

SAW Filter Low-Loss 70.0MHz
Part No: MA05603

Model: TB0202A
Rev No: 5

A. MAXIMUM RATING:

Electrostatic Sensitive Device

1. Input Power Level: 10dBm
2. Operating Temperature: -40°C to +85°C
3. Storage Temperature: -40°C to +85°C
4. Moisture Sensitivity Level: Level1 (MSL1)

B. ELECTRICAL CHARACTERISTICS:

Ambient Temperature: 25°C

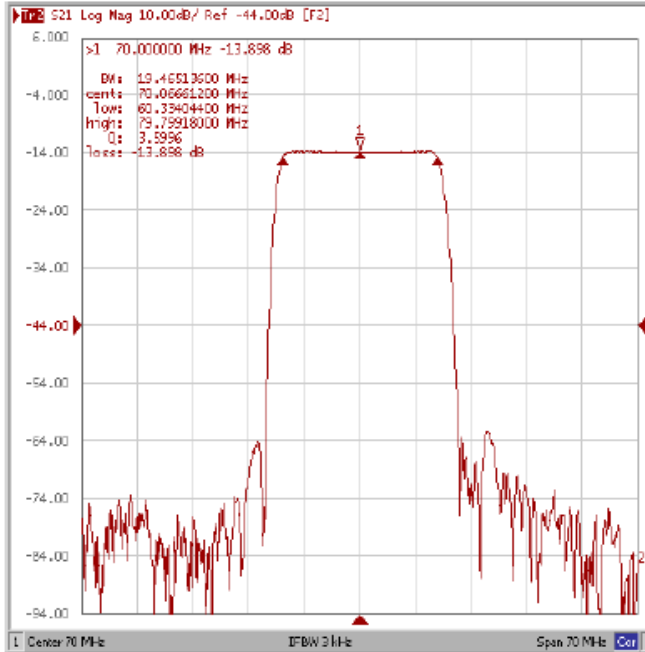
Item	Unit	Min.	Typ.	Max.	Note
Center frequency Fc	MHz	-	70	-	
Insertion Loss IL	dB	-	14.5	16.5	
1dB Bandwidth	MHz	18.7	19.48	-	
3dB Bandwidth	dB	-	20.3	-	
40dB Bandwidth	MHz		20.8	25	
Passband ripple Fc ±8.2MHz	dB	-	0.45	1.0	
Group Delay ripple Fc ±8.2MHz	nS		25	60	
Absolute Delay	µS	-	0.9	-	
Attenuation Reference level from Min IL)					
35 MHz ~ 57.75MHz	dB	40	45	-	
82.75 MHz ~105MHz	dB	40	45	-	
Temperature Coefficient	ppm/°C	-	-86	-	

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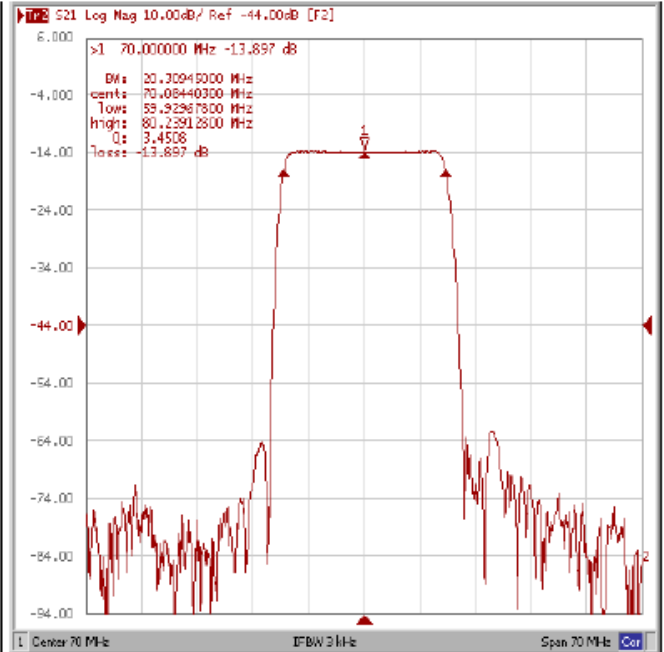
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C. FREQUENCY CHARACTERISTICS:

