

The KI 7700C series is a single directional loss test set which displays link loss in real time, at multiple wavelengths. Bi-directional testing is supported by PC software.

Featuring high speed and high accuracy, results can either be stored in internal memory, or inserted directly into a customized acceptance report on a PC, with one mouse click.

This is a reliable, robust and easy to use test instrument for single mode fiber optic cable and transmission systems.

Light Source and Power meter options cover a wide range of connector types, wavelengths, and power measurements from +27 to -70 dBm with 2% Traceable Accuracy.

## OPTICAL COMMUNICATIONS TEST APPLICATIONS

- ✓ Single mode & multimode cable
- ✓ General testing & maintenance
- ✓ Standards compliant LAN certification

## FEATURES

- ✓ Autotest compatibility with other instruments
- ✓ Reliable, rugged & field proven
- ✓ Simple to use
- ✓ Patented low cost Interchangeable connectors
- ✓ Excellent optical power stability on source
- ✓ Excellent re-connection repeatability
- ✓ High measurement confidence
- ✓ Mode controlled multimode sources
- ✓ Multimode sources come with 50 & 62.5  $\mu\text{m}$  fiber mandrel wraps
- ✓ Long battery life
- ✓ Large memory
- ✓ Flexible real-time PC reporting software
- ✓ External power & USB data interfaces
- ✓ Sunlight readable display and backlight
- ✓ 3 year calibration cycle
- ✓ 3 ~ 7 year warranty
- ✓ Made in Australia



# KI 7700C SERIES

# OPTICAL LOSS TEST SET rev12

This is a fast and easy to use one way loss tester. From start of test to acceptance report takes 2 seconds and one mouse click.

Autotest is compatible with all other Autotest instruments, which simplifies training and operational issues.

The instrument provides instant accurate and traceable measurements, with a high stability light source.

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

The optical connector adaptor is easily changed as required, and is protected with a captive dust cap. This instrument meets the general requirements of MIL PRF 28800F class 2.

The long battery life eliminates the requirement for rechargeable

batteries and time consuming re-charging procedures.

High availability is the result of 190 hour battery life, patented interchangeable optical connectors, 3 year calibration cycle and superior reliability.

850 / 1300 nm LED sources are ideal for multimode testing. They meet the Encircled Flux (EF) standard compliance, and provide the most consistent and reliable testing results.

The new InGaAs detectors have wider wavelength response range from 600 ~ 1700. It provides good response for all common wavelengths.

Flexible KITS™ PC software is a real-time measurement, Pass / Fail assessment and reporting solution. Easily customized for any language and reporting format, it also supports memory download, data logging, label printing and enterprise level data management.

## POWER METER SPECIFICATIONS

Detector type	Response $\lambda$ nm	Damage level dBm	Calibration $\lambda$ nm	Power range dBm	Autotest & Tone sensitivity dBm	Mid range linearity <sup>1</sup> dB	Calibration Accuracy <sup>2</sup> %	Polarization Sensitivity dB	Total Uncertainty <sup>3</sup> dB	$\lambda$ Sensitivity $\pm 30 \text{ nm}^5$ dB
InGaAs	600 ~ 1700	+15	<b>780, 850, 1300, 1310, 1390, 1490, 1550, 1610, 1625</b>	+5 ~ -60 +5 ~ -70	-45 -50	0.02	2 % (0.09 dB)	< 0.005	0.3	0.03
H3B (InGaAs)	800 ~ 1700	+30 <sup>4</sup>	<b>850, 1300, 1310, 1390, 1490, 1550, 1610, 1625</b>	+27 to -40 +27 to -50	-25 -30	0.02	2 % (0.09 dB)	< 0.005	0.3	0.03
H5 (InGaAs)	800 ~ 1700	+25	<b>850, 1300, 1310, 1390, 1490, 1550, 1610, 1625</b>	+15 to -50 +15 to -60	-35 -40	0.02	2 % (0.09 dB)	< 0.005	0.3	0.03
Ge	600 ~ 1650	+15	<b>660, 850, 1300, 1310, 1390, 1490, 1550, 1590, 1610, 1625</b>	+10 ~ -65 +10 ~ -70	-45 -50	0.04	2 % (0.09 dB)	< 0.005	0.5	0.04
Si	350 ~ 1100	+15	<b>635, 650, 660, 780, 850, 980</b>	+0 ~ -70	-47	0.02	2 % (0.09 dB)	< 0.005	0.3	0.03
						typical	typical	typical	max	typical

Note 1: Mid range linearity excludes top 3 dB and bottom 10 dB of range.

Note 2: Calibration condition: non coherent light, -35±5 dBm, 23±1°C, ±1 nm, 10±3 nm FWHM, PC ceramic connector, 100µm fiber.

Note 3: Includes contributions due to: varying optical connector types, calibration uncertainty, full temperature, dynamic range and fiber core diameter up to 200µm.

Note 4: H3B can sustain the damage level for 2 minutes.

Note 5: At calibration wavelengths in bold type.

