

**TITLE: SPECIFICATION CONTROL DRAWING**

**PART IDENTIFIER:** AN7-XNXF

X = TEMPERATURE COEFFICIENT OF ATTENUATION.  $1 \times 10^{-3}$  DB/DB/°C.  
 N = ATTENUATION SHIFT NEGATIVE.  
 X = DB VALUE SEE TABLE BELOW.

SHIFT (NEG)	DB VALUE	FREQUENCY RANGE
-0.003	1, 2, 3, 4, 5, 6, 7	DC – 6 GHZ
-0.004	2, 3, 4, 5, 6	
-0.005	3, 4, 5, 6	
-0.006	3, 4, 5, 6	
-0.007	3, 4, 5, 6	
-0.009	3, 4, 5, 6	
-0.011	5, 6	

\*CONSULT FACTORY FOR ADDITIONAL VALUES.

**DESCRIPTION:** TEMPERATURE VARIABLE CHIP ATTENUATOR. (ROHS COMPLIANT)

**ASSEMBLY DWG:** 1902114

**1.0 SPECIFICATIONS:**

1.1 ELECTRICAL:

- 1.1.1 IMPEDANCE: 50 OHMS NOMINAL.
- 1.1.2 OPERATING FREQUENCY RANGE: SEE TABLE ABOVE.
- 1.1.3 ATTENUATION VALUES AVAILABLE: SEE TABLE ABOVE.
- 1.1.4 ATTENUATION ACCURACY AT 25°C: ±0.5DB @ 1 GHZ.
- 1.1.5 VSWR: 1.30:1 MAX. @ 1GHZ.
- 1.1.6 INPUT POWER: 100 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: ±0.001 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

**2.0 UNIT MARKING:** ORIENTATION "T"

LEGIBILITY AND PERMANENCY PER MIL-STD-130

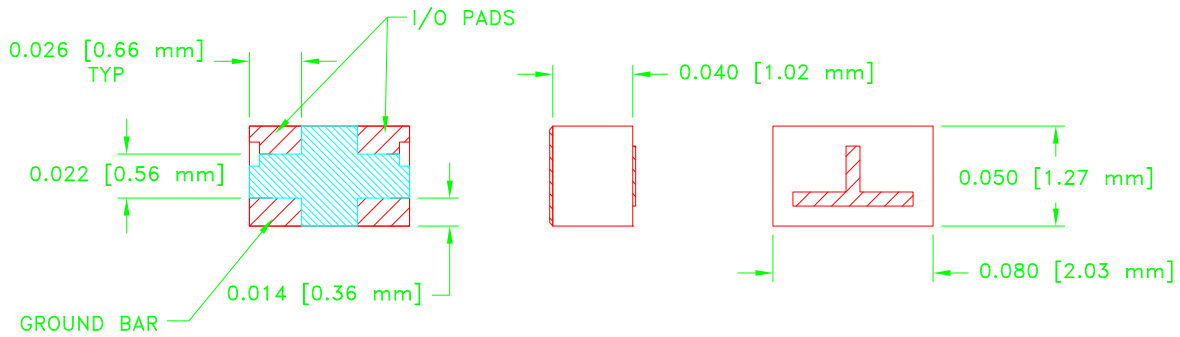
**3.0 QUALITY ASSURANCE:**

- 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:  

$$TCA = \frac{SLOPE}{ATTENUATION @ 25^{\circ}C}$$
    - 3.2.1.3 ACCEPTANCE LIMITS: PER 1.1.7.
- 3.3 INSPECTION IN ACCORDANCE WITH 824W170 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 TAPE AND REEL PACK PER 755W002.

EMC TECHNOLOGY 8851 SW OLD KANSAS AVE. STUART, FL 34997	<b>CAGE CODE # 24602</b>		<b>DWG #</b>	1011505000
	<b>CHANGE NOTICE</b>	EN 12-0055	<b>REV LVL</b>	H
			<b>SHEET</b>	1 OF 2



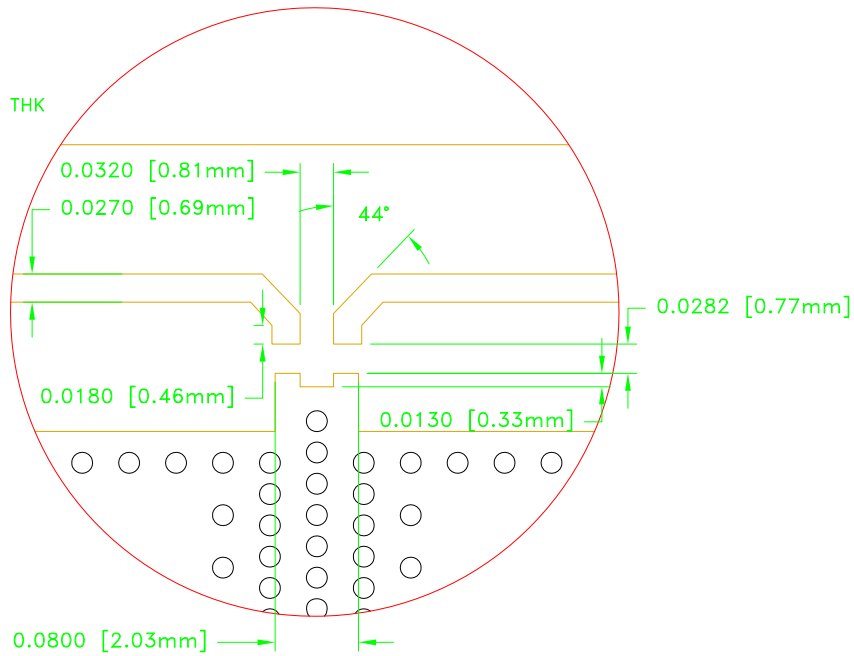
MECHANICAL SPECIFICATIONS:

SUBSTRATE:  
 MATERIAL - ALUMINA 96%, MIL-I-10.  
 TERMINAL:  
 MATERIAL - THICK FILM, RoHS COMPLIANT  
 RESISTIVE ELEMENT:  
 MATERIAL - THICK FILM.

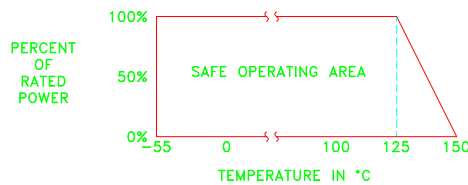
METRIC EQUIVALENTS GIVEN IN [mm]  
 FOR REFERENCE INFORMATION ONLY

SUGGESTED LAYOUT/LAND PATTERN

MATERIAL: R04350B .0133" THK



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	SCALE	DRAWN BY	CHECKED BY	APPROVED BY
24602	N/A	JG 11/8/10		
REV	CHANGE NOTICE	DRAWING NO	SHEET	
H	EN 12-0055	1011505000	2 OF 2	