

**TITLE: SPECIFICATION CONTROL DRAWING**

**PART IDENTIFIER:** QFAXX0XSMTF  
 X FREQUENCY RANGE SEE TABLE 1  
 XX ATTENUATION VALUE (1-10)

**TABLE 1**

NUMBER CODE	FREQUENCY RANGE (GHZ)
4	36-40
5	40-50

**DESCRIPTION:** CHIP ATTENUATOR (Q-BAND).

**ASSEMBLY DWG:** 1902304

**1.0 SPECIFICATIONS:**

- 1.1 ELECTRICAL:
    - 1.1.1 OPERATING FREQUENCY RANGE (BANDWIDTH): SEE TABLE 1.
    - 1.1.2 ATTENUATION VALUES: 1-10 DB
    - 1.1.3 ATTENUATION TOLERANCE  $\pm 0.75$  dB .
    - 1.1.4 POWER DISSIPATION: 200 mW @ +100°C, DERATED LINEARLY TO ZERO WATT @ +150°C.
    - 1.1.5 VSWR: 1.50:1 MAX.
  - 1.2 MECHANICAL:
    - 1.2.1 OUTLINE DWG AND DERATING CURVE: SEE SHEET 2.
    - 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:** 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.
    - 3.1.2 MEASURE DCR ACCORDING TO TABLE 2 FROM INPUT TO OUTPUT.

**TABLE 2**

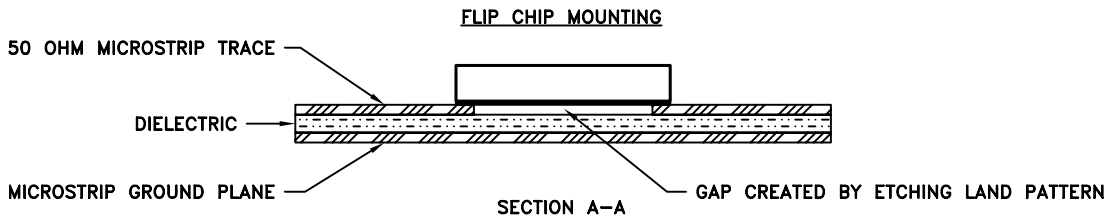
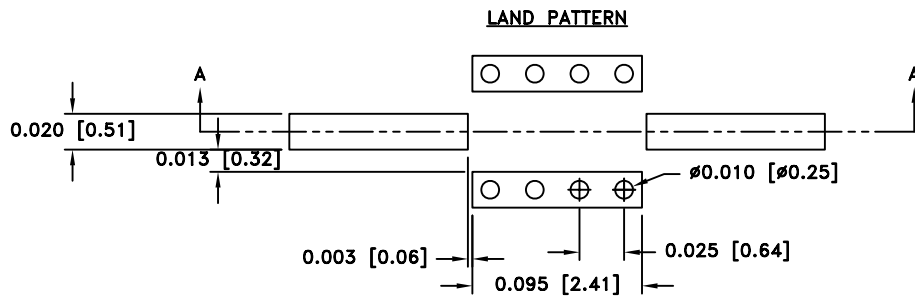
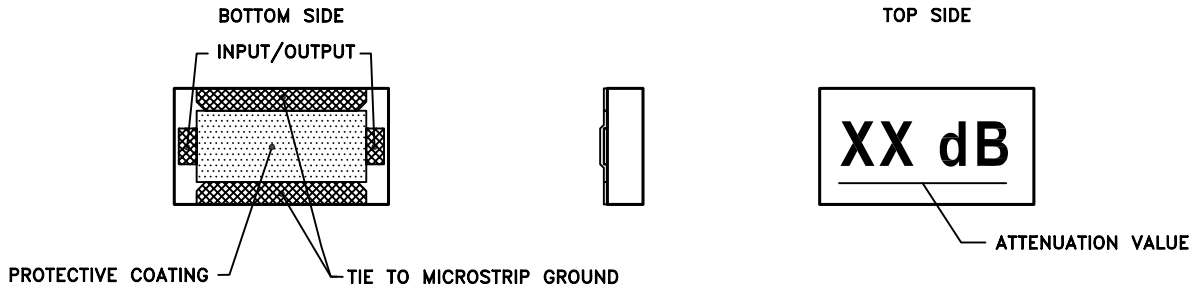
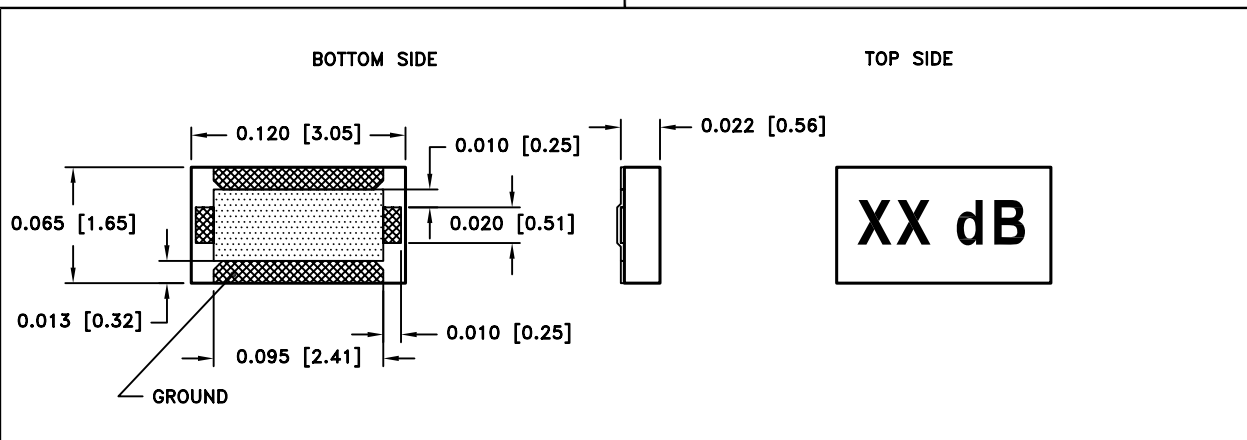
dB value	DCR (ohms) QFAXX04SMTF	DCR (ohms) QFAXX05SMTF	Tolerance
0.0	Continuity only		
1.0	4.13	4.13	8%
2.0	9.16	13.85	8%
3.0	22.45	24.76	8%
4.0	34.27	35.97	4%
5.0	48.45	44.24	4%
6.0	62.05	50.11	4%
7.0	75.82	60.80	2%
8.0	89.14	71.85	2%
9.0	102.46	82.91	2%
10.0	116.29	96.74	2%

