

# KI 2400/2800 SERIES

## HAND HELD FIBER SOURCE



### OPTICAL COMMUNICATIONS TEST APPLICATIONS (in combination with a power meter)

- Mixed single mode & multimode loss testing to 6  $\lambda$
- Multi-Fiber continuity & polarity testing
- Encircled Flux compliant testing
- Tone source for fiber identifier
- Innovative and useful VisiTester feature



Revision 13

## FEATURES

The KI 2400 / 2800 series Hand Held Fiber Sources are used with an Optical Power Meter to test loss on single mode and multimode optical fiber systems, at up to 6 wavelengths.

The 2800 series provide excellent stability, and the 2400 series provide exceptional stability with zero warm up.

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

The innovative and unique VisiTester option is helpful for general loss testing, continuity testing & fault finding.

These Autotest sources can be used with any Kingfisher Autotest optical power meter, loss test set or two way tester.

- Reliable, rugged & versatile
- Simple to use
- Ideal for mixed MMF & SMF testing
- Up to 6 mixed LED, Laser & VFL sources
- Excellent optical power stability
- Excellent re-connection repeatability
- LCD is large, clear, sunlight readable & backlit
- Autotest compatibility with other instruments
- Optical test tone with Multi-Fiber ID function
- VisiTester easily identifies active test channel
- Interchangeable connectors with dust cap / tilt bail
- Encircled Flux compliant multimode LED sources
- Multimode sources supplied with mandrel wraps
- KI 2400 series is ultra-stable with zero warm up
- Long battery life
- External power / charging via USB
- 3 ~ 7 Year warranty
- 3 year calibration cycle
- Made in Australia

The KI2400 / 2800 Hand Held Fiber Sources are used with optical power meters for testing optical loss on single mode and multimode fibers. A Multi-Fiber tone feature makes for handy continuity / polarity testing and fault finding, also for use with clip-on traffic identifiers.

The KI2800 source provides excellent general test capability. Alternatively, the KI2400 premium source is unique in the industry, with zero warm up, ultra high stability, and is unaffected by varying back reflection.

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

This instrument meets the general requirements of MIL PRF 28800F class 2. The large display provides the user with an easy view of instrument status and test results.

Practical interchangeable optical connectors are easily changed, and are protected with a captive dust cover / tilt bail. Metal free adaptors help avoid contamination of connectors in high power systems.

AA alkaline batteries have long life, and the micro USB power input

ensures high availability. Or use rechargeable batteries with built-in charging.

When used with a Kingfisher Autotest compatible power meter or loss test set, automatic  $\lambda$  identification is achieved, and the nominal source power is displayed on the power meter.

Up to 6 LED / laser sources can be specified, making this a versatile test source for mixed multimode / single mode fiber testing.

Laser options compliant with CWDM standards cover typical cable qualification for O, E, S, C, & L bands, including the water absorption peak, 1625 nm.

LED sources are Encircled Flux (EF) standards compliant, to provide the most consistent and reliable testing results.

The unique VisiTester option mixes a laser VFL with Autotest, so at the power meter end, the active test fiber winks, making it obvious to the user. It also extends practical fault finding options.

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

**SPECIFICATIONS**

	1310/1550 nm Laser	CWDM <sup>1</sup> Laser	1625 nm Laser	650 nm VisiTest	850 / 1300 nm LED	1310/1550 nm LED	Comments
<b>KI 2800 series</b>							
Power Accuracy	Refer to ordering information for nominal power level						± 1 dB
Short term stability (dB)	0.04	0.06	0.06	NA	0.01	NA	For 15 min, typ ± Δ 2°C, after warm up, ORL < -25 dB
Stability over temp (dB)	0.6	0.6	0.6	NA	0.35	NA	Typical
<b>Premium zero warm up &amp; ultra stable KI 2400 series</b>							
Short term stability (dB)	0.03	0.05	0.05	NA	0.01	0.03	For 15 min, max, ± Δ 3°C no warm up
Stability over temp (dB)	0.2	0.2	0.2	NA	0.35	0.2	Max
<b>Common for both KI 2400 &amp; KI 2800 series</b>							
$\lambda$ initial tolerance (nm)	20	6.5	20	5	NA	20	At 25 °C
$\lambda$ width, nm	3	< 1	3	3	NA	35 / 48	FWHM, typical
$\lambda$ nm/°C	0.4	0.1	0.4	0.1	0.4	0.4	Typical
Mode Controlled Source	NA	NA	NA	NA	Mode controlled	NA	50/125 compliant: IEC 61280-4-1 (Ed.1.0), TIA 526-14A & TIA TSB-178.
Reconnection repeatability dB	0.1	0.1	0.1	0.1	0.05	0.1	95 % confidence
Modulation	270 Hz, 1 kHz, 2 kHz ± 2 %, 12 Multi-Fiber ID tones, 2 Hz blink for Visitest						
Laser output power	Adjustable over 7 dB in 0.01 dB steps				NA	NA	

