

N1801 Calibration Module

Electrical Data

Impedance	50Ω
Frequency range	DC to 18 GHz

Mating cycles	≥ 500
Maximum torque	1.70 Nm
Recommended torque	1.10 Nm
Gauge	5.22 mm to 5.26 mm

Short	Phase Error ²
DC - 6 GHz	≤ 1.5°
6 GHz - 9 GHz	≤ 2°
9 GHz - 18 GHz	≤ 3.5°

Load	
Resistance	50Ω ± 0.5Ω
Return Loss	
DC - 6 GHz	≥ 42 dB
6 GHz - 9 GHz	≥ 36 dB
9 GHz - 18 GHz	≥ 30 dB
Power Handling	≤ 1.0 W

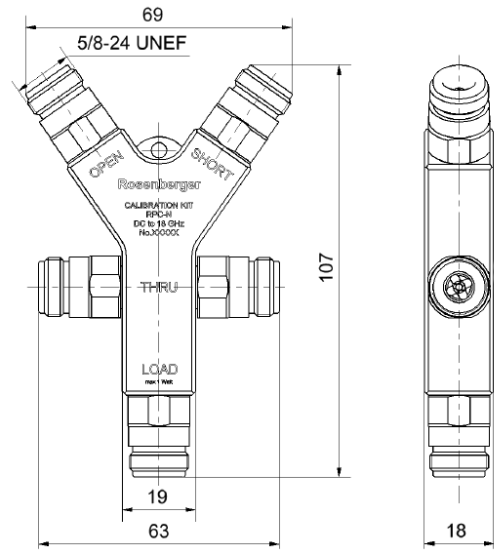
Thru	
Electrical length	152.105 ps
Return loss	
DC - 6 GHz	≥ 40 dB
6 GHz - 9 GHz	≥ 36 dB
9 GHz - 18 GHz	≥ 32 dB
Insertion loss	0.0291 dB × √(GHz)

Mechanical Data

Mating cycles	≥ 500
Maximum torque	1.70 Nm
Recommended torque	1.10 Nm
Gauge	5.22 mm to 5.26 mm

Environmental Data

Operating temperature³	20°C to 26°C
Storage temperature	-40°C to +85°C



Coefficients

Open	$C_0 = 37.1 \times 10^{-15} \text{ F}$	
	$C_1 = 1200 \times 10^{-27} \text{ F/Hz}$	
	$C_2 = -30 \times 10^{-36} \text{ F/Hz}^2$	
	$C_3 = 0.0 \times 10^{-45} \text{ F/Hz}^3$	
	Offset delay	40.028 ps
	Offset length	12 mm
	Offset loss	0.80 GΩ/s
	Loss	0.056 dB/√GHz
Short	$L_0 = 95 \times 10^{-12} \text{ H}$	
	$L_1 = -9900 \times 10^{-24} \text{ H/Hz}$	
	$L_2 = 980 \times 10^{-33} \text{ H/Hz}^2$	
	$L_3 = -29 \times 10^{-42} \text{ H/Hz}^3$	
	Offset delay	40.028 ps
	Offset length	12 mm
	Offset loss	0.80 GΩ/s
	Loss	0.056 dB/√GHz
Load	Offset delay	0.0 ps
	Offset length	0.0 mm
	Offset loss	0.0 GΩ/s
	Loss	0.0 dB/√GHz
Thru	Offset loss	2.2 GΩ/s

¹ The nominal phase is defined by the Offset Delay, the Offset Loss, and the Fringing Capacitancies

² The nominal phase is defined by the Offset Delay, the Offset Loss, and the Short Inductant

³ Temperature range over which these specifications are valid

