

NETWORK ANALYZERS

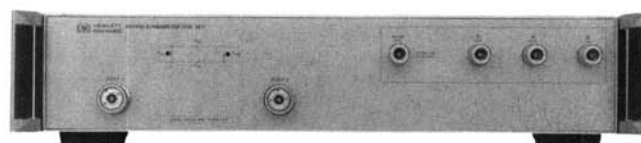
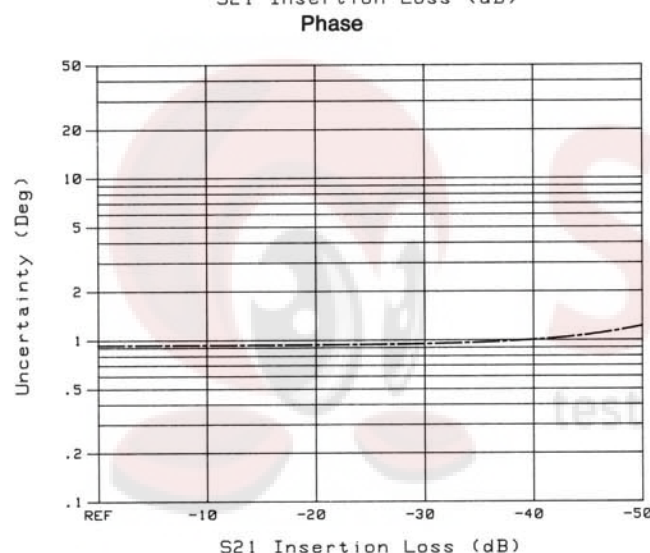
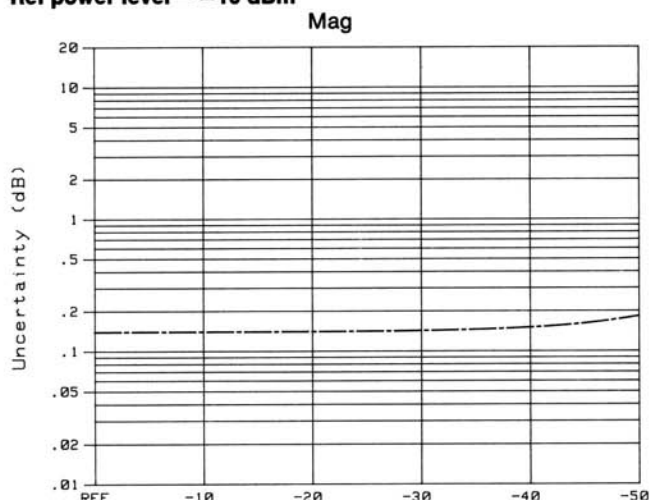
Accessories

8753A Series

625



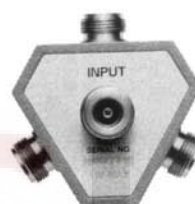
Typical Transmission Uncertainty of a Low Loss Device Ref power level = -10 dBm



HP 85046A



HP 85044A



HP 11850C



HP 11851B



HP 11857D



HP 11852B

HP 8753A Accessories

HP 85044A 50 Ohm Transmission/Reflection Test Set HP 85044B 75 Ohm Transmission/Reflection Test Set

The HP 85044 A/B Transmission/Reflection test sets provide the capability to simultaneously measure the impedance and transmission characteristics of 50 and 75 ohm devices. Two-port devices must be physically turned around to measure their reverse direction characteristics. Test port connectors are precision 7 mm and 75 ohm type N (f), respectively.

