

TITLE: SPECIFICATION CONTROL DRAWING

PART IDENTIFIER: KTVAXX00NXXXXF

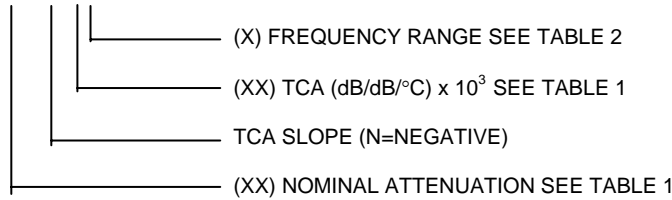


TABLE 1

NOMINAL ATTENUATION (dB)	AVAILABLE TCA (dB/dB/°C)
02	-0.005
03	-0.005 -0.006 -0.007
04	-0.005 -0.006
05	-0.005 -0.006
06	-0.007

TABLE 2

NUMBER CODE	FREQUENCY RANGE (GHZ)
1	16-22
2	18-32
3	28-31
4	32-36
5	16-36

EXAMPLE: KTVAX0300N052 = 3 dB ATTENUATION, -.005 dB/dB/°C, FREQUENCY 18-32. [SEE TABLE 1 AND TABLE 2]

DESCRIPTION: TEMPERATURE VARIABLE CHIP ATTENUATOR ROHS COMPLIANT (K-BAND).

ASSEMBLY DWG: N/A

1.0 SPECIFICATIONS:

- 1.1 ELECTRICAL:
 - 1.1.1 OPERATING FREQUENCY RANGE (BANDWIDTH): SEE TABLE 2.
 - 1.1.2 ATTENUATION VALUE: SEE TABLE 1.
 - 1.1.3 ATTENUATION TOLERANCE AT 25°C: ±1.0 dB.
 - 1.1.4 POWER DISSIPATION: 100 mW @ +100°C, DERATED LINEARLY TO ZERO WATT @ +150°C.
 - 1.1.5 TEMPERATURE COEFFICIENT OVER OPERATING TEMPERATURE RANGE: SEE TABLE 1, TEMPERATURE COEFFICIENT: ±0.001 dB/dB/°C.
 - 1.1.6 VSWR: 1.35:1 TYPICAL
- 1.2 MECHANICAL:
 - 1.2.1 OUTLINE DWG AND DERATING CURVE: SEE SHEET 3.
 - 1.2.2 WORKMANSHIP: PER MIL-PRF-55342.
- 1.3 ENVIRONMENTAL:
 - 1.3.1 OPERATING TEMPERATURE RANGE: -55°C TO +150°C.
 - 1.3.2 STORAGE TEMPERATURE: -55°C TO +150°C.

2.0 UNIT MARKING: NONE

3.0 QUALITY ASSURANCE:

- 3.1 100% TOTAL QUALITY INSPECTION:
 - 3.1.1 VISUAL AND MECHANICAL EXAMINATION FOR CONFORMANCE TO OUTLINE DWG REQUIREMENTS.
- 3.2 MEASURE RESISTOR DATA AND APPLY FIRST-PASS ATTENUATION AND VSWR CRITERIA:
 - 3.2.1 ATTENUATION:
 - 3.2.1.1 $GdB = (R \text{ TOTAL} / 12) + 0.08335$, WHERE R TOTAL IS THE DC RESISTANCE MEASURED BETWEEN INPUT AND OUTPUT TERMINALS
 - 3.2.1.2 ACCEPTANCE LIMITS: PER TABLE 1, WHERE "GdB" REFERS TO "NOMINAL ATTENUATION (dB).
- 3.3 SAMPLE INSPECTION:
 - 3.3.1 DESTRUCTIVE TESTING:
 - 3.3.1.1 SELECT THREE (3) UNITS FROM LOT AND MEASURE TOTAL DCR EVERY 20°C OVER THE TEMPERATURE RANGE FROM -55°C THROUGH +125°C.
 - 3.3.1.2 CALCULATE DCA BY FOR EACH MEASUREMENT, USING EQUATION 3.2.1.1
 - 3.3.1.3 CALCULATE, USING LINEAR REGRESSION, THE SLOPE OF THE ATTENUATION VS. TEMPERATURE CURVE.
 - 3.3.1.4 CALCULATE TCA USING THE FOLLOWING FORMULA:

$$TCA = \frac{\text{SLOPE}}{\text{ATTENUATION @ 25°C}}$$
 - 3.3.1.5 ACCEPTANCE LIMITS: PER 1.1.5

