

**TITLE: SPECIFICATION CONTROL DRAWING**

**PART IDENTIFIER:** MTVA0X00N0XW1

X TEMPERATURE COEFFICIENT OF ATTEN.  $1 \times 10^{-3}$  DB/DB/°C.

SHIFT (NEG)	DB VALUE
-0.003	1, 2, 3, 4, 5, 6, 7, 8
-0.004	1, 2, 3, 4, 5, 6
-0.005	1, 2, 3, 4, 5, 6, 8
-0.006	2, 3, 4, 6
-0.007	2, 3, 4, 5, 6
-0.009	3, 6

ATTENUATION SHIFT NEGATIVE.  
X DB VALUE SEE TABLE ABOVE.

**DESCRIPTION:** TEMPERATURE VARIABLE CHIP ATTENUATOR

**ASSEMBLY DWG:** 1900974

**1.0 SPECIFICATIONS:**

- 1.1 ELECTRICAL:
  - 1.1.1 IMPEDANCE: 50 OHMS NOMINAL.
  - 1.1.2 OPERATING FREQUENCY RANGE: DC - 12.4 GHZ.
  - 1.1.3 ATTENUATION VALUES AVAILABLE: SEE ABOVE TABLE.
  - 1.1.4 ATTENUATION ACCURACY AT 25°C:  $\pm 0.5\text{DB @ 1 GHZ}$ .
  - 1.1.5 VSWR: 1.30:1 MAX. @ 1GHZ.
  - 1.1.6 INPUT POWER: 200 MILLIWATTS CW.
    - 1.1.6.1 FULL RATED POWER TO 125°C, DERATED LINEARLY TO 0 WATTS AT 150°C.
  - 1.1.7 TEMPERATURE COEFFICIENT OVER OPERATING TEMPERATURE RANGE:  
SEE TABLE ABOVE, TEMPERATURE COEFFICIENT TOLERANCE:  $\pm 0.001 \text{ DB/DB/°C}$ .
- 1.2 MECHANICAL:
  - 1.2.1 OUTLINE DWG: SEE SHEET 2.
  - 1.2.2 WORKMANSHIP: PER MIL-PRF-55342.
- 1.3 ENVIRONMENTAL:
  - 1.3.1 OPERATING TEMPERATURE RANGE: -55°C TO +150°C.
- 1.4 ELECTROSTATIC DISCHARGE CONTROL: PER MIL-STD-1686.

**2.0 UNIT MARKING:** NONE

**3.0 QUALITY ASSURANCE:**

- 3.1 SAMPLE INSPECT PER ANSI/ASQC Z1.4 GENERAL INSPECTION, LEVEL II, AQL = 1.0.
  - 3.1.1 VISUAL AND MECHANICAL EXAMINATION FOR CONFORMANCE TO OUTLINE DRAWING REQUIREMENTS.
- 3.2 SAMPLE INSPECTION (DESTRUCTIVE TESTING).
  - 3.2.1 SELECT THREE (3) UNITS FROM LOT AND MEASURE DCA EVERY 20°C OVER THE TEMPERATURE RANGE -55°C TO +125°C.
    - 3.2.1.1 CALCULATE, USING LINEAR REGRESSION, THE SLOPE OF THE CURVE.
    - 3.2.1.2 CALCULATE TCA USING THE FOLLOWING FORMULA:  

$$\text{TCA} = \frac{\text{SLOPE}}{\text{ATTENUATION @ 25°C}}$$
    - 3.2.1.3 ACCEPTANCE LIMITS: PER 1.1.7.
- 3.3 INSPECTION IN ACCORDANCE WITH QA0006 AND FORM0357 FOR COMMERCIAL GRADE PRODUCT.
- 3.4 TEST DATA REQUIREMENTS:
  - 3.4.1 NO TEST DATA REQUIRED FOR CUSTOMER.
  - 3.4.2 DATA RETENTION - 24 MONTHS.

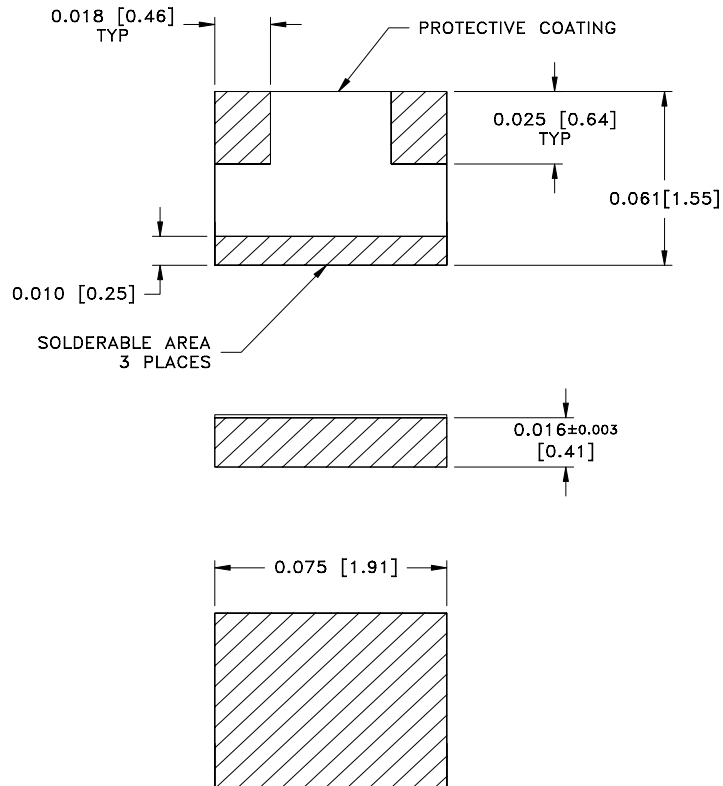
**4.0 PACKAGING:** STANDARD PACK PER MC0023.

<b>EMC TECHNOLOGY</b> 8851 SW OLD KANSAS AVE. STUART, FL 34997	<b>CAGE CODE # 24602</b>		<b>DWG #</b>	1004865000
	<b>CHANGE NOTICE</b>	EN 05-E0754	<b>REV LVL</b>	K
			<b>SHEET</b>	1 OF 2

PART ID REF

MTVAW1

U.S. PATENT No. 5332981



**MECHANICAL SPECIFICATIONS:**

SUBSTRATE:  
MATERIAL - ALUMINA 96%, MIL-I-10.

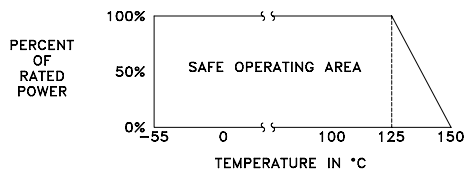
TERMINAL:  
MATERIAL - THICK FILM, NICKEL BARRIER,  
SOLDER PLATED.

RESISTIVE ELEMENT:  
MATERIAL - THICK FILM.

METRIC EQUIVALENTS GIVEN IN [mm] ARE  
FOR REFERENCE INFORMATION ONLY



**POWER RATING AND DERATING**



8851 SW OLD KANSAS AVE  
STUART, FL 34997  
PHONE NO. (772)286-9300  
FAX NO. (772)283-5286

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES

FRACT --- --

ANG --- --

XX --- --

XXX ±0.005

XXXX --- --

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CAGE CODE 24602	SCALE 1:1	DRAWN BY JAP 6/23/05	CHECKED BY	APPROVED BY
REV K	CHANGE NOTICE EN 05-E0754	DRAWING NO 1004865000	SHEET 2 OF 2	