

NETWORK ANALYZERS

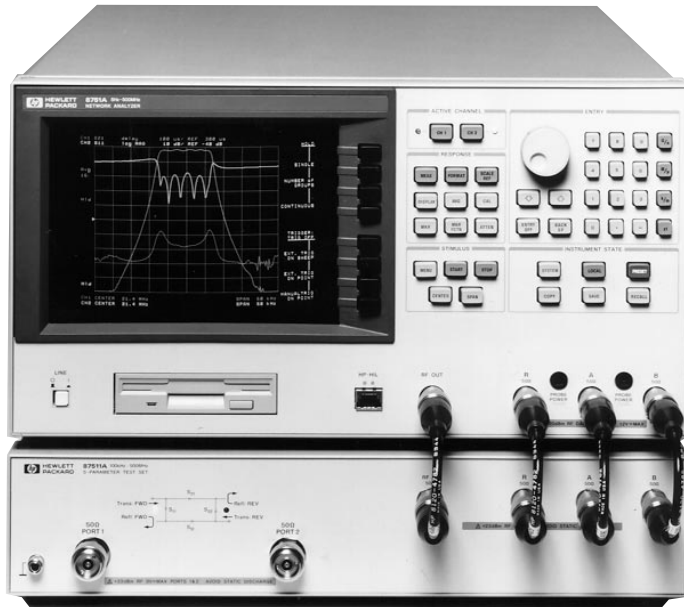
Baseband, IF and RF Network Analyzer, 5 Hz to 500 MHz

HP 8751A



- 5 Hz to 500 MHz
- ± 0.02 dB, $\pm 0.12^\circ$ dynamic accuracy
- 0.001 Hz, 0.001 dB, 0.001 degree, 10 ps resolution
- Full 2-port and interpolative calibration
- Conjugate matching analysis
- Built-in 1.44 MB disk drive for save/recall
- Crisp color display

- 10 updates of 201 sweep points per second
- 0.4 ms/point fast list sweep (IFBW = 4 kHz)
- Up to 4 traces simultaneous measurement/display
- Eight active trace markers per channel
- HP Instrument BASIC for customization
- HP 41802A 1 M Ω input adaptor



HP 8751A with HP 87511A

HP 8751A Network Analyzer

The HP 8751A network analyzer is a high-throughput instrument with lab precision that covers 5 Hz to 500 MHz. The HP 8751A provides resolution of 0.001 Hz, 0.001 dB, 0.001 degree, and 10 ps for characterizing the linear behavior of either passive or active networks, devices, or components in the lab and the production test areas. The built-in 1.44 MB disk drive is for direct save/recall of instrument state, calibration data, and application programs for your customization. Dedicated 50/74 Ω S-parameter test sets, 50/75 Ω T/R test kits, and the 1 M Ω input adaptors are all available.

HP 8751A Specifications

Source

Frequency Characteristics

Range: 5 Hz to 500 MHz

Resolution: 1 mHz

Accuracy: ± 20 ppm, ± 1.0 ppm (Option 001)

Stability: $\pm 2.5 \times 10^{-8}$ hours (typical $23 \pm 5^\circ$ C with Option 001)

Output Characteristics

Power Range: -50 to +15 dBm

Resolution: 0.1 dB

Flatness: ± 2.0 dB @ 5 Hz $\leq$ freq. $\leq$ 500 MHz ($23 \pm 5^\circ$ C, +0 dBm, relative to 50 MHz)

Level Accuracy: ± 0.5 dB (50 MHz, 0 dBm)

Level Linearity: ± 0.5 dB @ output level ≥ -35 dBm
 ± 1.5 dB @ output level < -35 dBm
 (50 MHz, relative to 0 dBm)

Impedance: 50 Ω

Receiver

Frequency Range: 5 Hz to 500 MHz

Input Range: 0 dBm @ ATT = 20 dB
 -20 dBm @ ATT = 0 dB

IF Bandwidth: 2 Hz, 20 Hz, 200 Hz, 2 kHz, 4 kHz

Noise Level: -130 dBm @ IFBW=20 Hz, ATT=0 dB, frequency ≥ 100 kHz

Maximum Input Level: 0 dBm

Impedance: 50 Ω

Crosstalk: < -100 dB

Dynamic Accuracy: ± 0.02 dB, $\pm 0.12^\circ$ (input level -10 to -50 dB, 20 Hz IFBW)

Delay Characteristics

Aperture Frequency: 0.5 to 20%

Display Range: 10 ps to 500 s

Accuracy: (Phase accuracy)/(360 x aperture)

Size: 425 mm W x 235 mm H x 553 mm D (16.75 in x 9.25 in x 21.77 in)

Weight: 28 kg (61.6 lb)

Key Literature

HP 8751A Network Analyzer Data Sheet, p/n 5952-2370

Ordering Information

HP 8751A Network Analyzer

Opt 001 High-Stability Frequency Reference

Opt 002 HP Instrument BASIC and 1 MB RAM

Opt 907 Front Handle Kit

Opt 908 Rack-mount Kit

Opt 909 Rack Flange and Handle Kit

Opt 910 Extra Operating Manual

Opt 915 Add Service Manual

Opt W30 Extended Repair Service (see page 592)

HP 87511A 50 Ω S-Parameter Test Set

Opt 001 N-Type Port

HP 87511B 75 Ω S-Parameter Test Set

Options (common for the HP 87511A/B)

Opt 907 Front Handle Kit

Opt 908 Rack-mount Kit

Opt 909 Rack Flange and Handle Kit

Opt 910 Extra Operating Manual

HP 87512A 50 Ω Transmission/Reflection Test Kit

HP 87512B 75 Ω Transmission/Reflection Test Kit

HP 41802A 1 M Ω Input Adaptor

HP 41800A Active Probe