

TITLE: SPECIFICATION CONTROL DRAWING

PART IDENTIFIER: HR93XXXT3

(X)=TEST CODE: A=GROUP A; B=GROUP B; C=GROUP C
(XX)=DB VALUE (01-20DB)

DESCRIPTION: CHIP ATTENUATOR WITH HIGH RELIABILITY TESTING.

NOTE: SINGLE LOT AND DATE CODE AVAILABLE UPON REQUEST.

ASSEMBLY DWG: N/A

1.0 SPECIFICATIONS:

1.1 ELECTRICAL:

- 1.1.1 IMPEDANCE: 50 OHMS NOMINAL.
- 1.1.2 FREQUENCY RANGE: DC-12.4 GHZ.
- 1.1.3 ATTENUATION VALUES AVAILABLE: 1-20 DB IN 1 DB INCREMENTS.
- 1.1.4 ATTENUATION ACCURACY: SEE TABLE.
- 1.1.5 ATTENUATION STABILITY: 0.0001 DB/DB/C°

ATTENUATION ACCURACY			
DB	DC - 4 GHZ	4 - 8 GHZ	8 - 12.4 GHZ
1 - 3	±0.3	±0.5	±0.5
4 - 6	±0.4	±0.5	±0.5
7 - 10	±0.5	±0.5	±0.75
11 - 15	±0.75	+0.5,-3.0	+0.5,-3.5
16 - 20	±1.0	+0.5,-4.0	+1.0,-6.0

- 1.1.6 VSWR: DC - 4 GHZ - 1.25 8 - 12.4 GHZ - 1.50
 4 - 8 GHZ - 1.35
- 1.1.7 INPUT POWER: 2 WATTS CW.
 - 1.1.7.1 FULL RATED POWER TO 125°C, DERATED LINEARLY TO 0 WATTS AT 150°C.
 - 1.1.7.2 PEAK POWER, 50 WATTS FOR 10US PULSE WIDTH @ 1% DUTY CYCLE.
- 1.2 MECHANICAL:
 - 1.2.1 OUTLINE DWG: SEE SHEET 3.
 - 1.2.2 WORKMANSHIP: PER MIL-R-55342.
- 1.3 ENVIRONMENTAL:
 - 1.3.1 ALTITUDE:
 - 1.3.1.1 NON-OPERATING: SEA LEVEL TO 50,000 FEET.
 - 1.3.1.2 OPERATING: SEA LEVEL TO 50,000 FEET.
 - 1.3.2 TEMPERATURE RANGE:
 - 1.3.2.1 NON-OPERATING: -55°C TO +150°C.
 - 1.3.2.2 OPERATING: -55°C TO +150°C.
 - 1.3.3 VIBRATION: PER MIL-STD-202, METHOD 204, COND. D.
 - 1.3.4 SHOCK: PER MIL-STD-202, METHOD 213, COND. I.
 - 1.3.5 MOISTURE RESISTANCE: PER MIL-STD-202, METHOD 106 EXCEPT SUBCYCLE STEPS 7A AND 7B AND POLARIZATION AND LOAD ARE NOT APPLICABLE.
- 1.4 ELECTROSTATIC DISCHARGE CONTROL: PER MIL-STD-1686.

