

KI 7010B SERIES

AUTOMATED VARIABLE OPTICAL ATTENUATOR



OPTICAL COMMUNICATIONS TEST APPLICATION

- Transmission Equipment Commissioning
- Maintenance
- Quality Assurance
- Research & Development



Revision 10

FEATURES

The KI 7010B series Automated Variable Optical Attenuator is an easy to use instrument for testing optical transmission equipment. It combines superb accuracy with high productivity.

- High optical power capability
- High absolute accuracy
- Low wavelength sensitivity
- Good ORL, PDL & PMD performance
- Long battery life
- Interchangeable connectors
- User defined sequencing
- Sunlight readable display
- Remote control PC software
- Compact, rugged & light weight
- 3 year Calibration Cycle
- Up to 4 calibrated wavelengths
- Made in Australia

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

Parameters	Single mode	Multimode
Fiber type	9.5 / 125 μ m	50 /125 μ m or 62.5/125 μ m
Range	2.0 ~ 60 dB	3.0 ~ 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
Thermal stability over temperature	\pm 0.02 dB	\pm 0.02 dB
Polarisation Mode Dispersion (PMD)	<1 ps	N/A
Operating λ range	1200 ~ 1650 nm	700 ~ 1400 nm
Calibration λ	1310, 1490, 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	N/A

Note 1: At calibration wavelength.

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

Note 3: Using APC connectors, or limited by connector performance, which is typically 45 dB for single mode 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

Parameters	Value
Battery life	200 ~ 600 hrs
Size	190 x 130 x 70 mm, 7.5 x 5.1 x 2.8"
Weight	0.52 kg, 1.146 lb. Shipping 1.5 kg, 3.31 lb
Operating / Storage	-15 to 55 °C / -25 to 70 °C
Case	Polycarbonate, 1 metre drop tested
Hidden keypad	For setting advanced functions
RS232	3.5 mm jack connector, default baud 9.6 K
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

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

ORDERING INFORMATION

Description	P/N
1310/1490/1550/1625 nm single mode attenuator, PC	KI 7013B
1310/1490/1550/1625 nm single mode attenuator, APC	KI 7013B-APC
850/1300 nm multimode attenuator, 50 μ m	KI 7020B
850/1300 nm multimode attenuator, 62.5 μ m	KI 7021B

Please enquire for other wavelength combinations.

STANDARD ACCESSORIES

Description	Quantity
SC connector adaptor blue (OPT046)	2
LC connector adapter (OPT076)	2
ST connector adaptor (OPT040)	2
PC software & RS232 Cable	1
Operation manual	1
C cell batteries & AA-to-C size battery converter	2
Calibration certificates	1
Carry Pouch, Carry strap & Leather protective holster	1

OPTIONAL INTERCHANGEABLE CONNECTOR ADAPTORS

Description	P/N	Description	P/N
D4	OPT055	FC	OPT051
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. Green is associated with APC.

OPTIONAL ACCESSORIES

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

AUTHORISED DEALER