EMC TECHNOLOGY 8851 SW OLD KANSAS AVE. STUART, FL 34997	CAGE CODE # 24602		DWG #	1011375000
	CHANGE NOTICE	EN 06-E1040	REV LVL	-
			SHEET	1 OF 3

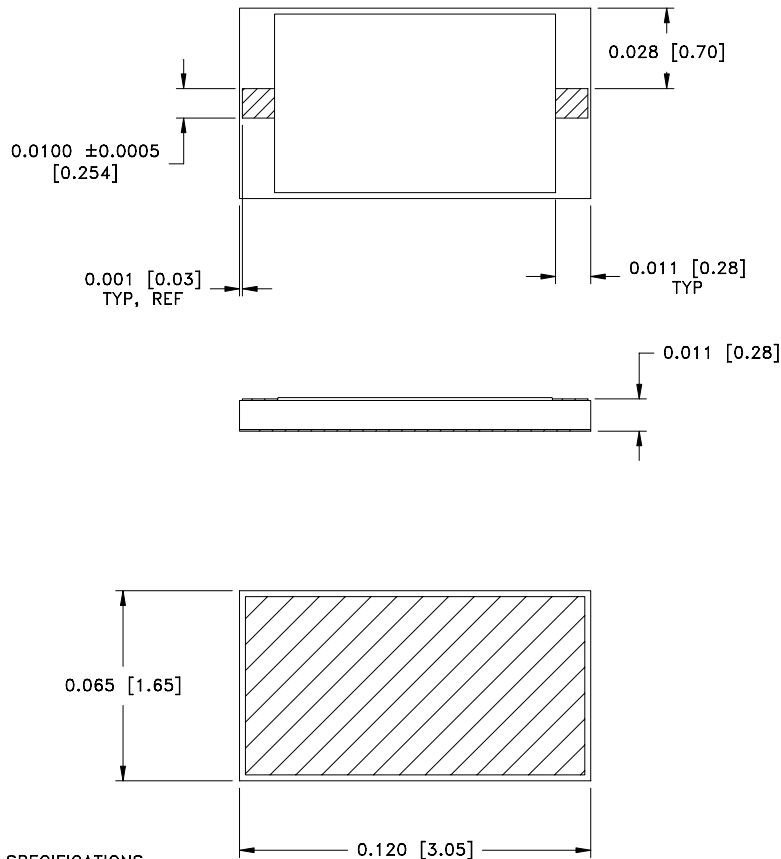
- 3.3.2 RF TESTING:
 - 3.3.2.1 SELECT THREE (3) UNITS FROM LOT AND MEASURE ATTENUATION AND VSWR VERSUS FREQUENCY OVER THE OPERATING FREQUENCY RANGE.
 - 3.3.2.2 ACCEPTANCE LIMITS: PER TABLE 1

- 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 WAFFLE PACKING PER MC0023.

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	CHANGE NOTICE	EN 06-E1040	REV LVL	-
			SHEET	2 OF 3

PART ID REF
KTVAXX00NXXXF



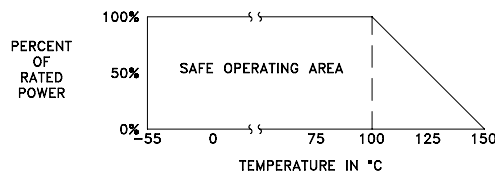
MECHANICAL SPECIFICATIONS:

SUBSTRATE:
 MATERIAL - ALUMINA, MIL-I-10.
 TERMINAL:
 MATERIAL - THICK FILM, BONDABLE GOLD.
 GROUND PLANE:
 MATERIAL - THICK FILM.
 PROTECTIVE COATING:
 MATERIAL - EPOXY BASED.
 RESISTIVE ELEMENT:
 MATERIAL - THICK FILM.
 PRODUCT ASSEMBLY IS RoHS COMPLIANT

METRIC EQUIVALENTS GIVEN IN [mm]
 FOR REFERENCE INFORMATION ONLY



POWER RATING AND DERATING



EMC Technology
 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	25:1	BM		DAR 12/05/06
REV	CHANGE NOTICE	DRAWING NO	SHEET	
-	EN 06-E1040	1011375000	3 OF 3	