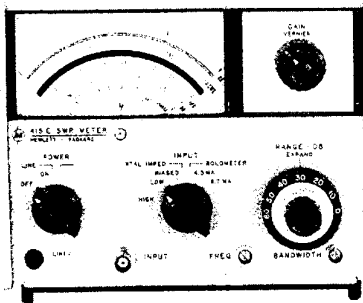


MICROWAVE TEST EQUIPMENT

Slotted Lines, Carriage, Probes, SWR Meter



Models 415E, 442B, 444A, 447B, 809C, 810B Series, 816A



HP 415E



HP 442B



HP 447B

HP 415E SWR Meter

The HP 415E SWR Meter is a low noise, 1000 Hz tuned amplifier and voltmeter, calibrated in dB and SWR. Designed for use with square law detectors, it measures SWR, attenuation, and gain directly from metered scales, or drives an X-Y recorder for RF substitution measurements. Front panel INPUT switch selects unbiased low (50-200 Ω) or high (2500-10,000 Ω) impedance crystal, biased crystal (1 V into 1 k Ω), or low or high current bolometer (4.5 or 8.7 mA \pm 3% into 200 Ω).

An internal precision 60 dB attenuator allows the HP 415E to operate over a 70 dB range in 10 or 2 dB steps, with \pm 0.05 dB accuracy for a 10 dB step; maximum cumulative error between any two 10 dB steps is \pm 0.1 dB. Sensitivity is 0.15 μ V rms for full scale deflection at maximum bandwidth (1 μ V rms on high impedance crystal input).

Continuously adjustable bandwidth can be adjusted from 15 Hz for maximum sensitivity at CW frequencies to 130 Hz for swept frequency uses. An optional rechargeable battery pack provides up to 36 hours of continuous operation for portable use. Weight: Net 4 kg (9 lb); shipping 5.8 kg (13 lb). Power: 115-230 V \pm 10%, 50-400 Hz, 1 VA.

HP 809C Slotted Line Carriage

The HP 809C carriage operates with the HP 816A coaxial slotted section and the HP 810B waveguide slotted sections. It is compatible with the HP 442B, 444A, and 447B coaxial probes. The carriage has a centimeter scale with a vernier reading to 0.1 mm, and provision is also made for mounting a dial gauge if more accurate probe position reading is required.

HP 810B Series, HP 816A Slotted Sections

The HP 810B waveguide and HP 816A coaxial slotted sections are used with the HP 809C carriage. The HP 810B waveguide sections accept the HP 444A untuned probe or the HP 442B probe. The HP 816A coaxial line accepts the HP 447B probe.

HP 810B Series, HP 816A Specifications

HP Model	Frequency Range (GHz)	SWR Residual	WG & Flange or Coax Conn.	Remarks	Price
X810B	8.2-12.4	1.01	WR 90 UG-135/U	Use with 809C carriage & 444A Probe	\$912
P810B	12.4-18.0	1.01	WR 62 UG-419/U		\$700
816A	1.8-18.0	1.02-1.04	Coaxial APC-7 N(f)	11512A N (m) Short 11565A APC-7 Short furnished.	\$970
Opt 011			Both APC-7	Use with HP 809C Carriage	Add \$25
Opt 022			N(m), N(f)	HP 447B Probe	Less \$15

HP 442B, 444A, 447B Probes/Adapters

The HP 442B fits the HP 809C carriage and provides sampled at a Type N jack.

The HP 444A is an untuned probe for 2.6-18 GHz for use with HP 809C carriage or other $\frac{1}{4}$ inch (19 mm) mounting hole and HP 810B waveguide sections. HP 447B is similarly used with the HP 809C and the HP 816A coaxial section for 1.8 to 18 GHz.

Ordering Information

HP 442B RF probe
 HP 444A Untuned probe
 HP 447B Detector probe
 HP 809C Slotted line carriage
 HP 415E SWR Meter
 Opt 001: rechargeable battery installed
 Opt 002: rear panel input connector

Price
 \$225
 \$225
 \$37
 \$8
 \$210
 add \$10
 add \$10