

TITLE: SPECIFICATION CONTROL DRAWING

PART IDENTIFIER: KTVAXX00NXXXF

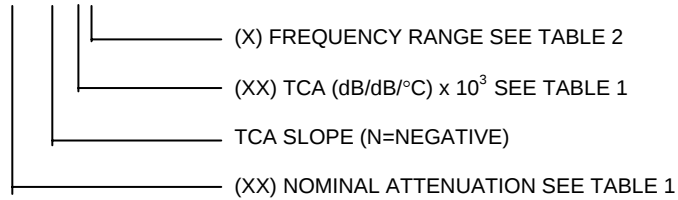


TABLE 1

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 $G_{dB} = (R_{TOTAL} / 12) + 0.08335$, 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:
$$TCA = \frac{SLOPE}{ATTENUATION @ 25^{\circ}C}$$
- 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

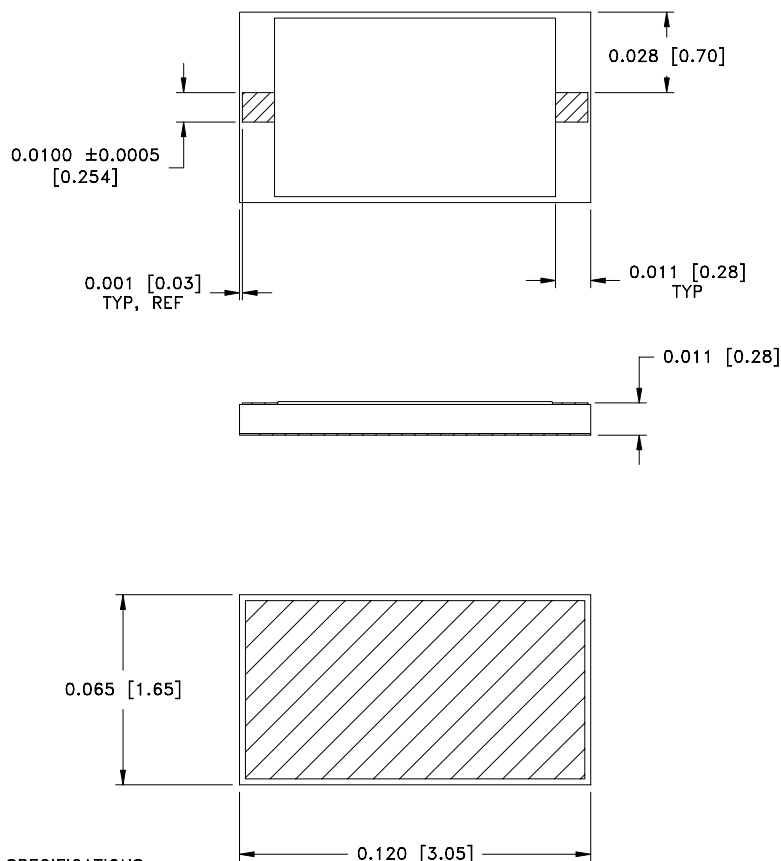
- 3.3.2 RF TESTING:
 - 3.3.2.1 SELECT THREE (3) UNITS FROM LOT AND MEASURE ATTENUATION AND VSWR VERSUS FREQUENCY OVER THE OPERATING FREQUENCY RANGE.
 - 3.3.2.2 ACCEPTANCE LIMITS: PER TABLE 1

- 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
KTVAXX00NXXF	



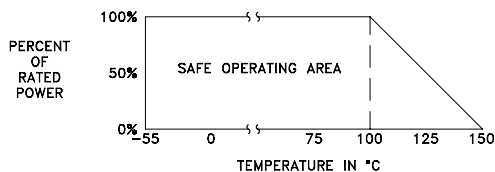
MECHANICAL SPECIFICATIONS:

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



 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
	FRACT ---		24602	25:1	BM	
	ANG ---		REV	CHANGE NOTICE	DRAWING NO	APPROVED BY
XX ---		EN 06-E1040		1011375000	DAR 12/05/06	
XXX $\pm$ 0.005					SHEET	
XXXX ---					3 OF 3	