T9600 Series

Optical Power Meter

Optical Communications Test Applications

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



Revision 22

The T9600A series shirt-pocket Optical Power Meter is used for testing fiber optic communications systems.

2% traceable calibration 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, common wavelengths and power levels from +24 to -60 dBm.

Features

- Shirt pocket size with spring clip
- Patented low cost Interchangeable connector
- Multi-fiber ID for fiber identification
- Large sunlight readable display
- Displays dBm, dB, linear, tone Hz
- Power averaging mode for modulated signal
- Tamper-lock mode for low skill measurement
- Simple to use
- 300-hour battery life
- Max / Min recording & display hold
- Up to 12 calibrated wavelengths
- Compact, rugged & light weight
- ISO 17025 traceable calibration certificate
- 3-year warranty
- 3-year recommended calibration cycle
- Made in Australia

T9600 Series - Optical Power Meter

The small T9600A Pocket Fiber Meter is ideal for measuring absolute / relative light levels or test tones on single mode, multimode or plastic optical fiber (POF) systems. High traceable accuracy and ease of use make it perfect for field or laboratory.

Tough construction includes moisture resistance, rubber corners, a captive connector dust cap and it can be dropped over 2 meters onto a hard surface. This instrument meets MIL PRF 28800F Class 2.

When used with multiple T 9800 sources, the Multi-Fiber ID feature uniquely identifies up to 12 fibers.

The tight total uncertainty specification covers the entire range of measurement, temperature, connectors and fiber types, without warm up or dark current offset. Calibration is ISO 17025 traceable.

Operational savings come from a 3-year warranty, 300 hours of battery life, and fast operation.

The meter displays mW, µW, nW, dB, dBm to 0.01 dB resolution. A separate reference for each λ can be stored.

A Power Averaging Mode measures the average power of modulated signals.

The Tamper-lock mode enables a site manager to lock and track instrument settings to reduce measurement sTll and improve both test confidence and traceability.

Interchangeable optical connectors are dust and drop protected. Other styles include the popular LC.

The InGaAs meter is the preferred solution for single mode testing from 900 – 1650 nm.

Ge meters offer modest accuracy from 660 to 1550 nm.

H series meters are available for high power testing. They offer good immunity to wavelength and reflection effects.

For testing 1 mm POF, ribbon fiber, MT-RJ, expanded beam connectors etc., refer to the alternative T9600-XL brochure for instruments with large area detectors.

TECHNICAL SPECIFICATIONS

Response λ nm	Damage level dBm	Calibration λ nm	Power range dBm	Tone & mulita-fiber ID sensitivity dBm	Midrange linearity[1] dB	Calibration Accuracy[2] %	Polarization Sensitivity[6] dB	Total Uncertainty[3, 5] dB	λ Sensitivity[5] ± 30 nm dB
InGaAs detector									
600 ~ 1700	+15	*850* **1300, 1310, 1390, 1490, 1550, 1610, 1625**	+5 ~ -60	*-40* -50	0.04	2 % (0.09 dB)	< 0.05	0.3	0.03
H3B (InGaAs) detector									
800 ~ 1700	+27[4]	*850* **1300, 1310, 1390, 1490, 1550, 1590, 1610, 1625**	+24 ~ -40	*-20* -30	0.04	2 % (0.09dB)	< 0.05	0.3	0.03
H5 (InGaAs) detector									
800 ~ 1700	+25[4]	*850* **1300, 1310, 1390, 1490, 1550, 1590, 1610, 1625**	+15 ~ -50	*-30* -40	0.04	2 % (0.09dB)	< 0.05	0.3	0.03
Ge detector									
600 ~ 1650	+20	*635,650,660,780,*1610, 1625 **850, 1300, 1310, 1390, 1490,** 1550	*+10 ~ -60*	-40 -50	0.06	2 % (0.09dB)	< 0.05	0.5	0.04
					typical		typical	max	typical

Note 1: Mid-range linearity @ 1550 nm for InGaAs & Ge, or 850 nm for Si. Non-coherent light, with APC connector. Excludes top 5 dB and bottom 10 dB of range.

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

Note 3: Includes contributions of: varying optical connector types, calibration uncertainty, linearity over temperature & range, and fiber core diameter up to 200 µm.

Note 4: H5 & 3B can sustain the damage level for 2 minutes.

Note 5: At calibration wavelengths in bold type.

Note 6: For APC connectors only.

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

GENERAL SPECIFICATIONS

Parameters	Value
Battery life	300 hours
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
Relative humidity	0 ~ 95%
Case	Polycarbonate with captive dust cap, 2.5-meter drop tested
Tone detection	200 ~ 2500 Hz ± 2 %
Recommended calibration cycle	3 years
Max / min	Recording feature for stability testing
Power	2 alkaline AAA cells. Selectable auto-off, low battery indicator

ORDERING INFORMATION

Description	Part number
Instrument, Power Meter InGaAs	T9600A-InGaAs
Instrument, Power Meter H3B	T9600A-H3B
Instrument, Power Meter H5	T9600A-H5
Instrument, Power Meter Ge	T9600A-Ge

STANDARD ACCESSORIES

Description	Quantity
Option, Hybrid Adaptor, Ceramic Sleeve, SC/SC (OPT046)	1
Carry pouch (OPT156*)	1
Wrist strap	1
ILAC/ NATA traceable certificate	1
QA certificate	1
Quick guide	1

This instrument is supplied with metal-free sleeve optical interchangeable connector adaptors. The power meter works with both PC and APC connectors. Green is associated with APC.

OPTIONAL INTERCHANGEABLE CONNECTOR ADAPTORS

Description	Part number
Option, Hybrid Adaptor, Ceramic Sleeve, SC/FC	OPT051
Option, Hybrid Adaptor, Ceramic Sleeve, SC/LC, metal body	OPT076
Option, Hybrid Adaptor, Ceramic Sleeve, SC/ST	OPT040
Option, Hybrid Adaptor, Ceramic Sleeve, SC/D4	OPT055
Option, Hybrid Adaptor, Ceramic Sleeve, SC/MU	OPT080
Option, Hybrid Adaptor, Ceramic Sleeve, SC/LSA-DIN47256	OPT071
Option, Hybrid Adaptor, Ceramic Sleeve, SC/E2000	OPT060
Option, Hybrid Adaptor, Ceramic Sleeve, SC/E2000 Green	OPT060G
Option, Hybrid Adaptor, Ceramic Sleeve, SC/Universal 1.25 mm	OPT084
Option, Hybrid Adaptor, Ceramic Sleeve, SC/Universal 2.5 mm	OPT081
Option, Hybrid Adaptor, Metal Sleeve, SC/SMA 905/906	OPT082
Option, Hybrid Adaptor, Ceramic Sleeve, SC/F3000 or LC Simplex, plastic body	OPT072

The power meter works with both PC and APC connectors.



History Record

Revision	Date	Editor	Change Description
22	27Jul2021	TO Ng	

AUTHORIZED DEALER

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