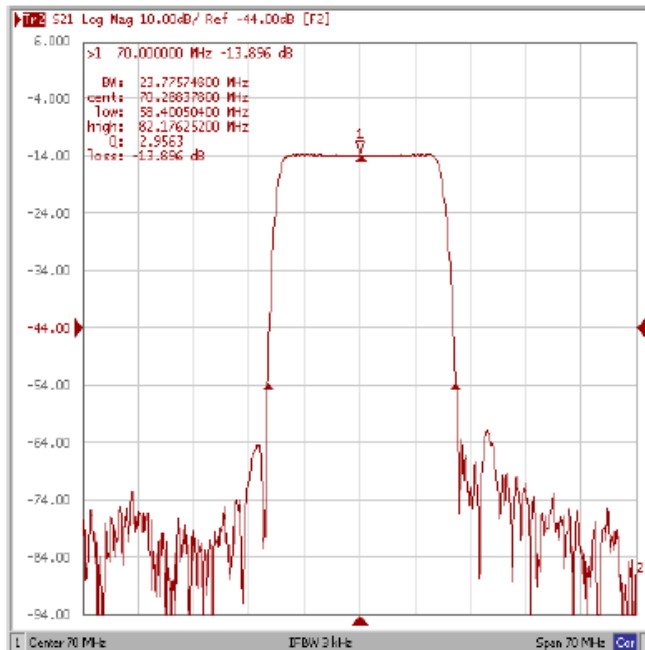
Bandwidth at -1.0 dB



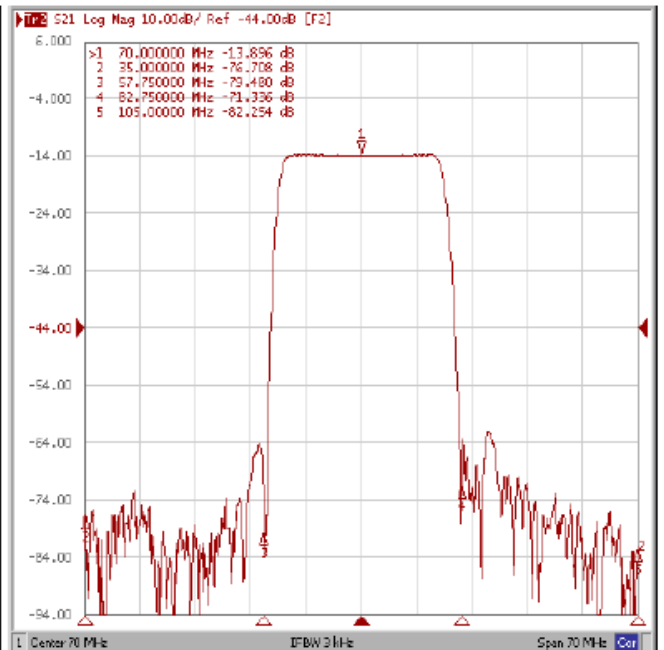
Bandwidth at -3.0 dB



Bandwidth at -40 dB



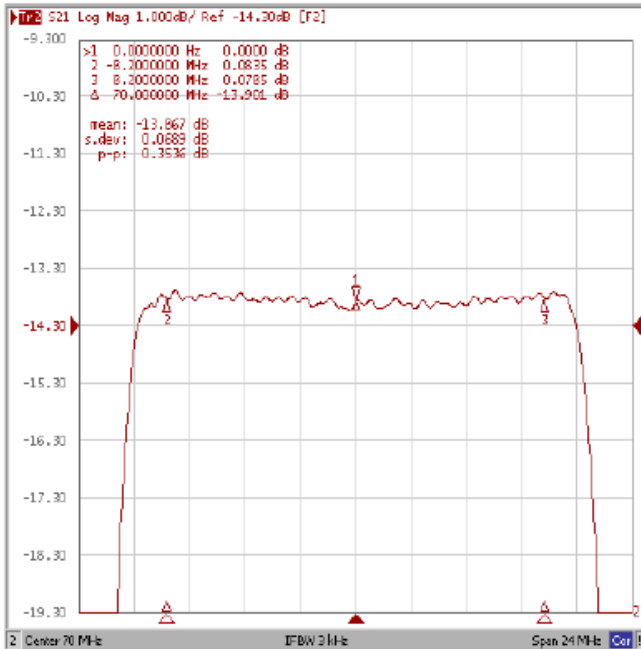
