Environmental Requirements

Table 2-1 Environmental Requirements

Parameter	Limits
Operating temperature	+20 °C to +26 °C (+68 °F to +79 °F)
Storage temperature	–40 °C to +75 °C (–40 °F to +167 °F)
Altitude	
Operation	< 4,500 meters (≈15,000 feet)
Storage	< 4,500 meters (≈15,000 feet)
Relative humidity	Always non-condensing
Operation	Up to 80% at 30°C
Storage	Up to 95% at 40°C

Electrical Specifications

Table 2-2 Electrical Specifications

Cable	SWR	Return Loss (dB)	Insertion Loss (dB)[a]	Frequency Range (GHz)
85131C	≤1.38	≥15.94	≤0.43 √f + 0.3	DC to 26.5
85131D			≤0.30 √f + 0.2	
85131G				

a. f = frequency in GHz.

Supplemental Characteristics

Table 2-3 lists supplemental performance characteristics. These are not specifications, but are intended to provide additional information useful to your application. Supplemental characteristics are typical (but not warranted) performance parameters.

Table 2-3 Supplemental Characteristics (1 of 3)

Cable	Cable Length		Approximate Electrical Length		Magnitude and Phase Stability With a 90° Bend[a,b]	Magnitude and Phase Stability After Three Bending/ Straightening Cycles[a, b]	Minimum Recommended Bend Radius	
	cm	in	m	in			cm	in
85131C	81.0	32.0	1.150	45.264	<0.06 dB Change <0.16° (f) + 0.5°	<0.03 dB Change <0.13° (f) + 0.3°	10.2	4
85131D	53.0	21.0	0.74	29.126				
85131G								

a. (f) = frequency in GHz.
b. With a 90°, four-inch bend radius.

Table 2-3 Supplemental Characteristics (2 of 3)

Cable Set	Number of Cables	Test Set End Connector Type	DUT End Connector Type
85131C	1	NMD-3.5 mm -f-	PSC-3.5 mm -f-
85131D	2	NMD-3.5 mm -f-	3.5 mm -m- and PSC-3.5 mm -f-
85134G	1	NMD-3.5 mm -f-	3.5 mm -m-

Center Conductor Pin Depth

Center conductor pin depth is the distance the center conductor mating plane differs from being flush with the outer conductor mating plane. See Figure 2-1 The pin depth of a center conductor can be in one of two states: either protruding or recessed.

Protrusion is the condition in which the center conductor extends beyond the outer conductor mating plane. This condition will indicate a positive value on the connector gage.

Recession is the condition in which the center conductor is set back from the outer conductor mating plane. This condition will indicate a negative value on the connector gage.

Figure 2-1 Connector Center-Conductor Pin Depth

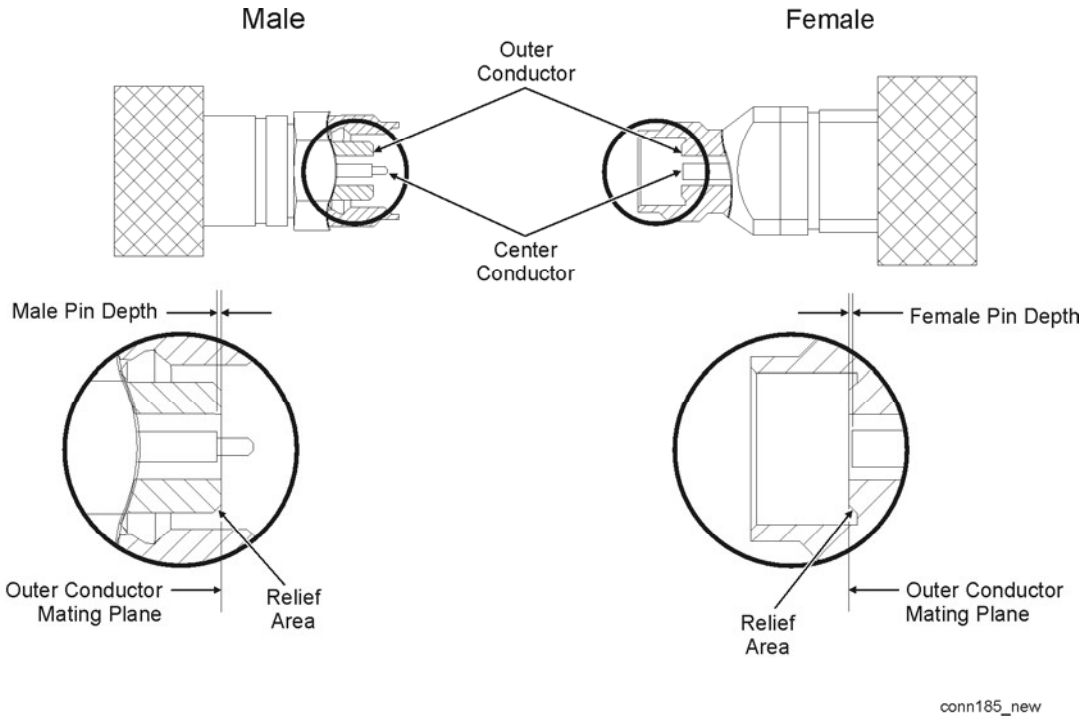

Table 2-3 Supplemental Characteristics (3 of 3)

	Center-Conductor Pin Depth			
Precision Connector	**Allowable Recession[a]**		**Allowable Protrusion**	
	mm	**in**	**mm**	**in**
NMD-3.5 mm -f-	-0.005 to -0.056	-0.0002 to -0.0022	0.0000	0.0000
PSC-3.5 mm -f-	-0.0025 to -0.013	-0.0001 to -0.0005		
3.5 mm -m-				

a. Center conductor shoulder behind outer conductor mating plane.