

# ELS-500

Light Source

# EPM-500

Power Meter

NETWORK TESTING—OPTICAL



## The Choice Solution for Network-Link Certification

- Pass/fail thresholds and LED indicator
- Memory capacity of 1000 data items; data transfer to a PC via USB connection
- Error-free testing: automatic wavelength switching, and no offset nulling required
- One-touch storage of results for all wavelengths at once (on the EPM-500)
- Complete reporting software
- Controlled multimode launching output **NEW**

## The FiberBasix 500 series includes two highly convenient instruments:

- The **ELS-500 Light Source**, combining up to four wavelengths and available in four specific configurations
- The **EPM-500 Power Meter**, which offers high accuracy and referencing capabilities

## Rugged, Reliable, Convenient

Like all EXFO portable instruments, FiberBasix 500 handheld units are built for top ruggedness and convenience, perfect for the harshest test conditions. They feature a keypad/LCD backlight, for easy operation in darker environments, rechargeable batteries and interchangeable connectors.

## ELS-500 Light Source: Multiwavelength Testing Capability



The EXFO's ELS-500 Light Source provides excellent stability and high measurement accuracy with your choice of two wavelengths (1310/1550 nm) on a single port, or four wavelengths (850/1300 nm and 1310/1550 nm) on two ports. With its automatic wavelength switching mode, it is the perfect complement to the EPM-500 Power Meter when it comes to quickly and easily measuring attenuation on fiber-optic links.

- Tone generation for use with the EPM-500 Power Meter
- Automatic wavelength switching
- Highest singlemode output power in the industry



■ The ELS-500 Light Source

## EPM-500 Power Meter: High Accuracy and Easy Referencing

The EPM-500 Power Meter provides highly accurate power measurements, as well as reference value setting capabilities. What's more, this convenient unit requires no offset nulling, for reliable, long-lasting performance in the field. When paired with an ELS-500 Light Source used in Auto-Switching mode, the power meter allows for semi-automated loss measurement, providing easy, error-free testing.

- Tone detection and automatic wavelength switching
- Memory capacity of 1000 data items; data transfer to a PC via USB connection
- Pass/fail thresholds and LED indicators
- No offset nulling required



■ The EPM-500 Power Meter

### Reporting Software (EPM-500 Power Meter)

This new software tool enables you to produce professional-looking reports with comprehensive documentation. It also offers these functionalities:

- Two test files can be merged into one test report (see note no. 3)
- Pass/fail thresholds that are active during download are automatically activated and displayed in the Report Viewer
- One-touch storage of results for all wavelengths at once (see note no. 1)
- Unit B configuration information can be input and documented (see note no. 2)
- Data transfer can be launched from the Report Viewer window (see note no. 3)
- A pass/fail threshold can be set for an individual fiber or wavelength (see note no. 4)

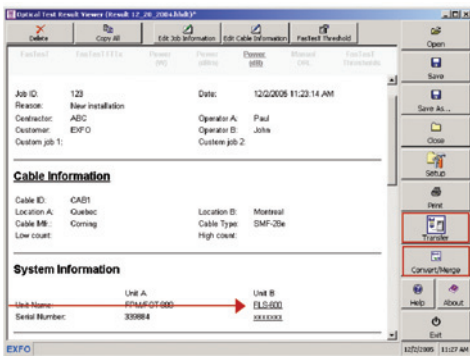
1

Store test results  
for all wavelengths  
at once

Fiber ID	Wavelength (nm)	Power (dB)	Reference (dB)	Threshold (dB)	Pass/Fail
0001	1310	-3.22	4.92	-5.00	Pass
	1490	-2.61	0.40	-5.00	Pass
	1550	-2.44	1.55	-5.00	Pass

