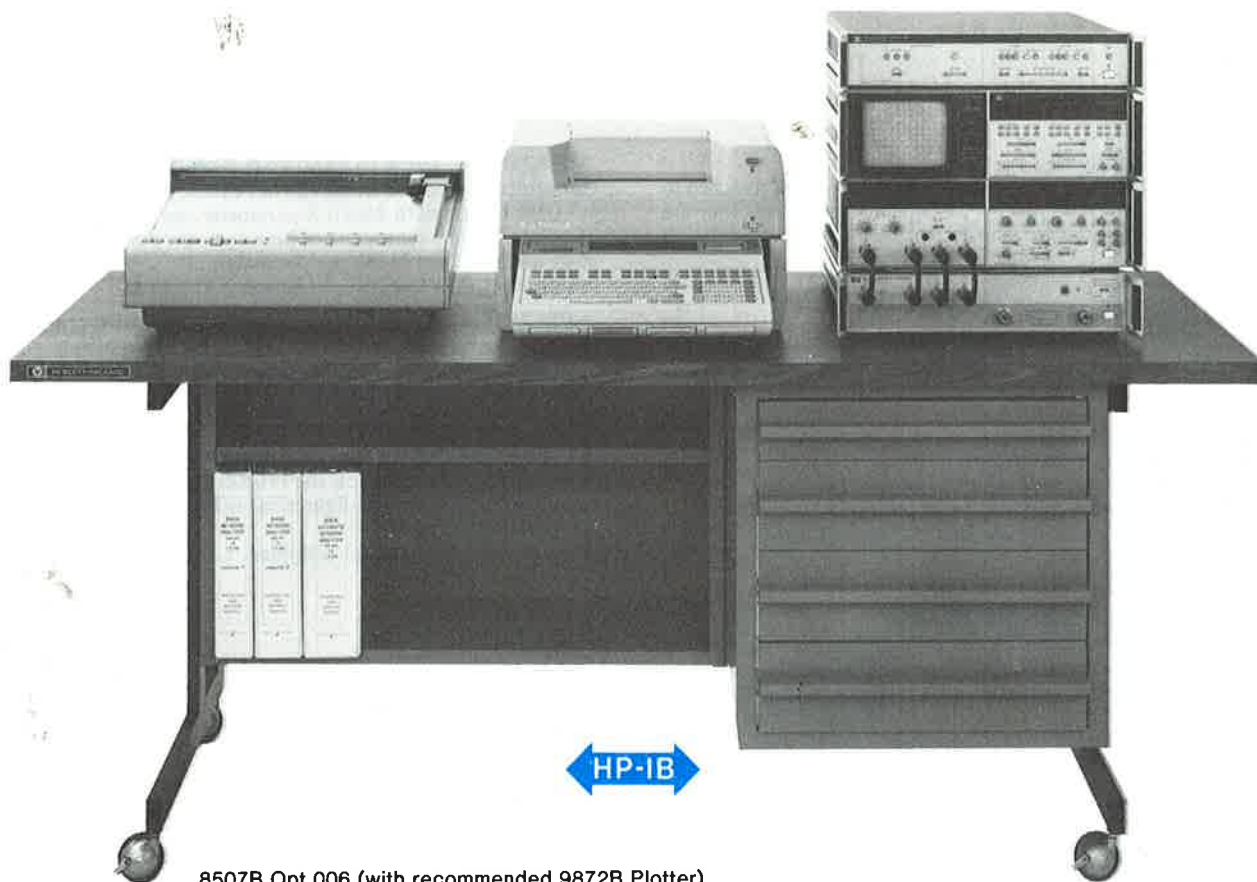


NETWORK ANALYZERS

Automatic network analyzer, 500 kHz to 1.3 GHz

Model 8507B

- Improve productivity in lab and factory
- Accuracy enhancement
- Ease of operation via HP-IB
- 9825A Desktop Computer
- Learn mode



8507B Opt 006 (with recommended 9872B Plotter)

Description

The 8507B is a 9825A Desktop Computer system based on the 8505A RF Network Analyzer. The synergism of the easy-to-use desktop computer with the "most programmable network analyzer yet designed" provides a powerful RF network measurement tool for both lab and production uses.

