Coaxial Temperature Compensation Attenuator DC~6GHz 50Ω 2W 1~10dB N3~N10

Part No.	Frequency Range (GHz)	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation (dB/dB/℃)	Max. VSWR (:1) @1GHz@25℃	Max. Input Power (W)	Attenuation Accuracy (dB)
Co-TCA0601N**	DC-6	1	N3~N9	-0.003~ -0.009	1.25	2	±0.5
Co-TCA0602N**	DC-6	2	N3~N10	-0.003~ -0.010	1.25	2	±0.5
Co-TCA0603N**	DC-6	3	N3~N10	-0.003~ -0.010	1.25	2	±0.5
Co-TCA0604N**	DC-6	4	N3~N10	-0.003~ -0.010	1.25	2	±0.5
Co-TCA0605N**	DC-6	5	N3~N10	-0.003~ -0.010	1.25	2	±0.5
Co-TCA0606N**	DC-6	6	N3~N10	-0.003~ -0.010	1.25	2	±0.5
Co-TCA0607N**	DC-6	7	N3~N10	-0.003~ -0.010	1.25	2	±0.5
Co-TCA0608N**	DC-6	8	N3~N10	-0.003~ -0.010	1.25	2	±0.5
Co-TCA0609N**	DC-6	9	N3~N10	-0.003~ -0.010	1.25	2	±0.5
Co-TCA0610N**	DC-6	10	N3~N10	-0.003~ -0.010	1.25	2	±0.5

General Specifications

1. Frequency Range — DC to 6GHz
2. Attenuation — 6dB
3. Attenuation Accuracy — at 25℃ ±0.5dB@1GHz
4. VSWR — 1.25:1 Max. @1GHz, 1.30:1 Max.@2GHz at 25℃
5. Nominal Impedance — 50 Ohms
6. Power Rating — 2 Watts CW
7. Power Derating — 100% @ 125℃
   Derates to 0% @ 150℃
8. Operating Temperature — -55℃ to +150℃
9. Temperature Coefficient over Operating Temperature Range: See Table Above.
   Temperature Coefficient Tolerance:±0.001dB/dB/℃.
10. Connect type: SMA or N type
11. Substrate: Alumina (Al2O3)
12. Resistive material: Thick film
13. Terminal material: Thick film, Nickel barrier with pure tin plate (lead free) or with tin (Sn90) plate (10% lead contained)
14. Protective Coating: Thick film (ethyl acetate)
15. Package Outline: See Sheet 2.
16. Workmanship: per MIL-PRF-55342.
17. RoHS Compliant.
18. Electrostatic Discharge Control: per MIL-STD-1686.

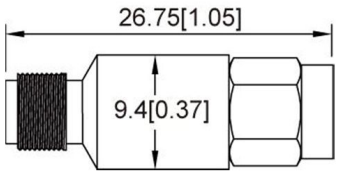
Unit Marking

dB Value (XX), Direction of Shift (N) and TCA Shift (X).
Legibility and Permanency: per MIL-STD-130.

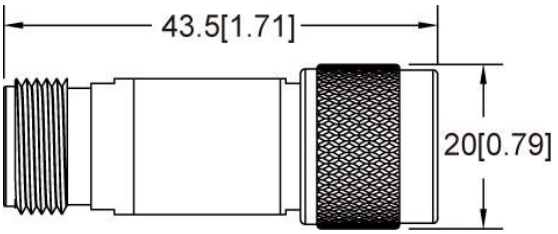
Quality Assurance

1. Sample inspect per ANSI/ASQC Z1.4 general inspection, LEVEL II, AQL = 1.0.
   1.1 Visual and mechanical examination for conformance to outline package requirements.
2. Select five (5) Units from lot measure attenuation from DC to 6GHz every 20°C over the temperature range -55°C to +125°C.
   2.1 Calculate, using linear regression, the slope of the curve.
   2.2 Calculate TCA using the following formula: TCA = Slope / Attenuation @ 25°C.
3. Test data required for customer.

Package Outlines (unit: mm&inch)