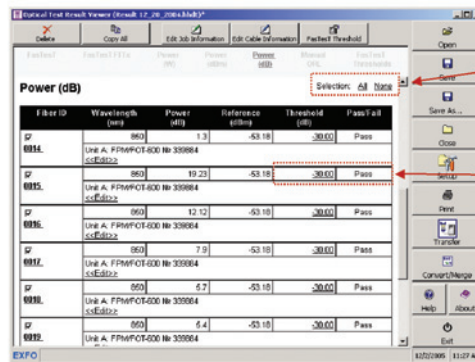
■ Optical Report Viewer: main window

2  
Configure unit B  
information



Optical Report Viewer: main window

3  
Launch data  
transfer and  
converter/merger



Optical Report Viewer: main window

4  
Select all or no results  
in a specific section

Determine a threshold  
for each fiber and/or  
wavelength and get  
a pass/fail status (not  
available with FasTest  
result)

### ELS-500 SPECIFICATIONS <sup>a</sup>

Model <sup>b</sup>	12D	23BL
Central wavelength (nm)	850 ± 25 1300 +50/-10	1310 ± 20 1550 ± 20
Spectral width <sup>c</sup> (nm)	50/135	≤ 5
Output power (dBm)	≥ -20/≥ -20 (62.5/125 μm)	≥ 1/≥ 1
Automatic wavelength switching	Yes	Yes
Tone generation	270 Hz, 1 kHz, 2 kHz	270 Hz, 1 kHz, 2 kHz
Battery life (hours) (typical in Auto mode)	50	50
Warranty and recommended calibration interval (year)	1	1

### EPM-500 SPECIFICATIONS <sup>a</sup>

Model	EPM-502
<b>Detector <sup>d</sup></b>	<b>Ge</b>
Power range <sup>e</sup> (dBm)	10 to -70
Wavelength range (nm)	800 to 1650
Number of calibrated wavelengths <sup>f</sup>	6
Power uncertainty <sup>g</sup>	±5 % ± 0.1 nW
Automatic offset nulling <sup>h</sup>	Yes
Display units	dB, dBm, W
Tone detection	270 Hz, 1 kHz and 2 kHz
Automatic wavelength recognition <sup>f</sup>	Yes
Warm-up period <sup>i</sup> (min)	0
Data storage (items)	Up to 1000
Battery life (hours) (typical)	70
Warranty and recommended recalibration interval (years)	1

#### NOTES

- Guaranteed unless otherwise specified.
- All specifications valid at 23 °C ± 1 °C, with an FC connector.
- rms for FP lasers; -3 dB width for LEDs (typical values for LEDs).
- 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.
- At 850 nm, 1300 nm, 1310 nm, 1490 nm, 1550 nm and 1625 nm; for power > -50 dBm for EPM-502.g. For calibration wavelengths.
- For calibration wavelengths.
- For power > -40 dBm for EPM-502.
- For a variation of ≤ 0.06 dB at power levels ≥ -40 dBm for EPM-502.

## ORDERING INFORMATION

### ELS-500-XX-XX

#### Model ■

ELS-500-12D-23BL = 850/1300 nm LED 62.5/125 μm, 1310/1550 nm laser, two ports  
ELS-500-23BL = 1310/1550 nm laser, 9/125 μm, one port

#### Connector ■

EI-EUI-89 = UPC/FC narrow key  
EI-EUI-90 = UPC/ST  
EI-EUI-91 = UPC/SC  
EI-EUI-95 = UPC/E-2000

Example: ELS-500-23BL-EI-EUI-89

### EPM-50X-XX

#### Model ■

EPM-502 = Ge detector

#### Connector Adapter <sup>a</sup> ■

FOA-22 = FC (PC/SPC/UPC/APC), NEC-D3  
FOA-32 = ST (PC/SPC/UPC)  
FOA-54 = SC  
FOA-96B = E-2000  
FOA-98 = LC

Example: EPM-502-FOA-22

### SAFETY

21 CFR 1040.10 and IEC 60825-1:1993+A1:1997+A2:2001:  
ELS-500: CLASS 1M LASER PRODUCT

### NOTE

a. Other connectors and connector adapters available. Consult our website at [www.EXFO.com/accessories](http://www.EXFO.com/accessories) for details. EXFO Universal Interface is protected by US patent 6,612,750.

