

# ATTENUATOR TEMPERATURE VARIABLE CHIP (K-BAND)



DATA SHEET

PART SERIES: KTVAXXNXXXSMT

SHEET 1 OF 3  
Dwg 1013375

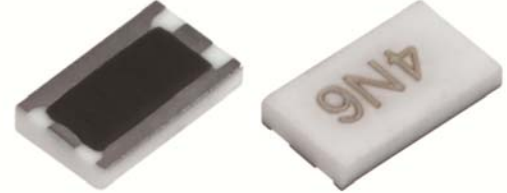
EN 16-0519  
Revision A

## 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

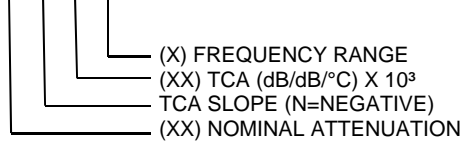


## GENERAL DESCRIPTION

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

## ORDERING INFORMATION

Part Identifier: KTVAXXNXXXSMT



## SPECIFICATIONS

### 1.0 ELECTRICAL

Nominal Impedance:	50 ohms
Frequency Range:	5=18-27GHz, 6=27-36GHz
Attenuation Values Available:	2-6dB in 1dB increments
Attenuation Accuracy:	@ 25°C: ± 1.0 dB
VSWR:	1.50:1 Maximum
Input Power	100 mW @ 100°C, Derated linearly to 0 watt @ 150°C
Temperature Coefficient of Attenuation:	-0.003, -0.005, -0.006 and -0.007 dB/dB/°C
Temperature Coefficient Tolerance:	±0.001dB/dB/°C Note: -0.007 ±0.002

### 2.0 ENVIRONMENTAL

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

### 3.0 MARKING

Unit Marking: Attenuation Value and Shift

### 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:

Waffle

## 6.0 MECHANICAL

Substrate Material:

Alumina, MIL-I-10

Terminal Material:

Thick Film, Nickel Barrier, Sn/Pb Solder Plated

Workmanship

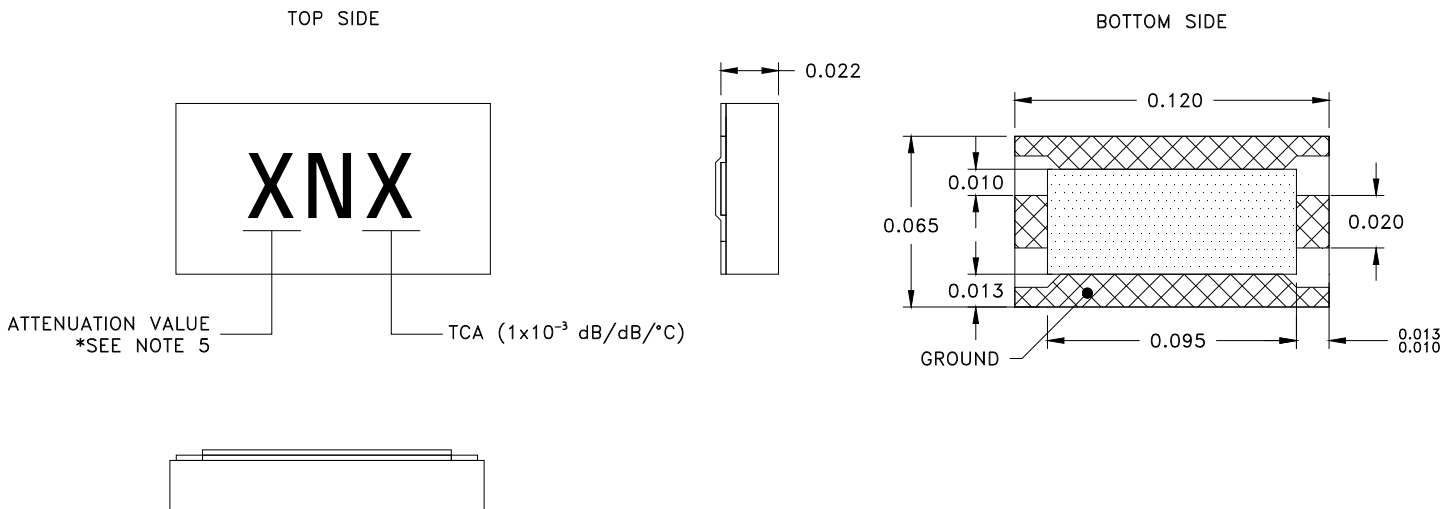
PER MIL-PRF-55342

Resistive Element:

Thick Film

Metric Dimensions:

Provided for reference only



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

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## 7.0 LAND PATTERN

Part Number	Inches					mm				
	A	B	C	D	W	A	B	C	D	W
KTVAXXNXXXSMTF	0.020	0.010	.095	0.039	0.013	0.51	0.254	2.41	1.01	0.32

