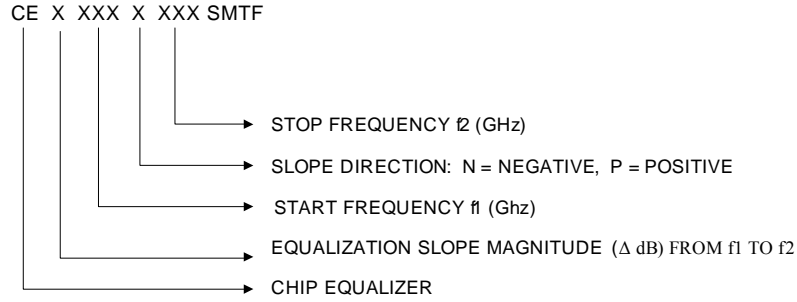


**TITLE: SPECIFICATION CONTROL DRAWING**

**PART IDENTIFIER:**



**DESCRIPTION:** SURFACE MOUNT CHIP EQUALIZER.

Standard Equalizer Values					
Part Number	SLOPE (dB) Negative	Part Mark Code	Start Frequency (GHz)	Stop Frequency (GHz)	$\Delta F$ (GHz)
CE 1 015 N 029 SMTF	1	140	1.5	2.9	1.4
CE 1 015 N 035 SMTF	1	130	1.5	3.5	2.0
CE 1 020 N 040 SMTF	1	127	2.0	4.0	2.0
CE 1 025 N 045 SMTF	1	125	2.5	4.5	2.0
CE 1 030 N 055 SMTF	1	120	3.0	5.5	2.5
CE 1 035 N 070 SMTF	1	115	3.5	7.0	3.5
CE 1 040 N 075 SMTF	1	112	4.0	7.5	3.5
CE 1 050 N 095 SMTF	1	110	5.0	9.5	4.5
CE 2 007 N 028 SMTF	2	240	0.7	2.8	2.1
CE 2 010 N 035 SMTF	2	230	1.0	3.5	2.5
CE 2 010 N 040 SMTF	2	227	1.0	4.0	3.0
CE 2 015 N 045 SMTF	2	225	1.5	4.5	3.0
CE 2 020 N 055 SMTF	2	220	2.0	5.5	3.5
CE 2 020 N 065 SMTF	2	215	2.0	6.5	4.5
CE 2 025 N 070 SMTF	2	212	2.5	7.0	4.5
CE 2 030 N 090 SMTF	2	210	3.0	9.0	6.0
CE 3 005 N 027 SMTF	3	340	0.5	2.7	2.2
CE 3 008 N 035 SMTF	3	330	0.8	3.5	2.7
CE 3 010 N 040 SMTF	3	327	1.0	4.0	3.0
CE 3 010 N 045 SMTF	3	325	1.0	4.5	3.5
CE 3 015 N 055 SMTF	3	320	1.5	5.5	4.0
CE 3 015 N 065 SMTF	3	315	1.5	6.5	5.0
CE 3 015 N 070 SMTF	3	312	1.5	7.0	5.5
CE 3 020 N 090 SMTF	3	310	2.0	9.0	7.0

**ASSEMBLY DWG:** 1902144

**Application note:** an0020

EMC TECHNOLOGY 8851 SW OLD KANSAS AVE. STUART, FL 34997	CAGE CODE # 24602		DWG #	1011675000
	CHANGE NOTICE	EN 08-E1154	REV LVL	A
			SHEET	2 OF 4

1.0 SPECIFICATIONS:

<b>1.1 Electrical Specifications :</b>				
<i>Item No.</i>	<i>Specification</i>	<i>Notes</i>	<i>Value</i>	<i>Units</i>
	Operational Temperature		-55 to +125	°C
1.1.1	VSWR			Dimensionless
	1 db slope		≤ 1.3:1	
	2 dB slope		≤ 1.5:1	
	3 dB slope		≤ 1.7:1	
	≥ 4 dB Slope		≥ 1.7:1	
1.1.2	F1: Start Band	1	1.0	GHz
1.1.3	F2: Stop Band	2	10.0	GHz
1.1.4	Insertion Loss	3	1.25	dB
1.1.5	Input Power	4	0.25	Watts
1.1.6	Slope Linearity			
	1,2,3 dB Slope	5	+/- 0.25	dB

SPECIFICATION NOTES:

- 1 Minimum sTART bAND Frequency f1. Refer TO PART IDENTIFIER for standard values.
- 2 Maximum Stop Band Frequency f2. Refer TO PART IDENTIFIER for standard values.
- 3 INSERTION LOSS: Maximum insertion loss at Frequency f2 for negative slope equalizers and f1 for positive slope equalizers. Refer to Figure 1.0.
- 4 maximum INPUT POWER RATING. FULL RATED POWER TO 125°C, DERATED LINEARLY TO 0 WATTS AT 150°C.
- 5 slope linearity defined as the deviation from best fit linear approximation. Refer to Figure 1.0. Consult factory for slopes > 3db.

