ATTENUATOR TEMPERATURE VARIABLE



DATA SHEET PART SERIES: MTVA0X00XXXG

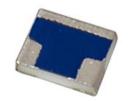
SHEET 1 OF 2 Dwg 1007895 EN 16-0736 Revision Y

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:	MTVA0	XX00	XXG
		1	XX-Temperature Coefficient of Attenuation 1 x 10 ⁻³ dB/dB/°0 X-Attenuation Shift Negative or Positive X-dB Value

SPECIFICATIONS

1.0 ELECTRICAL

Nominal Impedance: 50 ohms

Frequency Range: Shift Neg. -.003,-.004,-.005 DC-18 GHz

-.006,-.007,-.009 DC-12.4 GHz

Shift Pos. +.005 DC-18 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

0.005 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

smiths microwave

Form 423F119

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

AS 9100, ISO 9001 and 14001 Certified

ATTENUATOR TEMPERATURE VARIABLE



DATA SHEET PART SERIES: MTVA0X00XXXG

SHEET 2 OF 2 Dwg 1007895 EN 16-0736 Revision Y

-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

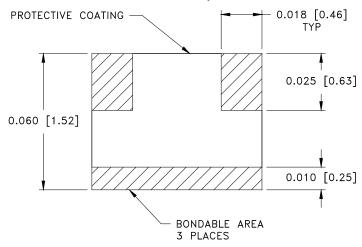
Substrate Material: Alumina, 96% MIL-I-10

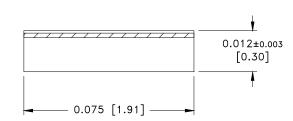
Terminal Material: Thick Film, Bondable Gold

Workmanship Per MIL-PRF-55342

Resistive Element: Thick Film

Metric Dimensions: Provided for reference only





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