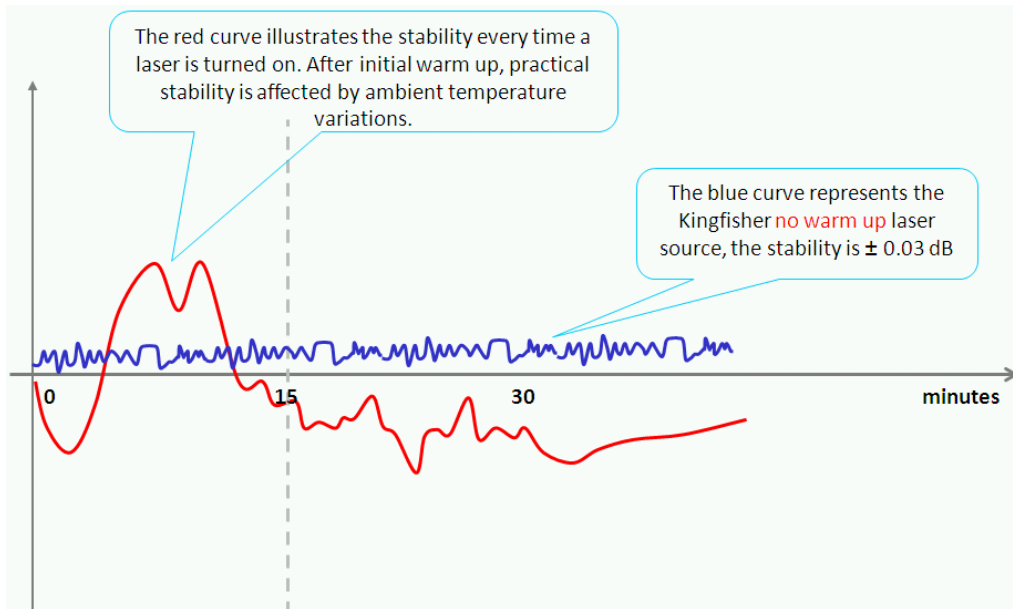
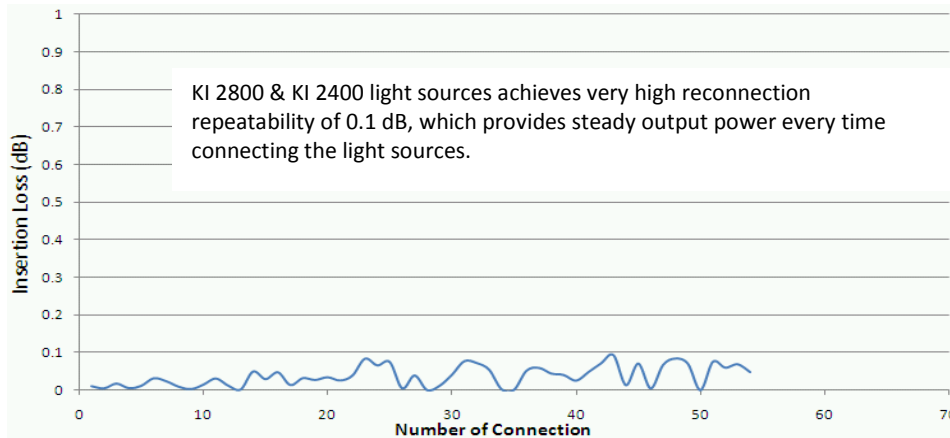
Note 1: CWDM laser wavelengths: 1270, 1290, (1310), 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, (1550), 1570, 1590, 1610 nm

