# ATTENUATOR TEMPERATURE VARIABLE



#### DATA SHEET

#### PART SERIES: MTVA0X00XXXG

# **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



EN 16-0736 Revision Y

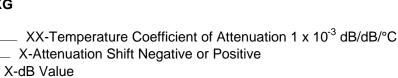


# **GENERAL DESCRIPTION**

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: MTVA0X00XXXG



# SPECIFICATIONS

# **1.0 ELECTRICAL**

Nominal Impedance: Frequency Range:	50 ohms Shift Neg003,004,005 006,007,009 Shift Pos. +.005	
Attenuation Values Available:	1-8 dB in 1 dB increments	
Attenuation Accuracy:	@ 25ºC: ± 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/ºC 0.005 dB/dB/ºC	
Temperature Coefficient Tolerance:	± 0.001 dB/dB/ºC	

### 2.0 ENVIRONMENTAL

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

### 3.0MARKING

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

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EN 16-0736

Dwg 1007895

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

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

Inspection in accordance with 824W107 Test Data Requirements:

No Data Required for Customer

Data Retention - 24 Months

#### **5.0 PACKAGING**

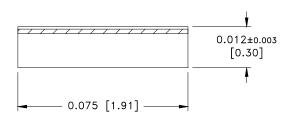
Standard:

Tape & Reel

# **6.0 MECHANICAL**

Substrate Material: Terminal Material: Workmanship Resistive Element: Metric Dimensions: Alumina, 96% MIL-I-10 Thick Film, Bondable Gold Per MIL-PRF-55342 Thick Film Provided for reference only PROTECTIVE COATING 0.025 [0.63] 0.060 [1.52]

> - BONDABLE AREA 3 PLACES



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

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