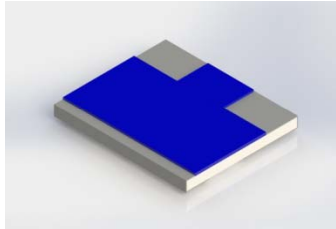


Attenuator, Chip

Frequency Range: DC to 12 GHz, Power: 2 Watts



Features

- Reduced Attenuation at Elevated Temperature
- Linear Resistive Design
- Broadband Operation

N05 series of temperature variable attenuators are designed to compensate reduction of gain by 0.5dB/dB for a temperature increase from 25°C to 125°C without requiring a bias or control voltage. TCA chip attenuators are manufactured using thick film resistor elements on an alumina ceramic substrate. Full-wrap TCAF chips are designed for surface mount applications and available in various attenuation values and terminal finish options.

Technical Specifications

Parameter	Value					
Frequency Range	DC to 12 GHz					
Impedance	50 Ohms Nominal					
Attenuation Accuracy	Freq (GHz)					
<u>dB Value</u>	<u>DC - 4</u>	<u>4 - 6</u>	<u>6 - 8</u>	<u>8 - 10</u>	<u>10 - 12</u>	
1 - 6 dB	±0.5	±0.5	±0.5	±0.75	±0.75	
7 & 8 dB	±0.5	±0.5	±0.75	±0.75	±1.0	
9 dB	±0.5	±0.75	±1.0	±1.0	±1.0	
10 dB	±0.75	+1.5/-1	+2/-1	+2/-1	N/A	
VSWR (Max)	Freq (GHz)					
<u>dB Value</u>	<u>DC - 4</u>	<u>4 - 6</u>	<u>6 - 8</u>	<u>8 - 10</u>	<u>10 - 12</u>	
1 - 8 dB	1.35:1	1.35:1	1.35:1	1.50:1	1.50:1	
9 dB	1.35:1	1.35:1	1.50:1	1.50:1	1.50:1	
10 dB	1.35:1	1.50:1	1.50:1	1.50:1	N/A	
Temperature Coefficient of Attenuation	-0.005 dB/dB/°C					
Temperature Coefficient Tolerance	±0.001 dB/dB/°C					
Operating Temp. Range	-55°C to +150°C					

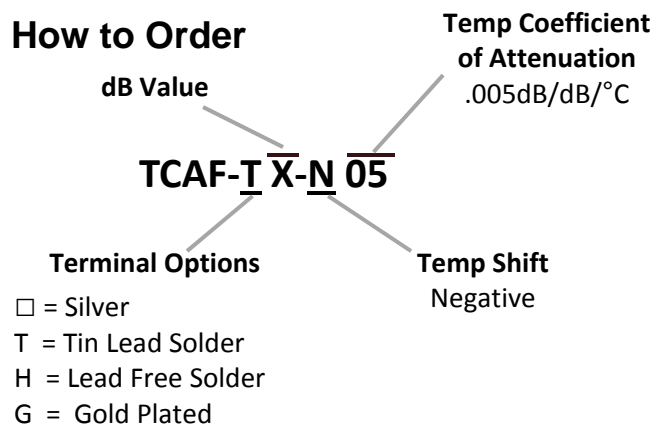
*Performance is based on device mounted in matched 50Ω line.

**Mounting surfaces shall not exceed 100°C. Max.

Material

Feature	Material
Substrate	Alumina
Resistor Material	Proprietary Thick Film
Terminal Finish	Silver – (See “How to Order” for tinning & other options)