Specifications	HP 85044A	HP 85044B
Impedance:	50 ohms	75 ohms
Frequency Range:	300 kHz to 3 GHz	300 kHz to 2 GHz
Directivity:	35 dB to 1.3 GHz 30 dB to 3.0 GHz	35 dB to 1.3 GHz 30 dB to 2.0 GHz

Typical Tracking:

Transmission Magnitude, Phase¹:

.3 MHz to 2.0 MHz	±1.5 dB, ±10°	±1.5 dB, ±10°
2.0 MHz to F _{max} ²	±1.5 dB, ±10°	±1.5 dB, ±10°

Reflection Magnitude, Phase¹:

.3 MHz to 2.0 MHz	±1.5 dB, ±25°	±1.0 dB, ±25°
2.0 MHz to F _{max}	±1.5 dB, ±10°	±1.0 dB, ±10°

Effective Source Match:

(Test Ports):

.3 MHz to 2.0 MHz	14 dB	14 dB
2.0 MHz to 1.3 GHz	20 dB	17 dB
1.3 GHz to F _{max}	16 dB	16 dB

Port Match:

Incident and Refl:	HP 85044A	HP 85046A
.3 MHz to 1.3 GHz	18 dB	18 dB
1.3 GHz to F _{max}	13 dB	13 dB

RF Input:

.3 MHz to 1.3 GHz	17 dB	17 dB
1.3 GHz to F _{max}	12 dB	12 dB

RF Connectors:

Test Port:

All others:

Includes:

precision 7 mm 75 ohm type N (f)
50 ohm type N (f) 50 ohm type N (f)
HP 85044A—one precision 7 mm to
50 ohm type N (f) adapter;
HP 85044B—one HP 11852B
minimum loss pad.

Recommended

Accessories:

Dimensions:

Weight:

HP 11851B RF cable kit
615H x 101 W x 204 mm D
(2.44 x 7.5 x 8.0 in)
net 1.7 kg (3.8 lb)

¹Degrees, specified as deviation from linear phase.
²F_{max} is the upper frequency limit of the associated test set.



NETWORK ANALYZERS

Accessories (con't.)

8753A Series

HP 85046A/B S-Parameter Test Set

The HP 85046A/B s-parameter test sets provide the capability to measure impedance and transmission characteristics (including s-parameters) of 2 port devices in either direction with a single connection. The test sets are controlled from the HP 8753A and include a programmable step attenuator. Test port connectors are precision 7 mm and 75 ohm type N (f) respectively. Both connectors can be adapted to other interfaces with the appropriate precision adapters.

Specifications

	HP 85046A	HP 85046B
Impedance:	50 ohms	75 ohms
Frequency Range:	300 kHz to 3 GHz	300 kHz to 2 GHz
Directivity:	35 dB to 1.3 GHz 30 dB to 3.0 GHz	35 dB to 1.3 GHz 30 dB to 2.0 GHz

Typical Tracking:

Transmission Magnitude, Phase¹:

.3 MHz to 2.0 MHz	±1.5 dB, ±20°	±1.5 dB, ±20°
2.0 MHz to F _{max} ²	±1.5 dB, ±10°	±1.5 dB, ±10°

Reflection Magnitude, Phase¹:

.3 MHz to 2.0 MHz	±1.5 dB, ±25°	±1.5 dB, ±25°
2.0 MHz to F _{max}	±1.5 dB, ±10°	±1.5 dB, ±10°

Effective Source Match:

(Test Ports):

.3 MHz to 2.0 MHz	14 dB	14 dB
2.0 MHz to 1.3 GHz	20 dB	17 dB
1.3 GHz to F _{max}	16 dB	16 dB

Port Match:

R, A, B:

.3 MHz to 1.3 GHz	18 dB	18 dB
1.3 GHz to F _{max}	13 dB	13 dB

RF Input:

.3 MHz to 1.3 GHz	17 dB	17 dB
1.3 GHz to F _{max}	12 dB	12 dB

RF Connectors:

Port 1, 2:

precision 7 mm 75 ohm type N (f)

All others:

50 ohm type N (f)

Includes:

Four 190 mm (7.5") cables with type N (m) connectors for connection to the HP 8753A. One HP 8753A test set interconnect cable.

Recommended

Accessories:

HP 11857D cables HP 11857B cables

Dimensions:

90 H x 426 W x 553 mm D
(3.5 x 16.75 x 21.5 in.)

Weight:

9.1 kg (20 lb)

¹Degrees, specified as deviation from linear phase.