## TEST KIT ORDERING INFORMATION

### FBK-501-XX LAN Test Kit with data storage/transfer

- EPM-502-XX Power Meter, Ge detector
- ELS-100-12D-XX Light Source, 850/1300 nm LED (1 port)
- One TJ-DXX-XX Test Jumper
- Carrying case (GP-10-061)
- One FOA-XX
- One EUI-XX

### FBK-502-XX Outside Plant Test Kit with data storage/transfer

- EPM-502-XX Power Meter, Ge detector
- ELS-100-23BL-XX Light Source, 1310/1550 nm laser (1 port)
- One TJ-BXX-XX Test Jumper
- Carrying case (GP-10-061)
- One FOA-XX
- One EUI-XX

### FBK-503-XX Contractor Test Kit with data storage/transfer

- EPM-502-XX Power Meter, Ge detector
- ELS-100-12D-23BL-XX Light Source, 850/1300 nm LED and 1310/1550 nm laser (2 ports)
- One TJ-BXX-XX Test Jumper
- One TJ-DXX-XX Test Jumper
- Carrying case (GP-10-061)
- One FOA-XX
- Two EUI-XX

### FBK-504-XX Premium LAN Test Kit with data storage/transfer

- EPM-502-XX Power Meter, Ge detector
- FLS-600-12D-XX Light Source
- One TJ-DXX-XX Test Jumper
- Carrying case (GP-10-061)
- One FOA-XX
- One EUI-XX

### FBK-505-XX Premium Outside Plant Test Kit with data storage/transfer

- EPM-502-XX Power Meter, Ge detector
- ELS-500-23BL-XX Light Source, 1310/1550 nm laser (1 port)
- One TJ-BXX-XX Test Jumper
- Carrying case (GP-10-061)
- One FOA-XX
- One EUI-XX

### FBK-506-XX Premium Contractor Test Kit with data storage/transfer

- EPM-502-XX Power Meter, Ge detector
- ELS-500-12D-23BL-XX Light Source, 850/1300 nm LED and 1310/1550 nm laser (2 ports)
- One TJ-BXX-XX Test Jumper
- One TJ-DXX-XX Test Jumper
- Carrying case (GP-10-061)
- One FOA-XX
- Two EUI-XX

Rugged Handheld Solutions		Platform-Based Solutions		
<b>OPTICAL</b> <ul style="list-style-type: none"> <li>OTDRs</li> <li>OLTs</li> <li>Power meters</li> <li>Light sources</li> <li>Talk sets</li> </ul>	<b>COPPER ACCESS</b> <ul style="list-style-type: none"> <li>ADSL/ADSL2+, SHDSL, VDSL test sets</li> <li>VoIP and IPTV test sets</li> <li>Ethernet test sets</li> <li>POTS test sets</li> </ul>	<b>OPTICAL FIBER</b> <ul style="list-style-type: none"> <li>OTDRs</li> <li>OLTs</li> <li>ORL meters</li> <li>Variable attenuators</li> </ul>	<b>DWDM TEST SYSTEMS</b> <ul style="list-style-type: none"> <li>OSAs</li> <li>PMD analyzers</li> <li>Chromatic dispersion analyzer</li> </ul>	<b>TRANSPORT AND DATACOM</b> <ul style="list-style-type: none"> <li>Next-generation SONET/SDH and OTN testers</li> <li>SONET/DSn (DS0 to OC-192) testers</li> <li>SDH/PDH (64 kbit/s to STM-64) testers</li> <li>T1/T3, E1 testers</li> <li>10/100 Mbit/s and Gigabit Ethernet testers</li> <li>Fibre Channel testers</li> <li>10 Gigabit Ethernet testers</li> </ul>

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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. In addition, 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). 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.