

SAW Filter 154.040MHz

Model: TB1083A

Part No: MP05753

Rev No: 2

A. MAXIMUM RATING:

Electrostatic Sensitive Device

1. Operating Temperature: -40°C ~ +85°C
2. Storage Temperature: -40°C ~ +85°C
3. Input power: 10dBm
4. Moisture Sensitivity Level: Level 1 (MSL1)

B. CHARACTERISTICS:

Ambient Temperature: 25°C

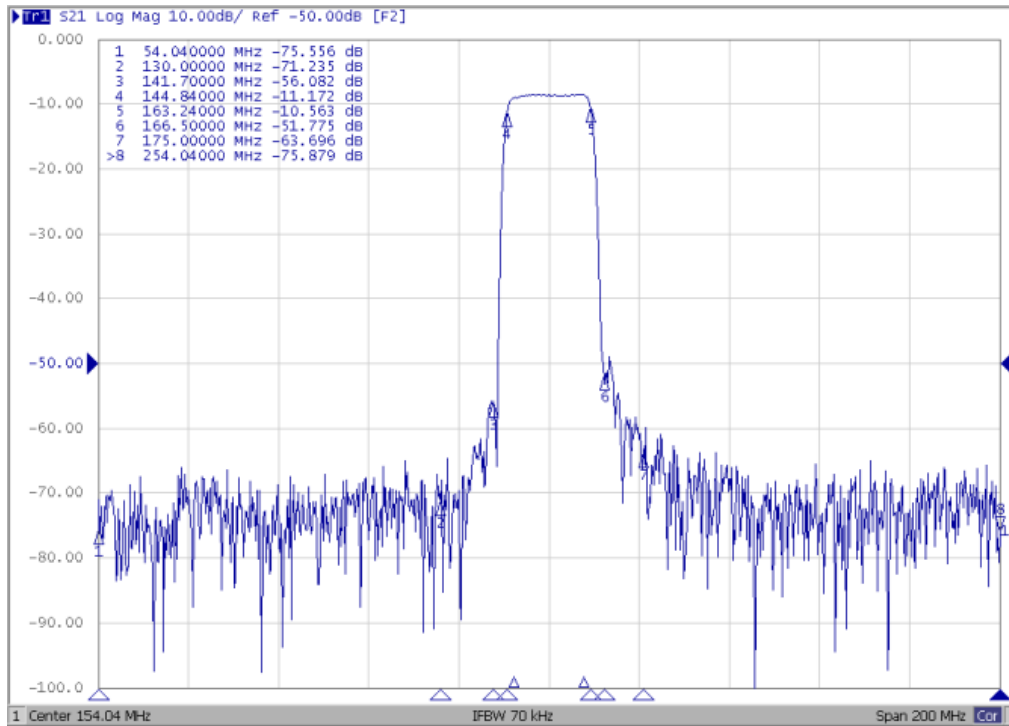
Characteristics	Min.	Typ.	Max.	Note
Center frequency Fc MHz	-	154.04	-	-
Minimum Insertion loss IL dB	-	8.5	13.0	-
Lower 1dB Band Edge		145.41	146.29	
Upper 1dB Band Edge	161.79	162.85		
1dB BW MHz	16.0	16.53	-	
Passband Ripple (146.29 ~ 161.79MHz) dB	-	0.5	1.2	-
Return Loss (146.29 ~ 161.79MHz) dB		6		
Attenuation (Reference to Minimum Insertion loss)				
10 ~ 50MHz dB	45	55	-	-
50 ~ 130MHz dB	40	53	-	-
130 ~ 141.7MHz dB	35	44	-	
142.48 ~ 144.84MHz dB	-	2.6	-	-
163.24 ~ 165.48MHz dB	-	2.1	-	-
166.5 ~ 175MHz dB	35	42	-	
175 ~ 300MHz dB	40	52	-	
300 ~ 420MHz dB	45	54	-	
Temp Coefficient ppm/K	-	-94	-	-

