm, 1490 nm, 1550 nm and 1625 nm; power of > -50 dBm for FOT-302, and of > -40 dBm (typical) for FOT-302X.
11. All specifications valid at 23 °C ± 1 °C, with an FC/APC connector.
12. rms for lasers and FWHM for LEDs; typical values for LEDs.
13. After 15 minutes warmup; expressed as ± half the difference between the maximum and minimum values measured during the period.
14. Typical autonomy in Auto mode.

Ordering Information

FOT-30X-XX-XX

Model
FOT-302-12D = Ge detector, 850/1300 nm, LED 62.5/125 µm
FOT-302-23BL = Ge detector, 1310/1550 nm laser source 9/125 µm
FOT-302-234BL = Ge detector, 1310/1550/1625 nm laser source 9/125 µm
FOT-302-235BL = Ge detector, 1310/1490/1550 nm laser source 9/125 µm
FOT-302X-23BL = High-power Ge detector, 1310/1550 nm laser source 9/125 µm
FOT-302X-234BL = High-power Ge detector, 1310/1550/1625 nm laser source 9/125 µm
FOT-302X-235BL = High-power Ge detector, 1310/1490/1550 nm laser source 9/125 µm

Example: FOT-302X-235BL-FOA-22-EI-EUI-89

Connector Adapter
FOA-12 = Biconic
FOA-14 = D4: D4, D4/PC
FOA-16 = SMA/905, SMA/906
FOA-22 = FC: FC (PC/SPC/UPC/APC), NEC-D3
FOA-24 = Radiall VFO/DF (straight/slant)
FOA-28 = DIN 47256 (LSA): DIN 47256 (PC/APC)
FOA-32 = ST: ST (PC/SPC/UPC)
FOA-34 = Mini-BNC
FOA-40 = Diamond HMS-OHFS-3 (3.5 mm)
FOA-42 = Radiall PFO
FOA-44 = Radiall MFO
FOA-48 = HP HFBR-4501-HFBR-4503
FOA-52 = Biconic Bayonet
FOA-54 = SC: SC (PC/SPC/UPC/APC)
FOA-68 = AT&T Rotary Splice
FOA-76 = FSMA HMS-10/AG, HFS-10/AG
FOA-78 = Radiall EC
FOA-84 = Diamond HMS-10, HFS-13
FOA-96B = E-2000
FOA-98 = LC
FOA-99 = MU

Connector
50 = FC/PC[1]
54 = SC/PC[1]
74 = ST/PC[1]
89 = FC/UPC[2]
90 = ST/UPC[2]
91 = SC/UPC[2]
EI-EUI-28 = UPC/DIN 47256
EI-EUI-76 = UPC/HMS-10/AG
EI-EUI-89= UPC/FC narrow key
EI-EUI-90 = UPC/ST
EI-EUI-91 = UPC/SC
EI-EUI-95 = UPC/E-2000
EA-EUI-28 = APC/DIN 47256[2]
EA-EUI-89 = APC/FC narrow key[2]
EA-EUI-91 = APC/SC[2]
EA-EUI-95 = APC/E-2000[2]

Notes
[1] Multimode only
[2] Singlemode only

CORPORATE HEADQUARTERS	400 Godin Avenue	Vanier (Quebec) G1M 2K2 CANADA	Tel.: 1 418 683-0211 . Fax: 1 418 683-2170
EXFO AMERICA	4275 Kellway Circle, Suite 122	Addison TX 75001 USA	Tel.: 1 800 663-3936 . Fax: 1 972 836-0164
EXFO EUROPE	Le Dynasteur, 10/12 rue Andras Beck	92366 Meudon la Forêt Cedex FRANCE	Tel.: +33.1.40.83.85.85 . Fax: +33.1.40.83.04.42
EXFO ASIA-PACIFIC	151 Chin Swee Road, #03-29 Manhattan House	SINGAPORE 169876	Tel.: +65 6333 8241 . Fax: +65 6333 8242
EXFO CHINA	Beijing New Century Hotel Office Tower, Room 1754-1755 No. 6 Southern Capital Gym Road	Beijing 100044 P. R. China	Tel.: +86 (10) 6849 2738 · Fax: +86 (10) 6849 2662
TOLL-FREE (USA and Canada)	Tel.: 1 800 663-3936	www.exfo.com • info@exfo.com	

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