

## RF Connectors

**Test Ports:** 50  $\Omega$  type-N (female)  
75  $\Omega$  type-N (female) (Opt 075)

## Physical Characteristics

**Size:** 425 mm W  $\times$  178 mm H  $\times$  508 mm D (16.75 in  $\times$  7.0 in  $\times$  20.0 in)  
**Weight:** Net, 25 kg (56 lb); shipping, 28 kg (63 lb)

## Upgrade Kits

(Serial number of 8752C must be specified when ordering these kits)

### HP 11885A 3 GHz Frequency Upgrade Kit

The HP 11885A upgrade kit adds Option 003 to extend the operating frequency range of the HP 8752C from 1.3 GHz to 3 GHz. Installation at an HP service center is included.

### HP 85019C Time Domain Upgrade Kit

The HP 85019C upgrade kit adds time domain analysis capability (Option 010) to an existing HP 8752C network analyzer. This kit is user installable. Installation at local HP service center is not included.

### HP 11884D 6 GHz Upgrade Kit for HP 8752C

Includes installation at a local HP service center. Not for use with HP 8752C Opt 075.

### HP p/n 08752-60019 Step Attenuator Retrofit Kit

## Accessories

### HP 11878A 3.5 mm Adapter Kit

The HP 11878A adapter kit provides the RF components generally required when an SMA or 3.5 mm device needs to be measured with the HP 8752C standard type-N configuration. The kit includes four type-N to 3.5mm adapters for both male and female connectors.

### HP 11853A 50 $\Omega$ Type-N Accessory Kit

The HP 11853A accessory kit furnishes the RF components required for measurement of devices with 50  $\Omega$  type-N connectors.

### HP 11854A 50 $\Omega$ BNC Accessory Kit

The HP 11854A accessory kit furnishes the RF components required for measurement of devices with 50  $\Omega$  BNC connectors.

### HP 11855A 75 $\Omega$ Type-N Accessory Kit

The HP 11855A accessory kit furnishes the RF components required for measurement of devices with 75  $\Omega$  type-N connectors.

### HP 11856A 75 $\Omega$ BNC Accessory Kit

The HP 11856A accessory kit furnishes the RF components required for measurement of devices with 75  $\Omega$  BNC connectors.

## Test Port Cables

Additional or replacement cables (24 in) for the HP 8752C:

- HP p/n 8120-4781 Type-N 50  $\Omega$  (both connectors male)
- HP p/n 8120-2408 Type-N 75  $\Omega$  (both connectors male)
- HP p/n 8120-2409 Type-N 75  $\Omega$  (one male, one female connector)

### HP 11852B 50 $\Omega$ /75 $\Omega$ Minimum Loss Pad

The HP 11852B is a low SWR minimum loss pad required when measurements are made on 75  $\Omega$  devices with the HP 8752 network analyzer. Measurements on two port devices require two HP 11852B pads and one 50  $\Omega$  type-N barrel.

**Frequency range:** DC to 2.0 GHz

**Insertion loss:** 5.7 dB

**Return loss:** 75  $\Omega$  typically  $>30$  dB, 50  $\Omega$  typically  $>26$  dB

**Connectors:** 50  $\Omega$  type-N (f) and 75  $\Omega$  type-N (m) standard, 50  $\Omega$  type-N (m) and 75  $\Omega$  type-N (f) Option 004

## Calibration Kits

The calibration kits in the HP 8752C family contain precision standards used in accuracy enhancement procedures to characterize the systematic errors of an HP 8752C measurement system. Standards include fixed terminations, open circuits, and short circuits.

### HP 85032B 50 $\Omega$ Type-N Calibration Kit

Contains precision 50  $\Omega$  type-N standards used to calibrate the HP 8752C for measurements of devices with 50  $\Omega$  type-N connectors. This kit can also be used to perform system verification. Opt 001 removes the precision phase-matched 7mm to type-N adapters.

### HP 85036B 75 $\Omega$ Type-N Calibration Kit

Contains precision 75  $\Omega$  type-N standards used to calibrate the HP 8752B or 8752C Option 075 for measurements of devices with 75  $\Omega$  type-N connectors. This kit also contains 75  $\Omega$  type-N adapters and can also be used to perform system verification.

### HP 85033D 3.5 mm Calibration Kit

Contains precision 3.5 mm standards used to calibrate the HP8752C network analyzer for measurements of devices with 3.5 mm or SMA connectors. Opt 001 removes the precision phase-matched 7mm to 3.5mm adapters.

### HP 85039A Type-F Calibration Kit

Contains fixed load, and open and short circuits to calibrate the HP 8752C for measurements of devices with 75  $\Omega$  type-F connectors. This kit also contains type-F to type-N and type-F to type-F adapters.

## Ordering Information

Part Number	Description	Price
HP 8752C	Network Analyzer	\$22,000
Opt 003	3 GHz Frequency Extension	+\$4,000
Opt 004	Step Attenuator	+\$1,000
Opt 006	6 GHz Frequency Extension	+\$8,000
Opt 010	Time Domain Capability	+\$5,300
Opt 075	75 $\Omega$ Impedance	+\$0
Opt 802	Add Dual Disk Drive and HP-IB Cable	\$1,745
Opt AFN	Add 50 $\Omega$ Test Port Cable	\$345
Opt AFP	Add 75 $\Omega$ Test Port Cable	\$1,100
HP 11885A	3 GHz Frequency Upgrade	\$4,590
HP 85019C	Time Domain Upgrade	\$5,410
HP 11884D	6 GHz Upgrade Kit	\$8,500
HP 85032B	50 $\Omega$ Type-N Calibration Kit	\$1,940
Opt 001	Deletes 7mm to Type-N adapters	-\$510
HP 85036B	75 $\Omega$ Type-N Calibration Kit	\$2,040
HP 85033D	3.5 mm Calibration Kit	\$2,950
HP 85039A	Type-F 75 $\Omega$ Calibration Kit	\$2,350
HP 11878A	3.5 mm Adapter Kit	\$665
HP 11853A	50 $\Omega$ Type-N Accessory Kit	\$510
HP 11854A	50 $\Omega$ BNC Accessory Kit	\$510
HP 11855A	75 $\Omega$ Type-N Accessory Kit	\$510
HP 11856A	75 $\Omega$ BNC Accessory Kit	\$510
HP 11852B	50 $\Omega$ /75 $\Omega$ Minimum Loss Pad	\$510
Opt 004	50 $\Omega$ Type-N (m) and 75 $\Omega$ Type-N (f) connectors	+\$77
HP 8120-4781	50 $\Omega$ Type-N Test Port Cable	\$300
HP 8120-2408	75 $\Omega$ Type-N Test Port Cable	\$875
HP 08752-60019	Step Attenuator Retrofit Kit	\$1,000
HP 8120-2409	75 $\Omega$ Type-N (m-f) Test Port Cable	\$420
HP 85024A	High Frequency Probe	\$2,550

## HP 85024A High-Frequency Probe

The HP 85024A high frequency probe makes it easy to perform in-circuit measurements. An input capacitance of only 0.7 pF shunted by 1 megohm of resistance permits high frequency probing without adversely loading the circuit under test. Excellent frequency response and unity gain guarantee high accuracy in swept measurements with this probe. High probe sensitivity and low distortion levels allow measurements to be made while taking advantage of the full dynamic range of HP RF analyzers. Spectrum analyzers that supply probe power from the front panel include the HP 8568B, HP 8590 series, HP 8560 series, and the HP 70000 series. RF network analyzers such as the HP 8753D, 8752C, 8751A, 3577A, and 4195A are also directly compatible. You can use the HP 85024A with other instruments by using the HP 1122A probe power supply or any dual  $\pm 15$ V, 130 mA supply.



HP 85024A

## Specifications Summary

**Input Capacitance** (at 500 MHz):  $<0.7$  pF (nominal)

**Input Resistance:** 1 M $\Omega$  (nominal)

**Bandwidth:** 300 kHz to 3 GHz (useable to 100 KHz)

**Gain** (at 500 MHz): 0 dB  $\pm 1$  dB

**Average Noise Level** (10 Hz to 10 MHz):  $<1$  mV

**Frequency Response:**  $\pm 1$  dB (300 kHz to 1 GHz)  
 $+2, -3$  dB (1 GHz to 3 GHz)

**Input Voltage for 1 dB Compression:** 0.3 V peak

**Maximum Safe RF Voltage:** 1.5V peak (with 10:1 divider 15 V peak)

**Noise Figure:**  $<50$  dB ( $<100$  MHz)  
 $<25$  dB (100 MHz to 3 GHz) } nominal

**Distortion** (at 0.3 V):  $<-30$  dBc nominal

**Includes:** Type-N male adapter, 10:1 divider, spare probe tips, (5) 2 $\frac{1}{2}$ -in ground leads, hook tip, spanner tip, and probe tip nut driver.

# NETWORK ANALYZERS

## Accessories (cont'd)

### HP 8753D Series

#### HP 85032B 50 $\Omega$ Type-N Calibration Kit

The HP 85032B calibration kit contains precision 50  $\Omega$  type-N standards used to calibrate the HP 8753 and its 50  $\Omega$  test sets for measurement of devices with 50  $\Omega$  type-N connectors. Precision phase-matched 7 mm to 50  $\Omega$  type-N adapters are included for accurate measurements of non-insertable devices. Standards include fixed terminations, open circuits, and short circuits in both sexes. This kit is specified from DC to 6 GHz.

#### HP 85032E 50 $\Omega$ Type-N Economy Calibration Kit

The HP 85032E calibration kit contains a type-N(m) fixed termination and a one-piece type-N(m) open/short circuit. The kit is specified from DC to 6 GHz.

#### HP 85033D 3.5 mm Calibration Kit

The HP 85033D calibration kit contains fixed loads and open and short circuits in both sexes to calibrate the HP 8753 and 50  $\Omega$  test sets for measurement of devices with precision 3.5 mm and SMA connectors. Phase-matched 7 mm to 3.5 mm adapters for male and female connectors are included for use with 7 mm test port cables. This kit is specified from DC to 6 GHz.

#### HP 85036B 75 $\Omega$ Type-N Calibration Kit

The HP 85036B calibration kit contains precision 75  $\Omega$  type-N standards used to calibrate the HP 8753 and its 75  $\Omega$  test sets for measurement of devices with 75  $\Omega$  type-N connectors. Standards include fixed terminations, open circuits, and short circuits in both sexes. Precision phase-matched adapters are included for accurate measurements of non-insertable devices. This kit is specified from DC to 3 GHz.

#### HP 85039A Type-F Calibration Kit

The HP 85039A calibration kit contains type-F male open, short, and load standards to calibrate the HP 8753 and 75  $\Omega$  test sets for measurement of devices with 75  $\Omega$  type-F connectors. The kit also includes type-N to type-F adapters. This kit is specified from DC to 3 GHz.

#### HP 85060 Series Electronic Calibration Modules and Control Unit

This series provides electronic calibration (ECal) capability for the HP 8753D. The usual calibration kit standards are replaced by two solid-state calibration modules that can be programmed by a control unit to present many different impedances to the test ports. A full two-port calibration can be done with a single connection in just a few minutes, with less chance for error and less wear on connectors. ECal requires an HP 85060C electronic calibration control unit and HP 85060 series calibration modules of the appropriate connector type.

#### Verification Kits

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

#### HP 85029B 7 mm Verification Kit

The HP 85029B verification kit contains a set of precision 7 mm devices, with data traceable to NIST, used to verify the calibrated performance of an HP 8753A/B/C/D measurement system. The devices have precision 7 mm connectors and include a 20 dB pad, a 50 dB pad, and a mismatch attenuator. The verification process requires only an HP 85031B calibration kit, and an HP 85029B verification kit.

Option 001 is intended solely for use with the HP 8702B lightwave component analyzer. Option 001 adds verification data that is compatible with the HP 8702B.

#### Ordering Information

**HP 8753D Network Analyzer, 30 kHz to 6 GHz**  
Integrated network analyzer with built-in color display, S-parameter test set, disk drive, and 30 kHz to 3 GHz synthesized source. Standard 50  $\Omega$  version has two 7 mm test ports.

**Opt 002** Harmonic Measurement Capability

**Opt 006** 6 GHz Frequency Extension

**Opt 010** Time Domain Capability

**Opt 011** Delete Built-in Test Set

**Opt 075** 75  $\Omega$  Impedance

**Opt 1D5** High Stability Frequency Reference

**HP 85047A** 50  $\Omega$  S-Parameter Test Set—6 GHz

**Opt 009** Mechanical Test Port Switch

**Opt 913** Rack Mount Kit (5062-4069)

**HP 85046A** 50  $\Omega$  S-Parameter Test Set—3 GHz

**Opt 009** Mechanical Test Port Switch

**Opt 913** Rack Mount Kit (5062-4069)

**HP 85046B** 75  $\Omega$  S-Parameter Test Set—3 GHz

**Opt 009** Mechanical Test Port Switch

**Opt 913** Rack Mount Kit (5062-4069)

**HP 85044A** 50  $\Omega$  Transmission/Reflection Test Set

**HP 85044B** 75  $\Omega$  Transmission/Reflection Test Set

**HP 85029B** Precision 7 mm Verification Kit

**Opt 001** Data for HP 8702B

**HP 85031B** Precision 7 mm Calibration Kit

**HP 85032B** 50  $\Omega$  Type-N Calibration Kit

**HP 85032E** 50  $\Omega$  Type-N Economy Calibration Kit

**HP 85033D** 3.5 mm Calibration Kit

**HP 85036B** 75  $\Omega$  Type-N Calibration Kit

**HP 85039A** Type-F Calibration Kit

**HP 85060C** Electronic Calibration Control Unit

**HP 85060** Series Electronic Calibration Modules

**HP 85043D** System Rack

**HP 11883A** Harmonic Measurements (Opt 002)

Upgrade

**HP 11884A** 6 GHz Receiver (Opt 006) Upgrade

**HP 11884B** 6 GHz (Opt 006) Upgrade Kit for

HP 8753D

**HP 11884C** 6 GHz (Opt 006) Upgrade Kit for

HP 8753D Opt 011

**HP 85019B** Time Domain (Opt 010) Upgrade

(HP8753B/C/D)

**HP 86387B** Mixer Measurement Upgrade Kit for the

HP 8753C

**HP 86389A** Solid-State Switch Upgrade Kit

(for HP 85046A/B Test Sets)

**HP 86389B** Solid-State Switch Upgrade Kit

(for HP 85047A Test Sets)

**HP 86205A** 50  $\Omega$  Bridge

**HP 86207A** 75  $\Omega$  Bridge

**HP 8753D**

**Opt K36** Duplexer Test Adapter

**Opt K39** Three-port Test Set Adapter

**HP 11850C** 50  $\Omega$  Power Splitter

**HP 11850D** 75  $\Omega$  Power Splitter

**HP 11851B** 50  $\Omega$ /Type-N RF Cable Kit

**HP 11852B** 50  $\Omega$ /75  $\Omega$  Minimum Loss Pad

**HP 11853A** 50  $\Omega$  Type-N Accessory Kit

**HP 11854A** 50  $\Omega$  BNC Accessory Kit

**HP 11855A** 75  $\Omega$  Type-N Accessory Kit

**HP 11856A** 75  $\Omega$  BNC Accessory Kit

**HP 11857B** 75  $\Omega$  Type-N Test Port Extension Cables

**HP 11857D** 50  $\Omega$  APC-7 Test Port Extension Cables

☎ For off-the-shelf shipment, call 800-452-4844.