

FiberBasix 50 Handheld Testers

SERIES COMPRISING THE ELS-50 LIGHT SOURCE AND EPM-50 POWER METER



SPEC SHEET

Delivering simple, accurate measurement of signal attenuation during fiber-optic cable installation.

KEY FEATURES

- Easy-to-use interface for error-free testing
- Interchangeable connectors, for first-class flexibility
- Cost-effective, rugged and highly reliable
- Ideal for testing and troubleshooting optical premises networks
- Available as stand-alone units or in all-in-one test kits including all required accessories (adapters, carrying case, etc.)
- Five test kits designed for specific users/testing needs: LAN, outside plant, contractors, FTTH and CATV

APPLICATIONS

- Link-loss characterization (ELS-50 Light Source)
- Power measurement (EPM-50 Power Meter)

COMPLEMENTARY PRODUCTS AND OPTIONS



Fiber Inspector Probe
FIP-400



Visual Fault Locator
FLS-240

Worry-Free, Simple and Good to Go

EXFO's FiberBasix 50 series meets your basic day-to-day test requirements while helping you stay within budget. These worry-free, straightforward handheld testers enable accurate measurement of signal attenuation during fiber-optic cable installation. The FiberBasix 50 series includes two highly convenient instruments:

- › The ELS-50 Light Source, which offers up to three wavelengths for singlemode testing and two wavelengths for multimode testing
- › The EPM-50 Power Meter, which offers high accuracy and referencing capabilities

ELS-50 LIGHT SOURCE: MULTIWAVELENGTH CAPABILITY

EXFO's ELS-50 Light Source provides excellent stability and high measurement accuracy for up to three singlemode wavelengths (1310, 1490 and 1550 nm) or two multimode wavelengths (850 and 1300 nm). It is the perfect complement to the FiberBasix 50 EPM-50 Power Meter when it comes to measuring attenuation on fiber-optic links.

EPM-50 POWER METER: HIGH ACCURACY AND EASY REFERENCING

The EPM-50 Power Meter provides highly accurate power measurements, as well as reference value setting capabilities. It offers power autonomy of 300 hours, for reliable, long-lasting performance in the field.



ELS-50 SPECIFICATIONS



- 1 Rubber boot protector
- 2 Wrist strap
- 3 Cap protector
- 4 Stand

SPECIFICATIONS^a

MODEL	23BL	235BL	12C
Central wavelength (nm) ^b	1310 ± 20 1550 ± 20	1310 ± 20 1490 ± 10 1550 ± 20	850 ± 25 1300 +50/-10
Spectral width (nm) ^{b, c}	≤5	≤5	≥40/120
Output power (dBm)	≥-5	≥-5	≥-24 (50/125 μm)
Power stability (dB) ^{b, d}	±0.10	±0.10	±0.10
Battery life (hours) ^b	60	60	45
Tone generation (Hz)	270, 1 k, 2 k	270, 1 k, 2 k	270, 1 k, 2 k
Warranty (year)	1	1	1

GENERAL SPECIFICATIONS

Size (H x W x D)	189 mm x 78 mm x 37 mm (7 7/16 in x 3 1/16 in x 1 7/16 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

Soft pouch, LSA-89 FC connector adapter, quick reference sticker in five languages, Certificate of Compliance, three AA batteries, rubber boot protector

OPTIONAL ACCESSORIES

LSA-89 (FC connector adapter for ELS-50 Light Source)

LSA-90 (ST connector adapter for ELS-50 Light Source)

LSA-91 (SC connector adapter for ELS-50 Light Source)

Manual (user guide)

GP-10-081 (soft pouch)

GP-2124 (rubber protective boot)

GP-2131 (pack of 10 replacement ceramic sleeves for ELS-50)

SAFETY



21 CFR 1040.10 AND IEC 60825-1:2007
CLASS 1 LASER PRODUCT

Notes

- a. All specifications valid at 23 °C ± 3 °C, with an FC/UPC connector.
- b. Typical.
- c. Rms for lasers and -3 dB width for LEDs.
- d. After 15 minutes warmup; expressed as ± half the difference between the maximum and minimum values measured over 8 hours.

EPM-50 SPECIFICATIONS



- 1 Rubber boot protector
- 2 Wrist strap
- 3 Cap protector
- 4 Stand
- 5 Soft pouch
- 6 Connector adapter
- 7 Carrying case (supplied with any all-in-one test kit)

SPECIFICATIONS^a

MODEL	EPM-53	EPM-53X
Power meter port	InGaAs	InGaAsX
Power range ^b (dBm)	10 to -60	26 to -50
Number of calibrated wavelengths ^c	5	5
Power uncertainty ^d	±5 %	±5 %
Resolution (dB)	0.01	0.01
Display units	dB/dBm/W	dB/dBm/W
Tone detection (Hz)	270, 1 k, 2 k	270, 1 k, 2 k
Battery life (hours) ^d	>300	>300
Warranty (year)	1	1

GENERAL SPECIFICATIONS

Size (H x W x D)	189 mm x 78 mm x 37 mm (7 7/16 in x 3 1/16 in x 1 7/16 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

Soft pouch, PMA-22 FC connector adapter for EPM-50 power meter, quick reference sticker in five languages, Certificate of Calibration, Certificate of Compliance, three AA batteries

OPTIONAL ACCESSORIES

PMA-22 (FC connector adapter for EPM-50 power meter)	Manual (user guide)
PMA-32 (ST connector adapter for EPM-50 power meter)	GP-10-081 (soft pouch)
PMA-54 (SC connector adapter for EPM-50 power meter)	GP-2124 (rubber boot)

Notes

- a. All specifications valid at 23 °C ± 3 °C, with an FC/UPC connector.
- b. In CW mode.
- c. Wavelengths: 850 nm, 1300 nm, 1310 nm, 1490 nm, 1550 nm.
- d. Typical.