Relative Attenuation



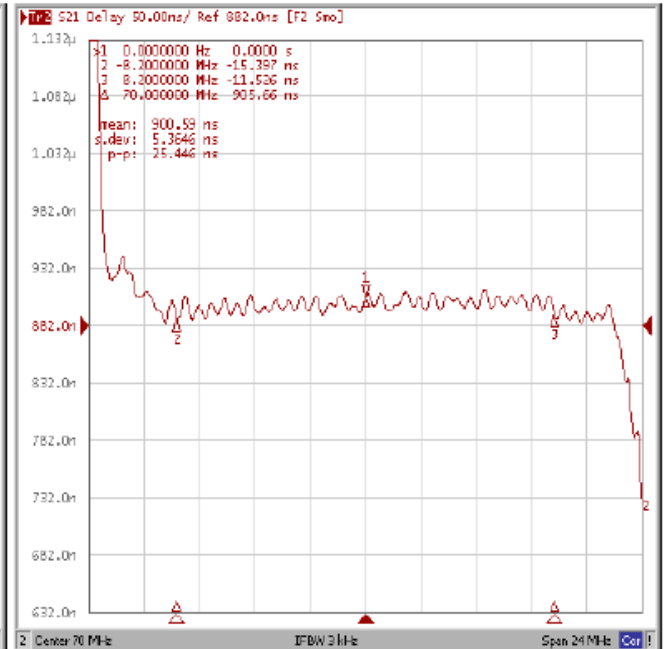
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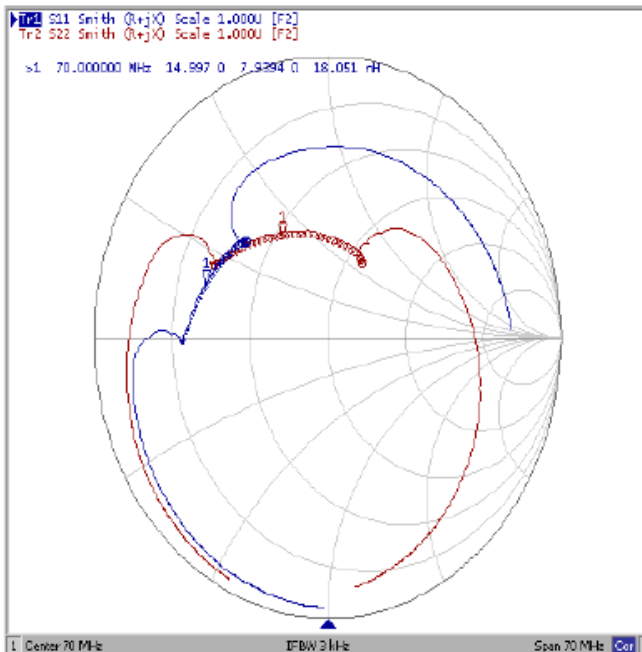
Ripple Variation Fo±8.2MHz



