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**SAW Filter 190.0MHz****Model: TB0103A****Part No: MA06396****REV. NO.: 1**

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**A. MAXIMUM RATING:**

1. Input Power Level: 10 dBm
2. Operating Temperature: -30°C to +70°C
3. Storage Temperature: -30°C to +70°C

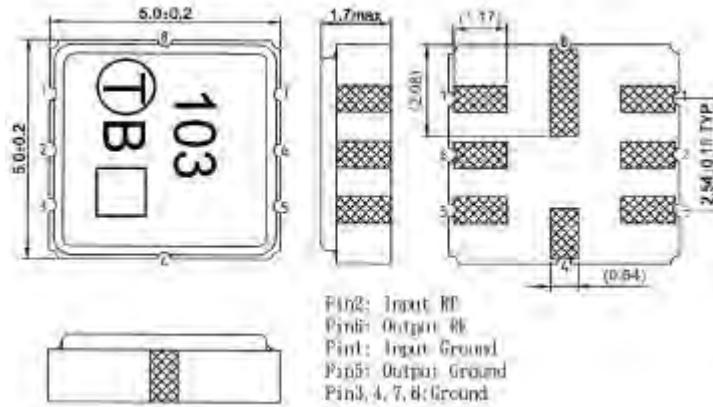
**B. ELECTRICAL CHARACTERISTICS:**

Item	Unit	Min.	Typical.	Max.	Note
Center frequency, Fc	MHz	-	190	-	
Insertion Loss, IL	dB	-	8.0	10	
Passband width, BW5	MHz	4.8	5.73		
Group Delay, GD	ns	-	70	150	
Attenuation:(Reference level from Min IL)					
Fc -20 to -10MHz(170-180MHz)	dB	27	34	-	
Fc -10 to -4.5MHz(180-185.5MHz)	dB	25	31	-	
Fc +4.5 to +10MHz(194.5-200MHz)	dB	25	30	-	
Fc +10 to +20MHz(200-210MHz)	dB	27	33	-	

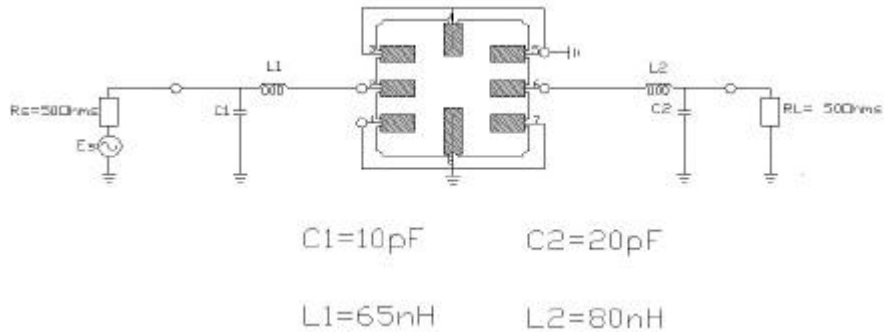
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**C. OUTLINE DRAWING:**



**D. MATCHING CONFIGURATION:**



Note1: The values of components for matching circuit will vary slightly due to parasitic capacitor of PCB

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**E. FREQUENCY CHARACTERISTICS:**

