



KI7340A SERIES PREMIUM TWO WAY OPTICAL LOSS TEST SET

WITH OPTICAL RETURN LOSS (ORL)

The KI 7340A series is the industry's fastest and easiest bi-directional loss tester. Average fiber optic link loss and ORL each end is automatically displayed in real time on both instruments, at multiple wavelengths.

Featuring zero warm up, 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, fiber types and CWDM wavelengths from +27 to -70 dBm with 1% 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
- ✓ ORL testing
- ✓ Continuity testing

FEATURES

- ✓ Very high productivity
- ✓ Reliable, rugged & field proven
- ✓ Zero warm up & high accuracy
- ✓ Full feature ORL testing
- ✓ 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
- ✓ Up to 4 LED or laser sources
- ✓ Compact & light weight



ISO 9001 TRACEABLE CALIBRATION   3 ~ 7 YEAR WARRANTY



FTTx TELCO / CATV LAN / WAN DEFENCE EDUCATION AUTOMOTIVE



This is the industry's fastest and easiest bi-directional loss tester. From start of test to acceptance report takes one mouse click and 4 seconds per λ .

The real-time loss and ORL 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 zero warm up, >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 Return Loss Tester.

The ORL Zero function compensates for residual reflections, and provides extended measurement range with improved linearity.

The ORL User Calibration Mode compensates for stray losses in a test set-up, which improves overall accuracy.

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 |
|---------------|-----------------------|------------------|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|-----------------------------|-----------------------------------|
| Ge | 600 ~ 1650 | +15 | 780, 820, 850, 980, 1270, 1290, 1300, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610, 1625 | +10 to -65 +10 to -70 | -45 -50 | 0.04 | 1 % (0.06 dB) | < 0.005 | 0.5 |
| InGaAs | 800 ~ 1700 | +15 | 820, 850, 980, 1270, 1290, 1300, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610, 1625, 1650 | +5 to -60 +5 to -70 | -40 -50 | 0.02 | 1 % (0.06 dB) | < 0.005 | 0.3 |
| H3B (InGaAs) | 800 ~ 1700 | +30 ⁴ | 1300, 1310, 1550, 1270, 1290, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1570, 1590, 1610, 1625 | +27 to -50 | -30 | 0.02 | 1 % (0.06 dB) | < 0.005 | 0.35 |
| Si | 350 ~ 1100 | +15 | 600, 650, 660, 780, 850, 980 | +0 to -70 | -47 | 0.02 | 1 % (0.06 dB) | < 0.005 | 0.3 |
| | | | | | typical | typical | | typical | max |

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±5 °C, ±1 nm, 10±3 nm FWHM, PC ceramic connector, 62.5µm 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

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) |
| Memory | 1200 bi-directional dual λ loss and ORL test results |
| 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 |
| 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 & Return loss pass / fail criteria can be set for all λ . |
| Max / min | Recording feature for stability testing |

ORL SPECIFICATIONS

| | Laser | | LED |
|--------------------|--|--|--|
| | 3 or 4 λ | 1 or 2 λ | |
| Range ⁷ | 0-65 dB | 0-60 dB | 0 - 40 dB |
| Port isolation | Standard > 30 dB Optional > 50 dB | | > 22 dB |
| ORL accuracy | 0 - 50 dB: 0.5 dB 50 - 65 dB: 1 dB after zero offset | 0 - 45 dB: 0.5 dB 45 - 60 dB: 1 dB after zero offset | 0 - 30 dB: 0.5 dB 30 - 45 dB: 1 dB after zero offset |
| λ | see source options | | see source options |

Note 7: Range is less for PC connector. After a zero offset, range is 10 dB better than the residual level.

INTERCHANGEABLE CONNECTOR OPTIONS

| 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. Green is associated with APC. Green is associated with APC. You can order any number of connector adaptors. Order quantity two of each type.

LIGHT SOURCE SPECIFICATIONS

| | 1310/1550 nm | Other lasers | LED | Comments |
|--------------------------------|---------------------------------------|-------------------|----------------------|--|
| 2 λ source power | -7 dBm | -7 dBm | -26 ⁵ dBm | ± 1 dB |
| 3 or 4 λ power | -10 dBm | -10 dBm | | |
| Short term stability, dB | 0.03 | 0.05 ⁶ | 0.01 | 15 min, max, no warm up, λ 3°C |
| Stability over temperature, dB | 0.2 | 0.2 | 0.35 | Max, over temperature |
| λ tolerance, nm | 20 | 6.5 | 30 | At 25 °C |
| λ width, nm | 3 | < 1 | 35/100 850/1300 | FWHM, typical |
| λ nm/°C | 0.4 | 0.1 | 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: For ORL < -25 dB.

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 |
| 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, ORL | 1 |
| Carry Pouch, Carry strap & Leather protective holster | 1 |
| SC PC Terminator to check ORL reading | 1 |
| SC APC Terminator to check ORL reading | 1 |
| PC-to-APC Test Lead to check ORL reading | 1 |

OPTIONAL ACCESSORIES

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



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/ORL tester up to 4 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

ONE OPERATOR ON PON NETWORKS



One man operation mode for PON testing FTTH & CWDM wavelengths

ANY CWDM TEST WAVELENGTH



1 % meter accuracy & over 24 calibrated CWDM/DWDM λ

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 |
|--|----------------------|
| 1550 nm laser PC, InGaAs Meter, ORL | KI 73421A-InGaAs |
| 1550 nm laser APC, InGaAs Meter, ORL | KI 73421A-InGaAs-APC |
| 1310/1550 nm laser PC, InGaAs Meter, ORL | KI 7343A-InGaAs |
| 1310/1550 nm laser APC, InGaAs Meter, ORL | KI 7343A-InGaAs-APC |
| 1310/1550 nm laser PC, H3 meter, ORL | KI 7343A-H3B |
| 1310/1550 nm laser APC, H3 meter, ORL | KI 7343A-H3B-APC |
| 850/1300 nm LED APC, Ge Meter, ORL | KI 7344A-Ge-APC |
| 850 nm LED APC, Si Meter, ORL | KI 73411-Si-APC |
| 1490/1610 nm laser PC, InGaAs Meter, ORL | KI 73412A-InGaAs |
| 1490/1610 nm laser APC, InGaAs Meter, ORL | KI 73412A-InGaAs-APC |
| 1550/1610 nm laser PC, InGaAs Meter, ORL | KI7346A-InGaAs |
| 1550/1610 nm laser APC, InGaAs Meter, ORL | KI7346A-InGaAs-APC |
| 1310/1490/1550 nm laser PC, InGaAs Meter, ORL | KI7347A-InGaAs |
| 1310/1490/1550 nm laser APC, InGaAs Meter, ORL | KI7347A-InGaAs-APC |
| 1310/1550/1625 nm laser PC, InGaAs Meter, ORL | KI73410A-InGaAs |
| 1310/1550/1625 nm laser APC, InGaAs Meter, ORL | KI73410A-InGaAs-APC |
| 1310/1390/1550/1610 nm laser PC, InGaAs Meter, ORL | KI7348A-InGaAs |
| 1310/1390/1550/1610 nm laser APC, InGaAs, ORL | KI7348A-InGaAs-APC |
| 1310/1490/1550/1610 nm laser PC, InGaAs Meter, ORL | KI7349A-InGaAs |
| 1310/1490/1550/1610 nm laser APC, InGaAs, ORL | KI7349A-InGaAs-APC |

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 |
| > 50 dB ORL port isolation, single mode | OPT092 |

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