
SAW Filter: 70MHz (BW = 0.8MHz) (SMD 13.3 × 6.5mm) Model: TB0693A
Part No: MP02147 Rev No: 1

A. MAXIMUM RATING:

1. Operating temperature range: -40°C to 80°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level: 10dBm
4. Maximum DC Voltage: 10V

B. CHARACTERISTICS:

Electrical Parameters			Value		
Parameters	Sign	Units	Min.	Typ.	Max.
Center Frequency	Fc	MHz	69.9	70	70.1
Insertion Loss	IL	dB	-	9.2	11.5
-1dB Pass Bandwidth	BW1	MHz	0.8	0.92	-
-3dB Pass Bandwidth	BW3	MHz	1.1	1.2	-
-40dB Pass Bandwidth	BW40	MHz	-	2.2	2.3
Amplitude Ripple Fc ± 0.30MHz	AR	dB	-	0.7	1.0
Group Delay Time Deviation in Pass Band Fc ± 0.30MHz	GDV	nsec	-	350	400
Relative Attenuation					
DC ~ 65MHz	dB	UR	45	55	-
75MHz ~ 200MHz	dB	UR	45	55	-
Source and Load Impedances	RS/RL	Ω	50		

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C. FREQUENCY CHARACTERISTICS:

1. Wide band Response: (span 10MHz)

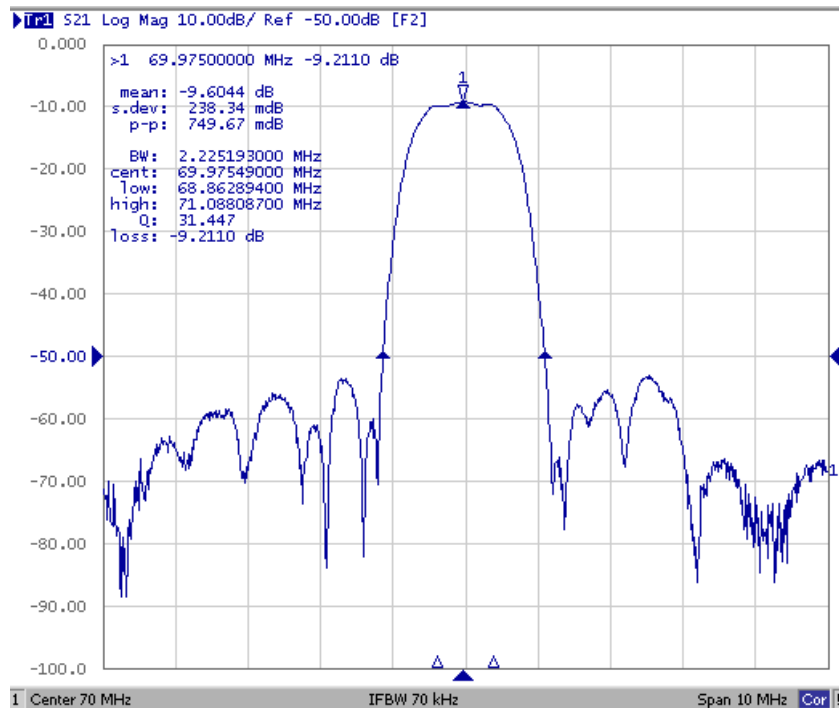


Fig1. Horizontal: 1MHz/Div Vertical: 10dB/Div

2. Pass band Response:

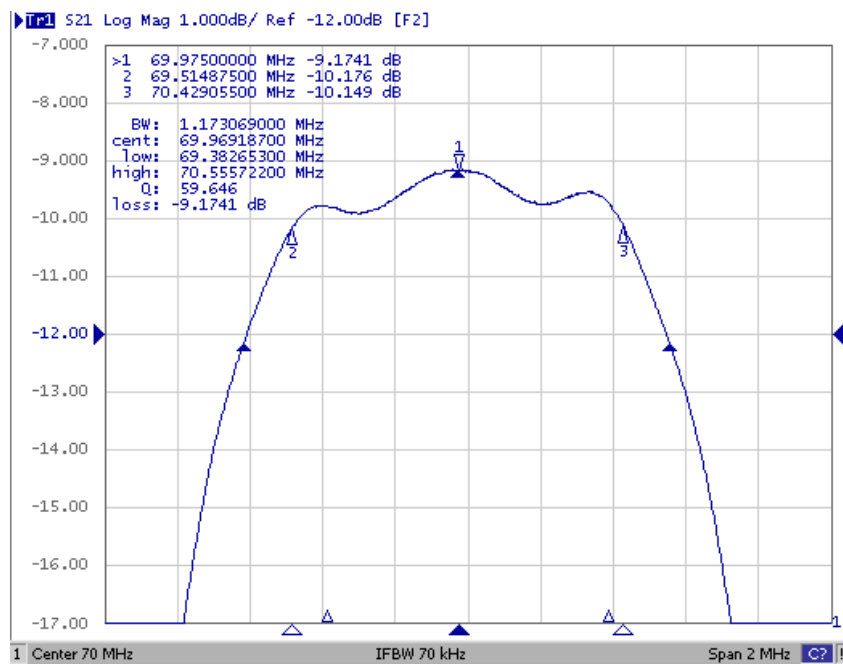


Fig2. Horizontal: 0.2MHz/Div Vertical: 1dB/Div

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3. Group Time Delay response:

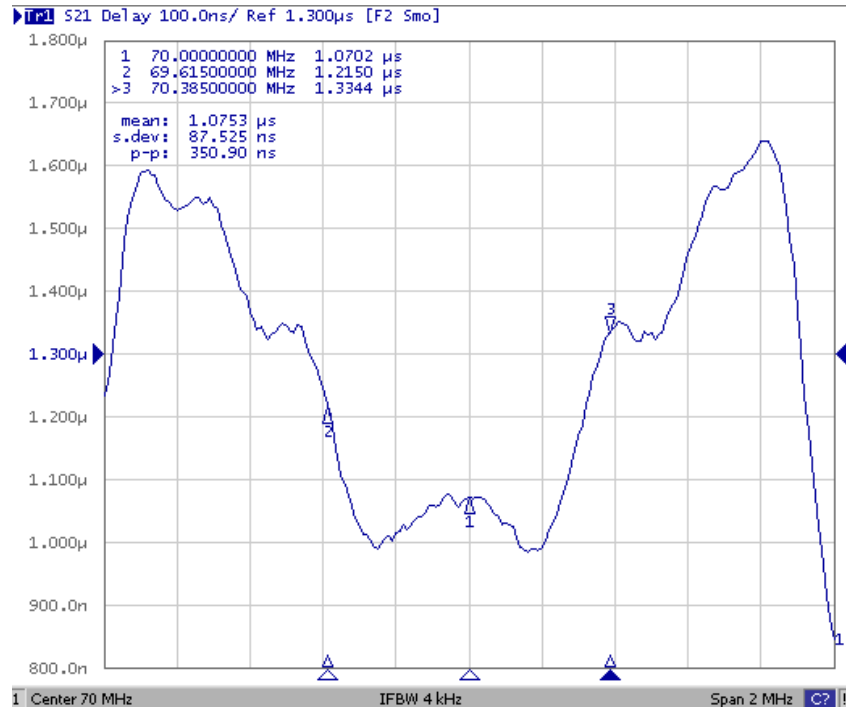
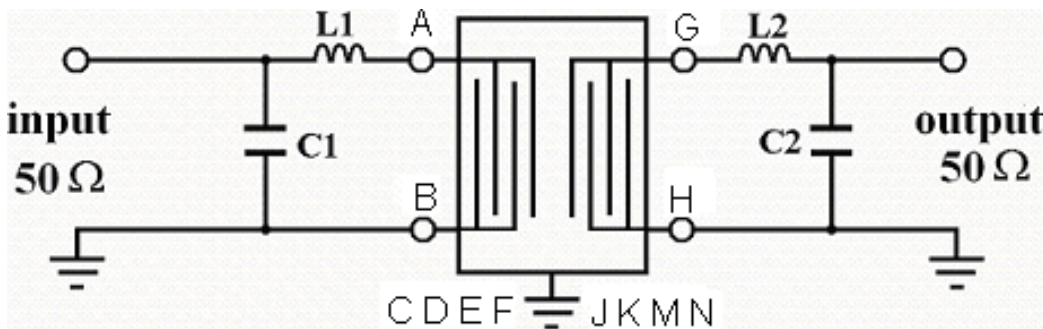