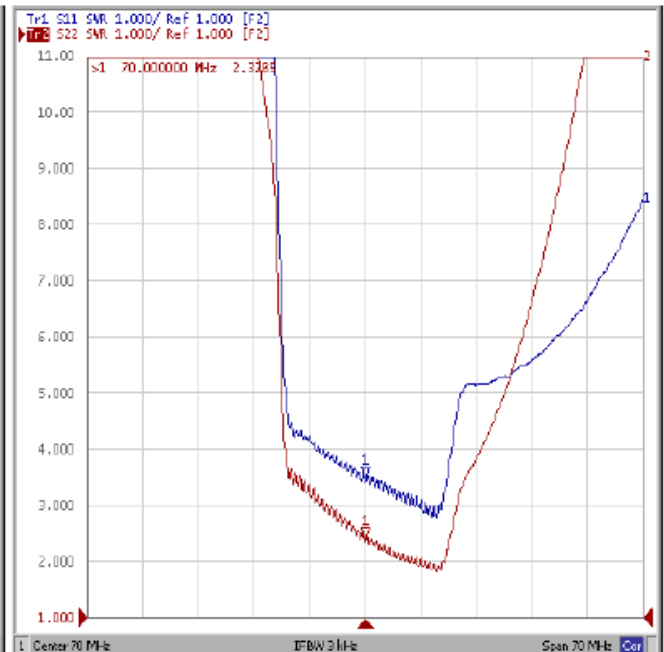
Group Delay Variation Fo±8.2MHz



Smith Chart



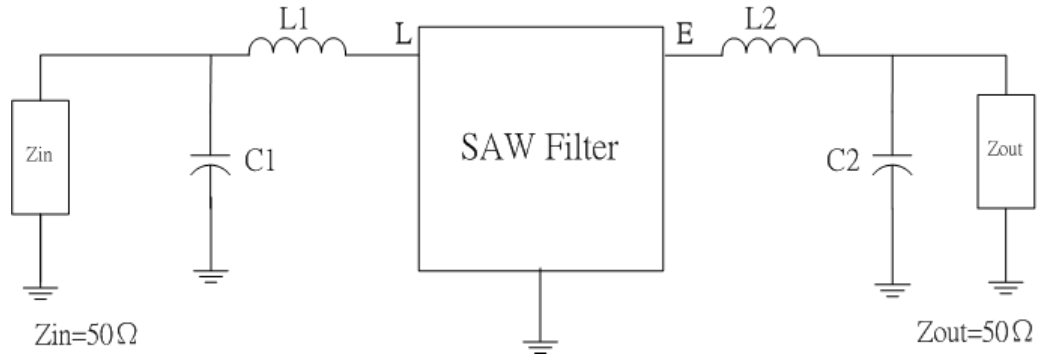
VSWR



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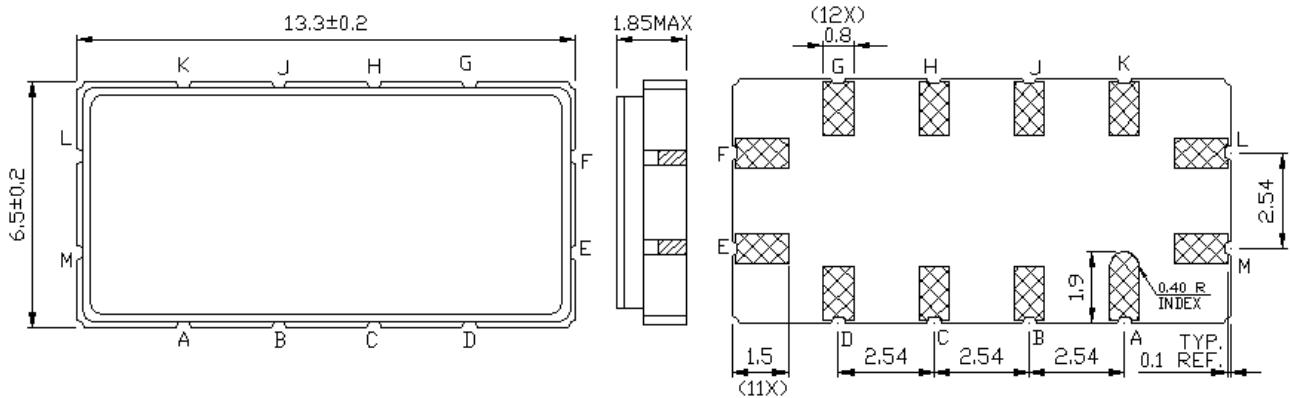
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D. MEASUREMENT CIRCUIT:



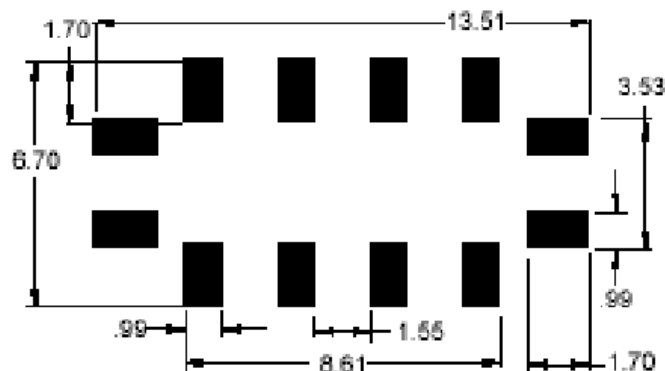
$L1 = 120\text{nH}$, $L2 = 120\text{nH}$, $C1 = 24\text{pF}$, $C2 = 47\text{pF}$

