

# KI 6102 SERIES

## OPTICAL PON POWER METER



### OPTICAL COMMUNICATIONS TEST APPLICATIONS

- FTTX PON acceptance test
- FTTX PON fault isolation



Revision 5

The KI 6102 series Optical PON Power Meter is used for testing FTTX PON fiber optic communications systems.

Common uses include live acceptance testing during service turn-up, and fault isolation during subsequent maintenance, particularly when an ONT has failed.

It is connected in-line on a live system, and simultaneously displays the power of all 3 operational PON wavelengths, including the return signal power.

### FEATURES

- Compact, rugged & light weight
- For BPON/EPON/GPON testing
- Large, sunlight readable LCD display
- In-line testing 1310, 1490, 1550 nm
- 1310 nm Burst Mode testing
- Pass/Fail displays
- 3 thresholds set by management software
- Internal memory & download for 99 tests
- Real-time clock for timestamp
- Calibration by management software
- Power saving design with backlight
- 12 month warranty
- 3 years calibration cycle

The KI 6102 handheld in-line PON Power Meter is ideal for measuring power in a typical live BPON/EPON/GPON FTTX communication link.

This feature rich instrument makes for easy pass/fail results storage and reporting. Stable readings inspire user confidence.

The clear sunlight readable and backlit display is combined with simple operation, to ensure good quality testing.

The instrument features rugged construction, moisture resistance, rubber holster and connector dust caps.

Operational savings come from a 3 year re-calibration cycle and fast & simple operation.

The meter displays dBm, W and dB. The resolution is 0.01dB. A separate reference for each  $\lambda$  can be stored.

Pass/Fail display is available, and Pass/Fail value is user definable.

**SPECIFICATIONS**

Parameters	1310nm upstream measurement	1490nm downstream measurement	1550nm downstream measurement
Passband <sup>1</sup>	1260 nm ~ 1360 nm	1470 nm ~ 1505 nm	1535 nm ~ 1570 nm
Measurement range	-40 dBm ~ +10 dBm	-45 dBm ~ +10 dBm	-45 dBm ~ +23 dBm
Isolation	> 40 dB (@1490/1550 nm)	> 40 dB (@1310/1550 nm)	> 40 dB (@1310/1490 nm)
<b>Measurement accuracy</b>			
Uncertainty <sup>2</sup>	0.5 dB		
Polarization	< 0.25 dB		
Linearity	0.1 dB		
Insertion Loss	< 1.5 dB		

This class of instrument is for testing PON transmission power. Alternatively for loss testing, it requires a non-standard KI2000 series test source with specific CWDM compliant lasers.

Note 1: FWHM

Note 2: At calibration conditions

**GENERAL SPECIFICATIONS**

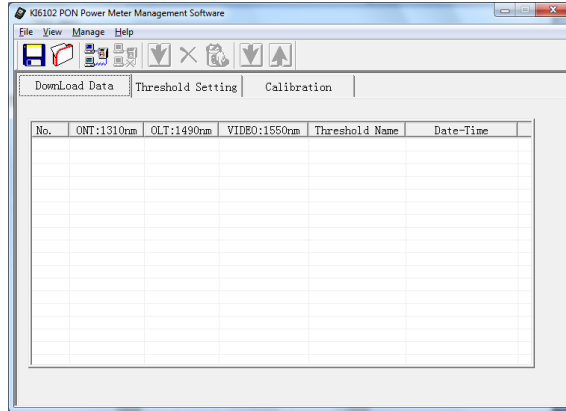
Parameters	Value
Fiber type / Connector interface	SM 9/125 $\mu$ m / Fixed SC-PC or SC-APC
Display / Backlight function	LCD Sunlight Readable / YES
Show Results	dBm/W/dB, pass/fail
Display Resolution	0.01 dB
Battery type / life	7.4V 1000mAH Rechargeable Lithium battery / 18 hours continuous
Auto off function	Selectable auto-off
AC adapter & charger for Li-ion cell	Charger spec: Input: 100-240v~50/60Hz 0.3 A; Output: 8.4V-0.5A
Operate / storage temperature / Relative humidity	-10 ~ +60 °C / -25 ~ +70 °C / < 95% non-condensing
Size / Weight	200 x 90 x 43 mm (7.87 x 3.54 x 1.69") / 0.4 kg (0.9 lb)

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



**KINGFISHER PON POWER METER SOFTWARE**

- Download testing data in the meter to a PC via the USB interface
- Download/Upload threshold settings to the meter
- Calibration



**ORDERING INFORMATION**

Description	P/N
Instrument, In-line PON Power Meter, SC/APC, US charger	KI 6102US-APC
Instrument, In-line PON Power Meter, SC/APC, EUR-adapted charger	KI 6102EUR-APC
Instrument, In-Line PON power meter, SC/APC, AUS-adapted charger	KI 6102AUS-APC
Instrument, In-Line PON power meter, SC/APC, UK-adapted charger	KI 6102UK-APC

Please enquire for non standard SC/PC connector.

**STANDARD ACCESSORIES**

Description	Quantity
User manual	1
Soft carry pouch	1
SC/APC--SC/APC or SC/PC--SC/PC Patchcord	1
External power supply/charger	1
Software CD	1
USB cable	1
Cleaning Cotton Stick pack	1

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Revision	Date	Change description
5	23/4/2014	Added the following statement & notes to <b>SPECIFICATIONS</b> section: (i) "This class of instrument is for testing PON transmission power. Alternatively for loss testing, it requires a non-standard KI2000 series test source with specific CWDM compliant lasers." (ii) "Note 1: FWHM" (iii) "Note 2: At calibration conditions"

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