Fig3. Horizontal: 0.2MHz/Div Vertical: 100ns/Div

D. MATCHING CIRCUIT:

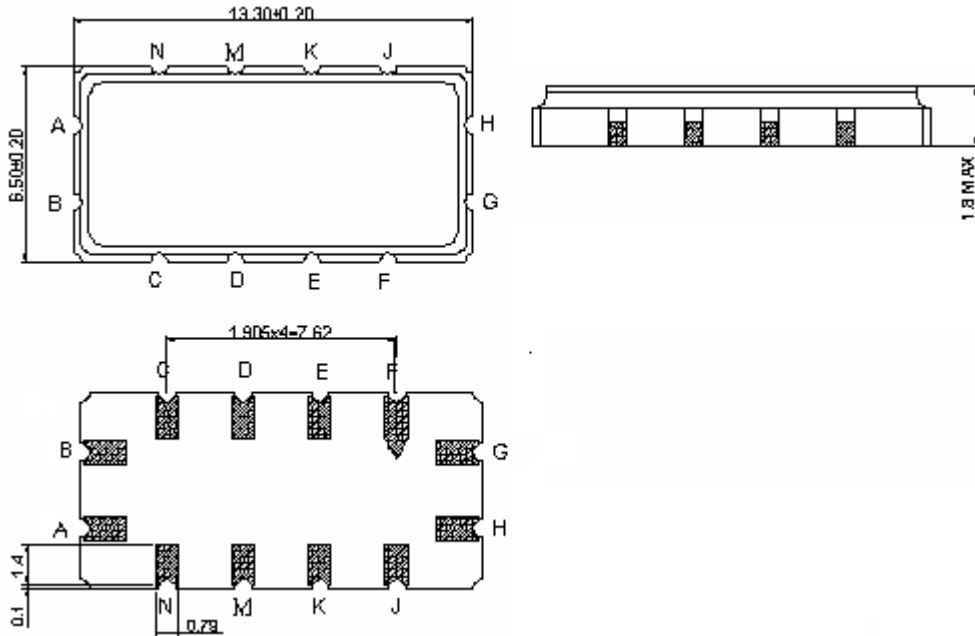


$L1 = 330 \sim 480\text{nH}$, $C1 = 82\text{pF}$, $L2 = 330 \sim 480 \text{ nH}$, $C2 = 82\text{pF}$, $Z_{IN} = 50\Omega$ $Z_{OUT} = 50\Omega$

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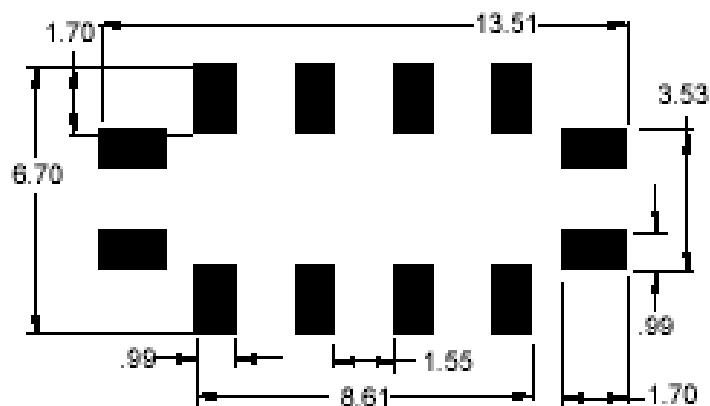
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E. OUTLINE DRAWING:



- Pin A: RF input
 - Pin B: RF input ground
 - Pin G: RF output
 - Pin H: RF output ground
 - Pin C, D, E, F, J, K, M, N: Ground
- Unit: mm