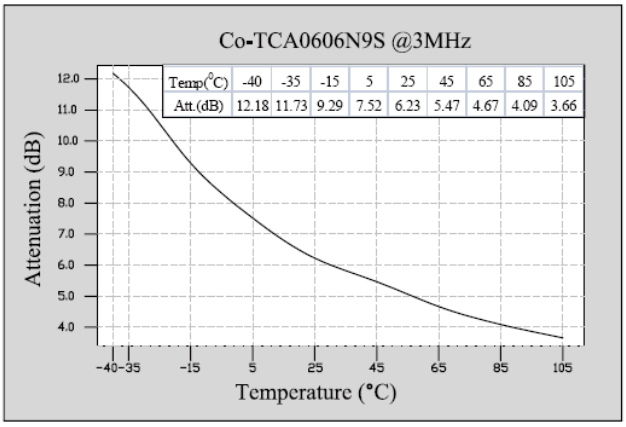


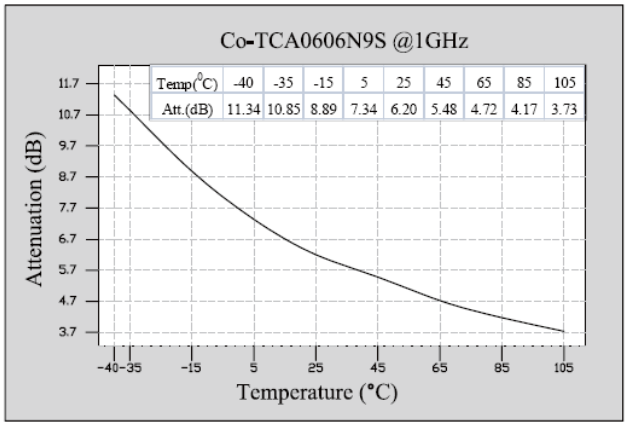
Package type: SMA

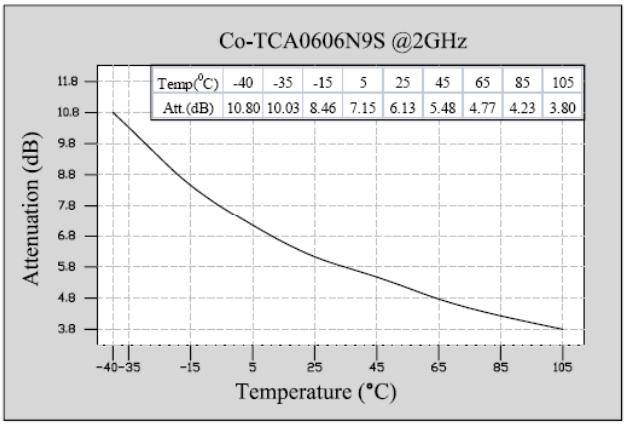


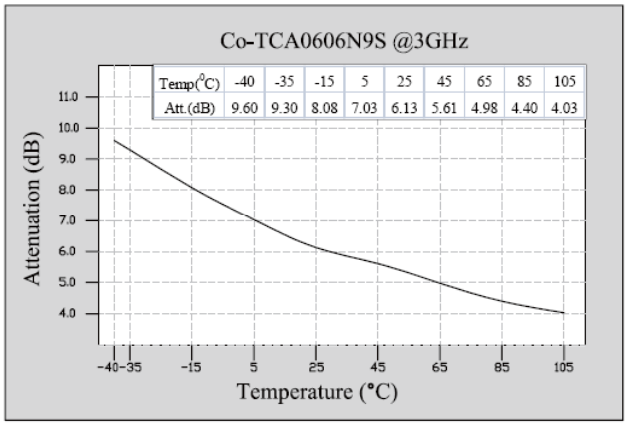
Package type: N type

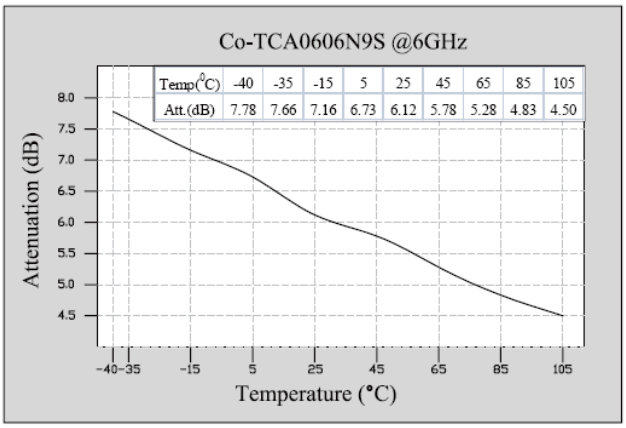
Co-TCA Response





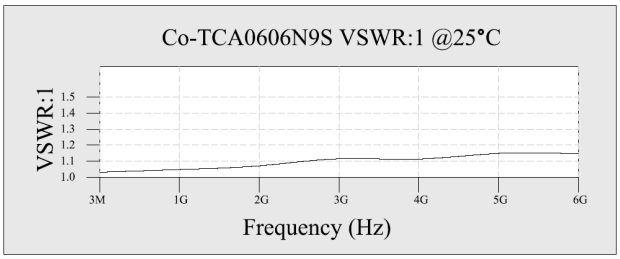




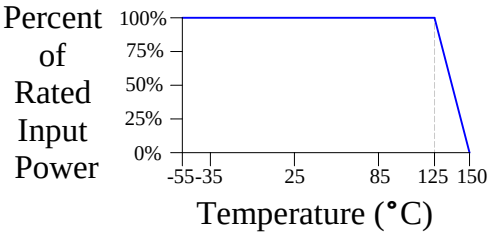


Statistical Table of Attenuation(typ.) VS Temperature				
ATT(dB) / Temp(℃)	3MHz	1GHz	2GHz	3GHz
-40	12.18	11.34	10.80	9.60
-35	11.73	10.85	10.03	9.30
-15	9.29	8.89	8.46	8.08
5	7.52	7.34	7.15	7.03
25	6.23	6.20	6.13	6.13
45	5.47	5.48	5.48	5.61
65	4.67	4.72	4.77	4.98
85	4.09	4.17	4.23	4.40
105	3.66	3.73	3.80	4.03

Typical VSWR @ 25℃



Power Rating & Derating Curve



Material & Plating

Parts	Material	Plating(Micro-inch)
Body & Nut	Stainless Steel	Passivated
Contact (female & male)	Beryllium Copper	Gold 30
Insulator	Teflon	

Package type: SMA

Parts	Material	Plating(Micro-inch)
Body & Nut	Brass	Ternary alloy
Contact (female & male)	QSn6.5-0.1	Gold 30
Insulator	Teflon	

Package type: N type