

**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/°C)	Max. VSWR (:1) @1GHz@25°C	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

- Frequency Range DC to 6GHz
- Attenuation 3dB
- Attenuation Accuracy at 25°C ±0.5dB@1GHz
- VSWR 1.25:1 Max. @1GHz, 1.30:1 Max. @2GHz at 25°C
- Nominal Impedance 50 Ohms
- Power Rating 2 Watts CW
- Power Derating 100% @ 125°C  
Derates to 0% @ 150°C
- Operating Temperature -55°C to +150°C
- Temperature Coefficient over Operating Temperature Range: See Table Above.  
Temperature Coefficient Tolerance: ±0.001dB/dB/°C.
- Connect type: SMA or N type
- Substrate: Alumina (Al<sub>2</sub>O<sub>3</sub>)
- Resistive material: Thick film
- Terminal material: Thick film, Nickel barrier with pure tin plate (lead free) or with tin (Sn90) plate (10% lead contained)
- Protective Coating: Thick film (ethyl acetate)
- Package Outline: See Sheet 2.
- Workmanship: per MIL-PRF-55342.
- RoHS Compliant.
- 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

- 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.
- 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.
- Test data required for customer.

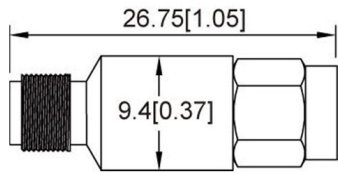
#### Yantel Corporation

Add: 3F, Building 3, Southern District 2 of Zhongguan Honghualing Industrial Park, Xili, Nanshan, Shenzhen, China

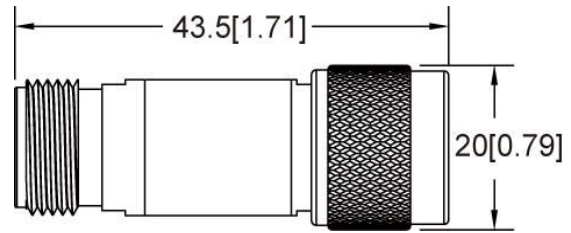
Tel: 86-755-8355-1886 Fax: 86-755-8355-2533

For detailed performance specs & shopping online see Yantel web site : [www.yantel-corp.com](http://www.yantel-corp.com)

Package Outlines (unit: mm&inch)

