

LTK-400 Series Optical Sources, Meters, and Kits Without Data Storage Capabilities

An Evolant® Solutions Product

Applications

- Testing and troubleshooting of multimode and single-mode optical fiber cable systems

Description

The Corning Cable Systems LTK-400 Series offers a complete, cost-effective solution for link-loss testing of both multimode and single-mode systems for those users who do not require data storage capabilities. The LTK offers unparalleled performance by combining a source that has one of the highest output powers in the industry with a meter that has 10 calibrated wavelengths. The units can be powered by standard AA alkaline batteries, or by the supplied AC power adapters.

The LTK-400 Series meter and sources are sold individually or packaged as test kits. These test kits include everything needed to test “right out of the box” including the following:

- OS-400 series source and OM-410 meter
- SC and ST® Compatible source and meter adapters
- SC and ST Compatible jumpers
- SC and ST Compatible adapters
- 62.5 µm and 50 µm test mandrels
- Alkaline batteries and AC power supplies
- Cleaning supplies in a storage case
- Padded carrying case and users manual

Features / Benefits

- Rugged handheld design that can withstand the harshest testing environments
- Excellent cost-effective solution for testing fiber optic systems when data storage is not required
- Both the source and meter have field-interchangeable port adapters
- Product warranty and recommended calibration interval of three years results in reduced ownership cost



LTK-400 Series Light Source and Power Meter | Photo LAN784



LTK-400 Series Test Kit | Photo LAN786

- Automatic wavelength detection mode allows the power meter to automatically detect/switch to the wavelength being transmitted by the source
- Power meter is calibrated for 10 wavelengths from 830 nm to 1625 nm
- Power meter has automatic offset nulling under normal temperature and humidity conditions

This test equipment is classified as a category 9 item under RoHS (Directive 2002-95-EC), thus is exempt from the restriction.



Product Specifications

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Features / Benefits (continued)

- Both the source and power meter are capable of being powered by either AA battery or by the supplied AC adapter
- Power meter offers signal modulation detection settings for 270 Hz, 1 kHz and 2 kHz signals
- Sources are available as single-mode only, multimode only, or as quad with both a single-mode and multimode source in the same unit

Specifications

Power Meter¹

Model Number	OM-410
Power Meter Port	Ge
Power Range (dBm) ²	10 to -60
Number of Calibrated Wavelengths ³	10
Power Uncertainty (nW) ⁴	± 5% ± 1
Resolution (dB) ⁵	0.01
Automatic Offset Nulling ⁶	Yes
Warmup Time (s) ⁷	0
Display Units	dB/dBm/W
Automatic Wavelength Recognition ⁸	Yes
Screen Refresh Rate (Hz)	3
Tone Detection (Hz)	270, 1 k, 2 k
Battery Life Typical (hours)	300
Warranty and Recommended Calibration Interval (years)	3
Size (H x W x D)	18.5 x 10.0 x 5.5 cm (7.25 x 4 x 2.125 in)
Weight	0.4 kg (0.9 lb)
Operating Temperature	-10° to 50° C (14° to 122° F)
Storage Temperature	-40° to 70° C (-40° to 158° F)
Relative Humidity	0% to 95% non-condensing

Notes:

¹Specifications are guaranteed at 23° C ±1° C.

²In CW mode; sensitivity defined as 6 x RMS noise level.

³Wavelengths: 830 nm, 850 nm, 980 nm, 1300 nm, 1310 nm, 1450 nm, 1490 nm, 1550 nm, 1590 nm, and 1625 nm.

⁴Traceable to NIST.

⁵From 10 dBm to -50 dBm.

⁶Power of > -40 dBm.

⁷For ± 0.05 dB and temperatures of > 18° C.

⁸At 850 nm, 1300 nm, 1310 nm, 1490 nm, 1550 nm and 1625 nm for power of > -50 dBm.

