

NETWORK ANALYZERS *continued*

Mainframe, display plug-ins, accessories

Models 8407A, 8412A, 8414A, 11651A, 11652A, 11654A

Specifications

8407A

Test input:

Direct: -10 to -90 dBm.

Attenuated: +20 to -50 dBm.

Impedance: 50 Ω , VSWR <1.08.

Reference input:

Direct: level required is -10 to -60 dBm.

Attenuated: level required is +20 to -30 dBm.

Impedance: 50 Ω , VSWR <1.08.

Amplitude accuracy:

Frequency response (may be calibrated out): ± 0.3 dB, 0.1 to 116 MHz; ± 0.1 dB over any 10 MHz portion.

Display reference: <0.05 dB/1 dB step, total error does not exceed 0.1 dB; <0.1 dB/10 dB step, total error does not exceed 0.25 dB.

Reference channel level variation: <0.5 dB/10 dB over 30 dB operating range. For minor source and transducer variations (<0.5 dB), this error is negligible.

Phase accuracy (amplitude reading must be on-scale at the 10 dB/division setting):

Frequency response (may be calibrated out): $\pm 5^\circ$ 0.1 to 116 MHz; $\pm 2^\circ$ over any 10 MHz portion.

Display reference: <0.1°/1 dB step, total error does not exceed 0.2°; <0.5°/10 dB step, total error does not exceed 1°.

Reference channel level variation: <0.4°/10 dB, <1° total error over 40 dB operating range. Negligible for minor source and transducer variations.

Power: 64 watts, 50-60 Hz, 115/230 $\pm 10\%$ Vac.

Weight: net, 32 lb (14.6 kg). Shipping, 39 lb (17.8 kg).

Dimensions: 7¼" high, 18¾" deep, 16¾" wide.

Price: 8407A, \$2,950.00.

8412A

Amplitude accuracy:

Display: 0.08 dB/dB.

Rear output: 0.03 dB/dB.

Temperature coefficient: typically <0.05 dB/°C at midscreen.

Phase accuracy:

Display: 0.065°/degree.

Rear output: 0.015°/degree.

Phase offset: 0.3°/20 degree step, not to exceed total error of 3° for 360° of change, positive or negative direction.

Vs. displayed amplitude: <1°/10 dB, 4° total error for 80 dB.

Temperature coefficient: typically <0.1°/°C.

Power: 23 watts, supplied by 8407A.

Weight: net, 17 lb (7.8 kg). Shipping, 22 lb (10 kg).

Dimensions: 6" high, 15-9/16" deep, 7-9/32" wide.

Price: 8412A, \$1,575.00.

8414A

General: normalized polar coordinate display: Magnitude calibration is in 0.2 of full scale gradations, full scale determined by DISPLAY REFERENCE setting on 8407A. Phase calibration in 10° increments over a 360° range.

Accuracy: all errors in amplitude and phase due to the display contained within a circle of 3 mm about the measurement point.

Power: 35 watts, supplied by 8407A.

Weight: net, 13 lb (5.9 kg). Shipping, 17½ lb (7.8 kg).

Dimensions: 6" high, 15-9/16" deep, 7-9/32" wide.

Price: 8414A, \$1,250.00.

11651A

General: Transmission Kit, contains power splitter (6 dB through each arm) and matched, low-leakage cables.

Weight: net, 1.5 lb (0.7 kg). Shipping, 2.5 lb (1.2 kg).

Dimensions: 3" high, 8" deep, 10½" wide.

Price: 11651A, \$80.00.

11652A

General: Reflection-Transmission Kit, contains power splitter, reflectional bridge, two precision 50 Ω terminations, calibrating slugs, BNC adapters and matched, low-leakage cables.

Directional bridge: 6 dB coupling in main and auxiliary arm. Frequency response is ± 0.5 dB, 0.1 to 110 MHz (may be calibrated out). Directivity is >40 dB, 1 to 110 MHz. Return at LOAD port is >30 dB (ρ <0.03).

Power splitter: 6 dB loss through each arm.

50 Ω termination: return loss is >43 dB.

Weight: net, 1.5 lb (0.7 kg). Shipping, 2.5 lb (1.2 kg).

Dimensions: 3" high, 8" deep, 10½" wide.

Price: 11652A, \$300.00.

11654A

General: Passive Probe Kit, contains a pair each of six resistive divider probes (1:1, 5:1, 10:1, 20:1, 50:1, 100:1) current probes and variety of adapters.

Weight: net, 2 lb (0.9 kg). Shipping, 3 lb (1.4 kg).

Dimensions: 3" high, 8" deep, 10½" wide.

Price: 11654A, \$225.00.