

# FLS-300

NETWORK TESTING—OPTICAL



- Multifunctional light source: up to three singlemode wavelengths on a single port, or four wavelengths (two multimode, and two singlemode) on two ports
- Power autonomy of 120 hours
- Highest output power in the industry
- Three-year warranty and recommended calibration interval, for dramatically reduced cost of ownership
- Ergonomic, eye-catching handheld package

The FLS-300 Light Source is part of EXFO's new line of handheld units, which includes the FPM-300 Power Meter and the FOT-300 Optical Loss Test Set.

## Auto-Wavelength Recognition

The FLS-300 Light Source can transmit with a wavelength-identification digital encrypted protocol, so that any compatible unit—the FPM-300 Power Meter and the FOT-300 Optical Loss Test Set—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.

## 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<sup>a</sup>**

Model <sup>b</sup>	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 <sup>c</sup> (nm)	≤ 5	≤ 5	≤ 5	50/135	≤ 1
Output power (dBm)	≥ 1/≥ 1	≥ 1/≥ -3/≥ -5	≥ 1/≥ -4.5/≥ -3	≥ -20/≥ -20 (62.5/125 μm)	≥ -3 (50/125 μm)
Power stability <sup>d</sup> (dB)					
8 hours	± 0.10	± 0.10	± 0.10	± 0.10	± 0.25
Battery life <sup>e</sup> (hours)	120	100	120	120	250
Enables 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

**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 storage: -40 °C to 70 °C	(14 °F to 122 °F) (-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, 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

**NOTES**

- a. Guaranteed unless otherwise specified.
- b. All specifications valid at 23 °C ± 1 °C, with an FC connector.
- c. rms for lasers and -3 dB width for LEDs; typical values for LEDs.
- d. 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.
- e. Typical autonomy in Auto mode.

**ORDERING INFORMATION**

**FLS-300-XX-XX**

**Model**

FLS-300-01-VCL = 850 nm VCSEL 50/125 μm  
 FLS-300-12D = 850/1300 nm LED 62.5/125 μm  
 FLS-300-23BL = 1310/1550 nm laser 9/125 μm  
 FLS-300-234BL = 1310/1550/1625 nm laser 9/125 μm  
 FLS-300-235BL = 1310/1490/1550 nm laser 9/125 μm  
 FLS-300-12D-23BL = 850/1300 nm LED 62.5/125 μm,  
 1310/1550 nm laser 9/125 μm

Example: FLS-300-234BL-EI-EUI-89

**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

**Rugged Handheld Solutions**

- OPTICAL**
  - OTDRs
  - OLTSs
  - Power meters
  - Light sources
  - Talk sets
- COPPER ACCESS**
  - ADSL/ADSL2+, SHDSL, VDSL test sets
  - VoIP and IPTV test sets
  - Ethernet test sets
  - POTS test sets

**Platform-Based Solutions**

- OPTICAL FIBER**
  - OTDRs
  - OLTSs
  - DRL meters
  - Variable attenuators
- DWDM TEST SYSTEMS**
  - OSAs
  - PMD analyzers
  - Chromatic dispersion analyzer
- TRANSPORT AND DATACOM**
  - Next Generation SONET/SDH and OTN testers
  - SONET/DSn (DS0 to OC-192) testers
  - SDH/PDH (64 kb/s to STM-64) testers
  - T1/T3, E1 testers
  - 10/100M and Gigabit Ethernet testers
  - Fibre Channel testers
  - 10 Gigabit Ethernet testers

Find out more about EXFO's extensive line of high-performance portable instruments by visiting our website at [www.EXFO.com](http://www.EXFO.com).

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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. All of EXFO's manufactured products are compliant with the European Union's WEEE directive. For more information, please visit [www.EXFO.com/recycle](http://www.EXFO.com/recycle). 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. For the most recent version of this spec sheet, please go to the EXFO website at <http://www.EXFO.com/specs>. In case of discrepancy the Web version takes precedence over any printed literature.