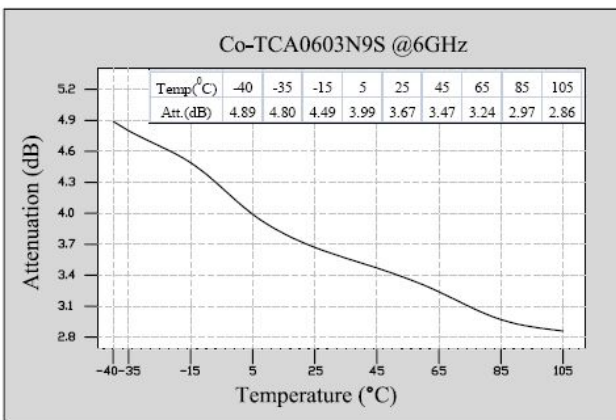
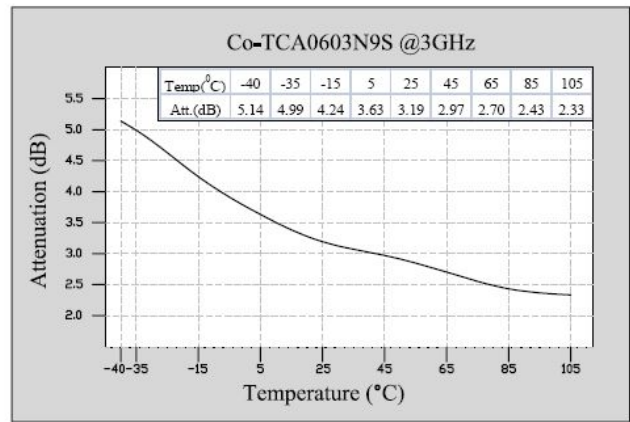
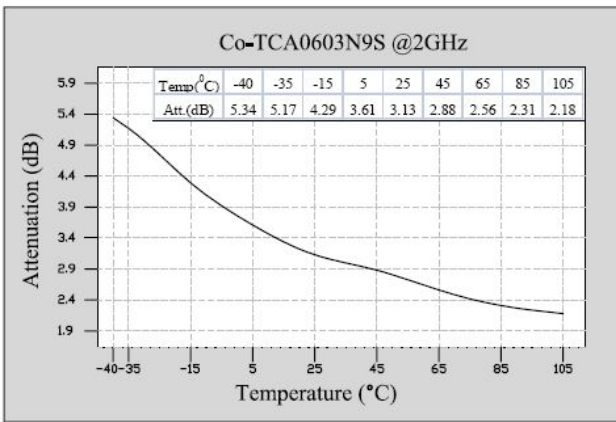
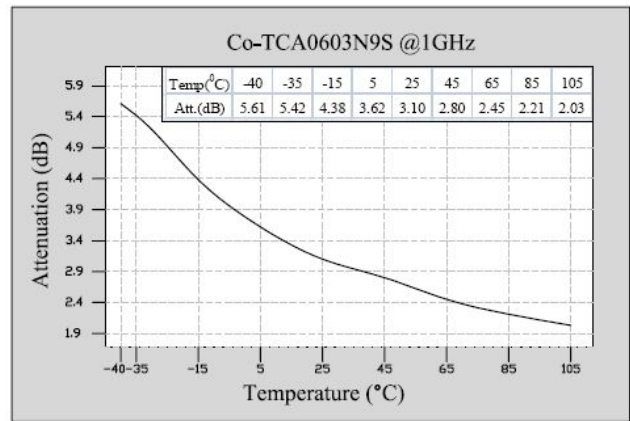
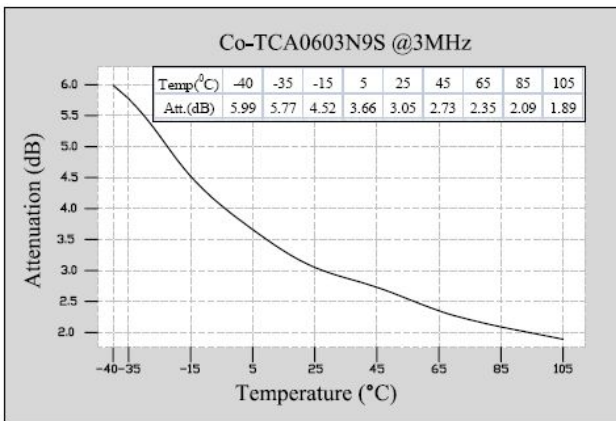


Package type: SMA



Package type: N type

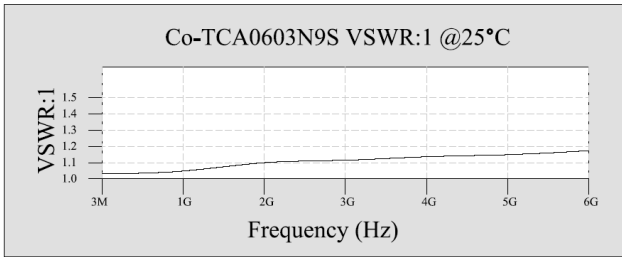
Co-TCA Response



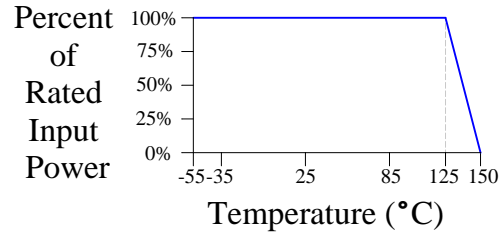
Statistical Table of Attenuation(typ.) VS Temperature

ATT(dB) / Temp(°C)	3MHz	1GHz	2GHz	3GHz
-40	5.99	5.61	5.34	5.14
-35	5.77	5.42	5.17	4.99
-15	4.52	4.38	4.29	4.24
5	3.66	3.62	3.61	3.63
25	3.05	3.10	3.13	3.19
45	2.73	2.80	2.88	2.97
65	2.35	2.45	2.56	2.70
85	2.09	2.21	2.31	2.43
105	1.89	2.03	2.18	2.33

**Typical VSWR @ 25°C**



**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**