

Table 1-1. Specifications

SPECIFICATIONS

Frequency Range:

100 kHz to 26.5 GHz (depending on power sensor used).

Power Range:

(Meter calibrated in watts and dBm.)

With 8481B or 8482B sensors: 44 dB with 9 full scale ranges of 5, 10, 15, 20, 25, 30, 35, 40 and 45 dBm (1 mW to 25W).

With 8481H or 8482H sensors: 45 dB with 9 full scale ranges of -5, 0, 5, 10, 15, 20, 25, 30 and 35 dBm (30 μ W to 3W).

With 8481A, 8482A, 8483A or 8485A sensors: 50 dB with 10 full scale ranges of -25, -20, -15, -10, -5, 0, 5, 10, 15 and 20 dBm (3 μ W to 100 mW).

With 8484A sensor: 50 dB with 10 full scale ranges of -65, -60, -55, -50, -45, -40, -35, -30, -25 and -20 dBm (300 pW to 10 μ W).

Accuracy:

Instrumentation:¹ $\pm 1\%$ of full scale on all ranges.

Zero: Automatic, operated by front-panel switch.

Zero Set: $\pm 0.5\%$ of full scale on most sensitive range, typical.

Zero Carryover: $\pm 0.5\%$ of full scale when zeroed on the most sensitive range.

Noise (typical, at constant temperature, peak change over any one-minute interval): 20 pW (8484A); 40 nW (8481A, 8482A, 8483A, 8485A); 4 μ W (8481H, 8482H); 40 μ W (8481B, 8482B).

Drift (1 hour, typical), at constant temperature after 24-hour warm-up): 40 pW (8484A); 15 nW (8481A, 8482A, 8483A, 8485A); 1.5 μ W (8481H, 8482H); 15 μ W (8481B, 8482B).

Power Reference: Internal 50 MHz oscillator with Type N Female connector on front panel (or rear panel, Option 003 only).

Power output: 1.00 mW.

Factory set to $\pm 0.7\%$ traceable to the National Bureau of Standards.

Accuracy: $\pm 1.2\%$ worst case ($\pm 0.9\%$ rss) for one year (0 to 55°C).

Response Time:

(0 to 99% of reading, five time constants.)

Range 1 (most sensitive) <10.0 seconds.

Range 2 <3.8 seconds.

Range 3 <1.3 seconds.

Ranges 4—10 <500 milliseconds.

Typical, measured at recorder output.)

Cal Factor:

16-position switch normalizes meter reading to account for calibration factor or effective efficiency.

Range 85% to 100% in 1% steps.

Cal Adjustment:

Front panel adjustment provides capability to adjust gain of meter to match power sensor in use.

Recorder Output:

Proportional to indicated power with 1 volt corresponding to full scale; 1 k Ω output impedance; BNC connector.

RF Blanking Output:

Provides a contact closure to ground when auto-zero mode is engaged.

Power Consumption:

100, 120, 220, or 240V +5%, -10%.

100 and 120 volts, 48 to 66 Hz and 360—440 Hz.

220 and 240 volts, 48 to 66 Hz.

20 V·A maximum.

Weight:

Net, 2.7 kg (5.9 lbs).

Dimensions:

155 mm high (6-3/32 inches).

130 mm wide (5-1/8 inches).

279 mm deep (11 inches).

¹Includes sensor non-linearity. Add +2, -4% on top two ranges when using the 8481A, 8482A, 8483A and 8485A power sensors; add $\pm 4.0\%$ on the top two ranges when using the 8481B and 8482B power sensors; add $\pm 5.0\%$ on the top two ranges when using the 8481H and 8482H power sensors.