E. OUTLINE DRAWING:



L: RF input
 E: RF output
 Others: To be Ground
 Unit: mm

F. PCB FOOTPRINT:



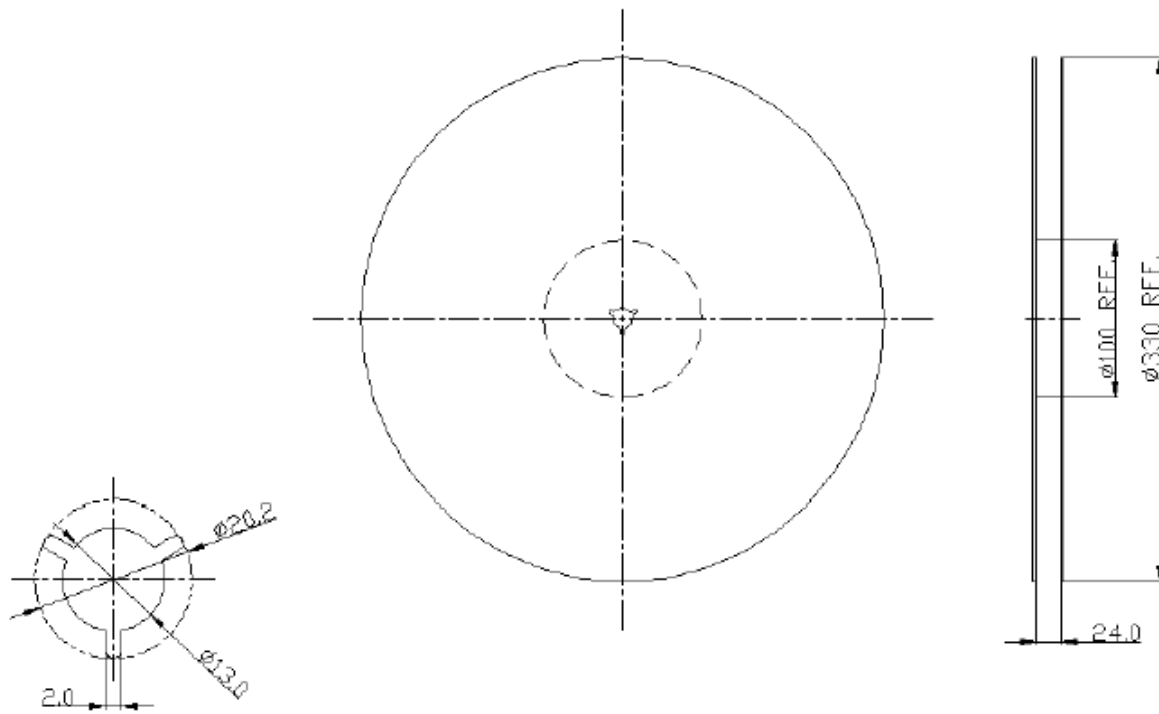
Unit: mm

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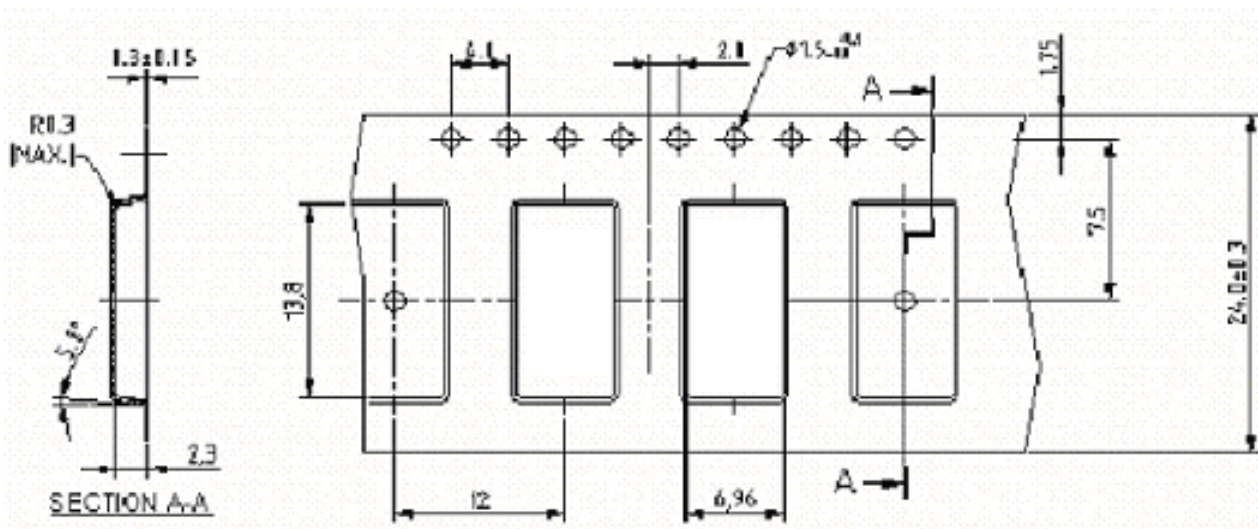
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G. PACKING:

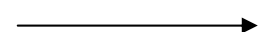
1. Reel Dimension



2. Tape Dimension



Direction of feed



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H. 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.

