

Temperature Variable Chip Attenuators

TCAF N09 Series: DC-12GHz



Designed to vary $-.009\text{dB/dB/}^\circ\text{C}$ to compensate for temperature induced system gain variation without requiring a bias or control voltage.

These surface mount attenuators consist of laser trimmed thick film resistor elements on an alumina ceramic substrate with a protective paint layer and are available in various metallization styles and plating options.

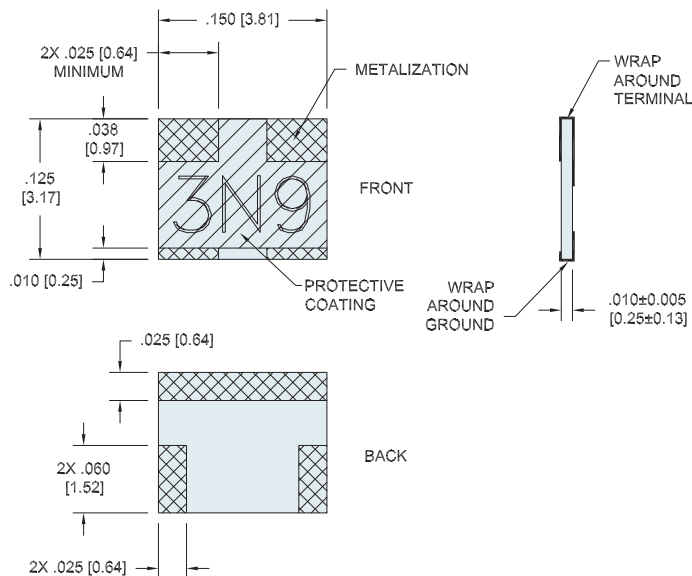


FEATURES

- 12GHz operation
- 2 thru 5 dB values (initially)
- Reduced attenuation at higher temperatures
- Solderable terminals
- SN62, SN96, Gold terminals available
- RoHS compliant
- Design kits available

GENERAL SPECIFICATIONS

Resistive Element: Proprietary Thick Film
 Substrate: Alumina
 Terminal Finish: Electroplated Silver over Nickel
 Temp Coefficient of Attenuation: $-.009\text{ dB/dB/}^\circ\text{C}$
 Temp Coefficient Tolerance: $.001\text{ dB/dB/}^\circ\text{C}$
 Operating Temperature Range: -55°C to $+150^\circ\text{C}$
 Rated Power¹: 2 W average



ELECTRICAL SPECIFICATIONS

Model Number	dB Value	Attenuation Accuracy ² (dB)		Max VSWR	
		DC-8GHz	8-12GHz	DC-8GHz	8-12GHz
TCAF-2-N09	2	±0.5	±0.75	1.35:1	1.50:1
TCAF-3-N09	3	±0.5	±0.75	1.35:1	1.50:1
TCAF-4-N09	4	±0.5	±0.75	1.35:1	1.50:1
TCAF-5-N09	5	±0.5	±0.75	1.35:1	1.50:1

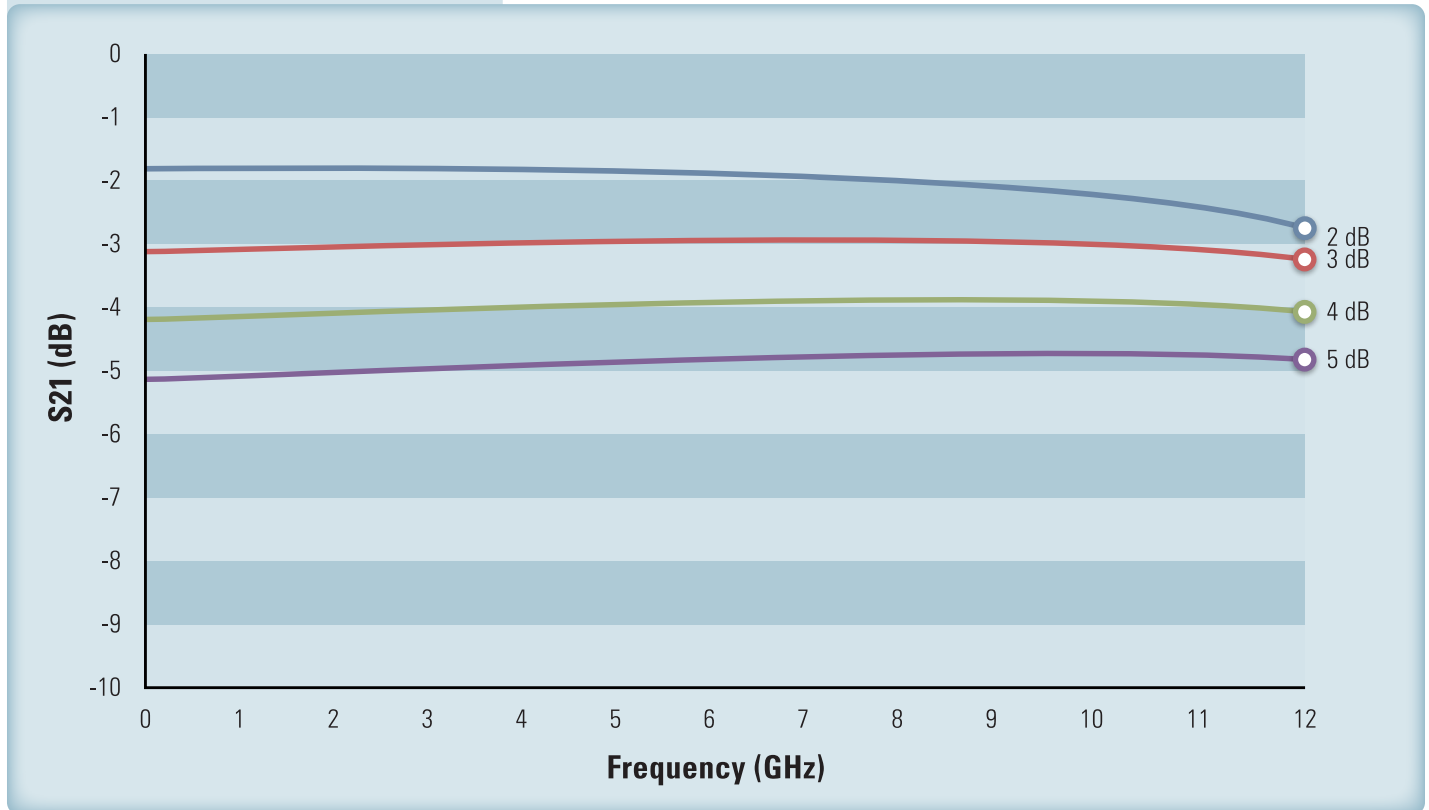
¹Assumes 100° C mounting temperature derated linearly to 0 Watts at 150° C ²Performance is based on device mounted in matched 50Ω line.

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ATTENUATION VS. FREQUENCY



ORDERING KEY

Model Number
TCAF-T3-N09

dB Value: 3
 Temp Shift: Negative: N

Terminal Options:
 = Silver over Nickel [standard]
T = Tin Lead Solder
H = Lead Free Solder
G = Gold Plated

Temp Coefficient of Attenuation:
 .009dB/dB/°C



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