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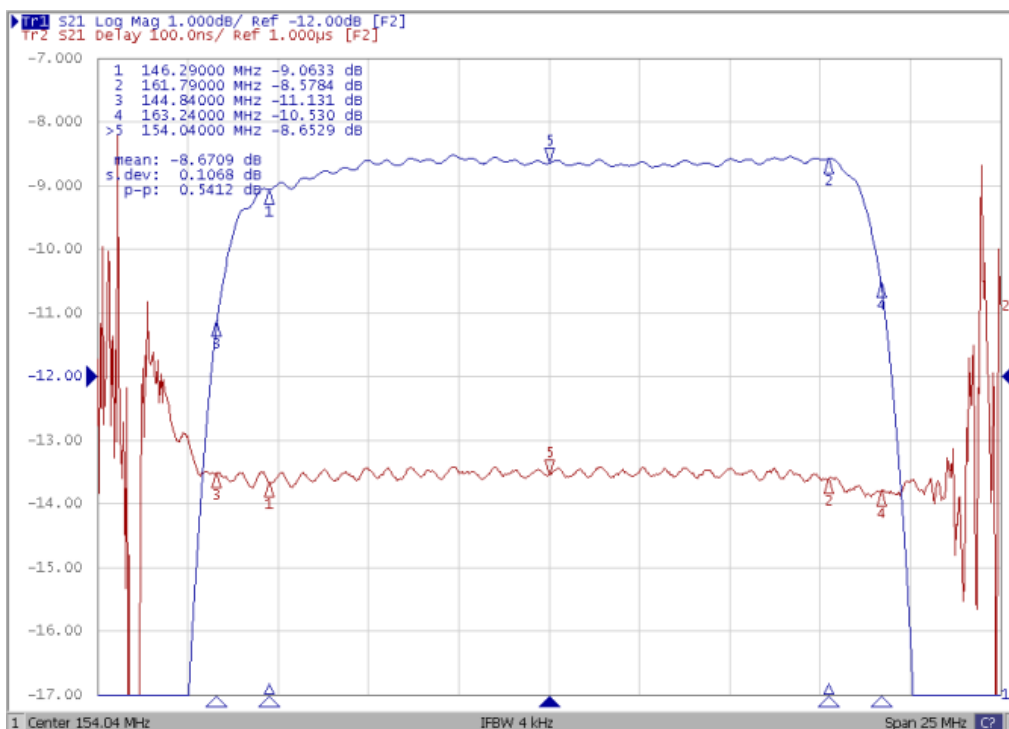
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C. FREQUENCY CHARACTERISTICS:

1. Sdd21 Response: (span: 200MHz)



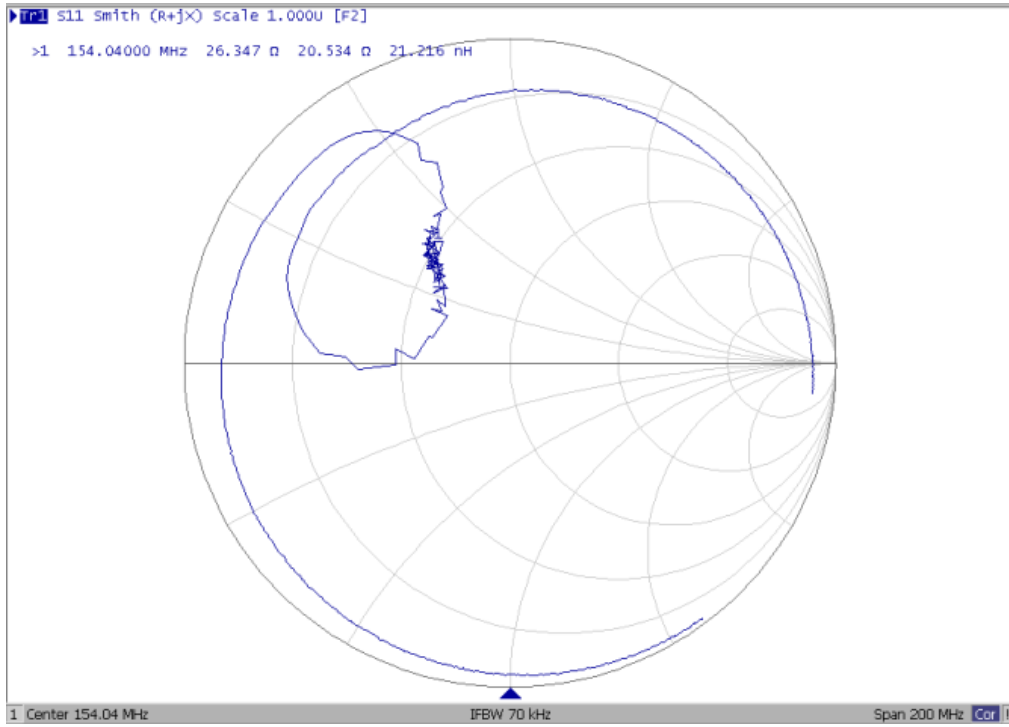
2. Pass-band Response: (span: 60MHz)



