SPECIFICATIONS

Hewlett-Packard guarantees that your adapters will equal or exceed the following specifications:

Table 1. HP 85130F Specifications

CENTER CONDUCTOR PROTRUSION
No center conductor shoulder (male pin end of female center pin) protrusion is allowable on any connector.

CENTER CONDUCTOR RECESSION

NMD-2.4 mm Female	PSC-3.5 Female	NMD-3.5 mm Male

MP = male contact pin shoulder recession behind the outer conductor mating plane.
FP = recession of the end of female center pin behind the outer conductor mating plane.

Connector	Allowable Recession	
	mm	in
NMD-2.4 mm female	+O.OOO to +0.056	+o.ooo to +0.0022
PSC-3.5 female	+ 0.00254 to + 0.0127	+0.0001 to +0.0005
NMD-3.5 mm male	+ 0.00254 to + 0.0127	+0.0001 to +0.0005

ELECTRICAL		
Adapter	Frequency Range	Return Loss
NMD-2.4 mm to PSC-3.5 female	DC to 8 GHz	≥32 dB
and	8 Ghz to 18 GHz	≥28 dB
NMD-2.4 mm to NMD-3.5 mm male	18 GHz to 26.5	≥26 dB

PERFORMANCE TESTS

Using an HP 8510 Network Analyzer perform the following test on your adapters as soon as you receive them, and periodically repeat the test to determine if their performance meets the electrical specifications stated above or if they need to be replaced. An initial period of one year between performance tests is recommended.

Required Equipment	HP Model/Part Number

HP **8510B** Network Analyzer . . . . HP 8510 Option 010
   with time domain option and **B.04.0X** firmware or higher
HP 8516A S-parameter Test Set
HP **834XX** Synthesized Sweeper
NOTE: Refer to the HP 8516A Operating and Service Manual for information on instrument compatibility.

3.5 mm loads
   (part of the HP 850528 calibration kit)
   male 85052-60010
   female 85052-60010

3.5 mm **50Ω** airline, 7.5 cm 85053-60005
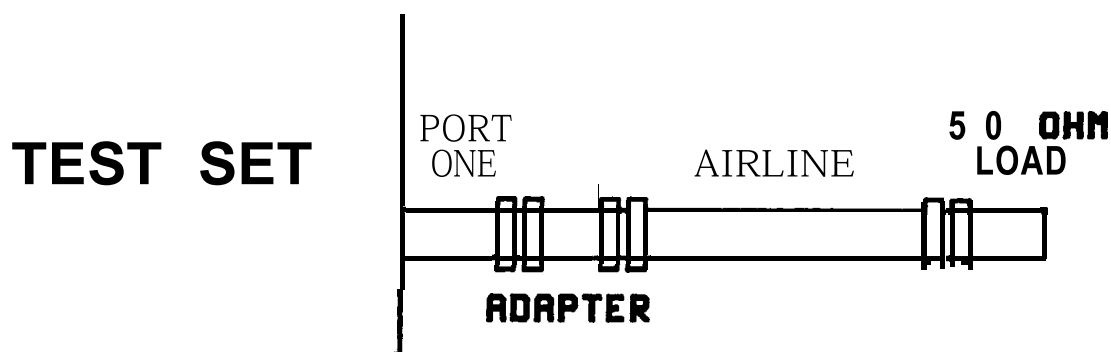   (part of the HP 850538 verification kit)

Figure 1. Return Loss Set-up

Return loss is measured by connecting a **50-ohm** fixed load termination through a 7.5 cm airline to the adapter, then attaching the adapter to port one of the test set (see Figure 7).

The effects of an imperfect load may be gated out using the HP 8510 time domain option as follows:

1. Press **[PRESET].** The HP 8510 will be set to a predetermined state.

2. Under STIMULUS, press **[START] [4] [5] [M/µ].** This sets the start frequency to 45 MHz.

3. Under STIMULUS, press **[STOP] [2] [6] [.] [5]** [G/n]. This sets the stop frequency to 26.5 **GHz.**

4. Perform a 2.4 mm one port sliding load S11 calibration with 32 averaging at port one of your test set, as described in the HP 8510 Operating and Programming manual. Save the calibration. Set up as shown in Figure 1.