ORDERING INFORMATION

ELS-50-XX-LSA-89-RB

- ELS-50-23BL = 1310/1550 nm laser (9/125 μm)
- ELS-50-235BL = 1310/1490/1550 nm laser (9/125 μm)
- ELS-50-12C = 850/1300 nm LED (50/125 μm)

Example: ELS-50-12C-LSA-89-RB

EPM-5X-PMA-22-XX

- EPM-53 = InGaAs detector
- EPM-53X = High-power InGaAs detector
- 00 = Without rubber boot protector
- RB = With rubber boot protector
- PMA-22 = FC adapter for power meter

Example: EPM-53X-PMA-22-RB

TEST KIT ORDERING INFORMATION

FBK-51 LAN Test Kit

- › EPM-53-RB Power Meter, InGaAs detector, universal 2.5 mm push-pull adapter and FC adapter, rubber boot, soft pouch
- › ELS-50-12C-RB Light Source, 850/1300 nm LED (one port), FC adapter, rubber boot, soft pouch
- › Carrying case (GP-10-061)
- › Extra power meter adapters: one PMA-54 (SC) and one PMA-32 (ST)
- › Extra light source adapters: one LSA-91 (SC) and one LSA-90 (ST)

FBK-52 Outside Plant Test Kit

- › EPM-53-RB Power Meter, InGaAs detector, Universal 2.5 mm push-pull adapter and FC adapter, rubber boot, soft pouch
- › ELS-50-23BL-RB Light Source, 1310/1550 nm laser (one port), FC adapter, rubber boot, soft pouch
- › Carrying case (GP-10-061)
- › Extra power meter adapters: one PMA-54 (SC) and one PMA-32 (ST)
- › Extra light source adapters: one LSA-91 (SC) and one LSA-90 (ST)

FBK-53 Contractor Kit

- › EPM-53-RB Power Meter, InGaAs detector, universal 2.5 mm push-pull adapter and FC adapter, rubber boot, soft pouch
- › ELS-50-12C-RB Light Source, 850/1300 nm LED (one port), FC adapter, rubber boot
- › ELS-50-23BL-RB Light Source, 1310/1550 nm laser (one port), FC adapter, rubber boot, soft pouch
- › Carrying case (GP-10-061)
- › Extra power meter adapters: one PMA-54 (SC) and one PMA-32 (ST)
- › Extra light source adapters: two LSA-91 (SC) and two LSA-90 (ST)

FBK-54 FTTH Test Kit

- › EPM-53X-RB Power Meter, High-power InGaAs detector, universal 2.5 mm push-pull adapter and FC adapter, rubber boot, soft pouch
- › ELS-50-235BL-RB Light Source, 1310/1490/1550 nm laser (one port), FC adapter, rubber boot, soft pouch
- › Carrying case (GP-10-061)
- › Extra power meter adapters: one PMA-54 (SC) and one PMA-32 (ST)
- › Extra light source adapters: one LSA-91 (SC) and one LSA-90 (ST)

FBK-55 CATV Test Kit

- › EPM-53X-RB Power Meter, high-power InGaAs detector, universal 2.5 mm push-pull adapter and FC adapter, rubber boot, soft pouch
- › ELS-50-23BL-RB Light Source, 1310/1550 nm laser (1 port), FC adapter, rubber boot, soft pouch
- › Carrying case (GP-10-061)
- › Extra power meter adapters: one PMA-54 (SC) and one PMA-32 (ST)
- › Extra light source adapters: one LSA-91 (SC) and one LSA-90 (ST)

EXFO Corporate Headquarters > 400 Godin Avenue, Quebec City (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	3400 Waterview Parkway, Suite 100	Richardson, TX 75080 USA	Tel.: +1 972 761-9271	Fax: +1 972 761-9067
EXFO Asia	100 Beach Road, #22-01/03 Shaw Tower	SINGAPORE 189702	Tel.: +65 6333 8241	Fax: +65 6333 8242
EXFO China	36 North, 3 rd Ring Road East, Dongcheng District Room 1207, Tower C, Global Trade Center	Beijing 100013 P. R. CHINA	Tel.: + 86 10 5825 7755	Fax: +86 10 5825 7722
EXFO Europe	Omega Enterprise Park, Electron Way	Chandlers Ford, Hampshire S053 4SE ENGLAND	Tel.: +44 23 8024 6810	Fax: +44 23 8024 6801
EXFO Finland	Elektronikkatie 2	FI-90590 Oulu, FINLAND	Tel.: +358 (0)403 010 300	Fax: +358 (0)8 564 5203
EXFO Service Assurance	270 Billerica Road	Chelmsford, MA 01824 USA	Tel.: +1 978 367-5600	Fax: +1 978 367-5700

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

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