



KI3800 SERIES

OPTICAL LIGHT SOURCE

The KI 3800 series Optical Light source is used to test loss in optical fiber systems, at 1 to 2 wavelengths.

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

OPTICAL COMMUNICATIONS TEST APPLICATIONS

- ✓ Singlemode, multimode or POF cable testing
- ✓ General testing & maintenance

FEATURES

- ✓ Compact, rugged & light weight
- ✓ Autotest compatibility with other instruments
- ✓ LED sources CPR compliant for 50 µm fiber
- ✓ Interchangeable connectors including SFF styles
- ✓ Excellent optical power stability
- ✓ Excellent re-connection repeatability
- ✓ Very long battery life
- ✓ Low skill operation
- ✓ Optical test tone generator
- ✓ Multimode sources come with 50 & 62.5 µm fiber mandrel wraps





The KI 3800 Optical Light Source is used with an Optical Power Meter for measuring loss on singlemode and multimode or plastic optical fiber cable.

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.

Multimode LED sources feature standards compliant beam geometry & modal distribution across the fiber core, results in greatly improved measurement accuracy.

Standards compliance includes Coupled Power Ratio (CPR), Center Wavelength and Spectral Width. Optional compliance with other standard based Modal launch Conditions is available.

The compliant standards are IEC 61280-4-1 [Ed.1.0] and TIA/EIA 526-14A.

Re-connection repeatability is < 0.1 dB, resulting in exceptional measurement accuracy.

The long battery life of nearly 15 working weeks eliminates the requirement for rechargeable batteries and time consuming re-charging procedures. The instrument works with C cell or AA batteries, if an AA-to-C battery converter is used.

Interchangeable optical connectors work for both 1.25 mm SFF (small form factor) or 2.5 mm connectors. They are dust and drop protected. Instruments come with 3 popular connector adaptor styles. Metal free adaptors avoid contamination of connectors in high power systems.

The 650 / 660 nm POF 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.

SPECIFICATIONS

	1310/1550 nm Laser	Other Laser	850 nm VCSEL	850 / 1300 nm LED	660 / 650 nm LED	Comments
Output Power, dBm Fiber Type, mm	0 @ 9/125	-4 @ 9/125	-4 @ 50/125	-23 @ 62.5/125, -35 @ 9.5/125	-6 @ 1000 POF	± 1 dB
Short term stability, dB	0.04 ¹	0.06 ¹	0.06 ¹	0.01	0.01	For 15 min, typ ± D 2°C, after warm up
Stability over temp, dB	0.6	0.6	0.6	0.35	0.35	Typical, over temperature
λ initial tolerance, nm	20	20	20	30	30	At 25 °C
λ width, nm	3	< 1	< 1	850: 35, 1300: 100	10	FWHM, typical
λ nm/°C	0.4	0.1	0.1	0.4	NA	Typical
Coupled Power Ratio (CPR)	NA	NA	NA	CPR CAT=1 into 50 μm ²	NA	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, ± 2 %					
Laser output	Adjustable over 3 dB in 0.05 dB steps					

Note: 1) ORL < -25 dB. 2) LED sources CPR compliant for 50 μm 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	600 hrs at Autotest
Size	165 x 120 x 40 mm, 6.5" x 4.7" x 1.6"
Weight	350 gm, 0.8 lb. Shipping 0.7 Kg, 1.5 lb
Operating	-15 to 55 °C
Storage Case	-25 to 70 °C Polycarbonate, 1 meter drop tested
Power	2 alkaline C cells (7.6 A/Hr). AA size batteries accommodated. Selectable auto-off, low battery indicator.

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 optical interchangeable connector adaptors. The source ferrule type is fixed and customer specified as either PC or APC. The power meter is for both PC & APC. Blue is associated with PC. Green is associated with APC. You can order any number of connector adaptors. Order quantity two of each type.

OPTIONAL ACCESSORIES

Carry case for 2 instruments	OPT153
Carry case for 2 Instruments, Compartments for Microscope, Visual Fault Locator, connector cleaning materials, batteries, test leads and mandrel wraps	OPT154
KI 3000 accessory pack, it includes: Soft pouch, Leather holster, 1.25 & 2.5 mm clean stick, connector clean cloth, AA-to-C battery converter	OPT146

AUTHORIZED DEALER

ORDERING INFORMATION

Instrument	Ports	P/N
Instrument, Source 660 nm LED, 1 mm POF, fixed SMA, Blister Pack	1	KI 3809-MP
Instrument, Source 850 nm LED, Blister Pack	1	KI 3810B-MP
Instrument, Source 850-1300 nm LED, Blister Pack	1	KI 3812B-MP
Instrument, Source 1310 nm Laser, Blister Pack	1	KI 3820B-MP
Instrument, Source 1310-1550 nm Laser, Blister Pack	1	KI 3822B-MP
Instrument, Source 1310-1550 nm Laser, APC, Blister Pack	1	KI 3822B-APC-MP
Instrument, Source 1490-1550 nm Laser, Blister Pack	1	KI 3818B-MP
Instrument, Source 1490-1550 nm Laser, APC, Blister Pack	1	KI 3818B-APC-MP
Instrument, Source 850 nm VCSEL, Blister Pack	1	KI 3840B-MP

Note: standard 3 year warranty for instrument only.

STANDARD ACCESSORIES

Description	KI3809-MP	Others
SC connector adaptor OPT046 blue or OPT046G green		1
FC connector adaptor OPT051		1
ST connector adaptor OPT040		1
Fixed SMA connector	1	
Operation manual		1
50 & 62.5 μm fiber mandrel wraps for LED source (OPT701)		1

OPTIONAL STANDARDS COMPLIANCE

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

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.



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DEFENCE

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