

**SAW Filter 140MHz**  
**Part No: MP02644**

**Model: TB0746A**  
**Rev No: 1**

**A. MAXIMUM RATING:**

1. Input Power Level: 10dBm
2. Operating Temperature: -20°C to +80°C
3. Storage Temperature: -40°C to +85°C

**B. CHARACTERISTICS:**

Ambient Temperature: 25°C

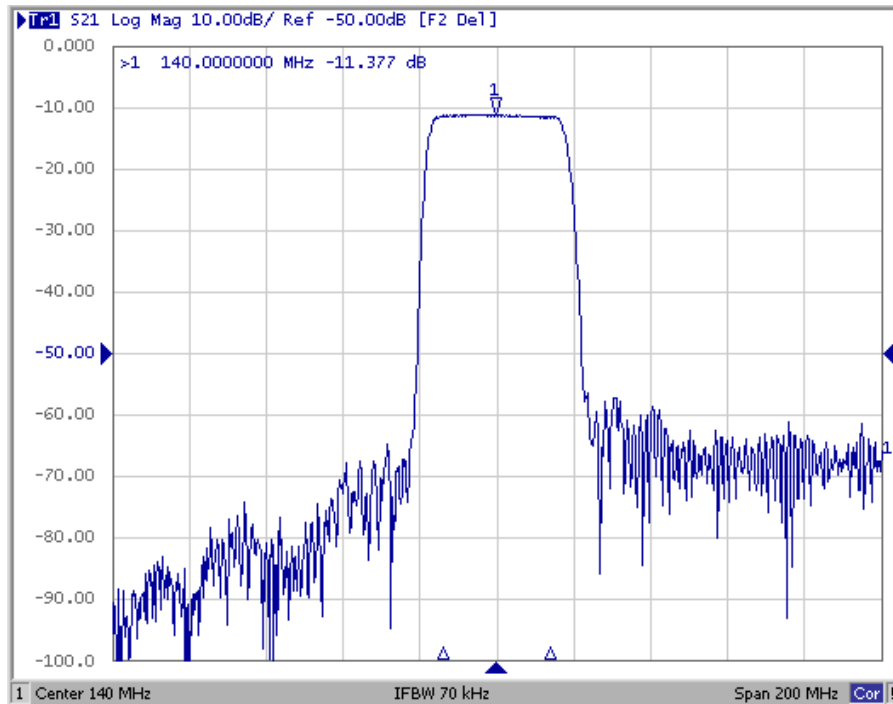
Characteristics	Value			Note
	Min.	Typ.	Max.	
Center frequency Fc MHz	-	140.0	-	-
Minimum Insertion loss IL dB	-	11.3	13.0	-
1dB BW MHz	30.0	33.0	-	-
3dB BW MHz	32.0	35.0	-	-
35dB BW MHz	-	42.4	44.0	-
Passband Ripple (80% of 3dB BW) dB	-	0.6	1.2	-
Phase Linearity (80% of 3dB BW) deg	-	5.0	14	-
Delay Variation (80% of 3dB BW) nsec	-	50	120	-
Absolute Delay usec	-	0.55	-	-
Substrate Material	YZ-LiNbO3			-
Temp Coefficient ppm/K	-	-94	-	-
Matching: 1. The input of the filter will be matched to 50Ω 2. The output of the filter will be matched to 50Ω				

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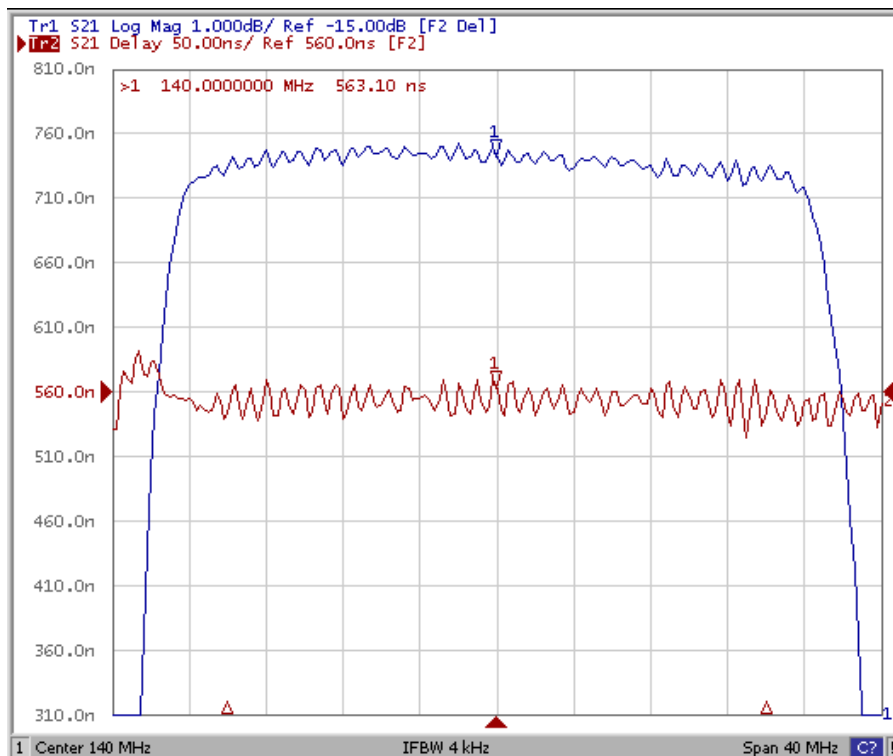
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**C. FREQUENCY CHARACTERISTICS:**

