

# 600

NETWORK TESTING

## LIGHT SOURCE

### FLS-600



- Up to three singlemode wavelengths (1310, 1550, and 1490 or 1625 nm) on a single port, or four wavelengths (850/1300 nm and 1310/1550 nm) on two ports
- Rechargeable batteries
- Visual fault locator (VFL) option for quick and easy troubleshooting
- Three-year warranty and recommended calibration interval, for low cost of ownership
- Ergonomic, eye-catching handheld package



Part of EXFO's 600 handheld series, which includes the FPM-600 Power Meter and the FOT-600 Optical Loss Test Set, the FLS-600 Light Source is designed for first-class versatility. Choose among laser, LED and VCSEL models, as well as various wavelength options. What's more, you can save time by building a list of your "favorite" wavelengths and only sweeping through these wavelengths when testing.

### Error-Free, Time-Saving Test Features: Automatic Wavelength Switching and Distant Referencing

NEW

Using the FLS-600 in Auto-Switching mode allows you to automatically toggle between available wavelengths. When using this source with a compatible power meter (FPM/FOT-600), the latter recognizes the wavelength in use and switches to the proper calibration parameter.

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-600 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.

### Rugged and Versatile

Like all EXFO portable instruments, the FLS-600 is built for top ruggedness, perfect for the harshest test conditions. It also features a keypad/LCD backlight, for easy operation in darker environments.



[www.exfo.com](http://www.exfo.com)

Telecommunications Test and Measurement

**EXFO**  
EXPERTISE REACHING OUT

# Light Source

## SPECIFICATIONS<sup>1</sup>

Model	12D	23BL	234BL	235BL	01-VCL
Central wavelength (nm)	850 ± 25 1300 +50/-10	1310 ± 20 1550 ± 20	1310 ± 20 1550 ± 20 1625 ± 15	1310 ± 20 1490 ± 10 1550 ± 20	850 +20/-10
Spectral width <sup>2</sup> (nm)	50/135	≤ 5	≤ 5	≤ 5	≤ 1
Output power (dBm)	≥ -20/≥ -20 (62.5/125 μm)	≥ 1/≥ 1	≥ 1/≥ -3/≥ -5	≥ 1/≥ -4.5/≥ -3	≥ -3 (50/125 μm)
Power stability (dB) <sup>3</sup>	15 min 8 h	±0.05 ±0.1	±0.03 ±0.1	±0.03 ±0.1	±0.1 ±0.25
Auto-switching	Yes	Yes	Yes	Yes	Yes
Tone generation	270 Hz, 1 kHz, 2 kHz	270 Hz, 1 kHz, 2 kHz	270 Hz, 1 kHz, 2 kHz	270 Hz, 1 kHz, 2 kHz	270 Hz, 1 kHz, 2 kHz
Battery life (hours) (typical in Auto mode)	50	50	50	50	60
Warranty and recommended calibration interval (years)	3	3	3	3	3

### VFL<sup>4</sup>

Emitter type	Laser
Wavelength (nm)	650
Output power (dBm)	3

### General Specifications

Size (H x W x D)	190 mm x 100 mm x 62 mm	(7 1/2 in x 4 in x 2 1/2 in)
Weight	0.48 kg	(1.1 lb)
Temperature	operating storage	-10 °C to 50 °C (14 °F to 122 °F) -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/charger, lithium ion battery, shoulder strap, hard carrying case.

### Safety

21 CFR 1040.10 and IEC 60825-1:1993+A1:1997+A2:2001:  
CLASS 1M LASER PRODUCT  
CLASS 3R LASER PRODUCT FOR VFL OPTION



### Notes

1. Guaranteed unless otherwise specified. All specifications valid at 23 °C ± 1 °C, with an FC connector.
2. rms for FP lasers and VCSEL; and -3 dB width for LEDs (typical values for LEDs and VCSEL).
3. After a 15-minute warm-up period, and using an APC connector on the power meter (except for multimode sources, for which a PC connector is used). Expressed as ± half the difference between the maximum and minimum values measured during the period. Typical values for VCL model.
4. Typical values in 62.5/125 μm fiber.

## ORDERING INFORMATION

### FLS-600-XX-XX-XX

#### Model

- FLS-600-01-VCL = 850 nm VCSEL 50/125 μm
- FLS-600-12D = 850/1300 nm LED 62.5/125 μm
- FLS-600-23BL = 1310/1550 nm laser 9/125 μm
- FLS-600-234BL = 1310/1550/1625 nm laser 9/125 μm
- FLS-600-235BL = 1310/1490/1550 nm laser 9/125 μm
- FLS-600-12D-23BL = 850/1300 nm LED source 62.5/125 μm, 1310/1550 nm laser 9/125 μm

Example: FLS-600-234BL-EI-EUI-89-VFL

#### Note

1. Singlemode only.

#### Connector\*

- EA-EUI-28 = APC/DIN 47256<sup>1</sup>
- EA-EUI-89 = APC/FC narrow key<sup>1</sup>
- EA-EUI-91 = APC/SC<sup>1</sup>
- EA-EUI-95 = APC/E-2000<sup>1</sup>
- 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

#### Visual Fault Locator

- 00 = Without visual fault locator
- VFL = With visual fault locator (universal 2.5 mm connector)

\* EXFO Universal Interface is protected by US patent 6,612,750.

Corporate Headquarters > 400 Godin Avenue, Vanier (Quebec) G1M 2K2 CANADA | Tel.: 1 418 683-0211 | Fax: 1 418 683-2170 | info@exfo.com

Toll-free: 1 800 663-3936 (USA and Canada) | www.exfo.com

EXFO America	3701 Plano Parkway, Suite 160	Plano, TX 75075 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	No.88 Fuhua, First Road	Shenzhen 518048, CHINA	Tel.: +86 (755) 8203 2300	Fax: +86 (755) 8203 2306
	Central Tower, Room 801, Futian District			

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.