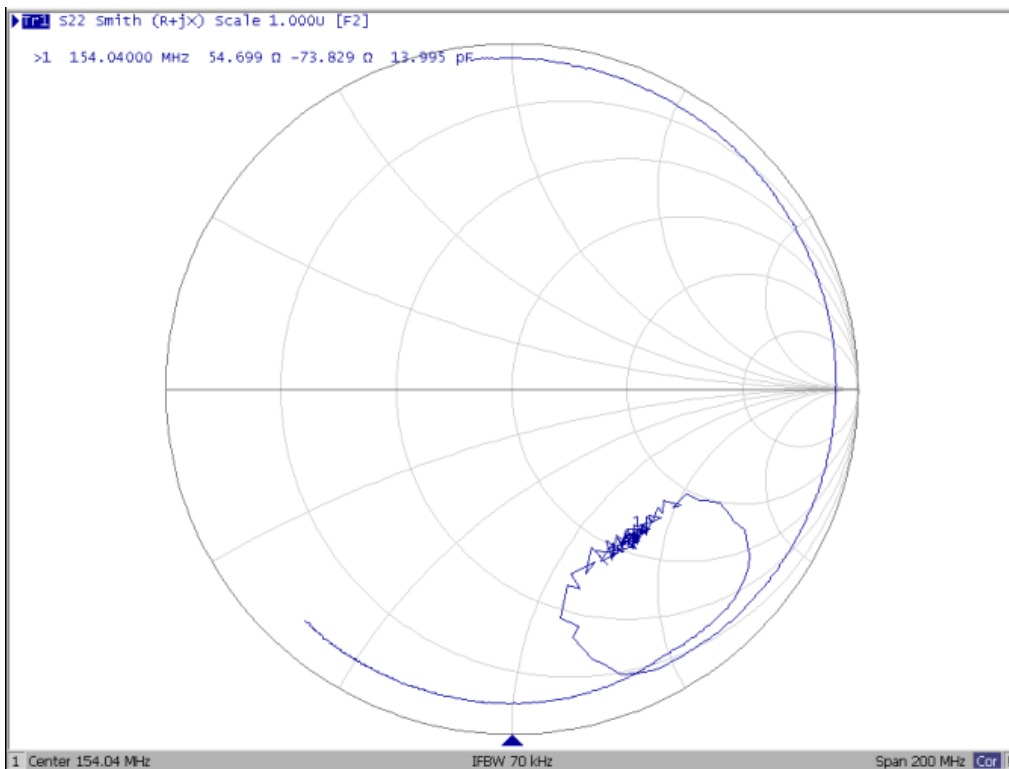
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3. S11 Smith Chart (span: 200MHz)



