

# ATTENUATOR TEMPERATURE VARIABLE



DATA SHEET

PART SERIES: MTVA0X00N0XW1

SHEET 1 OF 2  
Dwg 1004865

EN 16-0736  
Revision M

## 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

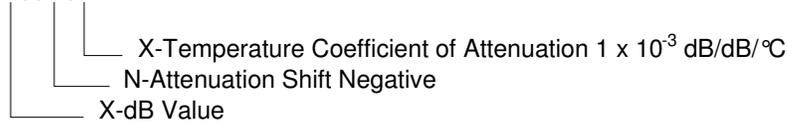


## GENERAL DESCRIPTION

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:** MTVA0X00N0XW1



## SPECIFICATIONS

### 1.0 ELECTRICAL

Nominal Impedance:	50 ohms
Frequency Range:	DC-12.4 GHz
Attenuation Values Available:	1-8 dB in 1 dB increments
Attenuation Accuracy:	@ 25°C: ± 0.5 dB @ 1 GHz
VSWR:	1.30:1 Max @ 1 GHz
Input Power	200 Milliwatts 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
Temperature Coefficient Tolerance:	± 0.001 dB/dB/°C

### 2.0 ENVIRONMENTAL

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

### 3.0 MARKING

Unit Marking: None

### 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.

Calculate TCA using the following formula:

# ATTENUATOR TEMPERATURE VARIABLE



DATA SHEET

PART SERIES: MTVA0X00N0XW1

SHEET 2 OF 2  
Dwg 1004865

EN 16-0736  
Revision M

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

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, 96% MIL-I-10

Terminal Material:

Thick Film, nickel barrier, solder plated

Workmanship

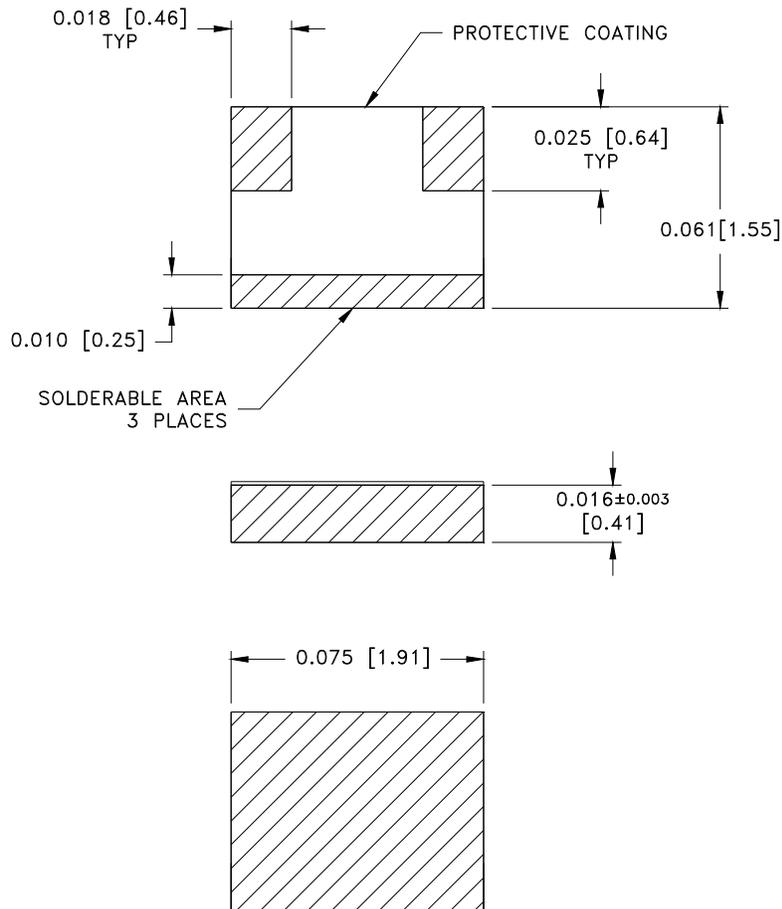
Per MIL-PRF-55342

Resistive Element:

Thick Film

Metric Dimensions:

Provided for reference only



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