

# KI 9800A SERIES

## OPTICAL LIGHT SOURCE



### OPTICAL COMMUNICATIONS TEST APPLICATION

- Single mode, multimode or POF cable loss testing
- Continuity testing
- Visual Fault Finder option
- General testing & maintenance



Revision25

### FEATURES

The KI 9800A series Pocket Fiber Source is used to test loss and multi-fiber continuity in optical fiber systems, at 1 to 3 wavelengths.

High productivity, high stability, rugged construction and ease of use combined to achieve superior measurement confidence.

- Rugged shirt-pocket size with spring clip
- Autotest compatibility with other instruments
- 3 year warranty
- Long battery life
- Low skill operation
- Interchangeable connectors including SFF styles
- Multi-Fiber ID tone source feature
- Mode controlled multimode sources
- Limited Feature mode for low skill measurement
- High power, long distance VFL, approx 8 ~ 9 km
- Excellent optical power stability
- Excellent re-connection repeatability
- Large sunlight readable display
- Made in Australia

The KI 9800A Pocket Fiber Source is used with an Optical Power Meter for loss testing on single mode, multimode or plastic optical fiber (POF) cable.

Tough construction includes general moisture resistance, rubber corners and proven ability to withstand drops of over 2 meters onto a hard surface. It meets the general requirements of MIL PRF 28800F Class 2.

Interchangeable optical connectors are dust and drop protected. SC adaptor is supplied; other styles include the popular LC. Use of metal free adaptors avoids contamination of connectors in high power systems (exclude KI 9809).

When used with an Autotest compatible Power Meter or Loss Test Set, one button automated multi-wavelength loss testing is achieved.

The test tone function can be used with a compatible Power Meter or clip on identifier for fiber detection, continuity testing, fault finding and route location.

When used with a KI 9600 Power Meter, multiple sources can positively identify up to 12 fibers at a time, using the Multi-Fiber ID feature.

Re-connection repeatability is < 0.1 dB, resulting in exceptional practical source stability.

1310 / 1490 / 1550 / 1625 nm laser sources are ideal for single-mode

testing, in combination with the KI 9600 power meters.

850 / 1300 nm LED sources are ideal for multimode testing, in combination with the KI 9600 power meters. They meet the Encircled Flux (EF) standard compliance, and provide the most consistent and reliable testing results.

The 650 / 660 nm LED source option is ideal for POF testing, in combination with the KI 9600XL power meters. This source has a fixed SMA connector and comes with a 1 mm core SMA/SMA patch lead, so a suitable adaptor lead can be made up by the user.

The 850 nm VCSEL source may be used for multimode fiber testing. It gives poor measurement stability, and so should only be used if required.

The 635 nm laser VFL Visual Fault Locator with Class 1 eye safety is optimized for short distance applications.

The 650 nm laser VFL Visual Fault Locator with Class 2M eye safety is optimized for long distance applications.

Both VFL offer improved eye safety with interchangeable connector, tone / wink function, rugged case and AAA batteries.

A Limited Feature Mode enables a site manager to lock and track instrument settings to reduce measurement skill, and improve both test confidence and traceability.

**SPECIFICATIONS**

	1310 or 1310/1550 nm Laser	1310/1625 nm Laser	1310/1490/1550 nm Laser	1310/1550/1625 nm Laser	635 nm Laser	650 nm Laser	850 nm VCSEL	850 / 1300 nm LED	660 nm LED	Comments
Power (dBm) @ Fiber Type(μm)	0 @ 9/125	0 @ 9/125	-4 @ 9/125	-4 @ 9/125	-2 @ 9/125	+7 @ 9/125	-2 @ 50/125	-20 @ 62.5/125 -22 @ 50/125 -32 @ 9.5/125	-6 @ 1000 POF	± 1 dB
Short term stability (dB)	0.04 <sup>1</sup>	0.06 <sup>1</sup>	0.04 <sup>1</sup>	0.06 <sup>1</sup>	N/A	N/A	0.12 <sup>1</sup>	0.01	0.01	For 15 min, typ ± Δ 2°C, after warm up
Stability over temp (dB)	0.6	0.6	0.6	0.6	N/A	N/A	0.8	0.35	0.35	Typical, over temperature
λ initial tolerance (nm)	20	20	20	30	5	5	20	NA	5	At 25 °C
λ width, nm	3	3	3	3	3	3	< 1	NA	20	FWHM, typical
λ nm/°C	0.4	0.4	0.4	0.4	0.1	0.1	0.1	0.4	NA	Typical
Mode										
Controlled Source	NA	NA	NA	NA	NA	NA	Mode controlled <sup>2</sup>		NA	
Reconnection repeatability (dB)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	NA	95 % confidence
Modulation	270 Hz, 1 kHz, 2 kHz ± 2 %									
Blinking 2 Hz	NA	NA	NA	NA	Yes	Yes	NA	NA	Yes	
Laser output	Adjustable over 3 dB in 0.1 dB steps							NA	NA	NA

