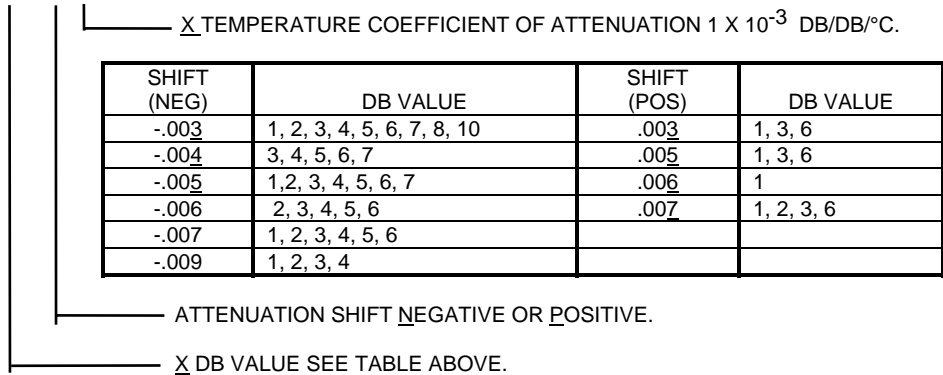


TITLE: SPECIFICATION CONTROL DRAWING

PART IDENTIFIER: TVAXX00X0XW1S



DESCRIPTION: TEMPERATURE VARIABLE CHIP ATTENUATOR.

ASSEMBLY DWG: 1901204

1.0 SPECIFICATIONS

- 1.1 ELECTRICAL:
 - 1.1.1 IMPEDANCE: 50 OHMS NOMINAL.
 - 1.1.2 OPERATING FREQUENCY RANGE: DC - 6GHZ.
 - 1.1.3 ATTENUATION VALUE: SEE CHART ABOVE.
 - 1.1.4 ATTENUATION ACCURACY AT 25°C: ±0.5DB OR 5%, @ 1 GHZ.
 - 1.1.5 VSWR: 1.30:1 MAX. @ 1GHZ.
 - 1.1.6 INPUT POWER:
 - NEGATIVE SHIFTING: 2 WATTS CW.
 - POSITIVE SHIFTING: 0.25 WATTS 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-R-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.
 - 3.1.2 MEASURE AND RECORD VSWR AND ATTENUATION @ 1 GHZ @ +25°C.
 - 3.1.3 ACCEPTANCE LIMITS:
 - 3.1.3.1 VSWR: SEE ELECTRICAL 1.1.5.
 - 3.1.3.2 ATTENUATION ACCURACY: SEE ELECTRICAL 1.1.4.
 - 3.1.3.3 TEMPERATURE COEFFICIENT TOLERANCE: SEE ELECTRICAL 1.1.7
- 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

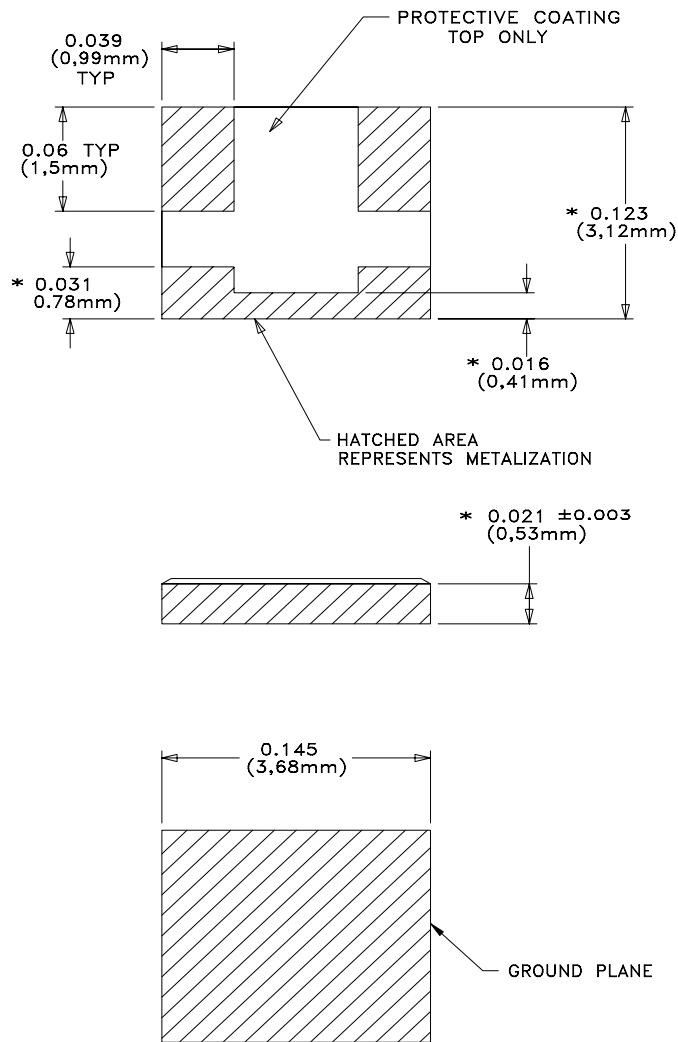
$$TCA = \frac{SLOPE}{ATTENUATION @ 25^\circ C}$$
 - 3.2.1.3 ACCEPTANCE LIMITS: PER 1.1.7.
- 3.3 TEST DATA REQUIREMENTS:
 - 3.3.1 NO TEST DATA REQUIRED FOR CUSTOMER.
 - 3.3.2 DATA RETENTION - 12 MONTHS.

4.0 PACKAGING: STANDARD BULK PACK PER MC0023.

EMC TECHNOLOGY 8851 SW OLD KANSAS AVE. STUART, FL 34997	CAGE CODE # 24602		DWG #	1008115000
	CHANGE NOTICE	EN 04-E283	REV LVL	E
			SHEET	1 OF 2

PART ID REF
TVAXXXXXXW1S

U.S. PATENT NO. 5332981



MECHANICAL SPECIFICATIONS:

SUBSTRATE:
MATERIAL - ALUMINA 96%, MIL-I-10.
TERMINAL & GROUND PLANE:
MATERIAL - THICK FILM, NICKEL BARRIER,
SOLDER COATED.
RESISTIVE ELEMENT:
MATERIAL - THICK FILM.



REFERENCE INFORMATION ONLY
METRIC EQUIVALENTS ARE GIVEN FOR

*DIMENSIONS APPLY BEFORE SOLDER, ALLOW
0.015 MAX FOR ALL PRETINNED SURFACES.

 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	THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF EMC TECHNOLOGY INC AND SHALL NOT BE DUPLICATED OR USED AS BASIS FOR THE MANUFACTURE OR SALE OF PARTS OR DEVICES WITHOUT PERMISSION.					
	TOLERANCES	CAGE CODE	SCALE	DRAWN BY	CHECKED BY	APPROVED BY	
	FRACT --- -- ANG --- --	24602	1:1	JG 12/21/04		DAR 12/21/04	
	XX ±0.01 XXX ±0.005 XXXX -- --	REV	CHANGE NOTICE	DRAWING NO	SHEET		
	E	EN 04-E283	1008115000	2	OF 2		