



# KI7800 SERIES

OPTICAL LIGHT SOURCE

The KI 7800 series Optical Light Source is used with an Optical Power Meter to test loss on single mode and multimode optical fiber systems, at 2 to 4 wavelengths.

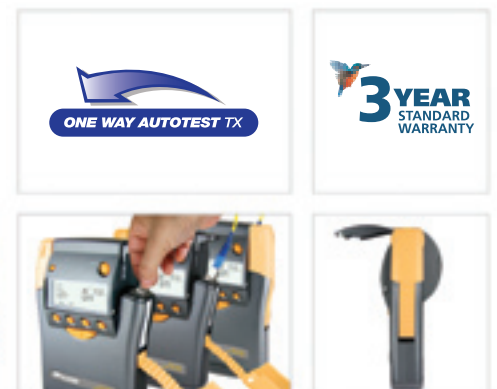
High productivity, high availability and ease of use combine to achieve superior measurement confidence.

## OPTICAL COMMUNICATIONS TEST APPLICATIONS

- ✓ Single mode & multimode loss testing
- ✓ Cabling contractors

## FEATURES

- ✓ Ideal for mixed MMF & SMF testing
- ✓ Up to 4 mixed LED or Laser sources
- ✓ Autotest compatibility with other instruments
- ✓ Excellent optical power stability
- ✓ Excellent re-connection repeatability
- ✓ Interchangeable connectors for all common types
- ✓ LED sources are CPR compliant for 50  $\mu\text{m}$  fiber
- ✓ LED sources have mandrel wraps for 50 & 62.5  $\mu\text{m}$  fiber
- ✓ Optical test tone source
- ✓ Very long battery life
- ✓ Compact, rugged & light weight
- ✓ 3 ~ 7 year warranty
- ✓ 3 year calibration cycle





The KI7800 Optical Light Source is used with a power meter for measuring optical loss on singlemode and multimode fiber cable. A test tone feature on Kingfisher sources and meters also provide a handy continuity test and fault finding function.

Alternatively the KI7800 can be used to test continuity and find faults in combination with a Kingfisher clip-on fiber identifier.

Up to 4 assorted LED or laser sources can be specified per instrument, making this a versatile test source for mixed multimode / single mode fiber testing.

When used with Autotest compatible Kingfisher power meters or Loss Test Sets, automatic  $\lambda$  identification is achieved.

The multimode LED sources are the 1st in the industry to feature standards compliance for modal distribution (CPR), center wavelength and spectral width, resulting in greatly improved measurement repeatability.

### SPECIFICATIONS

	1310/1550 nm Laser	Other Laser	850 nm VCSEL	635 nm Laser	850 / 1300 nm LED	Comments
Output Power (dBm) @ Fiber Type ( $\mu$ m)	0 @ 9/125	1 ~ 2 $\lambda$ : -4 @ 9/125 3 ~ 4 $\lambda$ : -7 @ 9/125	0 @ 50/125	-10 @ 4/125	-23 @ 62.5/125 -35 @ 9.5/125	$\pm$ 1 dB
Short term stability (dB)	0.04 <sup>1</sup>	0.06 <sup>1</sup>	0.06 <sup>1</sup>	0.06 <sup>1</sup>	0.01	For 15 min, typ $\pm$ $\Delta$ 2°C, after warm up
Stability over temp (dB)	0.6	0.6	0.6	0.6	0.35	Typical, over temperature
$\lambda$ initial tolerance (nm)	20	20	20	20	30	At 25 °C
$\lambda$ width (nm)	3	< 1	< 1	< 1	850: 35 1300: 100	FWHM, typical
$\lambda$ nm/°C	0.4	0.1	0.1	0.1	0.4	Typical
Coupled Power Ratio (CPR)	NA	NA	NA	NA	CPR CAT=1 into 50 $\mu$ m <sup>2</sup>	850 nm: 20-24 dB 1300 nm: 16-20 dB
Reconnection repeatability (dB)	0.1				0.05	95 % confidence
Modulation	270 Hz, 1 KHz, 2 KHz, $\pm$ 2 %					
Laser output	Adjustable over 6 dB in 0.01 dB steps					

Note: 1) ORL < -25 dB. 2) LED sources CPR compliant for 50  $\mu$ m fiber, includes Coupled Power Ratio (CPR), CAT=1, Center Wavelength and Spectral Width. The compliant standards are IEC 61280-4-1 [Ed.1.0] and TIA/EIA 526-14A.

### GENERAL SPECIFICATIONS

Battery life	190 hrs at Autotest
Size	190 x 130 x 70 mm, 7.5" x 5.1" x 2.8"
Weight	500 gm, 1.1 lb. Shipping 1.5 Kg, 3.3 lb
Temperature	-15 to 55 °C (Operating) / -25 to 70 °C (Storage)
Hidden keypad Case	For setting advanced functions Polycarbonate, 1 meter drop tested
Power	2 alkaline C cells (7.6 A/Hr). AA size batteries accommodated. External 9V DC with 2.5 mm +ve pin. Selectable auto-off, low battery indicator, backlit display.