Note 1: ORL < -25 dB.

Note 2: Multimode source mode distribution @ 50/125 is compliant with the following standards: IEC 61280-4-1 (Ed.1.0), TIA/EIA 526-14A and TIA TSB-178.

**GENERAL SPECIFICATIONS**

Parameters	Value	Parameters	Value
Battery life	Laser/LED source: 40/35 hours in Autotest, typical 124 x 81 x 25 mm / 4.9 x 3.2 x 1.0" 0.15 kg / 0.33 lb. Shipping 0.5 kg / 1.1 lb	Operating / Storage	15 to 55 °C / -25 to 70 °C
Size		Relative Humidity	0 ~ 95%
Weight		Case	Polycarbonate, 2.5 metre drop tested
		Power	2 Alkaline AAA cells. Selectable auto-off, low battery indicator
Multi-fiber ID	Up to 12 fibers	Calibration cycle	3 years



Australian and international patents. Technical data is subject to change without notice as part of our program of continuous improvements.  
 Class 1 or 2 Laser / LED infrared device. 650 nm VFL is Class 2M. Warning! Eye hazard if viewed with magnifying device. Compliant with IEC60825-1 and 21CFR1040.10.

## ORDERING INFORMATION

Please enquire for non-standard:  
 Connectors, APC etc.  
 Laser / LED wavelengths

Description	P/N
Instrument, Source 635 nm VFL Laser	KI 9807A
Instrument, Source 650 nm VFL Laser	KI 9808A
Instrument, Source 660 nm LED	KI 9809A
Instrument, Source 850-1300 nm LED	KI 9812A
Instrument, Source 1310 nm Laser	KI 9820A
Instrument, Source 1310-1550 nm Laser	KI 9822A
Instrument, Source 1310-1550 nm Laser APC	KI 9822A-APC
Instrument, source 1310-1625 nm Laser APC	KI9825A-APC
Instrument, Source 1310-1490-1550 nm Laser	KI 9827A
Instrument, Source 1310-1490-1550 nm Laser APC	KI 9827A-APC
Instrument, Source 1310-1550-1625 nm Laser APC	KI 9828A-APC
Instrument, Source 850 nm VCSEL	KI 9840A

## STANDARD ACCESSORIES

Description	Quantity	
	KI 9809A	Others
SC connector adaptor OPT046 (blue) or OPT046G (green)		1
50 & 62.5 µm fiber mandrel wraps OPT701 for LED source		1
Fixed SMA connector	1	
Patch-cord SMA-SMA, POF 1mm, simplex, 4 meter (OPT710)	1	
Quick guide	1	1
Soft carry pouch (OPT156)	1	1
Wrist strap	1	1

## OPTIONAL INTERCHANGEABLE CONNECTOR ADAPTORS

Description	P/N	Description	P/N
D4	OPT055	LC	OPT076
E2000/LSH, green	OPT060G	MU	OPT080
E2000/LSH	OPT060	SMA 905/906	OPT082
LSA / DIN47256	OPT071		

This instrument is supplied with metal-free sleeve optical interchangeable connector adaptors. The power meter works with both PC and APC connectors. The visible laser connector ferrule type is fixed and customer specified as either PC or APC. Green is associated with APC.

## OPTIONAL ACCESSORIES

Description	P/N
Option, accessories pack KI9000, includes:	OPT148*
1) ST metal-free interchangeable connector adaptor (OPT040)	1
2) LC metal-free interchangeable connector adaptor (OPT076)	1
3) Soft carry pouch (OPT156)	1
4) AAA alkaline batteries	2

## AUTHORISED DEALER



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