



KI7740 SERIES

TWO WAY OPTICAL LOSS TEST SET

The KI 7740 series is a very fast and easy bi-directional loss tester. Average fiber optic link loss is automatically displayed in real time on both instruments, at multiple wavelengths.

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.

Detector & calibration options cover a wide range of connector types and fiber types from +27 to -70 dBm with 2% Traceable Accuracy.

It is a robust, reliable and easy to use instrument for high performance single mode or multimode fiber optic cable testing.

OPTICAL COMMUNICATIONS TEST APPLICATIONS

- ✓ Attenuation testing
- ✓ System power testing
- ✓ Continuity testing

FEATURES

- ✓ Very high productivity
- ✓ Reliable, rugged & field proven
- ✓ High accuracy
- ✓ Autotest compatibility with other instruments
- ✓ 3 ~ 7 year warranty
- ✓ 3 year calibration cycle
- ✓ Interchangeable connectors
- ✓ Long battery life
- ✓ Large memory
- ✓ Flexible real-time PC software
- ✓ Instant Pass / Fail indication
- ✓ Compact & light weight



ISO 9001

TRACEABLE CALIBRATION



3 ~ 7 YEAR WARRANTY



FTTx

TELCO / CATV

LAN / WAN

DEFENCE

EDUCATION

AUTOMOTIVE



This is a very fast and easy bi-directional loss test Set. From start of test to acceptance report takes one mouse click and 4 seconds per wavelength.

The real-time loss display on both instruments means that cable certification and rectification use the same procedure, which simplifies training and operating procedures.

Autotest is available on both Test and Meter ports and is compatible with all other Autotest instruments.

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

The instrument is also a stand alone traceable power meter, multi-λ light source and optical tone generator.

Ge detectors are ideal for 650 ~ 1490 nm, and measure to 1550 nm. InGaAs detectors are ideal for 980 ~ 1650 nm, and measure to 850 nm. H series detectors are ideal for high power measurement at 1270 ~ 1625 nm. A Si detector is cost effective for 850 nm and industrial applications.

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

POWER METER SPECIFICATIONS

Detector Type	Response λ nm	Damage level dBm	Calibration λ nm	Power Range dBm	Autotest sensitivity dBm	Mid range linearity ¹ dB	Calibration Accuracy ² %	Polarization Sensitivity dB	Total Uncertainty ³ dB	λ Sensitivity ± 30 nm ⁵ dB
Ge	600 ~ 1650	+15	780, 850, 1300, 1310, 1550, 1590, 1610, 1625	+10~ -65 +10 ~ -70	-45 -50	0.04	2 % (0.09 dB)	< 0.005	0.5	0.04
InGaAs	800 ~ 1700	+15	850, 1300, 1310, 1550, 1610, 1625	+5~ -60 +5 ~ -70	-40 -50	0.02	2 % (0.09 dB)	< 0.005	0.3	0.03
H3B (InGaAs)	800 ~ 1700	+30 ⁴	1300, 1310, 1550, 1610, 1625	+27 ~ -50	-30	0.02	2 % (0.09 dB)	< 0.005	0.3	0.03
H5 (InGaAs)	800 ~ 1700	+25	850, 1300, 1310, 1550, 1610, 1625	+15 to -50 +15 to -60	-30 -40	0.02	2 % (0.09 dB)	< 0.005	0.3	0.03
Si	350 ~ 1100	+15	600, 650, 660, 780, 850, 980	+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.

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
RS232	3.5 mm jack connector, default baud 9.6 K
Memory	1200 bi-directional dual λ. loss test results
Power	2 alkaline C cells (7.6 A/Hr) or external 9V DC with 2.5 mm +ve pin. Selectable auto-off, low battery indicator, backlit display
Tone detection	150 - 9999 Hz ± 1 %
Pass / Fail	Insertion loss pass / fail criteria can be set for all λ.
Max / min	Recording feature for stability testing

LIGHT SOURCE SPECIFICATIONS

	Laser	LED	Comments
Output power, dBm	-9	-26 ⁵	± 1 dB
Short term stability, dB	0.03 ⁶	0.01	For 15 min, typ, Δ 3°C, after warm up
Stability over temp, dB	0.6	0.35	Typical, over temperature
λ tolerance, nm	20	30	At 25 °C
λ width, nm	3	35/100 (850/1300)	FWHM, typical
λ nm/°C	0.4	0.4	typical
Reconnection repeatability, dB	0.1	0.05	95 % confidence
Modulation	270 Hz, 1, 2 KHz, ± 2 %		
Laser output	Adjustable over 6 dB in 0.01 dB steps		

Note 5: For 62.5µm fiber. Note 6: ORL < -25 dB.





MULTIPLE LANGUAGE / ANY STYLE OF CERTIFICATION REPORT



KITS™ reporting and record keeping software

- ✓ Windows XP / .net compatible
- ✓ Click results directly into your custom acceptance report
- ✓ Data logging to help find intermittent faults
- ✓ Label printing for racks and patch leads
- ✓ 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
- ✓ USB-RS232 adaptor available

TWO-WAY LOSS & PASS / FAIL TESTING



The fastest bi-directional Link loss tester up to 2 λ. One Autotest button click, real time display

ANY INSTRUMENT WORKS WITH ANOTHER



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

LONGEST BATTERY LIFE



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

ANY MODERN OPTICAL CONNECTOR



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

ORDERING INFORMATION

Please enquire for:

- ✓ Other wavelength combinations
- ✓ High power measurement
- ✓ Large area power meter detector options

Description	P/N
1310/1550 nm laser PC, InGaAs Meter	KI 7742-InGaAs
1310/1550 nm laser APC, InGaAs Meter	KI 7742-InGaAs-APC
1310/1550 nm laser PC, H3 meter	KI 7742-H3B
1310/1550 nm laser APC, H3 meter	KI 7742-H3B-APC
1310/1550 nm laser PC, H5 meter	KI 7742-H5
1310/1550 nm laser APC, H5 meter	KI 7742-H5-APC
850/1300 nm LED, Ge Meter	KI 7744A-Ge
850 nm LED, Si Meter	KI 77411-Si

STANDARD ACCESSORIES

Description	Quantity
SC connector adaptor OPT046 blue or OPT046G green	2
FC connector adaptor OPT051	2
ST connector adaptor OPT040	2
KITS™ Testing software & RS232 Cable	1
Operation manual	1
C cell batteries & AA-to-C size battery converter	2
NATA (ILAC) traceable calibration certificate including: Power Meter, Light Source	1
Carry Pouch, Carry strap & Leather protective holster	1

OPTIONAL INTERCHANGEABLE CONNECTOR ADAPTORS

Description	P/N	Description	P/N
E2000/LSH, green	OPT060G	MU	OPT080
E2000/LSH	OPT060	2.5mm universal	OPT081
LSA / DIN47256	OPT071	SMA 905/906	OPT082
LC / F3000	OPT072		

This instrument is supplied with metal-free optical interchangeable connector adaptors. The source ferrule type is fixed and customer specified as either PC or APC. The power meter is for both PC & APC. Blue is associated with PC. 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

INSTRUMENT OPTIONS

TIA/IEC standard compliance for LED sources: CPR & λ into 50 µm fiber. Including 50 µm mandrel wrap. Output power tolerance ± 3 dB	OPT091
TIA/IEC standard compliance for LED sources: CPR & λ into 62.5 µm fiber. Including 62.5 µm mandrel wrap. Output power tolerance ± 3 dB	OPT093

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