

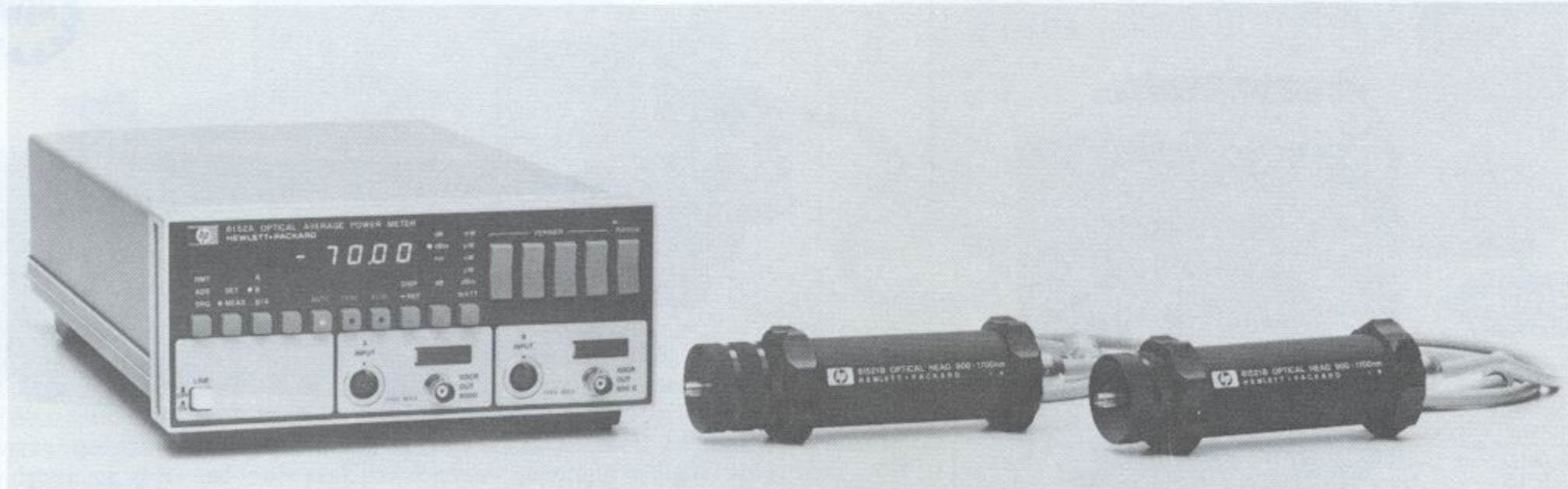
FIBER OPTIC TEST EQUIPMENT

Optical Average Power Meter

Model 8152A

- Two optical inputs
- Optical heads individually calibrated from 850 to 1700nm

- Multi- and single-mode
- 3.7% accuracy



HP 8152A



The HP 8152A Optical Average Power Meter and its optical heads provide the accuracy and versatility for absolute and relative power measurements in a fiber optic test environment. Applications range from output power measurement of active optical components, or loss/attenuation measurement of passive optical components, to ratio measurement of power splitters.

Individually calibrated optical heads ensure highly precise measurement results over the entire wavelength range from 850 to 1700nm. After entering the operating wavelength, the appropriate sensitivity correction factor will automatically be taken into account to ensure the correct measurement value is displayed.

The combination of 2 independent optical inputs, the capability to perform ratio measurements, plus the new HP 81000BS Optical Power Splitter provides a fast, easy solution to determine the power ratio of an optical splitter or eliminating the instabilities of an optical source.

All functions can be set manually via front panel controls, or programmed via HP-IB for complete remote control. The HP 8152A is therefore an ideal tool for departments such as R&D, production and incoming evaluation.

HP 81521B Optical Head

It is the standard optical head for the HP 8152A. The HP 81521B covers almost all common applications in the wavelength range from 850 to 1700nm.

Each optical head is individually calibrated and features a non volatile memory for storage of wavelengths other than 1300nm, therefore, simple entry of the wavelength at the power meter ensures accurate measurements.

HP 8152A Specifications

Optical characteristics of the 81521B Optical Head

Wavelength range: 850 to 1700nm
Sensor element: Cooled Ge PIN diode
Sensor diameter: 5mm
Maximum power density: 10mW/mm²

Optical power measurements

Measurement range: +3 to -80dBm
Resolution: 4½ digits 0.01dB, 10pW best case
Traceable calibration accuracy: ±5%

Accuracy

(rel. to calibration at 1300nm and -20dBm, log. reading, 0 to 40°C ambient temp., 10 to 100% full scale, -50dBm range 100pW to 100%):

Range [dBm]	Average power ± (of read + Watts)
0	0.15dB
-10	0.15dB
-20	0.15dB
-30	0.15dB
-40	0.15dB
-50	0.15dB + 100pW

General

HP-IB capability

Interface function: SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, C0

Recalibration period: 1 year

Warm-up time: 15 minutes

Environmental

Storage temperature: -40°C to +75°C

Operating temperature: 0°C to +55°C

Humidity: <95% R.H. from 0°C to +40°C

Power: 100/120/220/240Vrms, +5%, -10%, 90VA max., 48-400Hz

Weight: HP 8152A: net 4.3kg (9.5lbs), shipping 8.6kg (19lbs)

HP 81521B: net 0.45kg (1lb), shipping 1kg (2.2lbs)

Size: HP 8152A: 89mm(H) x 2123mm(W) x 345mm(D) (3.5" x 8.36" x 13.6")

HP 81521B: 37.7 diameter, 140mm length (1.5" x 5.5")

Ordering information

HP 8152A Optical Average Power Meter

Opt 907: Front handle kit (HP P/N 5061-9688)

Opt 908: Rack flange kit (HP P/N 5061-9672)

Opt 916: Additional operating manual

P/N 5061-9701: Bail handle kit

HP 81521B Optical Head 850 to 1700nm

HP 81010BL Lens for 9/125µm, 1300 to 1550nm

HP 81050BL Lens for 50/125µm, 1300 to 1550nm

HP 81000AF Filterholder

HP 81000BS Optical Power Splitter 1300 to 1550nm

Note: The HP 8152A cannot be used without an optical head, appropriate connector adapter and optical lens. For additional information, see 'Fiber Optic Test Accessories' on page 581.