FiberBasix 50 handheld testers

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

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

FROST & SULLIVAN

2011

BEST
PRACTICES
AWARD

GLOBAL PORTABLE FIBER OPTIC
TEST EQUIPMENT MARKET
SHARE LEADERSHIP AWARD

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

Fiber inspector scope
FIP-400B (WiFi or USB)

Visual fault locator
FLS-140

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❝ 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/−20
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 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
Power supply	3 AA alkaline batteries

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

CLASS 1
LASER PRODUCT

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.

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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 (dBm) [b]	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 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
Power supply	3 AA alkaline batteries

STANDARD ACCESSORIES

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

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.

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ORDERING INFORMATION

ELS-50-XX-LSA-89-RB

Model
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)

RB = With rubber boot protector

LSA-89 = FC connector adapter for light source

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

EPM-XX-PMA-22-RB

Model
EPM-53 = InGaAs detector
EPM-53X = High-power InGaAs detector

RB = With rubber boot protector

PMA-22 = FC connector 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)

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