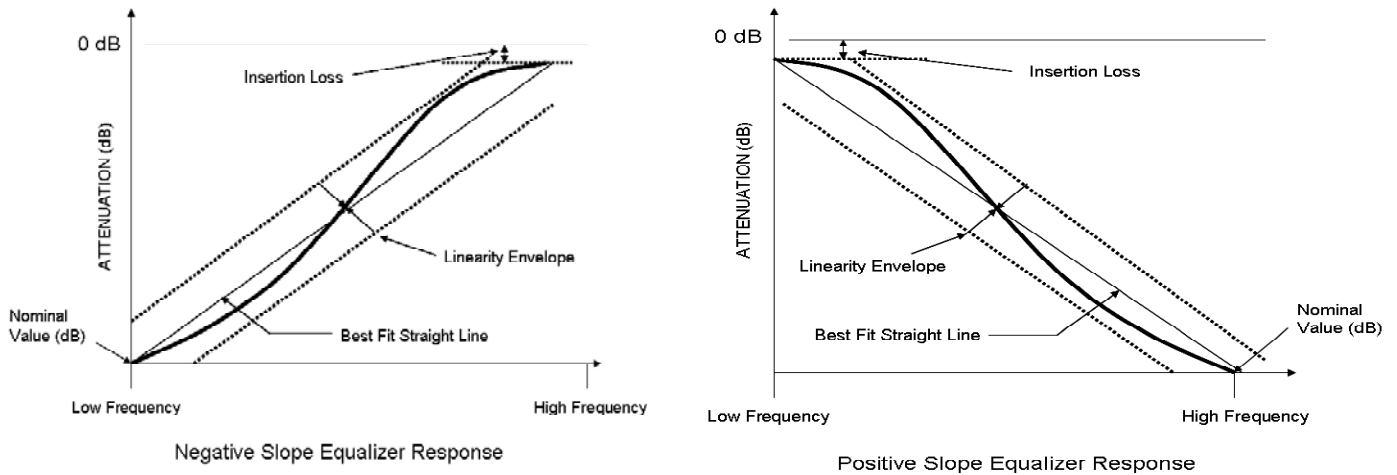


FIGURE 1.0 Equalizer Specification Definitions

- 1.2 MECHANICAL:
  - 1.2.1 OUTLINE DWG: SEE SHEET 4.
  - 1.2.2 WORKMANSHIP: PER MIL-PRF-55342.

<b>EMC TECHNOLOGY</b> 8851 SW OLD KANSAS AVE. STUART, FL 34997	<b>CAGE CODE # 24602</b>		<b>DWG #</b>	1011675000
	<b>CHANGE NOTICE</b>	EN 08-E1154	<b>REV LVL</b>	A
			<b>SHEET</b>	3 OF 4