How to Order



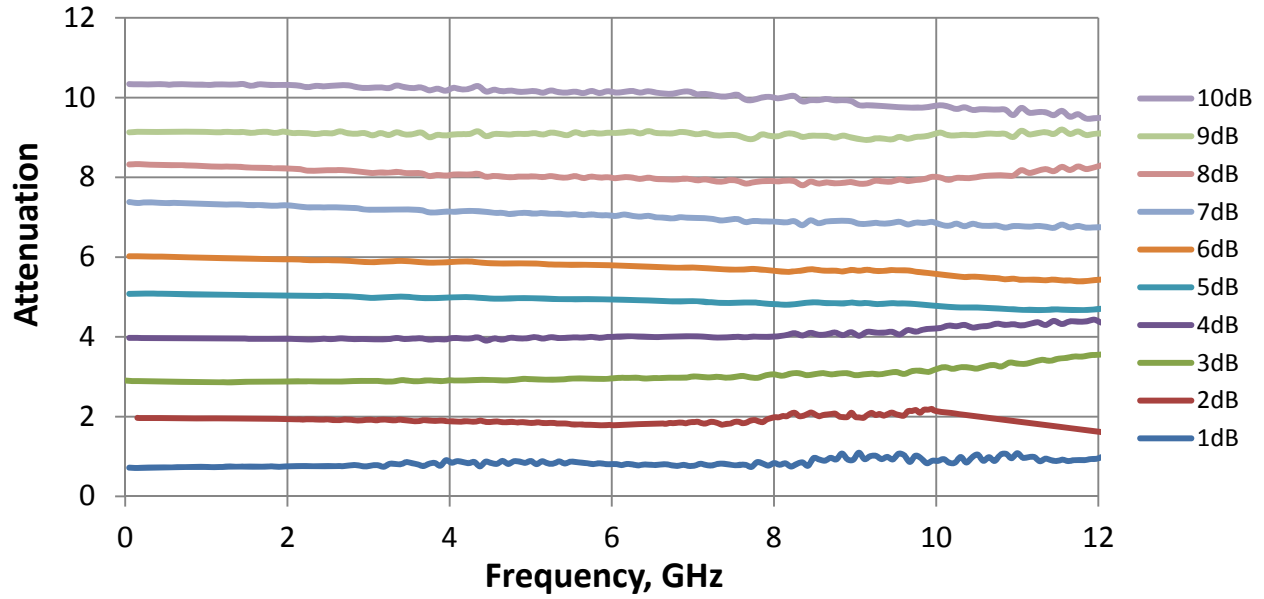
Ordering Examples

Model Number: TCAF-3-N05
 Silver Terminals, 3dB

Model Number: TCAF-T2-N05
 Tin lead solder Terminals, 2dB

Performance Characteristics

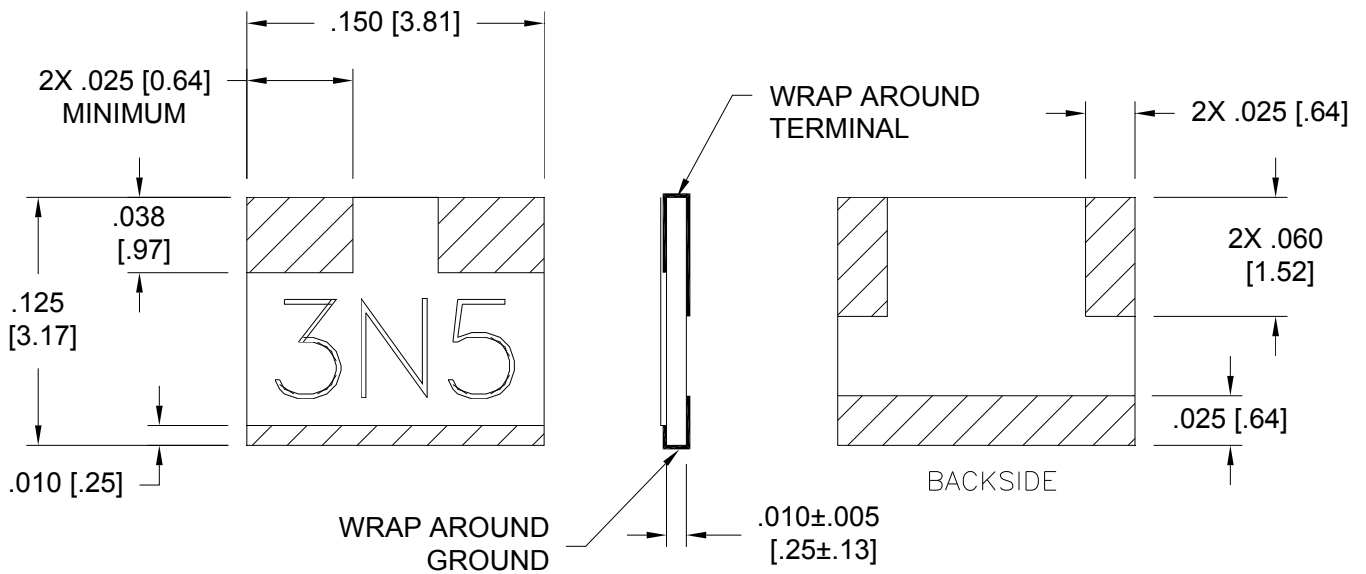
Typical Performance



Physical Dimensions

Model Number: TCAF-3-N05 shown

Tolerance .XXX" = ±.010"



Note: Dimensions in Brackets [] are expressed in Millimeters and are for reference only