²F_{max} is the upper frequency limit of the associated test set.

HP 11850C/D Three-Way Power Splitters

Specifications

	HP 11850C	HP 11850D
Impedance:	50 ohms	75 ohms
Frequency Range:	DC to 3 GHz	DC to 2 GHz
Tracking:	±.25 dB, +3°	±.2 dB, ±2.5°
Equivalent Source Match (ratio or leveling)	30 dB @ 1.3 GHz 20 dB @ 3 GHz	30 dB @ 1.3 GHz 20 dB @ 3 GHz
Nominal Insertion Loss:	9.5 dB +1 dB/GHz	7.8 dB

Input Port Match:

DC to 1.3 GHz	20 dB	20 dB
1.3 GHz to F _{max} ¹	10 dB	10 dB

Maximum Operating

Level:

+20 dBm +20 dBm

Damage Level:

+30 dBm +30 dBm

RF Connectors:

RF Input:

50 ohm type N (f) 50 ohm type N (f)

All Others:

50 ohm type N (f)

Includes:

3 ea HP 11852B
50 to 75 ohm
min. loss pads

Recommended

HP 11851B RF Cable Kit

Accessories:

¹F_{max} is the upper frequency limit of the associated power splitter.

HP 11851B RF Cable Kit

General: three 610 mm (24 in.) 50 Ω cables phase matched to 4° at 1.3 GHz and one cable 860 mm (34 in.). Connectors are Type N Male. Recommended for use with HP 85044A/B Transmission/Reflection Test Set and HP 11850C/D Power Splitter.

Weight: net, 0.91 kg (2 lb); shipping, 1.36 kg (3 lb).

HP 11852B 50 Ω/75 Ω Minimum Loss Pad

General: the HP 11852B is a low SWR minimum loss pad required for transmission measurements on 75 Ω devices with HP 8753A receiver (50 Ω).

Frequency range: dc to 2.0 GHz.

Insertion loss: 5.7 dB.

Return loss: 75 Ω typically ≥30 dB. 50 Ω typically ≥26 dB.

Maximum input power: 250 mW (+24 dBm).

Connectors: 50 Ω Type N female and 75 Ω Type N male.

Size: 14 D x 70 mm L (0.56" x 2.75").

Weight: net, 0.11 kg (4 oz); shipping, 0.26 kg (9 oz).

HP 11853A 50 Ω Type N Accessory Kit

General: the HP 11853A furnishes the RF components required for measurement of devices with 50Ω Type N Connectors using the HP 11850C, 85044A, or 85046A. Kit contains a Type N Female short, a Type N Male short, two Type N Male barrels, two Type N Female barrels and storage case.

Weight: net, 0.91 kg (2 lb); shipping, 1.36 kg (3 lb).

HP 11854A 50 Ω BNC Accessory Kit

General: the HP 11854A furnishes the RF components required for measurement of devices with 50Ω BNC Connectors using the HP 11850C, 85044A, or 85046A. Kit contains two Type N Male to BNC Female adapters, two Type N Male to BNC Male adapters, two Type N Female to BNC Female adapters, two Type N Female to BNC Male adapters, a BNC Male short and storage case.

Weight: net, 1.13 kg (2½ lb).

HP 11855A 75 Ω Type N Accessory Kit

General: the HP 11855A provides the RF connecting hardware generally required for measurement of devices with 75 Ω Type N connectors using the HP 85044B, 85046B or 11850D. Kit contains two 75 Ω Type N Male barrels, two Type N Female barrels, a 75 Ω Type N Female short, a 75 Ω Type N Male short, a 75 Ω Type N Male termination, and storage case.

Weight: net, 0.91 kg (2 lb); shipping, 1.36 kg (3 lb).

HP 11856A 75 Ω BNC Accessory Kit

General: the HP 11856A provides the RF connecting hardware generally required for measurement of devices with 75 Ω BNC connectors using the HP 85044B, 11850D, or 85046B. Kit contains two Type N Male to BNC Female adapters, two Type N Male to BNC Male adapters, two Type N Female to BNC Female adapters, two Type N Female to BNC Male adapters, a BNC Male short, a 75 Ω BNC Male termination, and storage case.

