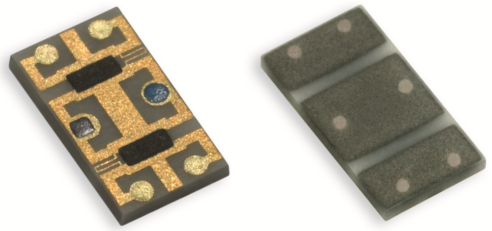
ATTENUATOR
TEMP VARIABLE DESIGN KIT

FEATURES

- Temperature Variable
- Compact Package
- Wideband Performance
- Passive Gain Compensation
- Rugged Construction
- MIL-PRF-55342
- Wirebond Based Mounting

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: K2TVA-DKIT

The kit contains 5 pieces of each of the following:

KFA00.00-5 **K2TVA03N053** **K2TVA04N053** **K2TVA06N053** **K2TVA06N073**

K2TVAXXNXX3

- Attenuation (dB)
- Negative TCA
- Temperature Coefficient of Attenuation (10^{-3} dB/dB/°C)
- Operating Frequency 3 = 27 – 32 GHz

SPECIFICATIONS

1.0 ELECTRICAL

Nominal Impedance:	50 ohms
Frequency Range:	27 – 32 GHz
Attenuation Values Available:	3 – 6 dB in one dB increments
Attenuation Accuracy:	±0.5 dB Typical, ±1.0 dB Max
VSWR:	1.25:1 Typical; 1.40:1 Max
Input Power	200 Milliwatts
Temperature Coefficient of Attenuation:	-0.005 and -0.007
Temperature Coefficient Tolerance:	±0.001 dB/dB/°C Typical, ±0.002 dB/dB/°C Max

2.0 ENVIRONMENTAL

Operating Temperature:	-55˚C to +150˚C
Non-operating Temperature:	-65˚C to +150˚C
Temperature Coefficient:	± 200 PPM / ˚C Max

3.0 MARKING

Unit Marking:	Dot Marking See Table

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 20ºC over the temperature range of -55℃ to +125℃; Calculate using linear regression, the slope of the curve.

Calculate TCA using the following formula:

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

Test Data Requirements:

No Data Required for Customer

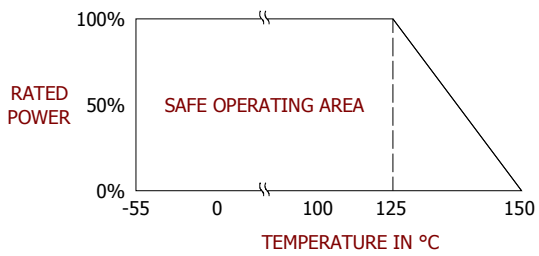
Data Retention – 24 Months

5.0 PACKAGING

Standard:	Standard Waffle

6.0 MECHANICAL

Substrate Material:	Alumina
Terminal Material:	Thick Film Bondable Gold
Ground Plane:	Solderable Gold
Resistive Element:	Thick Film
Metric Dimensions:	Provided for reference only



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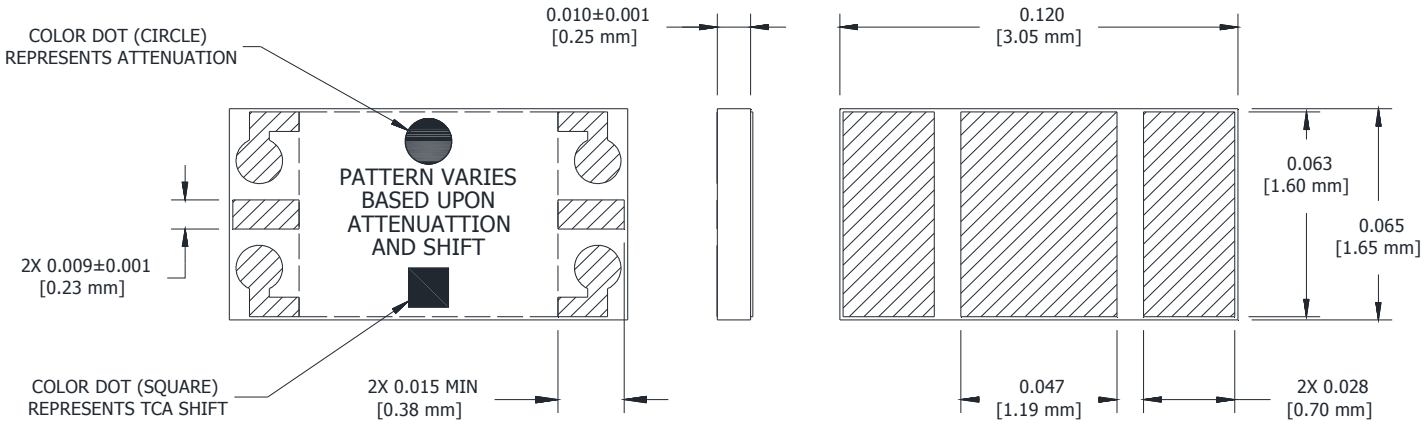

COLOR DOT CODE TABLE		
COLOR	ATTENUATION (dB)	TCA (dB/dB/°C)
BLACK	NA	NA
BROWN	NA	NA
RED	NA	NA
ORANGE	3	NA
YELLOW	4	NA
GREEN	5	-0.005
BLUE	6	NA
VIOLET	NA	-0.007
GRAY	NA	NA
WHITE	NA	NA

Unless Otherwise Specified: TOLERANCE: X.XX = ± 0.01 X.XXX = ± 0.005