<b>EMC TECHNOLOGY</b> <b>8851 SW OLD KANSAS AVE.</b> <b>STUART, FL 34997</b>	<b>CAGE CODE # 24602</b>		<b>DWG #</b>	1012365000
	<b>CHANGE NOTICE</b>	EN 10-0894	<b>REV LVL</b>	1
			<b>SHEET</b>	1 <u>OF</u> 3

- 3.3 INSPECTION IN ACCORDANCE WITH 824W170 AND 824F036 FOR COMMERCIAL GRADE PRODUCT.
- 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 755W002

<b>EMC TECHNOLOGY</b> <b>8851 SW OLD KANSAS AVE.</b> <b>STUART, FL 34997</b>	<b>CAGE CODE # 24602</b>		<b>DWG #</b>	1012365000
	<b>CHANGE NOTICE</b>	EN 10-0894	<b>REV LVL</b>	1
			<b>SHEET</b>	1 <u>OF</u> 3

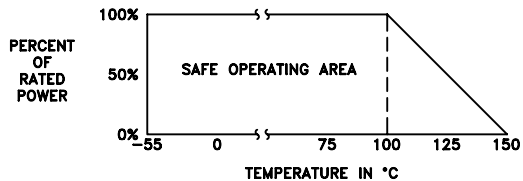


METRIC EQUIVALENTS GIVEN IN [mm]  
FOR REFERENCE INFORMATION ONLY

**MECHANICAL SPECIFICATIONS:**

SUBSTRATE:  
MATERIAL - ALUMINA, MIL-I-10.  
TERMINAL:  
MATERIAL - THICK FILM, NICKEL BARRIER  
SILVER PLATED  
PROTECTIVE COATING:  
MATERIAL - EPOXY BASED.  
RESISTIVE ELEMENT:  
MATERIAL - THICK FILM.

**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 ---

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.

CAGE CODE	SCALE	DRAWN BY	CHECKED BY	APPROVED BY
24602	25:1	CRH 07/13/10		
REV	CHANGE NOTICE	DRAWING NO	SHEET	
1	EN 10-0894	1012365000	3 OF 3	