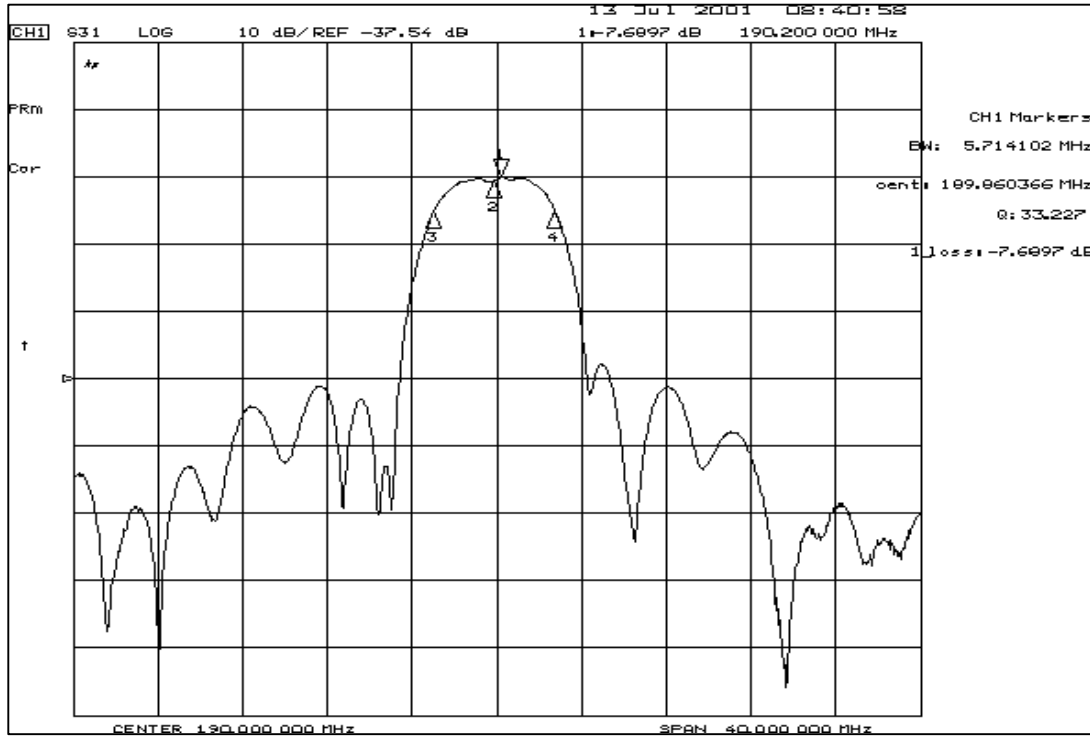


Fig-1 S21 Response

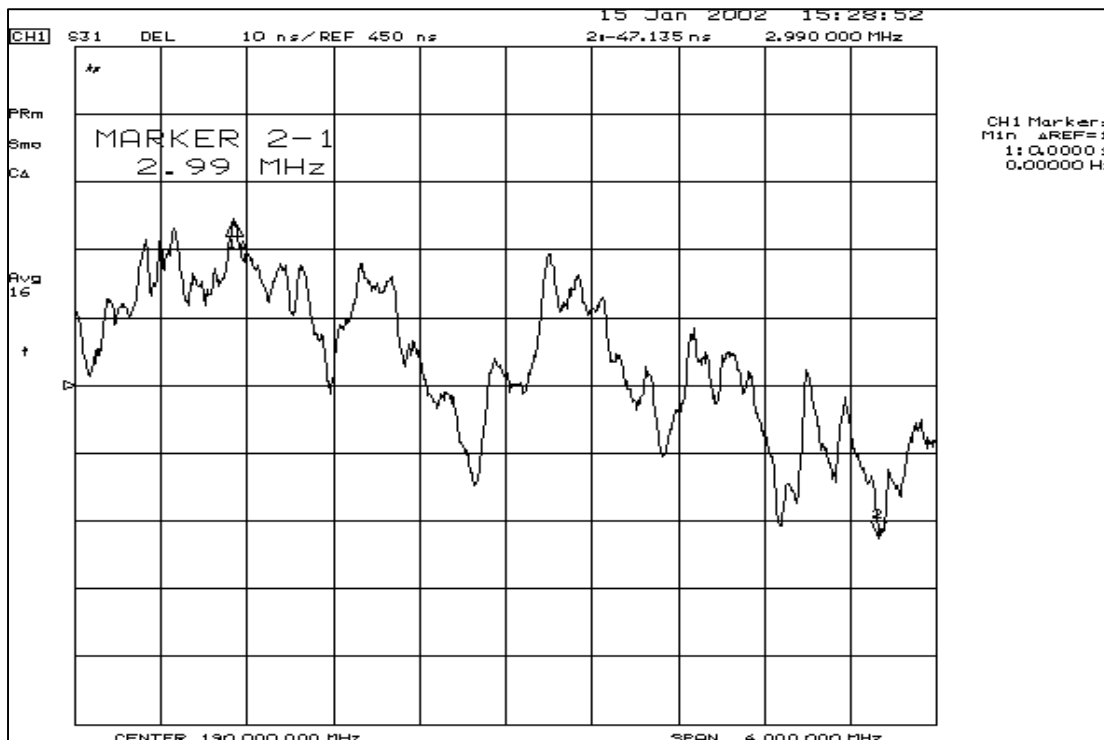


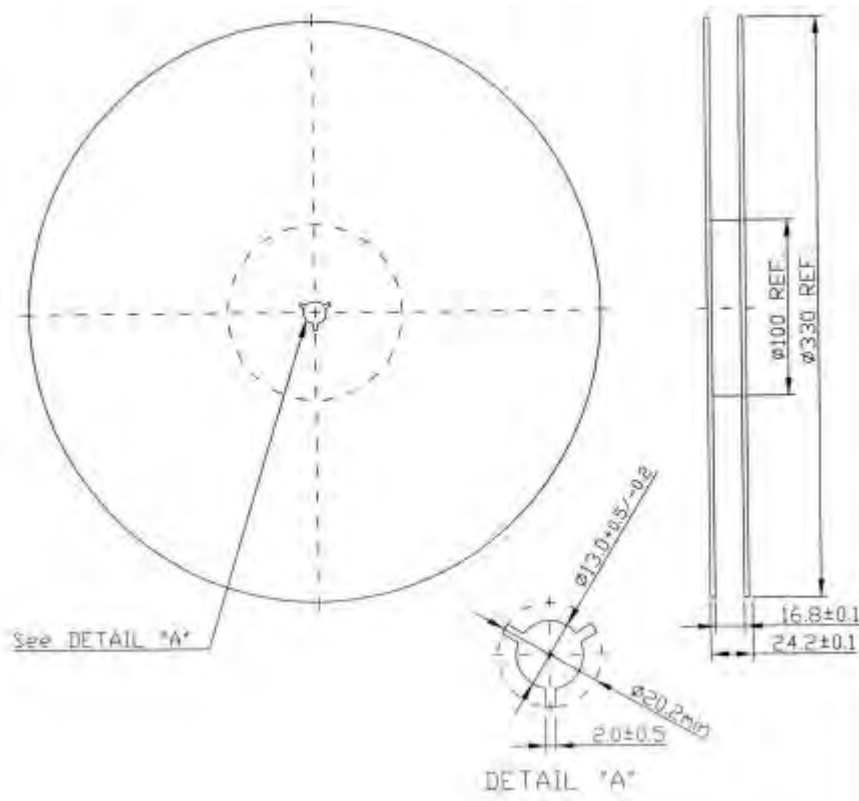
Fig-2 Group Delay

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**F. PACKING:**

1. REEL DIMENSION



2. TAPE DIMENSION