F. PCB FOOTPRINT:

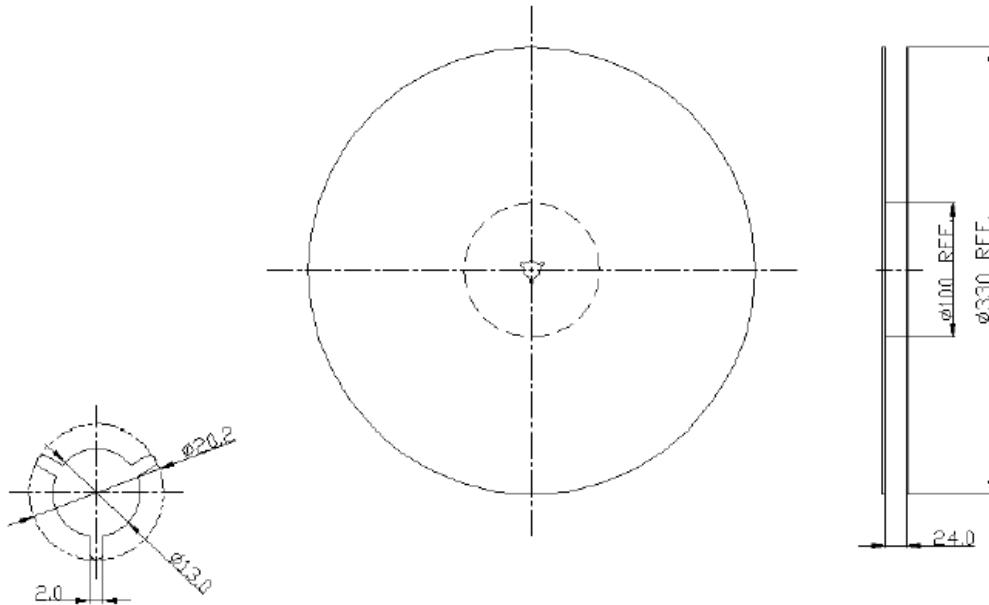


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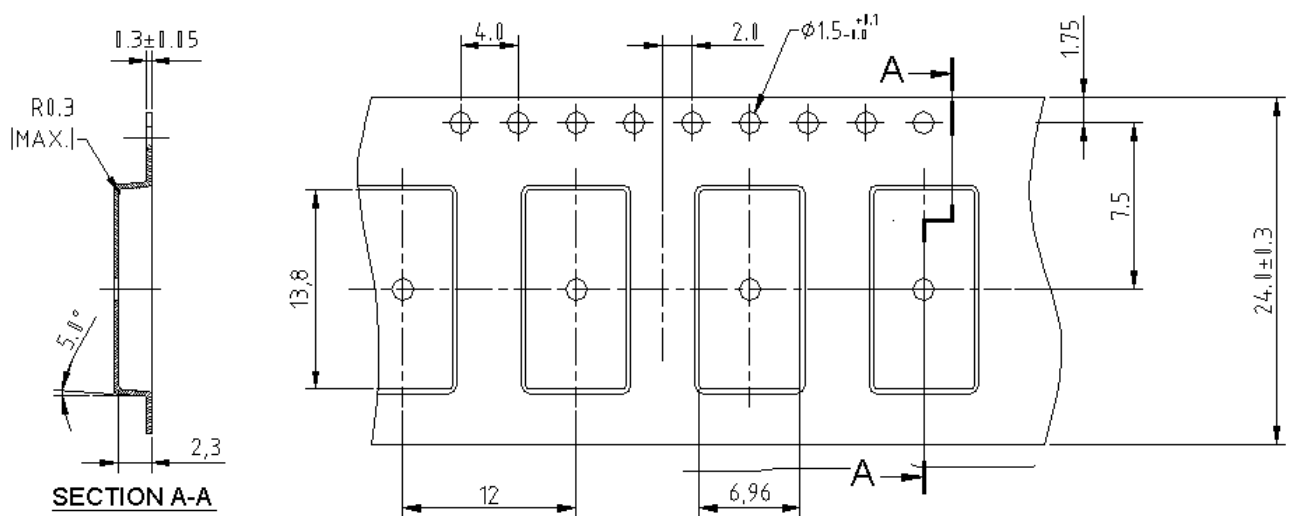
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G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



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H. RECOMMENDED REFLOW PROFILE:

