ATTENUATOR TEMPERATURE VARIABLE



DATA SHEET PART SERIES: TVAXX00XXXW3S

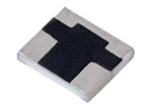
SHEET 1 OF 3 Dwg 1008145 EN 16-0736 Revision AF

FEATURES

APPLICATIONS

Temperature Variable Power Amplifiers
Compact Package Instrumentation
Wideband Performance Mobile Networks
Passive Gain Compensation Point-to-Point Radios
Rugged Construction Satellite Communications
MIL-PRF-3933 Military Radios

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:	TVAX	X00X	(XW3S
			XX-Temperature Coefficient of Attenuation 1 x 10 ⁻³ dB/dB/°C X-Attenuation Shift Negative or Positive
	L		XX-dB Value

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: -0.001, -0.002, -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, 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

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

smiths microwave

Form 423F119

Cage Codes: 24602 / 2Y194
Specifications are Subject to Change Without Notice

www.emc-rflabs.com • +1 772-286-9300

AS 9100, ISO 9001 and 14001 Certified

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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 & Reel

6.0 MECHANICAL

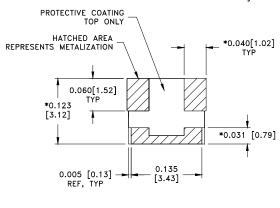
Substrate Material: Alumina, 96% MIL-I-10

Terminal Material: Thick Film, Nickel Barrier, Solder Coated

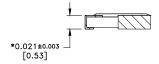
Workmanship Per MIL-PRF-55342

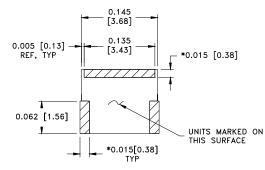
Resistive Element: Thick Film

Metric Dimensions: Provided for reference only









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

DIMENSIONS APPLY BEFORE SOLDER. ALLOW 0.015 MAX FOR ALL PRETINNED SURFACES.

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DATA SHEET

PART SERIES: TVAXX00XXXW3S

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7.0 FOOTPRINT

	Inches						mm					
Part Number	Α	В	С	D	S	W	Α	В	С	D	S	W
TVAXX00XXXW3S	0.043	0.063	0.067	0.035	0.032	0.152	1.09	1.60	1.70	0.89	0.81	3.86