Weight: net, 0.91 kg (2 lb); shipping, 1.36 kg (3 lb).



HP 85031B



HP 85032B



HP 85033C



HP 85036B

HP 11857D 50 Ω APC-7 Test Port Extension Cables

General: two precision 61 cm (24 in.) cables, phase matched to 2° at 1.3 GHz for use with HP 85046 A S-parameter test set. Connectors are 50 Ω APC-7.

Weight: net, 0.91 kg (2 lb); shipping, 2.3 kg (5 lb).

HP 11857B 75 Ω Type N Test Port Extension Cables

General: two precision 61 cm (24 in.) cables, phase matched to 2° at 1.3 GHz for use with HP 85046B S-parameter test set. One cable has 75 Ω Type N Male connectors on both ends; the other has one Type N Male and one Type N Female connector.

Weight: net, 0.91 kg (2 lb); shipping, 2.3 kg (5 lb).

HP 11858A Transistor Fixture Adapter

General: the HP 11858A adapts the HP 11600B and 11602B transistor fixtures (vertical test port configuration) to the HP 85046A S-parameter test set. Connectors are APC-7.

Weight: net, 0.91 kg (2 lb); shipping, 1.36 kg (3 lb).

Calibration Kits

Accuracy enhancement procedures characterize the systematic errors of the measurement system by measuring known devices (standards) on the system over the frequency range of interest. The calibration kits in the HP 8753A family contain precision standards with which to characterize the systematic errors of a HP 8753A measurement system. These standards have been optimized for the 300 kHz to 3 GHz frequency range and are available in various connector types that are compatible with the HP 8753A.

HP 85031B 7 mm Calibration Kit

The HP 85031B 7 mm calibration kit contains a set of precision 7 mm fixed terminations, an open circuit, and a short circuit used to calibrate the HP 8753A and its 50 ohm test sets for measurement of devices with precision 7 mm connectors.

HP 85032B 50 Ω Type N Calibration Kit

The HP 85032B Calibration Kit contains precision 50 Ω type N standards used to calibrate the HP 8753A and its 50 Ω test sets for measurement of devices with 50 Ω type N connectors. Precision phase-matched 7 mm to 50 Ω type N adapters are included for accurate measurements of non-insertable devices. Standards include fixed terminations, open circuits, and short circuits.

HP 85033C 3.5 mm Calibration Kit

The HP 85033C Calibration Kit contains precision 3.5 mm standards used to calibrate the HP 8753A and its 50 Ω test sets for measurement of devices with 3.5 mm and SMA connectors. Standards include fixed terminations, open circuits, and short circuits. Precision 7 mm to 3.5 mm adapters are included for accurate measurements of non-insertable devices.

HP 85036B 75 Ω type N Calibration Kit

The HP 85036B Calibration Kit contains precision 75 Ω type N standards used to calibrate the HP 8753A and its 75 Ω test sets for measurement of devices with 75 Ω type N connectors. Standards include fixed terminations, open circuits, and short circuits. Precision phase-matched adapters are included for accurate measurements of non-insertable devices.

Verification Kits

Measuring known devices, other than the calibration standards, is a convenient way of verifying that the HP 8753A measurement system is operating properly.

HP 85029A 7 mm Verification Kit

The HP 85029A Verification Kit contains a set of precision 7 mm devices, with data traceable to NBS, used to verify the calibrated performance of an HP 8753A measurement system. The devices have precision 7 mm connectors and include a 20 dB pad, a 50 dB pad and a mismatch attenuator. Verification process requires only an HP 85031B calibration kit, an HP 85029A verification kits and an external 3.5" disc (HP 9122S or HP 9122D) connected to the HP 8753A.

HP 85043B

The HP 85043B systems cabinet has been ergonomically designed specifically for the HP 8753A and the HP 85046A/B s-parameter test sets. The 122 cm (48-inch) system cabinet includes a bookcase, a drawer, and a convenient work surface.