

ATTENUATOR TEMPERATURE VARIABLE



DATA SHEET

PART SERIES: TVAXX00XXXW3F

SHEET 1 OF 3
Dwg 1010865

EN 16-0736
Revision B

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

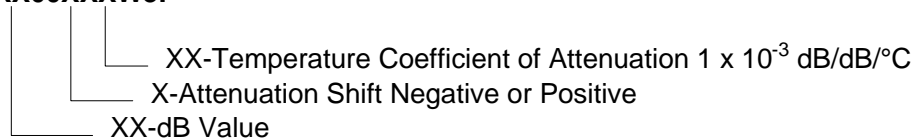


GENERAL DESCRIPTION

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: TVAXX00XXXW3F



SPECIFICATIONS

1.0 ELECTRICAL

Nominal Impedance:	50 ohms
Frequency Range:	DC-6 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	Negative Shifting: 2 watts cw. Positive Shifting: 0.25 watts cw Full Rated Power to 125°C, Derated Linearly to 0 Watts @ 150°C
Temperature Coefficient of Attenuation:	-0.003, -0.004, -0.005, -0.006, -0.007 and -0.009 dB/dB/°C 0.003, 0.005, 0.006, 0.007, 0.008 and 0.009 dB/dB/°C
Temperature Coefficient Tolerance:	± 0.001 dB/dB/°C

2.0 ENVIRONMENTAL

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

3.0 MARKING

Unit Marking: dB Value (X), Direction of Shift (N OR P) And TCA Shift (X).

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).

Select three (3) units from lot and measure DCA every 20°C over the temperature range of

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-55°C to +125°C; Calculate using linear regression, the slope of the curve.
Calculate TCA using the following formula:

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

Inspection in accordance with 824W107

Test Data Requirements:

No Data Required for Customer

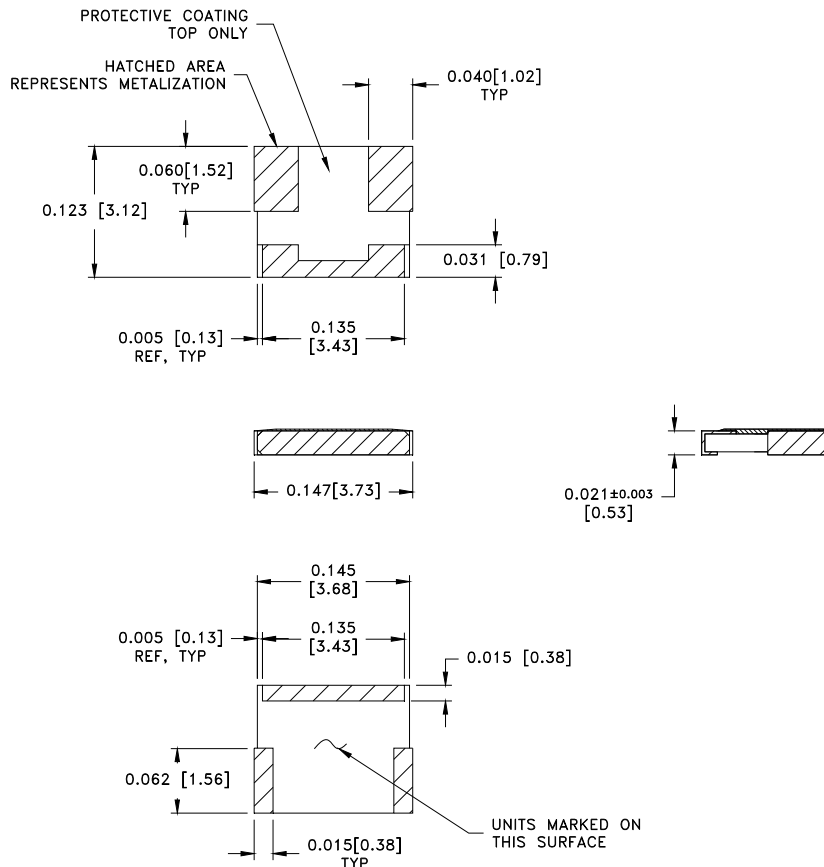
Data Retention – 24 Months

5.0 PACKAGING

Standard: Tape & Reel

6.0 MECHANICAL

Substrate Material: Alumina, 96% MIL-I-10
Terminal Material: Thick Film, Nickel Barrier, Lead Free Plated
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 FOOTPRINT

Part Number	Inches						mm					
	A	B	C	D	S	W	A	B	C	D	S	W
TVAXX00XXXW3F	0.043	0.063	0.067	0.035	0.032	0.152	1.09	1.60	1.70	0.89	0.81	3.86

