



# KI 9600 SERIES

OPTICAL POWER METER

The KI 9600 series Optical Power Meter is used for testing fiber optic communications systems.

Traceable 2% accuracy, ease of use and high availability combine to achieve superior measurement confidence.

Detector & calibration options cover a wide range of connector types, fiber types and common wavelengths from +24 to -70 dBm.

## OPTICAL COMMUNICATIONS TEST APPLICATIONS

- ✓ System power testing
- ✓ Attenuation testing
- ✓ Fiber identification
- ✓ Wavelength Selective Option for PON

## FEATURES

- ✓ Shirt pocket size with spring clip
- ✓ 3 ~ 7 year warranty
- ✓ 3 year calibration cycle
- ✓ Interchangeable connectors
- ✓ Displays dBm, dB, linear, tone Hz
- ✓ Simple to use
- ✓ 300 hr battery life
- ✓ Max / Min recording, Display hold & 9 calibrated wavelengths
- ✓ Compact, rugged & light weight



 **3 YEAR**  
STANDARD  
WARRANTY





The small KI 9600 is a shirt-pocket sized Optical Power Meter used to measure absolute and relative light levels in all types of optical communication systems. High accuracy and simplicity of use make it ideal for field and laboratory use.

Operational savings result from the 3 year warranty & re-calibration cycle, 300 hour battery life, and no range changing delays.

The meter displays mW,  $\mu$ W, nW, dB, dBm to 0.01 dB resolution. A separate reference for each  $\lambda$  can be stored and displayed.

The tight total uncertainty specification covers the entire measuring range, operating temperatures, connector types and fiber types, without warm up or user dark current offset.

The interchangeable optical connectors are dust and drop protected. SC, FC, ST adaptors are supplied, with others available including LC etc.

The rugged construction withstands drops from over 2 meters, dirt and moisture.

## SPECIFICATIONS

Detector Type	Response $\lambda$ nm	Damage level dBm	Calibration $\lambda$ nm	Power Range dBm	Mid range linearity <sup>1</sup> dB	Calibration Accuracy <sup>2</sup> %	Polarization Sensitivity dB	Total Uncertainty <sup>3</sup> dB	$\lambda$ Sensitivity $\pm 30$ nm <sup>5</sup> dB
Ge	600 ~ 1650	+15	<b>660, 850</b> <b>1300, 1310, 1390, 1490,</b> <b>1550, 1610, 1625</b>	+10 ~ -70	0.04	2 %	< 0.005	0.5	0.04
InGaAs	600 ~ 1700	+15	<b>660, 850</b> <b>1300, 1310, 1390, 1490,</b> <b>1550, 1610, 1625</b>	+5 ~ -70	0.02	2 %	< 0.005	0.3	0.03
H3B (InGaAs)	800 ~ 1700	+27 <sup>4</sup>	<b>850</b> <b>1300, 1310, 1390, 1490, 1550,</b> <b>1590, 1610, 1625</b>	+24 ~ -50	0.02	2 %	< 0.005	0.3	0.03
H5 (InGaAs)	800 ~ 1700	+25	<b>850</b> <b>1300, 1310, 1390, 1490,</b> <b>1550, 1590, 1610, 1625</b>	+15 ~ -60	0.02	2 %	< 0.005	0.3	0.03
					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,  $-35 \pm 5$  dBm,  $23 \pm 1^\circ\text{C}$ ,  $\pm 1$  nm,  $10 \pm 3$  nm FWHM, PC ceramic connector, 100 $\mu$ m fiber.  
 Note 3: Includes contributions due to: varying optical connector types, calibration uncertainty, full temperature, dynamic range and fiber core diameter up to 200 $\mu$ m.  
 Note 4: H3B can sustain the damage level for 2 minutes.  
 Note 5: At calibration wavelengths in bold type.

## KI9600WS01-Ge SPECIFICATIONS

Calibrated wavelengths (nm)	1550
<b>Measurement of 1550 nm</b>	
Pass band	1530 to 1625 nm
Isolation of 1490 nm band	> 25 dB
Isolation of 1310 nm band	> 30 dB
Max. permitted input level	+ 15 dBm
Measurement range	+10 to -70 dBm
<b>Measurement accuracy</b>	
Mid range linearity <sup>1</sup>	0.04 dB
Polarization Sensitivity	< 0.005 dB
Total Uncertainty <sup>3</sup>	0.5 dB

## GENERAL SPECIFICATIONS

Battery life	300 hrs
Size	124 x 81 x 25 mm, 4.9 x 3.2 x 1.0"
Weight	0.15 kg, 0.33 lb. Shipping 0.5 kg, 1.1 lb
Operating / Storage	-15 to 55 °C / -25 to 70 °C
Case	Polycarbonate, 2.5 metre drop tested
Power	2 alkaline AAA cells. Selectable auto-off, low battery indicator
Tone detection	200 ~ 2500 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.

## AUTHORIZED DEALER



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The handy tone detector is a useful craft aid for fiber identification.

For general measuring from 660 to 1550 nm, the Ge meters offer adequate accuracy.

For better accuracy, linearity, or wavelengths above 1550 nm, the InGaAs meter is preferred.

For high power testing, the H series meters offer excellent accuracy, power handling and wavelength insensitivity, and are insensitive to connector reflections.

For PON testing, the Wavelength Selective meter KI9600WS01-Ge offers a simple way to measure 1550 nm light, unaffected by other wavelengths.

For testing MT-RJ connectors, MPO/MTP ribbon fiber connectors, 1 mm pof fiber, expanded beam connectors etc, refer to the alternative KI XL brochure for instruments with large area detectors.

## ORDERING INFORMATION

Description	P/N
Instrument, Power Meter Ge	KI 9600-Ge
Instrument, Power Meter InGaAs	KI 9600-InGaAs
Instrument, Power Meter H3B	KI 9600-H3B
Instrument, Power Meter H5	KI 9600-H5
Instrument, 1550 nm Power Meter Ge	KI 9600WS01-Ge

## STANDARD ACCESSORIES

Description	Quantity
SC metal-free interchangeable connector adaptor (OPT046)	1
FC metal-free interchangeable connector adaptor (OPT051)	1
ST metal-free interchangeable connector adaptor (OPT040)	1
Operation manual on CD	1
NATA (ILAC) traceable calibration certificates	1
Soft carry pouch	1

## OPTIONAL INTERCHANGEABLE CONNECTOR ADAPTORS

Description	P/N	Description	P/N
D4	OPT055	LC / F3000	OPT072
E2000/LSH, green	OPT060G	MU	OPT080
E2000/LSH	OPT060	2.5mm universal	OPT081
LSA / DIN47256	OPT071	SMA 905/906	OPT082

This instrument is supplied with metal-free interchangeable optical connector adaptors. Green is associated with APC. You can order any number of connector adaptors.



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