1. Wide band Response: (span 200MHz)



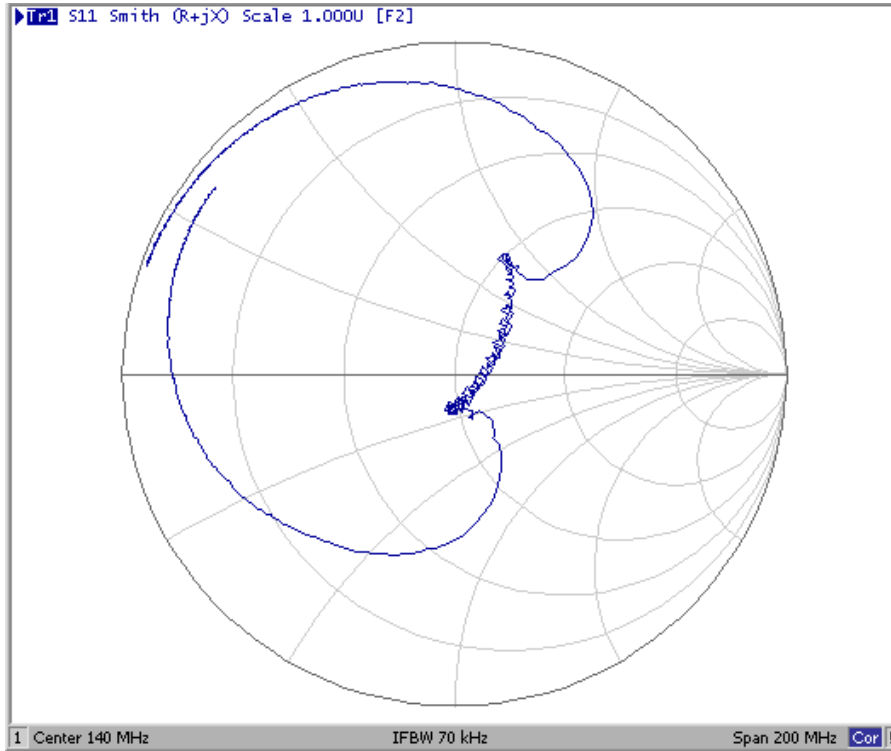
2. Pass band Response and Group Delay Variation: (span 40MHz)



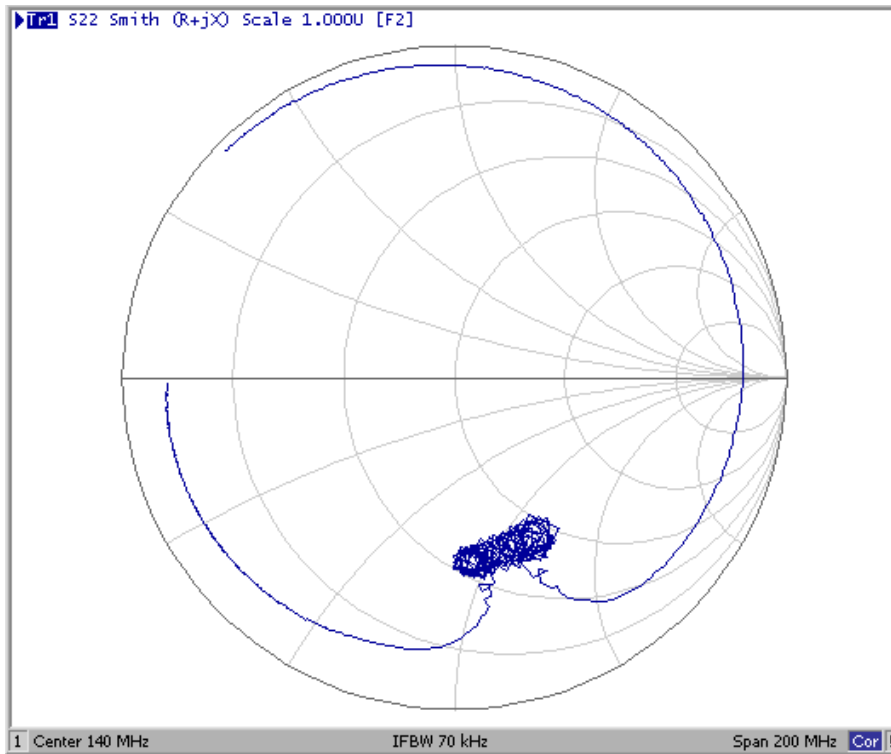
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3. S11 Smith-Chart: (span 200MHz)



