

KI 5000 Optical Return Loss Meter



 **KONGFISHER**

KI 5000 OPTICAL RETURN LOSS METER

SIMPLICITY

The KI 5000 Optical Return Loss Meter automatically measures the accumulated back reflections at the measurement point in singlemode optical fibre systems.

This measurement is of critical importance to transmission systems using DFB lasers, or transmitting analogue video and high speed digital signals. In these applications, excessive optical reflections cause loss of signal/noise performance and increased Bit Error Rate.

CHOICE OF MODELS

Two types are available, an LED based unit best suited to acceptance and field testing on fibre lines (40dB range, PC connector fitted as standard), and a laser based unit with wider range suitable for extended measurements (60dB range, SP connector fitted as standard). Both instruments contain all the requisite sources, detectors and optical system to accurately perform measurements, and are designed to eliminate the effect of optical source drift.

FAST & RELIABLE

The KI 5000 is designed for simplicity and reliability of operation, while providing faster, more accurate measurements than has previously been possible. In addition, since long term measurement stability has been greatly improved, re-calibration is not normally required, leading to reduced life-time cost of ownership.

A complementary range of Kingfisher fibre optic test and measurement equipment is available for complete attenuation and optical power measurement.

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FEATURES

- A compact, lightweight field instrument with a diecast aluminium frame engineered for reliability, precision and simplicity of operation
- User controls and the optical interface are fully drop protected. Additionally, the unit is fully operational while still protected within the ruggedised transit case.
- The user's patchcord may be left permanently attached, eliminating dirt and wear problems in the optical interface.
- A range of interchangeable optical connector adaptors are available for Physical Contact (PC) polish and Slant Polish (SP) connectors. The instrument connector tip is user accessible for easy cleaning.
- Negligible warm-up period, excellent accuracy ($\pm 0.5\text{dB}$), dynamic range up to 60dB, immediate display update and an analogue output provide superior convenience.
- Dual wavelength testing at the flick of a switch.

APPLICATIONS

- Return loss measurement of connectors and components
- Acceptance testing of transmission systems
- Emergency fault finding
- Checking cable assemblies
- R & D and Quality Assurance
- Usable as dual CW light source

SPECIFICATIONS

Size/Weight

Instrument 190 x 120 x 95mm
(7.4" x 4.7" x 3.7") 1kg (2.2lb)
Carry Case 280 x 330 x 150mm
(11" x 13" x 5.9") 1.9kg (4.2lb)
Shipping weight 3kg (6.6lb)

Power

Internal nicad batteries. Auto turn-off, low battery indicator. 10hrs operation, 16hrs re-charge from external charger, 9V/200mA dc

Environmental/Reliability

Operating: -5 to 55°C non condensing
Storage: -30 to 70°C
Reliability: 35 years MTBF at 25°C

Optical

1300/1550nm (as relevant)
LED: -30dBm output approx
LASER: -10dBm output approx

Range:

LED version 0 to -40dB
Laser version 0 to -60dB

Accuracy

Calibration accuracy at -14.7dB
 25°C and 99% certainty: $\pm 0.5\text{dB}$
Calibration uncertainty over $0-50^{\circ}\text{C}$ at $-14.7\text{dB} = \pm 0.7\text{dB}$. Linearity after noise floor correction: $\pm 0.05\text{dB}$
(Note: Calibration is performed by two independent methods, which are cross-correlated for improved overall certainty.)

Display

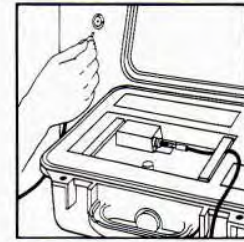
Resolution: 0.1dB, 13mm digits
Response time: 2 seconds

Analogue Output

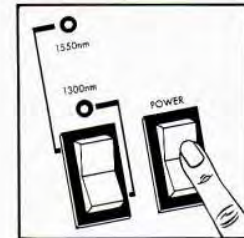
1mv/dB uncalibrated
Impedance: 10k
via 4mm jack sockets

OPERATION

It's as simple as:



Your patchcord can be permanently attached, for improved accuracy and convenience

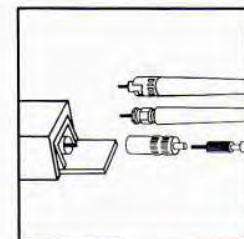


Turn the unit on

Select the required wavelength



The return loss is now displayed



The optical connector comes apart easily for cleaning and upgrading

ORDERING INFORMATION

ITEM	MODEL/OPTION No
KI 5000 Optical Return Loss Meter	
1300/1550nm LED unit	KI 5002-PC
1300/1550nm LASER unit	KI 5003-SP
1300nm LED unit	KI 5004-PC
1550nm LED unit	KI 5005-PC
1300nm LASER unit	KI 5006-SP
1550nm LASER unit	KI 5007-SP

Note: Due to rapid developments, please contact factory before ordering SP connector options.

Interchangeable Optical Connector Adaptors (order one or more)

DIN 47256	001
FC	002
SC	003
ST	004
HMS-10/A (2.5mm SMA)	006
HMS-10/B (2.5mm BNC)	007
DIAMOND 2.5mm	007A
DIAMOND 3.5mm	007B
F & G	007C
D4	008
BICONIC	010

Special Connector Option

Accessories: Standard	
Operation Manual	108
Battery Adaptor	102
Hard Carry Case	142

Accessories: Optional	
Carrying Strap	104
Emergency Power Pack	100
Index Matching Gel	012
Re-Calibration	771
Low Reflection Termination	704
Patchcords or Pigtails (Please specify your requirements)	601
Please enquire for special options	



 **Designed and Manufactured in Australia**



Every effort has been made to ensure the accuracy of the information contained in this leaflet. However technical data and dimensions are subject to change without notice as part of our program of continuously upgrading our products. Therefore please contact us to verify all critical parameters.

KINGFISHER

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