## LIGHT SOURCE SPECIFICATIONS

	1310/1550 lasers	Other lasers	LED	Comments
2 $\lambda$ power 3 or 4 $\lambda$ power	0 dBm -7 dBm	-4 dBm -7 dBm	-23 dBm to 62.5µm -38 dBm to 10µm	± 1 dB for Laser ± 3 dB for LED
Short term stability	0.04 dB	0.06 <sup>6</sup> dB	0.01 dB	For 15 min, typical $\pm \Delta 2^\circ\text{C}$
Stability, over temp	0.6 dB	0.6 dB	0.35 dB	Typical, over temperature
$\lambda$ initial tolerance (nm)	20			At 25°C
$\lambda$ width	3 nm	< 1 nm		FWHM, typical
Mode Controlled Source	N/A	N/A	Yes <sup>7</sup>	
$\lambda$ nm/°C	0.4	0.1	0.4	typical
Re-connection repeatability	0.1 dB		0.05 dB	95 % confidence
Modulation	270 Hz, 1, 2 KHz, ± 2%, square wave			
Laser output	Adjustable over 6 dB in 0.01 dB steps			

6) For laser, ORL < -25 dB.

7) Encircled Flux (EF) standard compliance.

## GENERAL SPECIFICATIONS

Battery life	360 hrs Power Meter / 190 hrs laser in Autotest
Size	190 x 130 x 70 mm, 7.5 x 5.1 x 2.8"
Weight	500 gm, 1.1 lb. Shipping 1.5 Kg, 3.3 lb
Temperature	-15 to 55 °C (Operating) / -25 to 70 °C (Storage)
Hidden keypad	For setting advanced functions
Case	Polycarbonate, 1 metre drop tested on concrete
PC interface	USB Type B
Memory	1900 dual $\lambda$ loss test results
Power	2 alkaline C cells (7.6 A/Hr) External DC with 2.5mm +ve pin or via USB port. Selectable auto-off, low battery indicator, backlit display
Tone detection	150 - 9999 Hz ± 1 %
Max / min	Recording feature for stability testing

Australian and international patents, technical data is subject to change without notice as part of our program of continuous improvements. Class 1 Laser/LED product, complies IEC60825-1 and 21CFR1040.10

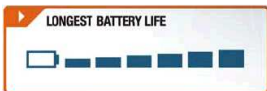


### KITS™ reporting and record keeping software

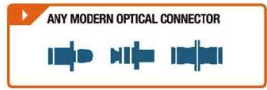
- Windows XP/Vista™/7/ .net compatible
- Click results directly into your custom acceptance report
- Data logging to help find intermittent faults
- Real time data capture for any Windows PC. Also supports manual data entry for legacy gear
- Supports any language. Easily customised reporting
- Familiar Excel™ user interface
- Accommodates any work practices
- Enterprise level IT solution for cable certification



Autotest is compatible with all KI7000, KI3000 or Agilent N397xA Handheld series testers



Battery life in excess of 190 hours on source and 360 hours on meter; Both C or AA size alkaline batteries are applicable



Quick-change, patented optical interchangeable connectors offer increased versatility and convenience; Dust and drop protected by a snap-on cover for improved performance reliability.

### ORDERING INFORMATION

Please enquire for:

- ✓ Other wavelength combinations
- ✓ High Power measurement
- ✓ Large area power meter detector options
- ✓ Connectors, APC etc

Description	P/N
1310/1550 nm laser PC, InGaAs Meter	KI 7722C-InGaAs
1310/1550 nm laser APC, InGaAs meter	KI 7722C-InGaAs-APC
850/1300 nm LED PC, InGaAs meter	KI 7704C-InGaAs
1310/1490/1550 nm laser PC, InGaAs Meter	KI 7707C-InGaAs
1310/1550/1625 nm laser PC, InGaAs Meter	KI 77010C- InGaAs
1310/1550/1625 nm laser APC, InGaAs Meter	KI 77010C- InGaAs -APC
1310/1490/1550/1625 nm laser PC, InGaAs Meter	KI 77016C-InGaAs
1310/1490/1550/1625 nm laser APC, InGaAs Meter	KI 77016C-InGaAs-APC

### STANDARD ACCESSORIES

Description	Quantity
A set of metal-free interchangeable connector adaptors: SC (OPT046), FC (OPT051), ST (OPT040)	2
Operation manual	1
C cell batteries & AA-to-C size battery converter	2
Calibration certificates	1
Carry Pouch, Carry strap & Leather protective holster	1
50 & 62.5 µm fiber mandrel wraps for Multimode sources	1
KITS™ Recording/Reporting software & USB A/B cable	1

### OPTIONAL INTERCHANGEABLE CONNECTOR ADAPTORS

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

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 ACCESSORIES

Description	P/N
Option, Carry Case for 2 Instruments	OPT153
Option, Carry Case includes Cletop, Cleaning Sticks	OPT154A
Option, KI7000 Series Power Pack IEC 100-240V with 2.5 mm Plug	OPT103B

AUTHORIZED DEALER