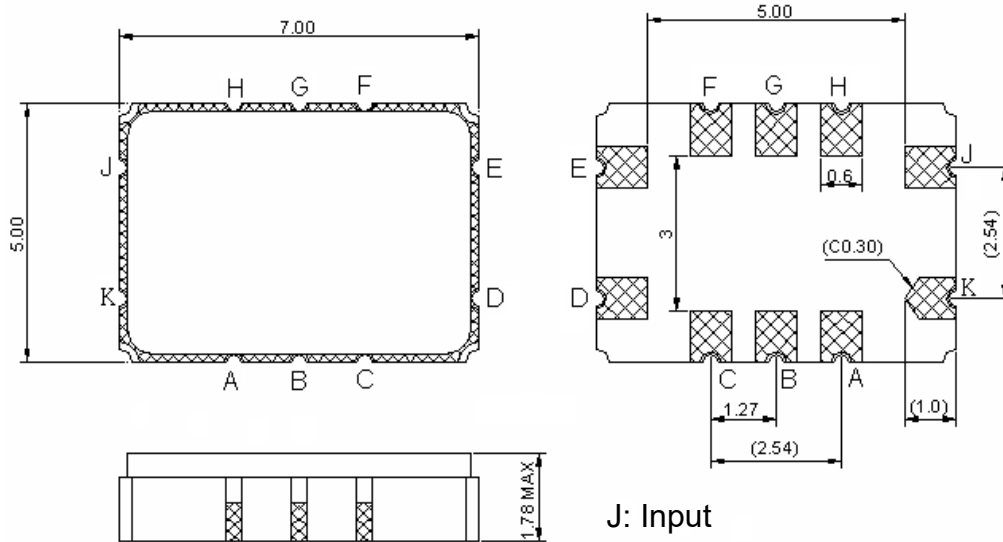
4. S22 Smith Chart (span: 200MHz)



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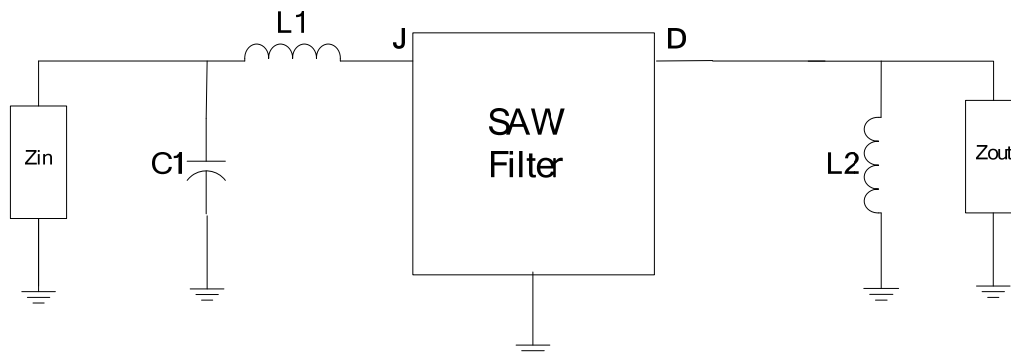
E. OUTLINE DRAWING:



J: Input
 D: Output
 A, B, C, E, F, G, H, K: To be Ground

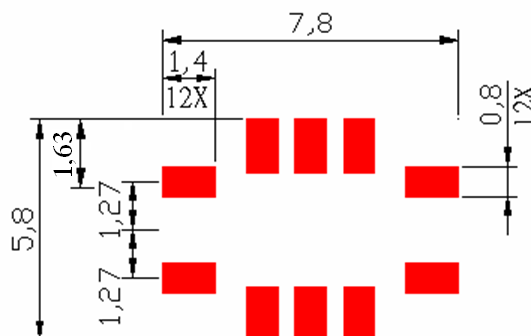
F. MEASUREMENT CIRCUIT:

$Z_{IN} = 50\Omega; Z_{OUT} = 50\Omega$



$L1 = 68nH, C1 = 4.7pF, L2 = 100nH$

G. PCB FOOTPRINT:



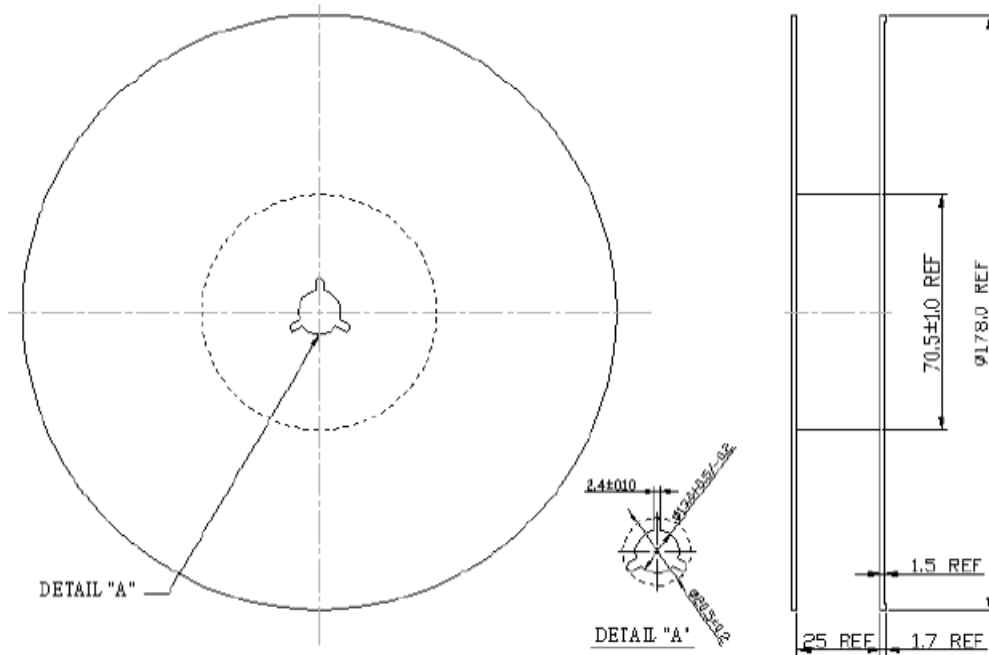
Unit: mm

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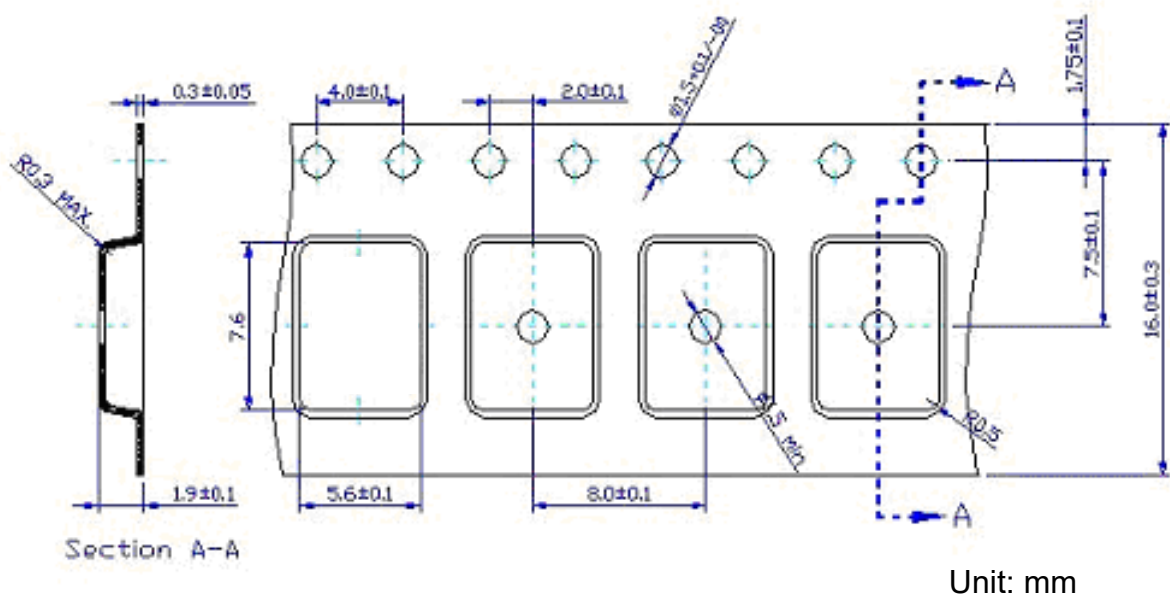
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H. PACKING:

1. Reel Dimensions



2. Tape Dimensions:



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I. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at 150 ~ 180°C for 60 ~ 90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50 ~ 80 seconds and at 260°C +0/-5°C peak (20 ~ 40 sec).
4. Time: 2 times.

