

ATTENUATOR TEMPERATURE VARIABLE

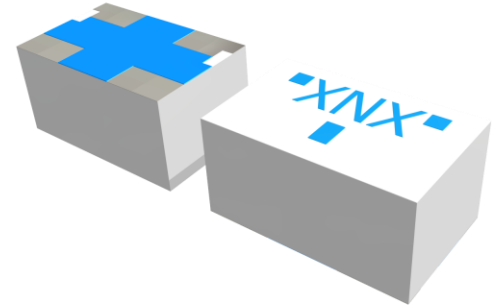


FEATURES

- Temperature Variable
- Compact Package
- Wideband Performance
- Passive Gain Compensation
- Rugged Construction
- MIL-PRF-3933

APPLICATIONS

- Power Amplifiers
- Instrumentation
- Mobile Networks
- Point-to-Point Radios
- Satellite Communications
- Military Radios
- Up/Down Converters



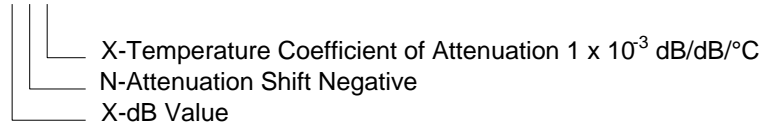
GENERAL DESCRIPTION

Smiths Interconnect is the leading authority in temperature variable attenuators. Thermopad® temperature variable attenuators have been a highly reliable passive solution for over temperature gain compensation for more than 20 years. All Thermopad® products can be qualified for high-reliability and space applications.

ORDERING INFORMATION

Part Identifier:

AN7-XNXF



SPECIFICATIONS

1.0 ELECTRICAL

Nominal Impedance:	50 ohms
Frequency Range:	DC – 6.0 GHz
Attenuation Values Available:	1-10 dB in 1 dB increments
Attenuation Accuracy:	@ 25°C: ± 0.5 dB @ 1 GHz
VSWR:	1.30:1 Max @ 1 GHz
Input Power	200 Milliwatts Full Rated Power To 125°C, Derated Linearly to 0 Watts at 150°C.
Temperature Coefficient of Attenuation:	-0.003, -0.004, -0.005, -0.006, -0.007, -0.009, -0.011 dB/dB/°C
Temperature Coefficient Tolerance:	± 0.001 dB/dB/°C

2.0 ENVIRONMENTAL

Operating Temperature:	-55°C to +150°C
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3.0 MARKING

Unit Marking:	dB Value (X), Direction of Shift (N) And TCA Shift (X)
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4.0 QUALITY ASSURANCE

- Sample Inspect Per ANSI/ASQC Z1.4 General Inspection, Level II, AQL=1.0.
- Visual and Mechanical Examination for Conformance to Outline Drawing Requirements
- Sample Inspection (Destructive Testing).

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DATA SHEET

PART SERIES: AN7-XNXF

SHEET 2 OF 3
Dwg 1011505

EN 18-0239
Revision L

Select three (3) units from lot and measure DCA every 20°C over the temperature range of -55°C to +125°C; Calculate using linear regression, the slope of the curve.
Calculate TCA using the following formula:

$$TCA = \frac{\text{Slope}}{\text{Attenuation @ 25}^\circ\text{C}}$$

Inspection in accordance with 824W107

Test Data Requirements:

No Data Required for Customer

Data Retention – 24 Months

5.0 PACKAGING

Standard:

Tape and Reel

6.0 MECHANICAL

Substrate Material:

Alumina

Terminal Material:

Thick Film, Lead Free Plating

Workmanship

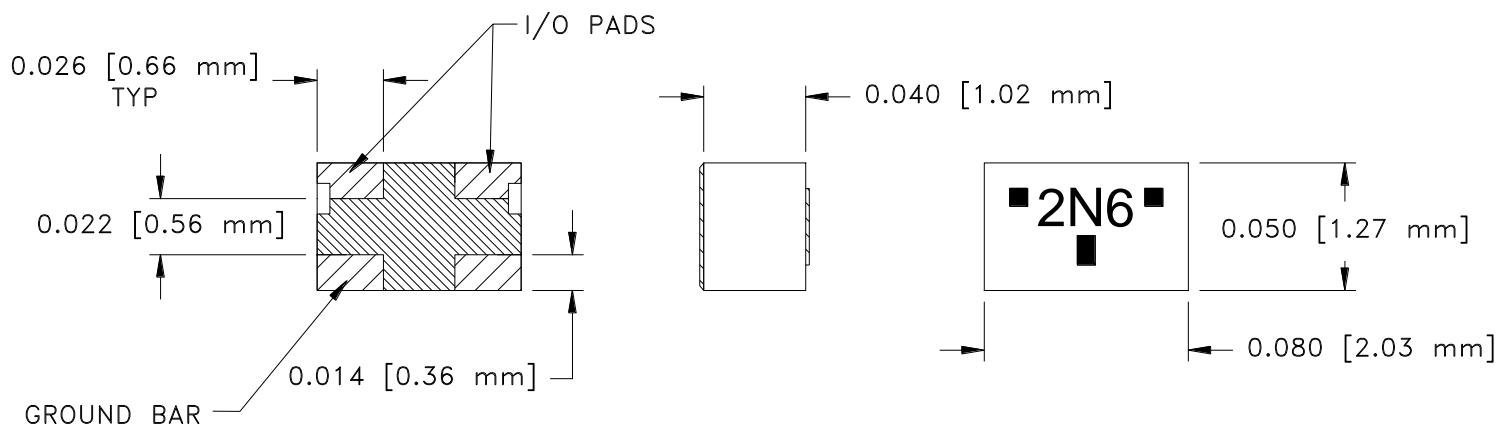
Per MIL-PRF-55342

Resistive Element:

Thick Film

Metric Dimensions:

Provided for reference only



Unless Otherwise Specified: TOLERANCE: X.XXX = ± 0.005

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7.0 SUGGESTED MOUNTING FOOTPRINT

Part Number	Inches							mm						
	A	B	C	D	S	S2	W	A	B	C	D	S	S2	W
AN7-XNXF	0.028	0.018	0.028	0.028	0.024	0.013	0.083	0.71	0.46	0.71	0.71	0.61	0.33	2.11

