TITLE: SPECIFICATION CONTROL DRAWING

PART IDENTIFIER: TS05XXW3F

(XX) DB VALUE

DESCRIPTION: CHIP ATTENUATOR, ROHS COMPLIANT

ASSEMBLY DWG: 1901844

1.0 SPECIFICATIONS:

- 1.1 ELECTRICAL:
 - 1.1.1 IMPEDANCE: 50 OHMS NOMINAL.
 - 1.1.2 FREQUENCY RANGE: DC-12.4GHZ.
 - 1.1.3 ATTENUATION VALUES AVAILABLE: 0-20DB IN 1DB INCREMENTS.
 - 1.1.4 ATTENUATION ACCURACY: SEE TABLE.

| ATTENUATION ACCURACY | | | | | | | |
|----------------------|------------|-----------|--------------|--|--|--|--|
| DB | DC - 4 GHZ | 4 - 8 GHZ | 8 - 12.4 GHZ | | | | |
| 0 | -0,+.3 | -0,+.5 | -0,+.5 | | | | |
| 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 | | | | |

1.1.5 VSWR: DC - 4 GHZ - 1.25 MAX

8 - 12.4 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 $+150^{\circ}$ 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 WITH DB VALUE.

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 824W170 AND 824F036 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 | CAGE CODE # 24602 | | DWG# | 101 | 10050 | 000 |
|-------------------------|-------------------|-------------|---------|-----|-------|-----|
| 8851 SW OLD KANSAS AVE. | CHANGE NOTICE | EN 09-E0971 | REV LVL | Α | | |
| STUART, FL 34997 | | | SHEET | 1 | OF | 2 |

PART ID REF TSO5XXW3F 0.019 [0.48] TYP 0.025 [0.64] 0.061 [1.55] 0.010 [0.25] PROTECTIVE COATING 0.005 [0.13] TOP ONLY 0.016±0.003 [0.41] **- 0.077 [1.96]** -(0.030 [0.76]) 0.075 [1.91] -0.005 [0.13] REF, TYP 0.015 [0.38] HATCHED AREA **REPRESENTS METALIZATION**

0.025 [0.64]

0.021 [0.53] TYP

METRIC EQUIVALENTS GIVEN IN [mm] FOR REFERENCE INFORMATION ONLY

MECHANICAL SPECIFICATIONS:

UNITS MARKED ON THIS SURFACE

SUBSTRATE:

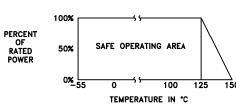
MATERIAL - ALUMINA 96%, MIL-I-10. TERMINAL:

MATERIAL - THICK FILM, LEAD FREE PLATING ROHS COMPLIANT.

RESISTIVE ELEMENT:

MATERIAL - THIN FILM, TANTALUM NITRIDE.

POWER RATING AND DERATING





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|--|---|---|--------------|--------------|------------|------|---------|------|----|
| | TOLERANCES | CAGE COD | E SCALE | DRAWN BY | CHECKED BY | APPR | OVED BY | ′ | |
| Technology BEC | FRACT ANG | 2460 | 2 32:1 | CRH 09/21/09 | | DA | R 12 | /14/ | 05 |
| 3851 SW OLD KANSAS AVE STUART, FL 34997 | XX XXX ±0.005 | REV | CHANGE NOTIC | E | DRAWING NO | | SHEET | | |
| PHONE NO. (772)286-9300 FAX NO. (772)283-5286 | XXXX | Α | EN | 09-E0971 | 101100500 | 0 | 2 | OF | 2 |