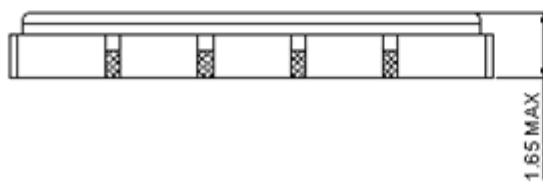
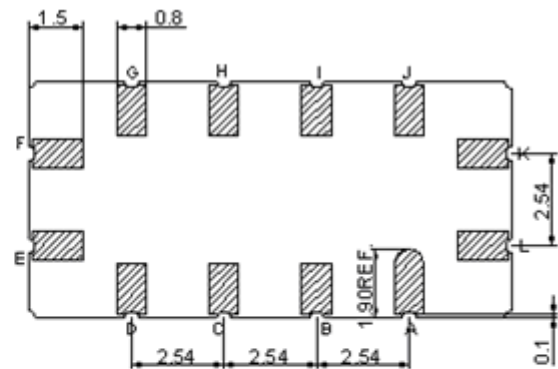
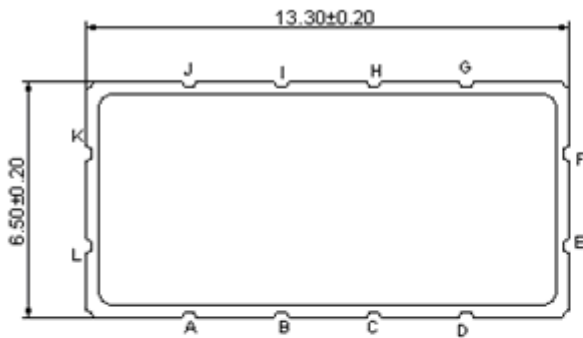
4. S22 Smith-Chart: (span 200MHz)



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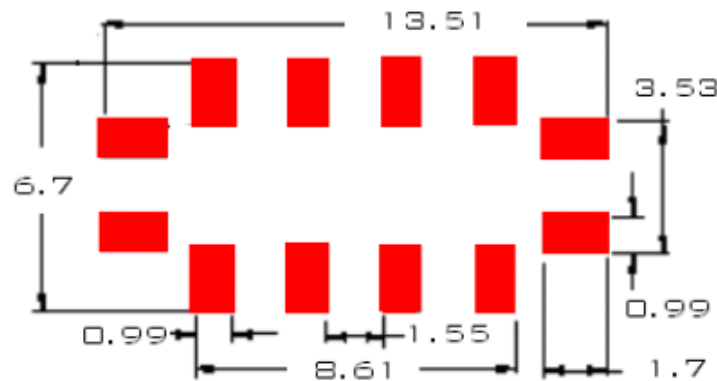
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**D. OUTLINE DRAWING:**

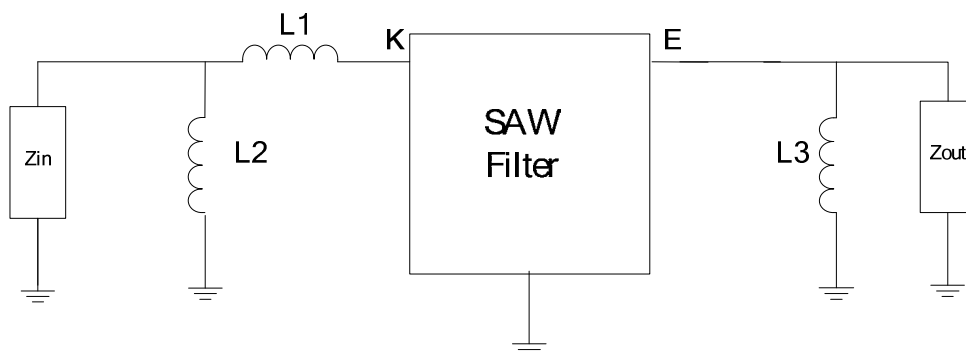


Pin K: RF Input  
 Pin E: RF Output  
 Pin A, B, C, D, F, G, H, I, J, L: Ground  
 Unit: mm

