

ATTENUATOR TEMPERATURE VARIABLE



DATA SHEET

PART SERIES: AN5-XNXF

SHEET 1 OF 3
Dwg 1011275

EN 16-0779
Revision F

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



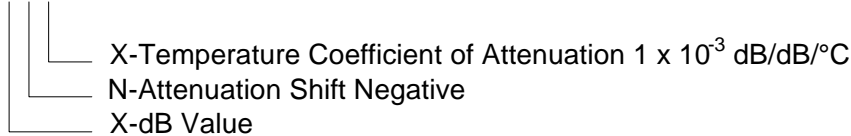
GENERAL DESCRIPTION

EMC Technology 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:

AN5-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: ± 0.75 dB @ 2 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, and -0.009 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 (XX), 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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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:

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

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

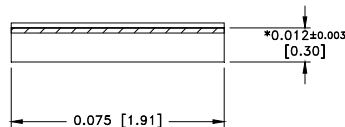
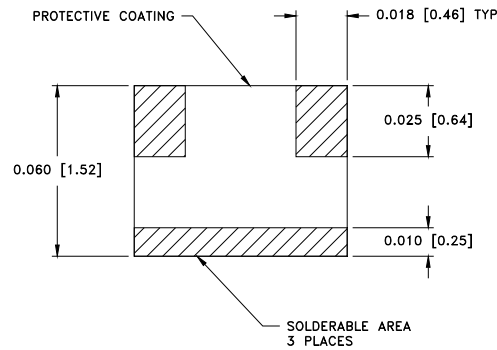
Per MIL-PRF-55342

Resistive Element:

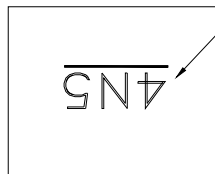
Thick Film

Metric Dimensions:

Provided for reference only



UNITS MARKED ON THIS SURFACE VALUE SHOWN TO REPRESENT ORIENTATION



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

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7.0 FOOTPRINT

Part Number	Inches						mm					
	A	B	C	D	S	W	A	B	C	D	S	W
AN5-XNXF	0.022	0.028	0.041	0.013	0.026	0.075	0.56	0.71	1.04	0.33	0.66	1.91