**GENERAL SPECIFICATIONS**

Parameters	Value	Parameters	Value
Battery life	Laser/LED source: 90/80 hours in Autotest, typical	Operating / Storage Relative humidity	-15 to 55 °C / -25 to 70 °C 0 ~ 95 %
Size	190 x 105 x 35 mm (7.5 x 4.1 x 1.4")		
Weight	420 gm (0.9 lb). Shipping 1.5 Kg (3.3 lb)		
LCD size	74 x 55 mm / 2.9 x 2.2"		
Case	Polycarbonate / rubber edges & corners, moisture resistance, 1 metre drop tested	Power	2 Alkaline AA cells Or 2 x NiMH AA cells, user selectable charging; Ext power input via micro USB; Selectable auto-off, low battery indicator, backlit display
Dust cap	Captured, functions as tilt bail when slid open		

Australian and international patents. Technical data is subject to change without notice as part of our program of continuous improvements. Class 1 Laser / LED infra red device. Compliant with IEC60825-1.





Autotest: 1310/1550/1625 nm + 650 nm visible light



The unique VisiTester option mixes a laser VFL with Autotest, so at the power meter end, the active test fiber winks, making it obvious to the user. It also extends practical fault finding options.

**ORDERING INFORMATION**

Please enquire for non-listed specifications such as: Wavelengths, Power levels, PC / APC Connectors

Description	Power (dBm) @ Fiber Type(μm)					Ports	P/N
	Laser	LED		VisiTest			
	SMF	SMF	50μ	62.5μ	SMF		
<i>KI 2800 series</i>							
Instrument, Source 1310-1550 nm Laser	0	-	-	-	-	1	KI 2822
Instrument, Source 1310-1550 nm Laser + VisiTester	-3	-	-	-	+2	1	KI 28622
Instrument, Source 850-1300 nm LED	-	-32	-22	-20	-	1	KI 2803
Instrument, Source 850-1300 nm LED + VisiTester	-	-35	-25	-23	+2	1	KI 28603
Instrument, Source 850-1300 nm LED, 1310-1550 nm Laser	0	-32	-22	-20	-	2	KI 2824
Instrument, Source 850-1300 nm LED, 1310-1550 nm Laser APC	0	-32	-22	-20	-	2	KI 2824-APC
Instrument, Source 850-1300 nm LED, 1310-1550 nm Laser + VisiTester	-3	-32	-22	-20	+2	2	KI 28624
Instrument, Source 850-1300 LED, VisiTester, 1310-1550 Laser, VisiTester	-3	-35	-25	-23	+2	2	KI 28634
Instrument, Source 850-1300 LED, 1310-1550 Laser + VisiTester APC	-3	-32	-22	-20	+2	2	KI 28624-APC
Instrument, Source 1310-1550-1625 nm Laser APC	-3	-	-	-	-	1	KI 28010-APC
Instrument, Source 1310-1550-1625 nm Laser + VisiTester APC	-7	-	-	-	+2	1	KI 28610-APC
Instrument, Source 1310-1490-1550-1625 nm Laser APC	-3	-	-	-	-	1	KI 28016-APC
<i>Zero warm up &amp; ultra stable light sources, KI 2400 series</i>							
Instrument, Source 1310/1550 nm ultra stable laser	-4	-	-	-	-	1	KI 2422
Instrument, Source 1310-1550-1625 nm ultra stable laser APC	-7	-	-	-	-	1	KI 24010-APC
Instrument, Source 1310/1550 nm ultra stable LED	-	-20	-	-	-	1	KI 2419

**STANDARD ACCESSORIES**

Description	Quantity
SC connector adaptor (OPT046)	1 per port
Operation manual	1
Calibration certificates	1
Carry Pouch	1
Carry strap	1
50 & 62.5 μm fiber mandrel wraps for Multimode sources(OPT701)	1
USB A to USB micro cable	1

**OPTIONAL ACCESSORIES**

Description	P/N
Carry Case for 2 Instruments	OPT153
Carry Case includes Cletop-style cleaner & Cleaning Sticks	OPT154B

This instrument is supplied with metal-free sleeve 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.

**OPTIONAL INTERCHANGEABLE CONNECTOR ADAPTORS**

Description	P/N	Description	P/N
FC	OPT051	LC	OPT076
ST	OPT040	MU	OPT080
D4	OPT055	LSA / DIN47256	OPT071
E2000/LSH, green	OPT060G	SMA 905/906	OPT082
E2000/LSH	OPT060		



Please visit [kingfisherfiber.com](http://kingfisherfiber.com) for a wide range of FiberTester kits.

**AUTHORISED DEALER**



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