Cost Effective Solutions

In laboratory applications, engineers gain greater circuit insight due to the speed and ease with which data can be accumulated and summarized with 8507B. With just a few hours training, engineers with no previous programming experience have been able to write customized programs which solve specialized measurement problems. In production applications, the 8507B dramatically reduces the time and cost of making complicated limit tests on all types of components. Testing programs with built-in operator instructions can minimize training cost and assure uniform test procedures.

Simplicity and Flexibility of HP-IB

Configuration of the standard 8507B or your own customized system is a simple matter since it is programmed via the Hewlett-Packard Interface Bus (HP-IB). For instance, your RF measurement application may require a programmable power supply for transistor biasing or a digital voltmeter. Merely choose an instrument from the list of HP-IB interfaceable instruments and add it to your 8507B using universal HP-IB cables.

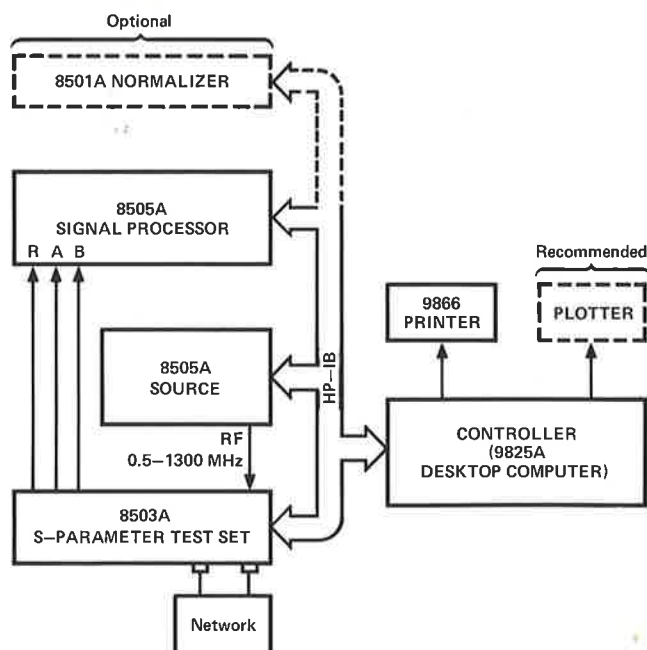
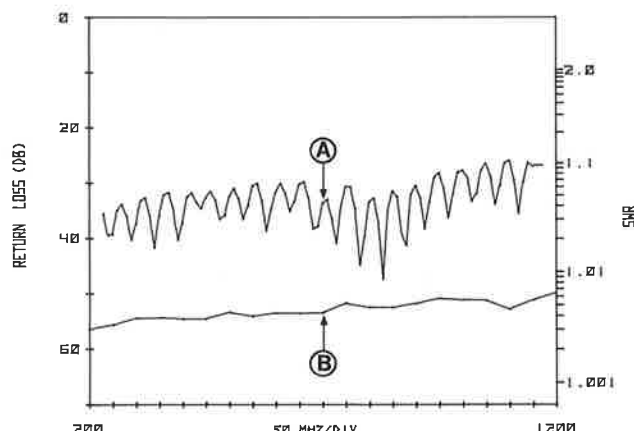
Getting started making measurements is equally easy since the 8507B comes complete with programs for system verification, accuracy enhancement and measurement applications. The system verification programs provide you with a fast operational check of the network analyzer, the desktop computer, and all system interfaces. However, one of the major contributions of the 8507B is its ease of operation and programming using the HP-IB with Learn Mode.

