

For HP 8510XF Systems (1.0 mm test port connectors)

Cables/Adapters	Connector Type
HP 11500I 1.0 mm test port cable	1.0 mm (m-m) (240 mm long)
HP 11500J 1.0 mm test port cable	1.0 mm (m-f) (240 mm long)
HP 11920A Adapters	1.0 (m-m) series adapters
HP 11920B Adapters	1.0 (f-f) series adapters
HP 11920C Adapters	1.0 (m-f) series adapters
HP V281C Adapter	1.0 mm (f) to V-band waveguide
HP V281D Adapter	1.0 mm (m) to V-band waveguide
HP W281C Adapter	1.0 mm (f) to W-band waveguide
HP W281D Adapter	1.0 mm (m) to W-band waveguide

Microwave Network Analyzer Accessories

Microwave accessories for the HP 8720D and the HP 8510C series network analyzers include calibration kits, verification kits, cables, and adapters for 7-mm, 3.5-mm, Type-N, 2.4-mm, 1.85-mm, and 1-mm coaxial, WR-90, WR-62, WR-42, and WR-28 waveguide. Millimeter-wave accessories for the HP 8510C series network analyzers include WR-22, WR-29, WR-15, and WR-10 waveguide connector interfaces. The standards used in the 3.5-mm, Type-N, and 2.4-mm kits use precision, slotless connectors (PSC-3.5, PSC-N, and PSC-2.4).

Calibration Kits

Error-correction procedures require that the systematic errors in the measurement system be characterized by measuring known devices (standards) on the system over the frequency range of interest. HP offers two types of calibration kits: mechanical and electronic.

Electronic Calibration (ECal) System

The electronic calibration system consists of a control unit and a connector specific calibration module. ECal modules are used as transfer standards. Electronic calibrations have the fewest connections and least operator interaction, while providing extremely repeatable measurements. Using the insertable ECal module with precision adapters, a non-insertable calibration can be performed with two additional connections. Or, for greater convenience, non-insertable ECal modules are available. Operation of the ECal system is through the network analyzer front panel or through HP-IB programming.

HP 85060C Electronic Calibration Control Unit

The HP 85060C electronic calibration control unit interfaces with the HP 8510B/C, 8719C/D, 8720C/D, 8722C/D, and 8753C/D network analyzers via HP-IB. The control unit provides various communication lines and temperature control for the ECal module.

Electronic Calibration Kits

The ECal kit requires an HP 85060C control unit for operation. Each standard calibration kit contains the two-port calibration module and a torque wrench for proper connection. Options are available to add a lowband module to the kit, and to change the sex of the connectors of the module.

Mechanical Calibration Kits

All network analyzer mechanical calibration kits contain precision standard devices to characterize the systematic errors of the HP 8720 series or 8510C network analyzer system.

Each mechanical calibration kit also contains adapters to change the sex of the test port and a torque wrench for proper connection. Each kit contains standards definitions on disk for the HP 8510C. (These definitions are already included in the HP 8720 series.)

Verification Kits

Measuring known devices, other than the calibration standards, is a straightforward way of verifying that the network analyzer system is operating properly. HP offers verification kits that include precision air-lines, mismatch airlines, and precision fixed attenuators. Traceable measurement data is shipped with each kit on disk.

Verification kits may be recertified by Hewlett-Packard. This recertification includes a new measurement of all standards, as well as new data and uncertainties. Certification in compliance with MIL-STD-45662A is also available.

Verification Kit Summary

Verification kit	Connector type	Frequency range (GHz)
85051B	7 mm	0.045 to 18
85053B	3.5 mm	0.045 to 26.5
85055A	Type-N	0.045 to 18
85057B	2.4 mm	0.045 to 50
R11645A	WR-28	26.5 to 40
Q11645A	WR-22	33 to 50
U11645A	WR-19	40 to 60
V11645A	WR-15	50 to 75
W11645A	WR-10	75 to 110

Mechanical Calibration Kits

Calibration kit	Connector type	Frequency range (GHz)
85050B	7 mm	0.045 to 18
85050C	7 mm	0.045 to 18
85050D	7 mm	0.045 to 18
85052B	3.5 mm	0.045 to 26.5
85052C	3.5 mm	0.045 to 26.5
85052D	3.5 mm	0.045 to 26.5
85054B	Type-N	0.045 to 18
85054D	Type-N	0.045 to 18
85056A	2.4 mm	0.045 to 50
85056D	2.4 mm	0.045 to 50
85056K	2.92 mm	0.045 to 40
85058D	1.85 mm	0.045 to 65
85059A	1.0 mm	0.045 to 110
X11644A	WR-90	8.2 to 12.4
P11644A	WR-62	12.4 to 18.0
K11644A	WR-42	18.0 to 26.5
R11644A	WR-28	26.5 to 40
Q11644A	WR-22	33 to 50
U11644A	WR-19	40 to 60
V11644A	WR-15	50 to 75
W11644A	WR-10	75 to 110

Electronic Calibration Modules

Calibration kit	Connector type	Frequency range (GHz)	Description/contents
85060A	7 mm	1 to 18	One two-port ECal module and collet remover
Opt 001	7 mm	0.045 to 2	Adds lowband ECal module
85060C	—	—	Control unit
Opt 001	—	—	Control unit with front panel connectors
85062A	3.5 mm (m-f)	1 to 26.5	One two-port ECal module and m-m and f-f adapters
Opt 001	3.5 mm (m-f)	0.045 to 2	Adds lowband ECal module
Opt 00F	3.5 mm (f-f)	—	Changes connectors to f-f
Opt 00M	3.5 mm (m-m)	—	Changes connectors to m-m
85064A	Type-N (m-f)	1 to 18	One two-port ECal module
Opt 001	Type-N (m-f)	0.045 to 2	Adds lowband ECal module
Opt 00F	Type-N (f-f)	—	Changes connectors to f-f
Opt 00M	Type-N (m-m)	—	Changes connectors to m-m