

300

NETWORK TESTING

OPTICAL LOSS TEST SET

FOT-300



- 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.

Distant 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 nm, 1490 nm and 1550 nm, the three wavelengths recommended by the ITU-T (G.983.3) for PONs.



SPECIFICATIONS 1

Model	FOT-302	FOT-302X
Power meter port²	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

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 1M LASER PRODUCT

Model ¹¹	23BL	234BL	235BL	12D	01-VCL
Central wavelength (nm)	1310 ± 20 1550 ± 20	1310 ± 20 1550 ± 20 1625 ± 15	1310 ± 20 1490 ± 10 1550 ± 20	850 ± 25 1300 +50/-10	850 ± 20
Spectral width (nm) ¹²	≤ 5	≤ 5	≤ 5	50/135	≤ 1
Output power (dBm)	≥ 1/≥ 1	≥ 1/≥ -3/≥ -5	≥ 1/≥ -4.5/≥ -3	≥ -18/≥ -18 (62.5/125 μm)	≥ -3 (50/125 μm)
Power stability (dB) ¹³					
8 hours	± 0.10	± 0.10	± 0.10	± 0.10	± 0.25
Battery life (hours) ¹⁴	120	100	120	120	250
Automatic wavelength recognition	Yes	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	270, 1 k, 2 k
Warranty and recommended calibration interval (years)	3	3	3	3	3

Notes

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

ORDERING INFORMATION

FOT-30X-XX-XX

Model

- FOT-302-01-VCL = Ge detector, 850 nm VCSEL 50/125 μm
- FOT-302-12D = Ge detector, 850/1300 nm LED source 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/PC
- FOA-16 = SMA/905, SMA/906
- FOA-22 = FC (PC/SPC/UPC/APC), NEC-D3
- FOA-24 = Radial VFO/DF (straight/slant)
- FOA-28 = DIN 47256 (LSA): DIN 47256 (PC/APC)
- FOA-32 = ST (PC/SPC/UPC)
- FOA-34 = Mini-BNC
- FOA-40 = Diamond HMS-OHFS-3 (3.5 mm)
- FOA-42 = Radial PFO
- FOA-44 = Radial MFO
- FOA-48 = HP HFBR-4501-HFBR-4503
- FOA-52 = Biconic Bayonet
- FOA-54 = SC (PC/SPC/UPC/APC)
- FOA-68 = AT&T Rotary Splice
- FOA-76 = FSMA HMS-10/AG, HFS-10/AG
- FOA-78 = Radial EC
- FOA-84 = Diamond HMS-10, HFS-13
- FOA-96B = E-2000
- FOA-98 = LC
- FOA-99 = MU

Connector

- 50 = FC/PC¹
- 54 = SC/PC¹
- 74 = ST/PC¹
- 89 = FC/UPC²
- 90 = ST/UPC²
- 91 = SC/UPC²
- 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 47256²
- EA-EUI-89 = APC/FC narrow key
- EA-EUI-91 = APC/SC²
- EA-EUI-95 = APC/E-2000²

Notes

- Multimode only.
- Singlemode only.

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EXFO is certified ISO 9001 and attests to the quality of these products. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices.

Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.

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