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,b]	Frequency Range (GHz)
85134E	≤1.38	≥15.94	≤0.46 √f + 0.3	DC to 26.5
85134F			≤0.31 √f + 0.2	
85134H				
85135E	≤1.3	≥17.7	≤0.46 √f + 0.3	DC to 18
85135F			≤0.31 √f + 0.2	

a. f = frequency in GHz.
b. Center conductor shoulder behind outer conductor mating plane.

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[a,b]	Minimum Recommended Bend Radius	
	cm	in	m	in		cm	in
85134/5E	97.2	38.25	1.150	45.276	<0.22 dB Change <0.16° (f) + 0.8°	7.62	3
85134/5F	62.9	24.75	0.737	29.016	<0.12 dB Change <0.13° (f) + 0.5°		
85134H							

a. (f) = frequency in GHz.
b. With a 90°, 2.5-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
85134E	1	NMD-2.4 mm -f- Slotted	PSC-3.5 mm -f- Slotless
85134F	2	NMD-2.4 mm -f- Slotted	NMD-3.5 mm -m- and PSC-3.5 mm -f- Slotless
85134H	1	NMD-2.4 mm -f- Slotted	NMD-3.5 mm -m-
85135E	1	NMD-2.4 mm -f- Slotted	7 mm
85135F	2	NMD-2.4 mm -f- Slotted	7 mm and 7 mm

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

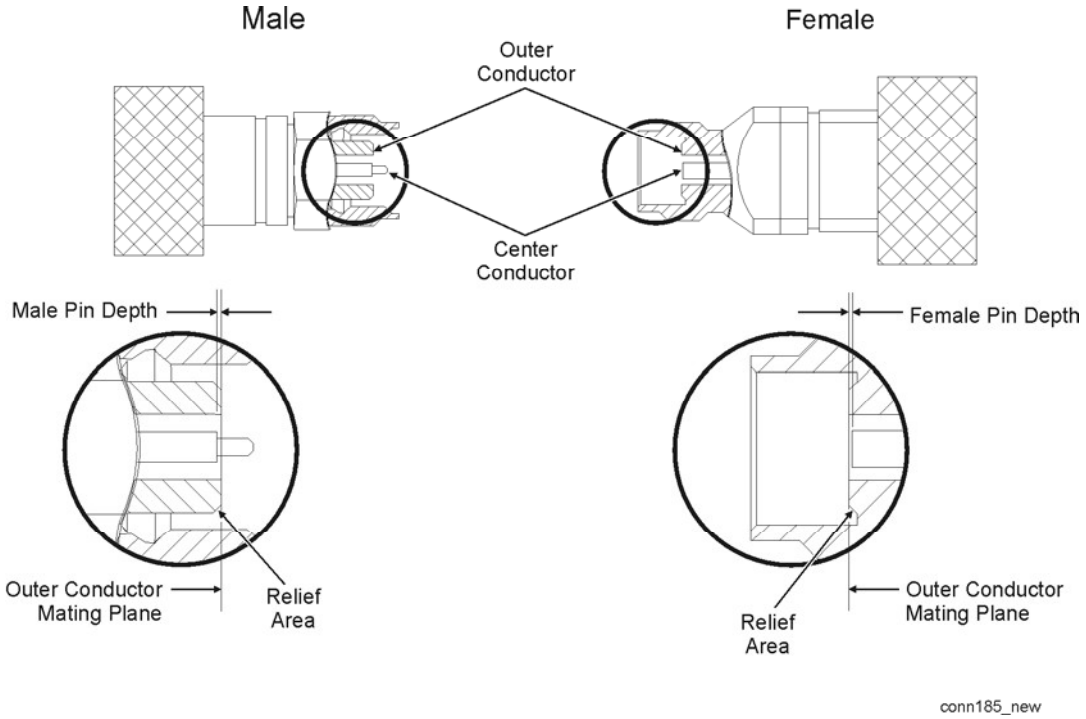

Table 2-3 Supplemental Characteristics (3 of 3)

	Center-Conductor Pin Depth			
Precision Connector	**Allowable Recession[a]**		**Allowable Protrusion**	
	mm	**in**	**mm**	**in**
NMD-2.4 mm -f-	-0.0000 to -0.056	-0.0000 to -0.0022	0.0000	0.0000
NMD-3.5 mm -m-	-0.0025 to -0.013	-0.0001 to -0.0005		
PSC-3.5 mm -f-				
7 mm	-0.005 to -0.021[b]	-0.0002 to -0.0008[b]	0.05 to 0.25[c]	0.002 to 0.010[c]

a. Center conductor shoulder behind outer conductor mating plane.
b. With collet removed.
c. With collet in place.