2.0 UNIT MARKING: "DB VALUE". LEGIBILITY AND PERMANENCY PER MIL-STD-130.

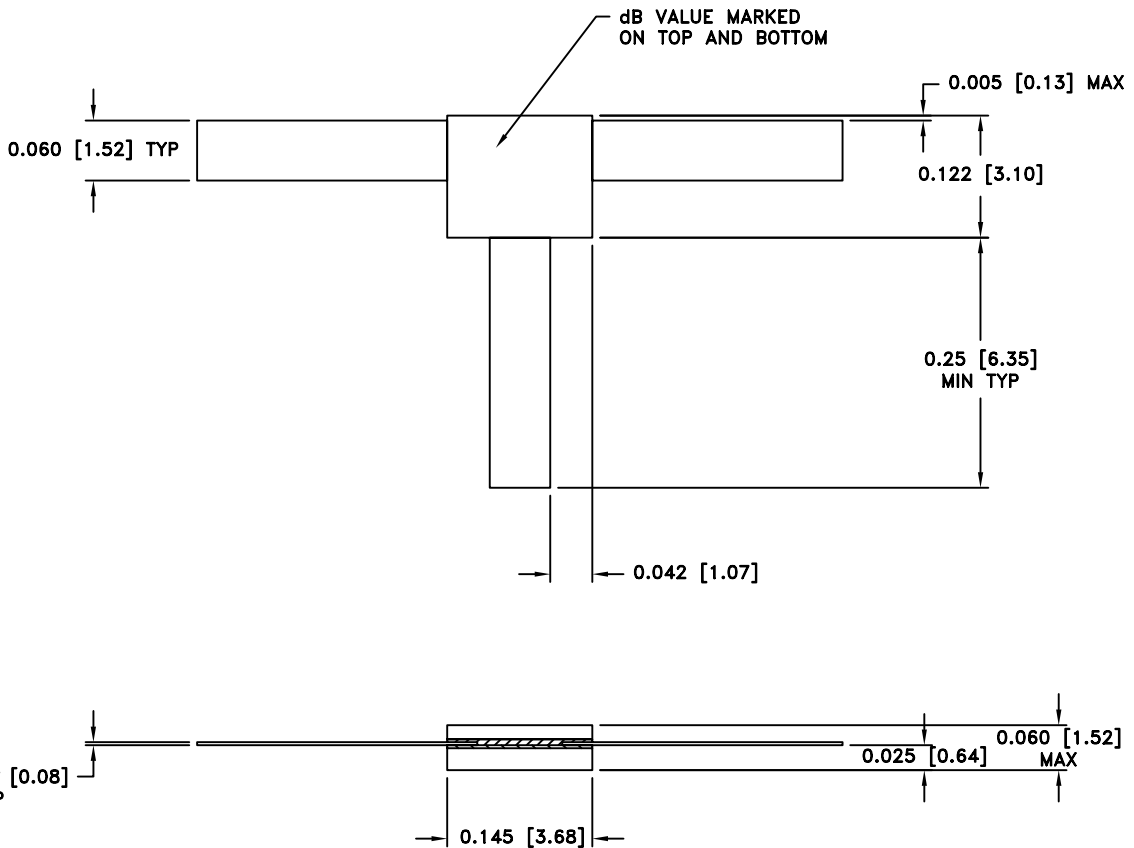
3.0 QUALITY ASSURANCE:

- 3.1 VERIFY 100% VISUAL PRE-CAP INSPECTION PERFORMED. PER TP-8965.
- 3.2 PREFORM GROUP A, B AND/OR C TESTING AS INDICATED BY THE PART NUMBER PER TP-8965.
- 3.3 TEST DATA REQUIREMENTS:
 - 3.3.1 TEST DATA REQUIRED FOR CUSTOMER - SEE PARAGRAPH 5.0 OF TP-8965.
 - 3.3.2 DATA RETENTION - 24 MONTHS.
 - 3.3.3 TEST SAMPLES REQUIRED FOR CUSTOMER - SEE PARAGRAPH 5.0 OF TP-8965.

4.0 PACKAGING: STANDARD PACK PER 755W002. (SERIALIZED WAFFLE PACK)

EMC TECHNOLOGY 8851 SW OLD KANSAS AVE. STUART, FL 34997	CAGE CODE # 24602		DWG #	1009935000
	CHANGE NOTICE	EN 09-E1001	REV LVL	B
			SHEET	1 OF 2

PART ID REF
HR93XXXT3



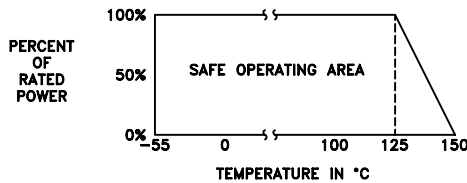
MECHANICAL SPECIFICATIONS:

- SUBSTRATE:
- MATERIAL - ALUMINA 96%, MIL-I-10.
- TOP PLATE:
- MATERIAL - ALUMINA 96%, MIL-I-10.
- TERMINAL:
- MATERIAL - PLATINUM GOLD, NICKEL BARRIER.
- RESISTIVE ELEMENT:
- MATERIAL - TANTALUM NITRIDE.
- LEAD:
- MATERIAL - COPPER, ASTM B152.
- FINISH - GOLD, MIL-G-45204, TYPE II, CLASS 1.
- LEAD ATTACHMENT:
- MATERIAL - SOLDER Sn96.5 Ag3.5.

METRIC EQUIVALENTS GIVEN IN [mm]
FOR REFERENCE INFORMATION ONLY

ALLOW ±0.010 ON TOP PLATE FOR MISALIGNMENT.

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	±0.01
XXX	±0.005
XXXX	---

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CAGE CODE	SCALE	DRAWN BY		CHECKED BY	APPROVED BY		
24602	8:1	JG 12/8/04			DAR 12/8/04		
REV	CHANGE NOTICE			DRAWING NO		SHEET	
B	EN 09-E1001			1009935000		2 OF 2	