Learn Mode Operation

The "Learn" mode of operation extends traditional automatic operation to a new level of operator convenience. A single key stroke can cause the desktop computer to accept (learn) a data string from the network analyzer which defines all of the manually set front panel control settings. Once stored in the desktop computer (or permanently recorded) this data string can then be used to automatically return the network analyzer to its exact original test conditions . . . all without the operator ever writing a single program line!

Programmability Features

- 1) Unique marker mode operation provides a real time display simultaneously with digital data logging. This mode assures that no glitches are missed, even when taking a limited number of data points.
- 2) Human-engineered HP-IB coding does away with complex code tables. To program a function, just type its name (shortened to first letter if you like) and switch position number (numbered 1 to N left to right).



8507B Calibration Kits

85031A Verification and APC-7 Calibration Kits

Included with 8507B. Contains Precision APC-7 Load, APC-7 Short, and two verification standards.

85032A Type N Calibration Kit

For use with 8507B. Contains 2 APC-7 to N-Male Adapters, 2 APC-7 to N-Female Adapters, 1 N-Male Load, 1 N-Female Load, 1 N-Female Short, 1 N-Male Short.

85033A SMA Calibration Kit

For use with 8507B. Contains 2 APC-7 to SMA-Male Adapters, 2

APC-7 to SMA-Female Adapters, 1 SMA-Male Load, 1 SMA-Female Load, 1 SMA-Female Short, and 1 SMA-Male Short.

85036A 75Ω Type N Calibration Kit

For use with the 8507B Opt E75 75Ω Automatic Network Analyzer. Contains 1 Type N Male Termination, 1 Type N Female Termination, 1 Type N Male Short, 1 Type N Female Short, 1 Type N Male Barrel, and 1 Type N Female Barrel.

Accuracy enhancement

Each 8507B system is supplied with a program that permits frequency tracking, mismatch, and directivity errors to be characterized by applying known standards. These stored system errors are then removed from the measurement of the unknown to provide a degree of accuracy exceeding that possible with the standard 8505A.

An example

The plots on the left show the result of software accuracy enhancement. Curve A depicts raw measurements on a 50 dB return loss termination at the end of a six-foot RG 214 cable—a typical application problem in testing in temperature chambers. Curve B shows the results after calibrating at the end of the cable—a 25 dB improvement.

Data in the form you need

With these desktop computers, it is a simple matter to obtain customized printed or plotted outputs. Or you may want to store data on tape for later analysis. Data can be analyzed or statistically summarized directly, bypassing the laborious and error-prone task of manually recording and re-entering data. Data reformatting such as converting return loss to SWR or s-parameters to y-parameters is easily done.

8507B Automatic Network Analyzer

Includes:

- 8505A Network Analyzer
- 8503A S-Parameter Test Set
- APC-7 Calibration Kit (85031A), Systems Table, & Cables
- System Assembly and checkout
- 9825A Desktop Computer (23K byte memory) with String-Advanced Programming and Plotter-General I/O—Extended I/O ROMS and 9866B Printer, cradle and interface, and HP-IB interface.
- 85030B Applications Pac—cartridge with three programs for system verification, accuracy enhancement and basic measurements.

Power: 115 or 230V 50-60 Hz, 750 VA.

Weight: net 227 kg (500 lb). Shipping, 272 kg (600 lb).

Ordering information

8507B Automatic Network Analyzer

Opt 002: Delete Systems Table

Opt 003: Delete 9825A Calculator

Opt 005: Phase lock

Opt 006: 8501A Normalizer and 85010B Basic Measurements Program Pac

85010B Basic Measurements Program Pac for 8501A and 9825A

85030B Applications Pac software 8507B

85031A Verification/APC-7 Calibration Kit

85032A N Calibration Kit

85033A SMA Calibration Kit

85036A 75Ω Type N Calibration Kit

Price

\$51,545

less \$900

less \$11,975

add \$1,000

add \$6,360

\$50

\$250

\$600

\$775

\$650

\$1100