

**TITLE: SPECIFICATION CONTROL DRAWING**

**PART IDENTIFIER:** TT5XX0G  
(XX) DB VALUE

**DESCRIPTION:** CHIP ATTENUATOR

**ASSEMBLY DWG:** 1902234

**1.0 SPECIFICATIONS:**

**1.1 ELECTRICAL:**

- 1.1.1 IMPEDANCE: 50 OHMS NOMINAL.
- 1.1.2 FREQUENCY RANGE: DC-18 GHZ.
- 1.1.3 ATTENUATION VALUES AVAILABLE: 0-20 DB IN 1 DB INCREMENTS.
- 1.1.4 ATTENUATION ACCURACY: SEE TABLE.

ATTENUATION ACCURACY				
DB	DC - 4 GHZ	4 - 8 GHZ	8 - 12.4 GHZ	12.4 - 18 GHZ
0	-0,+3	-0,+5	-0,+5	-0,+5
1 -3	±0.3	±0.5	±0.5	±0.5
4 - 6	±0.4	±0.5	±0.5	±0.75
7 - 10	±0.5	±0.5	±0.75	±1.0
11 - 15	±0.75	+0.5,-3.0	+0.5,-3.5	---
16 - 20	±1.0	+0.5,-4.0	+1.0,-6.0	---

- 1.1.5 VSWR: DC - 4 GHZ - 1.25 MAX      8 - 18 GHZ - 1.50 MAX  
4 - 8 GHZ - 1.35 MAX
- 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.
  - 1.1.6.2 PEAK POWER, 1 WATT FOR 10US PULSE WIDTH @ 1% DUTY CYCLE.

**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 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.

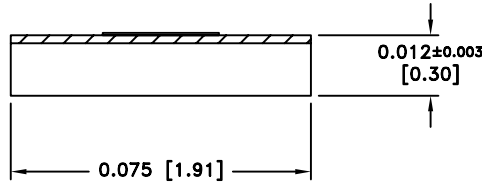
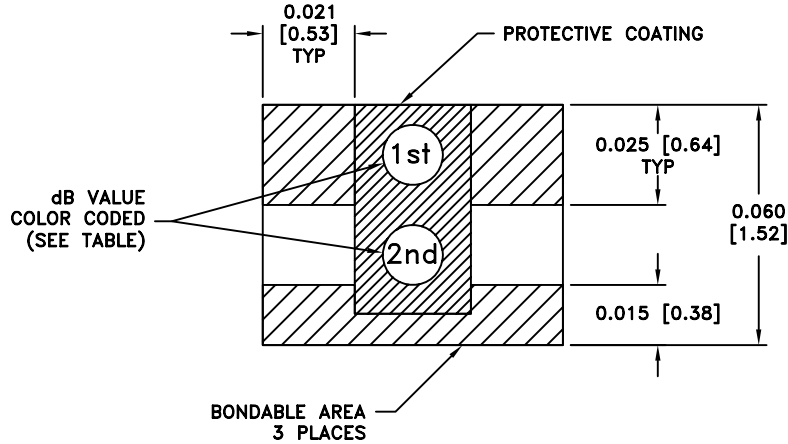
**2.0 UNIT MARKING:** MARKED ONLY WITH COLOR DOT. LEGIBILITY AND PERMANENCY PER MIL-STD-130.

**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 DWG REQUIREMENTS.
- 3.2 PERFORM INSPECTION IN ACCORDANCE WITH QA0006 AND FORM0357 FOR COMMERCIAL GRADE PRODUCT.
- 3.3 TEST DATA REQUIREMENTS:
  - 3.3.1 NO TEST DATA REQUIRED FOR CUSTOMER.
  - 3.3.2 DATA RETENTION – 24 MONTHS.

**4.0 PACKAGING:** STANDARD PACK PER 755W002.

EMC TECHNOLOGY 8851 SW OLD KANSAS AVE. STUART, FL 34997	<b>CAGE CODE # 24602</b>		<b>DWG #</b>	1012195000
	<b>CHANGE NOTICE</b>	EN 09-E0956	<b>REV LVL</b>	-
			<b>SHEET</b>	1 OF 2



**MECHANICAL SPECIFICATIONS:**

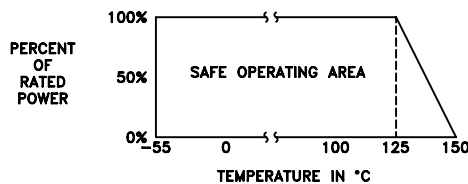
- SUBSTRATE:  
MATERIAL - ALUMINA, MIL-I-10.
- TERMINALS:  
MATERIAL - THICK FILM, BONDABLE GOLD.
- RESISTIVE ELEMENT:  
MATERIAL - THIN FILM, TANTALUM NITRIDE.

METRIC EQUIVALENTS GIVEN IN [mm]  
FOR REFERENCE INFORMATION ONLY

REFERENCE TABLE

dB VAL	DOT COLOR		dB VAL	DOT COLOR	
	1st	2nd		1st	2nd
0	BLK	---	11	BRN	BRN
1	BRN	---	12	BRN	RED
2	RED	---	13	BRN	ORG
3	ORG	---	14	BRN	YEL
4	YEL	---	15	BRN	GRN
5	GRN	---	16	BRN	BLU
6	BLU	---	17	BRN	VIO
7	VIO	---	18	BRN	GRY
8	GRY	---	19	BRN	WHT
9	WHT	---	20	RED	BLK
10	BRN	BLK			

**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	32:1	JG 10/15/09		
REV	CHANGE NOTICE	DRAWING NO	SHEET	
-	EN 09-E0956	1012195000	2 OF 2	