**2.0 UNIT MARKING:** REFER TO PART IDENTIFIER FOR PART MARK CODE.

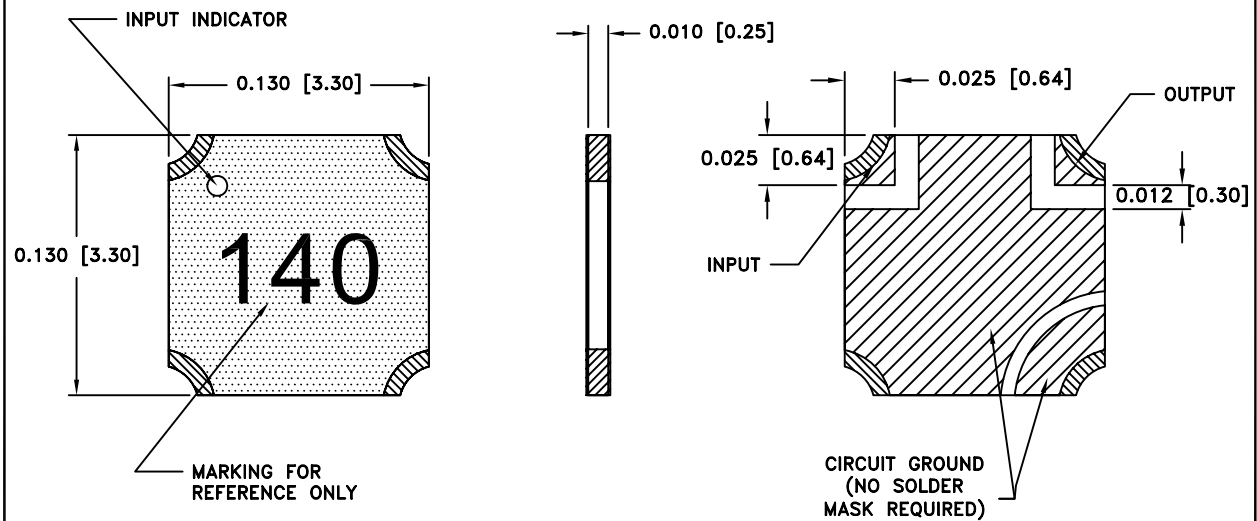
**3.0 QUALITY ASSURANCE:**

- 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 DRAWING REQUIREMENTS.
- 3.2 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.

<b>EMC TECHNOLOGY</b> <b>8851 SW OLD KANSAS AVE.</b> <b>STUART, FL 34997</b>	<b>CAGE CODE # 24602</b>		<b>DWG #</b>	1011675000
	<b>CHANGE NOTICE</b>	EN 08-E1154	<b>REV LVL</b>	A
			<b>SHEET</b>	4 OF 4

PART ID REF  
CEXXXXXXXXSMTF

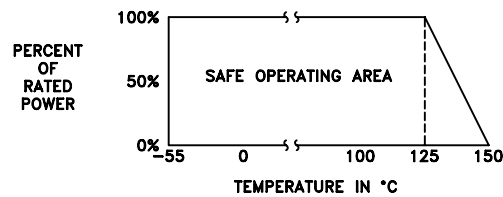


METRIC EQUIVALENTS GIVEN IN [mm]  
FOR REFERENCE INFORMATION ONLY

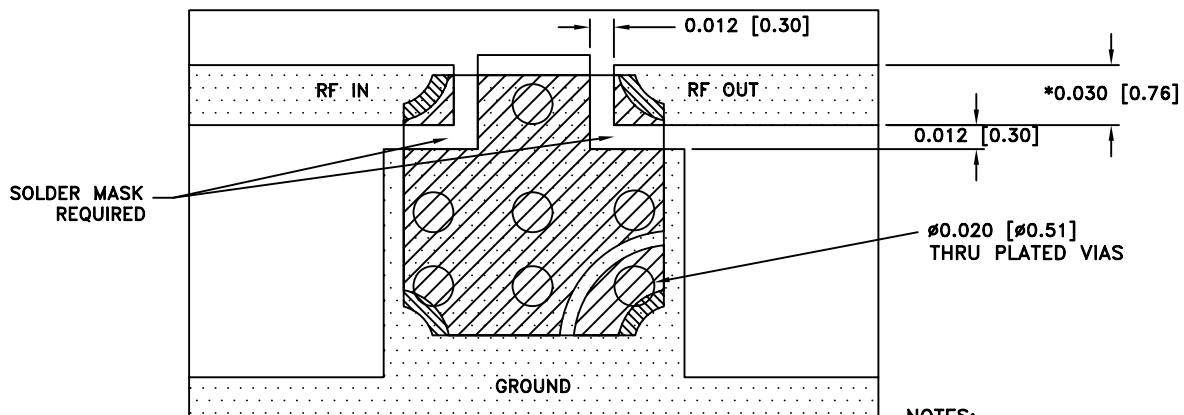
**MECHANICAL SPECIFICATIONS:**

SUBSTRATE:  
MATERIAL - ALUMINA, MIL-I-10.  
TERMINAL & GROUND PLANE:  
MATERIAL - THICK FILM, NICKEL BARRIER,  
SILVER PLATED.  
RESISTIVE MATERIAL:  
MATERIAL - NiCr.

**POWER RATING AND DERATING**



**SUGGESTED BOARD MOUNTING**



NOTES:  
1. BOARD MATERIAL: RO4350,  
.0133±.0015 INCHES THICK  
\*2. 50 OHMS LINE



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 24602	SCALE 16:1	DRAWN BY CRH 12/12/08	CHECKED BY	APPROVED BY
REV A	CHANGE NOTICE EN 08-E1154	DRAWING NO 1011675000	SHEET 4 OF 4	