FOT-300

OPTICAL LOSS TEST SET

FTTx Test Solutions

FROST & SULLIVAN
2011 BEST PRACTICES AWARD
GLOBAL PORTABLE FIBER OPTIC TEST EQUIPMENT MARKET SHARE LEADERSHIP AWARD

SPEC SHEET

The FOT-300 is the most optimized OLTS on the market; it offers up to three singlemode or two multimode wavelengths on a single port.

KEY FEATURES

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

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 [a]

Model	**FOT-302**	**FOT-302X**	
Power meter port [b]	Ge	GeX	
Power range (dBm) [c]	10 to –60	26 to –50	
Range displayed (dBm)	Down to –65	Down to –50	
Number of calibrated wavelengths [d]	10	10	
Power uncertainty [e]	±5 % ± 1 nW	±5 % ± 1 nW	
Resolution (dB)	0.01 [f]	0.01 [g]	
Automatic offset nulling [h]	Yes	Yes	
Warmup time (s) [h, i]	0	0	
Display units	dB/dBm/W	dB/dBm/W	
Automatic wavelength recognition [j]	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 [k]	**23BL**	**12D**	**235BL**
Central wavelength (nm)	1310 ± 20 1550 ± 20	850 ± 25 1300 + 50/–10	1310 ± 20 1490 ± 10 1550 ± 20
Spectral width (nm) [l]	≤5	50/135	≤5
Output power (dBm)	≥1/≥1	≥–20/≥–20 (62.5/125 µm)	≥1/≥–4.5/≥–3
Power stability (dB) [m] 8 h	±0.1	±0.1	±0.1
Battery life (hours) [n]	120	120	120
Automatic wavelength recognition	Yes	Yes	Yes
Tone generation (Hz)	270, 1 k, 2 k	270, 1 k, 2 k	270, 1 k, 2 k
Warranty and recommended calibration interval (years)	3	3	3

NOTES

a. Guaranteed unless otherwise specified.
b. All specifications valid at 1550 nm and 23 °C ± 1 °C, with an FC connector.
c. In CW mode; sensitivity defined as 6 x rms noise level.
d. Wavelengths: 830 nm, 850 nm, 980 nm, 1300 nm, 1310 nm, 1450 nm, 1490 nm, 1550 nm, 1590 nm and 1625 nm.
e. Traceable to national standards; FOT-302X: up to 20 dBm.
f. From 10 dBm to –50 dBm.
g. From 26 dBm to –35 dBm.
h. Power of > –40 dBm for FOT-302, and of > –25 dBm for FOT-302X.
i. For ±0.05 dB, from 18 °C to 28 °C.
j. 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.
k. All specifications valid at 23 °C ± 1 °C, with an FC connector.
l. rms for lasers and –3 dB width for LEDs; typical values for LEDs.
m. After a 15-minute warmup; expressed as ± half the difference between the maximum and minimum values measured during the period, with an APC connector on the power meter.
n. Typical autonomy in Auto mode.

GENERAL SPECIFICATIONS

Size (H x W x D)	185 mm x 100 mm x 55 mm	($7^{1}/_{4}$ 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, EUI-XX, connector adapter (FOA-XX), three AA batteries, wrist strap, alcohol cleaning pads.

SAFETY

Complies with 21 CFR 1040.10 except for deviation pursuant to Laser Notice No.50, dated June 24, 2007.

ORDERING INFORMATION

FOT-30X-XX-XX

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

Connector
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

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-28 = DIN 47256 (LSA): DIN 47256 (PC/APC)
FOA-32 = ST (PC/SPC/UPC)
FOA-54 = SC (PC/SPC/UPC/APC)
FOA-78 = Radiall EC
FOA-96B = E-2000
FOA-98 = LC
FOA-99 = MU

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

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