

# HP 35676A/B 5 Hz—200 MHz Reflection/Transmission Test Kit

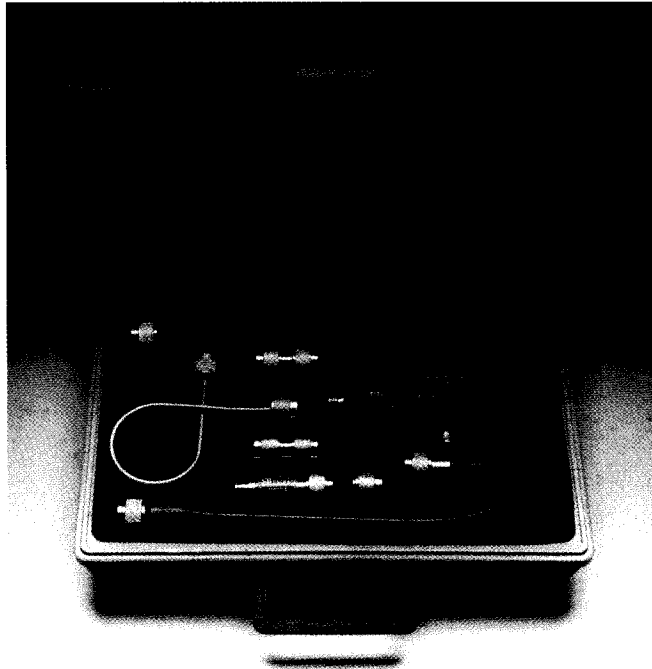
## Broadband Reflection/ Transmission Test Kit for the HP 3577B Network Analyzer

- Broadband Frequency Coverage (5 Hz - 200 MHz)
- Simultaneous Reflection and Transmission Measurements
- Fully Calibrated Measurements

The HP 35676A/B Reflection/Transmission Test Kit simplifies reflection and transmission measurements with the HP 3577B Network Analyzer over a 5 Hz to 200 MHz frequency range. By furnishing all the external functions normally required for one and two port network measurements, the HP 35676A/B eliminates the need for complex, user-assembled test setups. The two kit versions allow measurements in either 50Ω (HP 35676A) or 75Ω (HP 35676B) environments.

### Operating Characteristics

The following performance characteristics are supplied to provide assistance in understanding and applying this product. All are typical for frequencies between 5 Hz and 200 MHz, following calibration with supplied accessories.



### Test Port Output

- Impedance:  
50Ω ±2% typical (HP 35676A)  
75Ω ±2% typical (HP 35676B)
- Insertion Loss:  
(source input to test output)  
10 ±1 dB typical
- Equivalent Directivity:  
>40 dB typical
- Equivalent Source Match:  
>30 dB typical (HP 35676A)  
>25 dB typical (HP 35676B)

### HP 35677A/B S-Parameter Test Set

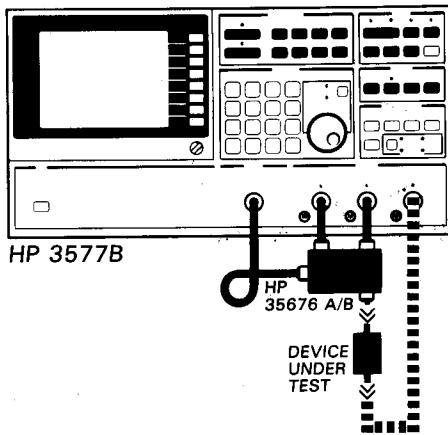
For measurements entirely above 100 kHz, the HP 35677A/B S-Parameter Test Set provides additional performance and convenience. Consult the HP 3577B data sheet for full details.

### Kit Contents

Each HP 35676A/B Reflection/Transmission Test Kit contains:

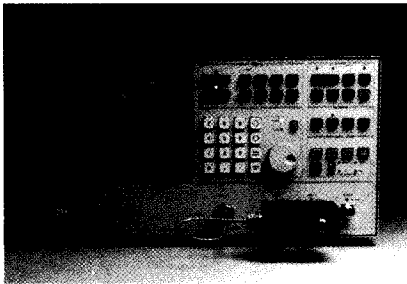
- 1 resistive signal divider
- 1 HP 909C 50Ω coaxial termination (HP 35676A only)
- 1 HP 909E 75Ω coaxial termination (HP 35676B only)
- 1 HP 11852A minimum loss pad (HP 35676B only)
- 1 coaxial short circuit
- 2 adapters, N(m) to N(m)
- 1 input cable
- 1 DUT return cable
- 1 operating manual
- 1 carrying case

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### Calibration Assured by HP 3577B Error Correction Firmware

For reflection and impedance measurements, the HP 3577B's internal calibration routines



permit the HP 35676A/B's resistive signal divider to provide the functions of complicated, bandlimited test sets costing significantly more. Two port measurements such as, transmission gain or loss, benefit from the HP 3577B's normalization routines, which remove insertion loss and frequency response errors. All components required for calibration are included in the convenient storage and carrying case.

### HP 35676A/B Applications

The HP 35676A/B Reflection/Transmission Test Kit enhances the HP 3577B's powerful capabilities for reflection, impedance and transmission measurements

by furnishing a complete, broadband solution for test device interconnection (see illustration).

### Reflection Measurements

Reflection coefficient and return loss measurements are possible on both one and two port devices. Results can be displayed on the HP 3577B's dual trace display along with such additional information as phase response. Measurement calibration can be extended to include user cables and test fixtures.

### Impedance Measurements

Reflection coefficient measurements are converted to complex impedance values by the HP 3577B's built-in vector math functions. Impedance can be examined in various formats, including magnitude/phase, real/imaginary and polar.

### Transmission Measurements

Transmission measurements on two port devices can be performed simultaneously with the above measurements. Among the transmission measurements provided by the HP 35676A/B and HP 3577B are: insertion loss/gain, attenuation, transfer function, phase shift and phase linearity (including group delay).

For more information, call your local HP sales office listed in your telephone directory or an HP regional office listed below for the location of your nearest sales office.

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