



KI7010B SERIES

AUTOMATED VARIABLE
OPTICAL ATTENUATOR

The KI7010B series Automated Variable Optical Attenuator is an easy to use instrument for testing optical transmission equipment. It combines superb accuracy with high productivity.

OPTICAL COMMUNICATIONS TEST APPLICATIONS

- ✓ Transmission Equipment Commissioning
- ✓ Maintenance
- ✓ Quality Assurance
- ✓ R&D

FEATURES

- ✓ High optical power capability
- ✓ High absolute accuracy
- ✓ Low wavelength sensitivity
- ✓ Good ORL, PDL & PMD performance
- ✓ Long battery life
- ✓ Interchangeable connectors
- ✓ User defined sequencing
- ✓ Remote control PC software
- ✓ Compact, rugged & light weight
- ✓ 3 year Calibration Cycle
- ✓ 3 ~ 7 year warranty



3 YEAR
STANDARD
WARRANTY



WORLD RECOGNISED
TRACEABLE CALIBRATION
Accreditation No 4853





This attenuator provides optimum performance for testing fiber optic transmission systems, sub systems and components.

A combination of optical characteristics enables confident testing of high speed, high power systems which require superior power handling, ORL, PMD and PDL characteristics.

Very flat wavelength response enables confident testing of CWDM / DWDM systems. The instrument wavelength setting is irrelevant in most practical situations.

Excellent linearity and absolute accuracy enables precision linearity testing of sub systems and components.

The patented metal free interchangeable connectors avoid critical contamination of connectors used in high power applications.

Operational modes include: manual, relative, step, program, and remote control via a PC. The instrument can be pre-programmed with up to 15 different user programs for improved productivity.

The PC software is used to provide external control, and is available free from www.kingfisher.com.au

Superior reliability is backed with 3 ~ 7 year warranty.

The combination of features provides superior value to the user.

SPECIFICATIONS

Specifications	Singlemode	Multimode
Fiber type	9.5 / 125 μ m	50 μ m or 62.5 μ m
Range	2.0 ~ 60 dB	3 ~ 60 dB
Resolution	0.05 dB	0.05 dB
Linearity ¹ / Repeatability	0.03 dB	0.1 dB
Absolute uncertainty ^{1,2}	0.3 dB	0.3 dB
Power capability	+30 dBm	+30 dBm
Optical return loss ³ (ORL)	60 dB	60 dB
Polarisation dependent loss (PDL)	<0.1 dB	<0.1 dB
Polarisation Mode Dispersion (PMD)	<1 ps	N/A
Operating λ range	1200 to 1650 nm	700 to 1400 nm
Calibration λ	1310, 1490, 1550 nm 1310, 1550, 1625 nm	850 & 1300 nm
λ dependence	1300 ~ 1625 nm: < \pm 0.25 dB up to 15 dB < \pm 0.5 dB up to 20 dB	850 ~ 1300 nm: < \pm 0.5 dB up to 20 dB
λ dependence over DWDM S/C/L band	1490 ~ 1610 nm < \pm 0.2 dB up to 15 dB < \pm 0.3 dB up to 20 dB	
Thermal stability over temperature	\pm 0.02 dB	\pm 0.02 dB

Note:

1. At calibration wavelength.

2. Accuracy achieved in use will depend on connector performance.

3. Using APC connectors, or limited by connector performance, which is typically 45 dB for singlemode PC or 28 dB for multimode PC connectors.

15 programs can be stored & recalled.

Step mode allows user to select any step size.

Program mode gives automated start / step / period / end values.

Attenuation is unchanged when instrument is turned on or off.

GENERAL SPECIFICATIONS

Battery life	200 ~ 600 hrs
Size	190 x 130 x 70 mm, 7.5 x 5.1 x 2.8"
Weight	750 gm, 1.6 lb. Shipping 1.5 Kg, 3.3 lb
Operating	-10 ~ 55 $^{\circ}$ C
Storage	-25 ~ 70 $^{\circ}$ C
Power	2 Alkaline C cells (7.6 A/Hr) or external 9 V DC with 2.5 mm +ve pin. Selectable auto-off, low battery indicator, backlit display
Hidden keypad	For setting advanced functions
Case	Polycarbonate, 1 meter drop tested
RS232	3.5 mm jack connector, default baud 9.6 K

INSTRUMENT ORDERING INFORMATION

Please enquire for other wavelength combinations, the number of calibrated wavelength is up to 4.

Description	P/N
1310/1490/1550 nm singlemode attenuator, PC	KI7011B
1310/1490/1550 nm singlemode attenuator, APC	KI7011B-APC
1310/1550/1625 nm singlemode attenuator, PC	KI7012B
1310/1550/1625 nm singlemode attenuator, APC	KI7012B-APC
850/1300 nm multimode attenuator, 50 μ m	KI7020B
850/1300 nm multimode attenuator, 62.5 μ m	KI7021B

STANDARD ACCESSORIES

Description	Quantity
SC metal-free interchangeable connector adaptor	2
FC metal-free interchangeable connector adaptor	2
ST metal-free interchangeable connector adaptor	2
PC software & RS232 Cable	1
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

OPTIONAL INTERCHANGEABLE CONNECTOR ADAPTORS

Description	P/N	Description	P/N
D4	OPT055	LC / F3000	OPT072
E2000/LSH, green	OPT060G	MU	OPT080
E200/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. Order quantity two of each type.

OPTIONAL ACCESSORIES

Description	P/N
Carry case for 2 instruments	OPT153
Power pack, 90 ~ 240V IEC	OPT103B
USB-RS232 converter	OPT188

Australian and international patents. Technical data is subject to change without notice as part of our program of continuous improvements.

AUTHORIZED DEALER



Kingfisher International Pty Ltd
30 Rocco Drive, Scoresby VIC 3179 Australia

T +61 3 9757 4100
F +61 3 9757 4193
E sales@kingfisher.com.au

0807-V6

FTTx

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DEFENCE

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