

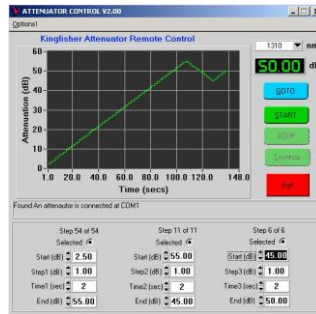
KI 7000B SERIES

AUTOMATED VARIABLE OPTICAL ATTENUATOR



OPTICAL COMMUNICATIONS TEST APPLICATION

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



Revision 12

FEATURES

The KI 7000B series Automated Variable Optical Attenuator is an easy to use instrument for testing optical transmission equipment. It combines superb accuracy with high productivity.

Instrument versions work for singlemode, multimode and POF fiber types.

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

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

A combination of excellent 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.kingfisherfiber.com

Superior reliability is backed with 3 ~ 7 year warranty.

The combination of features provides superior value to the user.

SPECIFICATIONS

| Parameters | Single mode | Multimode | POF |
|--|--|---|--------------|
| Fiber type | 9.5 / 125 µm | 50 /125 µm or 62.5/125 µm | 900 µm /1 mm |
| Range | 2.0 ~ 60 dB | 3.0 ~ 60 dB | 5 ~ 60 dB |
| Resolution | 0.05 dB | 0.05 dB | 0.05 dB |
| Linearity ² / Repeatability | 0.03 dB | 0.1 dB | 0.1 dB |
| Absolute uncertainty ^{1,2} | 0.3 dB | 0.3 dB | 1 dB |
| Power capability | +30 dBm | +30 dBm | +30 dBm |
| Optical return loss ³ (ORL) | 60 dB | 60 dB | N/A |
| Polarisation dependent loss (PDL) | < 0.1 dB | < 0.1 dB | N/A |
| Thermal stability over temperature | ±0.02 dB | ±0.02 dB | ±0.02 dB |
| Polarisation Mode Dispersion (PMD) | <1 ps | N/A | N/A |
| Operating λ range ⁴ | 1200 ~ 1650 nm | 700 ~ 1400 nm | N/A |
| Calibration λ | 1310, 1490, 1550, 1625 nm | 850, 1300 nm | 650 nm |
| λ dependence ⁴ | 1300 ~ 1625 nm: < ±0.25 dB up to 15 dB < ±0.5 dB up to 20 dB | 850 ~ 1300 nm: < ±0.5 dB up to 20 dB | N/A |
| λ dependence over DWDM S/C/L band | 1490 ~ 1610 nm: < ±0.2 dB up to 15 dB < ±0.3 dB up to 20 dB | N/A | 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.

Note 4: POF λ performance is limited by POF fiber λ loss characteristics. The POF attenuator element is λ insensitive.

OPERATION FEATURE HIGHLIGHTS

- 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 |
|--|--------------|
| Instrument, Attenuator 1310-1490-1550-1625 nm | KI 7013B |
| Instrument, Attenuator 1310-1490-1550-1625 nm, APC | KI 7013B-APC |
| Instrument, Attenuator 850-1300 nm, 50/125 | KI 7020B |
| Instrument, Attenuator 850-1300 nm, 62.5/125 | KI 7021B |
| Instrument, Attenuator 650 nm, POF | KI 7030B |

Please enquire for other wavelength combinations.

STANDARD ACCESSORIES

| Description | Quantity | |
|---|---------------------|---------|
| | KI 701xB / KI 702xB | KI7030B |
| SC connector adaptor blue (OPT046) | 2 | 2 |
| LC connector adapter (OPT076) | 2 | |
| ST connector adaptor (OPT040) | 2 | 2 |
| SMA connector adaptor (OPT082) | | 2 |
| PC software & RS232 Cable | 1 | 1 |
| Operation manual | 1 | 1 |
| C cell batteries & AA-to-C size battery converter | 2 | 2 |
| Calibration certificates | 1 | 1 |
| Carry Pouch, Carry strap & Leather protective holster | 1 | 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