**E. PCB FOOTPRINT:**



**F. MATCHING CIRCUIT:**



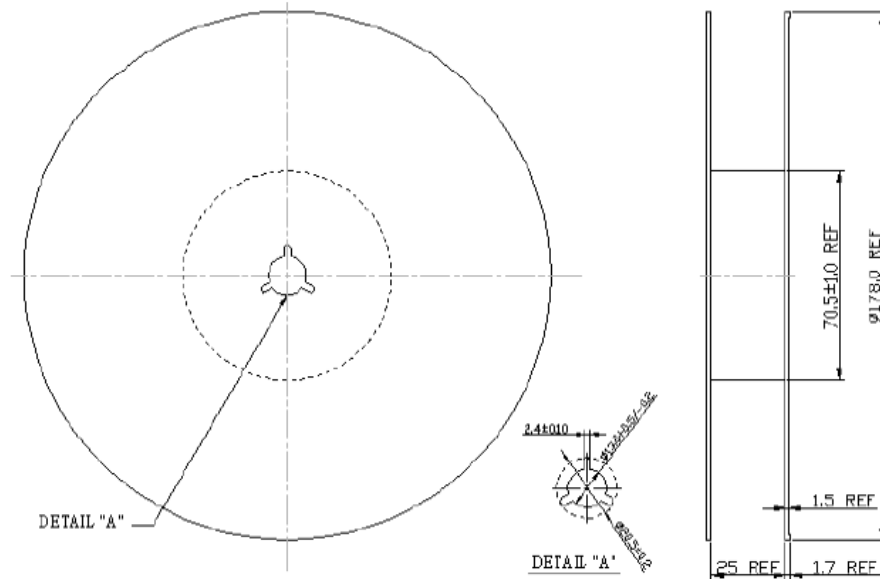
$$Z_{IN} = Z_{OUT} = 50\Omega, L1 = 10\text{nH}, L2 = 27\text{nH}, L3 = 68\text{nH}$$

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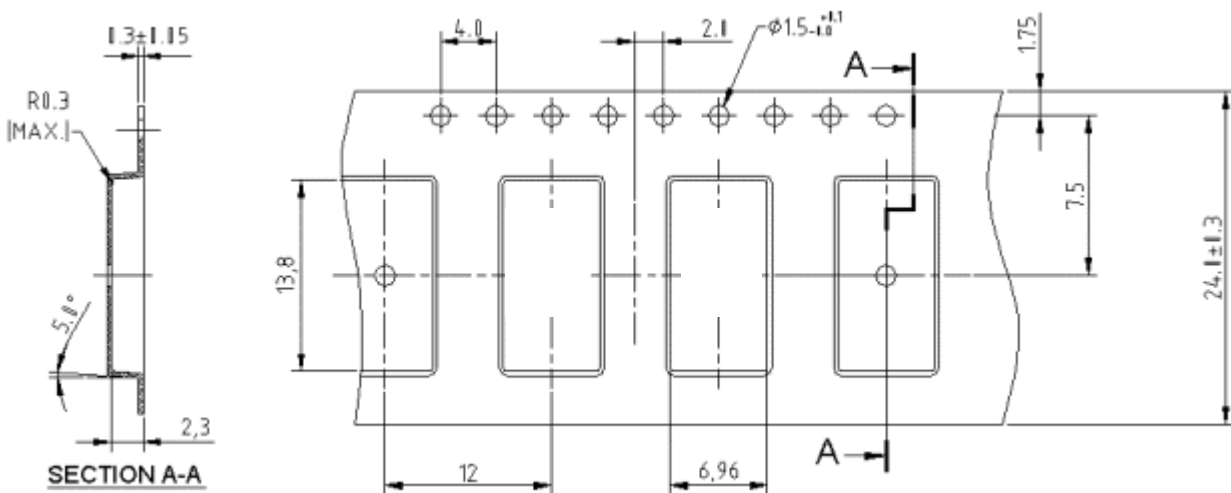
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**G. PACKING:**

1. Reel Dimension



2. Tape Dimension



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**H. RECOMMENDED REFLOW PROFILE:**