### STANDARDS COMPLIANCE OPTIONS FOR LED SOURCE

Description	P/N
TIA/EIA 526-14A standard compliance for LED sources: CPR & into 62.5 $\mu$ m fiber. Including 62.5 $\mu$ m mandrel wraps. Output power tolerance $\pm$ 3 dB	OPT093
IEC 14763-3 standard compliance for LED sources: CPR & into 50 $\mu$ m fiber. Including 50 $\mu$ m mandrel wrap	OPT094
IEC 14763-3 standard compliance for LED sources: CPR & into 62.5 $\mu$ m fiber. Including 62.5 $\mu$ m mandrel wrap	OPT095

### OPTIONAL INTERCHANGEABLE CONNECTOR ADAPTORS

Description	P/N	Description	P/N
D4	OPT055	LC / F3000	OPT072
E2000/LSH, green	OPT060G	MU	OPT080
E2000/LSH	OPT060	SMA 905/906	OPT082
LSA / DIN47256	OPT071		

This instrument is supplied with metal-free interchangeable optical connector adaptors. The ferrule type is fixed and customer specified as either PC or APC. Green is associated with APC. You can order any number of connector adaptors.

Australian and international patents. Technical data is subject to change without notice as part of our program of continuous improvements. Class 1 Laser/ LED product, complies IEC60825-1 and 21CFR1040.10

### AUTHORIZED DEALER

The compliant standards are IEC 61280-4-1 [Ed.1.0] and TIA/EIA 526-14A. Optional compliance against other standards is available.

All emitters feature excellent repeatability and stability. Re-connection repeatability is < 0.1 dB, resulting in exceptional measurement accuracy.

The long battery life of nearly 5 working weeks eliminates the requirement for rechargeable batteries and time consuming re-charging procedures.

Interchangeable optical connectors are dust and drop protected. Instruments come with 3 popular connector adaptor styles and all general accessories. Metal free adaptors help avoid contamination of connectors in high power systems.

Please refer to other brochures for our convenient FiberTester kits, comprising groups of instruments and common accessories supplied in a protective field carry case.

The precision 635 nm source option has a single mode fiber output free of multimode interference effects.

### ORDERING INFORMATION

Please enquire for other combinations and wavelengths.

Ordering information	Ports	P/N
Instrument, Source 850 nm LED, 1310 nm Laser	2	KI 7804B
Instrument, Source 1310-1550 nm Laser	1	KI 7822B
Instrument, Source 1310-1550 nm Laser, APC	1	KI 7822B-APC
Instrument, Source 850 nm LED, 1310-1550 nm Laser	2	KI 7823B
Instrument, Source 850 nm LED PC, 1310-1550 nm Laser APC	2	KI 7823B-PC/APC
Instrument, Source 850-1300 nm LED, 1310-1550 nm Laser	2	KI 7824B
Instrument, Source 850-1300 LED PC, 1310-1550 Laser APC	2	KI 7824B-PC/APC
Instrument, Source 1310-1490-1550 nm Laser	1	KI 7827B
Instrument, Source 1310-1490-1550 nm Laser, APC	1	KI 7827B-APC
Instrument, Source 1310-1550-1625 nm Laser	1	KI 78010B
Instrument, Source 1310-1490-1550-1625 nm Laser, APC	1	KI 78010B-APC
Instrument, Source 1310-1490-1550-1625 nm Laser	1	KI 78016B
Instrument, Source 1310-1490-1550-1625 nm Laser, APC	1	KI 78016B-APC
Instrument, Source 635 nm Laser, internal SM fiber	1	KI 78030B
Instrument, Source 850nm VCSEL	1	KI 7840B

Note: Please enquire for warranty extension options & traceable re-calibration services. Warranty excludes optical connectors

### STANDARD ACCESSORIES

Description	Quantity
Metal-free interchangeable connector adaptors: SC (OPT046), FC (OPT051), ST (OPT040)	
Operation manual	1
C cell batteries & AA-to-C size battery converter	2
NATA (ILAC) traceable calibration certificates	1
Carry Pouch, Carry strap & Leather protective holster	1
50 & 62.5 $\mu$ m fiber mandrel wraps for Multimode sources	1

### OPTIONAL ACCESSORIES

Description	P/N
Option, Carry Case for 2 instruments	OPT153
Option, Carry Case including Cletop & Cleaning Sticks, Compartments for Microscope, Visual Fault Locator, connector cleaning materials, batteries, test leads and mandrel wraps	OPT154
Option, KI7x Series Power Pack IEC 100-240V 2.5 mm Plug	OPT103B



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