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Specifications (continued)

Source¹		
Model Number	OS-403D OS-4MDS	OS-404XD OS-4MDS
Central Wavelengths (nm)	850 ± 25 1300 -10/+50	1310 ± 20 1550 ± 20
Spectral Width ² (nm)	50 (850 nm) 135 (1300 nm)	≤ 5 (1310 nm) ≤ 5 (1550 nm)
Output Power ³ (dBm)	≥ -20 (850 nm) ≥ -20 (1300 nm)	≥ 1 (1310 nm) ≥ 1 (1550 nm)
Power Stability ⁴ (dB)	±0.10	±0.10
Battery Life ⁵ (hours)	120	120
Automatic Wavelength Recognition	Yes	Yes
Tone Generation (Hz)	270, 1 k, 2 k	270, 1 k, 2 k
Warranty and Recommended Calibration Interval (years)	3	3
Size	18.5 x 10.0 x 5.5 cm (7.25 x 4 x 2.125 in)	
Weight	0.4 kg (0.9 lb)	
Operating Temperature	-10° to 50° C (14° to 122° F)	
Storage Temperature	-40° to 70° C (-40° to 158° F)	
Relative Humidity	0% to 95% non-condensing	
Safety	Class 1M Laser Product	

Notes:

¹ Specifications are guaranteed at 23°C ±1°C.

² RMS for lasers and -3 dB width for LEDs; typical values for LEDs.

³ LED output power is specified with 62.5 µm fiber; 50 micron coupled power would be lower.

⁴ After 15 minutes warm-up; expressed as ± half the difference between the maximum and minimum values during the 8 hour period.

⁵ Typical autonomy in auto mode.

Ordering Information

Part Number	Description
Power Meter	
OM-410	Optical Power Meter without data storage; (1) SC meter port adapter, (1) ST® Compatible meter port adapter, (1) AC adapter, (1) wrist strap, manual, and AA alkaline batteries
Light Source	
OS-403D	Multimode Optical Source with 850/1300 nm LED; (1) SC source port adapter, (1) ST Compatible source port adapter, (1) AC adapter, (1) wrist strap, manual, and AA alkaline batteries
OS-404XD	Single-Mode Optical Source with 1310/1550 nm laser; (1) SC source port adapter, (1) ST Compatible source port adapter, (1) AC adapter, (1) wrist strap, manual, and AA alkaline batteries
OS-4MDS	Quad Optical Source with 850/1300 nm LED and 1310/1550 nm laser; (2) SC source port adapter, (1) ST Compatible source port adapter, (1) AC adapter, (1) wrist strap, manual, and AA alkaline batteries

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Ordering Information (continued)

Part Number	Description
Test Kits with Source and Meter	
LTK-400MD	Multimode Loss Test Kit including OS-403D source (850/1300 nm LED) and OM-410 meter (no data storage), AA batteries for both units, (2) AC power supplies, SC and ST® Compatible jumpers and adapters for MM, manual, (1) SC source port adapter, (1) ST Compatible source port adapter, (1) SC meter port adapter, (1) ST Compatible meter port adapter, (2) wrist straps, plastic case of cleaning supplies, and padded carrying case
LTK-400SD	Single-Mode Loss Test Kit including OS-404XD source (1310/1550 nm laser) and OM-410 meter (no data storage), AA batteries for both units, (2) AC power supplies, SC and ST Compatible jumpers and adapters for SM, manual, (1) SC source port adapter, (1) ST Compatible source port adapter, (1) SC meter port adapter, (1) ST Compatible meter port adapter, (2) wrist straps, plastic case of cleaning supplies, and padded carrying case.
LTK-4MDSD	Quad Multimode and Single-Mode Loss Test Kit including OS-4MDSD (850/1300 nm LED) and (1310/1550 nm laser) source and OM-410 meter (no data storage), AA batteries for both units, (2) AC power supplies, SC and ST Compatible jumpers and adapters for both MM and SM, manual, (2) SC source ports adapter, (1) ST Compatible source port adapter, (1) SC meter port adapter, (1) ST Compatible meter port adapter, (2) wrist straps, plastic case of cleaning supplies, and padded carrying case
Accessories	
UI-SC	Universal Interface Source Connector Adapter, SC
UI-ST	Universal Interface Source Connector Adapter, ST Compatible
UI-FC	Universal Interface Source Connector Adapter, FC
OA-SC	Power Meter Connector Adapter, SC
OA-ST	Power Meter Connector Adapter, ST Compatible
OA-FC	Power Meter Connector Adapter, FC
OA-LC	Power Meter Connector Adapter, LC
OA-MTRJ	Power Meter Connector Adapter, MT-RJ
PS-9-1	AC Power Adapter for 400 Series source or meter
CASE-HH-400	Hard-Shell Transit Case for (2) 400 Series instruments and accessories (17.25 x 11.25 x 7 in; 8 lbs)
CASE-STD-400	Padded Carrying Case for (2) 400 Series instruments and accessories
OTS-COMBOMAN	Set of Mandrels for 50 µm and 62.5 µm multimode fiber