

SAW Filter 169.04MHz
Part No: MP03481

Model: TB0876A
Rev No: 2

A. MAXIMUM RATING:

1. Operating temperature range: -25°C to 85°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level: 10dBm
4. Maximum DC Voltage: 10V

B. CHARACTERISTICS:

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	169.04	-
Insertion Loss IL	dB	-	8.7	10.0
-1dB bandwidth	MHz	9.7	11.1	-
-3dB bandwidth	MHz	-	12.2	-
-15dB bandwidth	MHz	-	14.3	15.5
-40dB bandwidth	MHz	-	16.4	17.5
Passband Ripple Fc ± 4.85MHz	dB	-	0.5	1.0
Group Delay variation Fc ± 4.85MHz	nsec	-	60	100
Absolute Delay	unec	-	0.8	-
Attenuation (Reference level from minimum Insertion loss)				
DC ~ 148.9MHz	dB	50	60	-
188.9MHz ~ 450MHz	dB	50	60	-
450MHz ~ 800MHz	dB	50	60	-
Temperature Coefficient	ppm/°C	-	-23	-
Source Impedance	Ω	-	50	-
Load Impedance	Ω	-	50	-

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C. FREQUENCY CHARACTERISTICS:

1. Wide band Response: (span 100MHz):

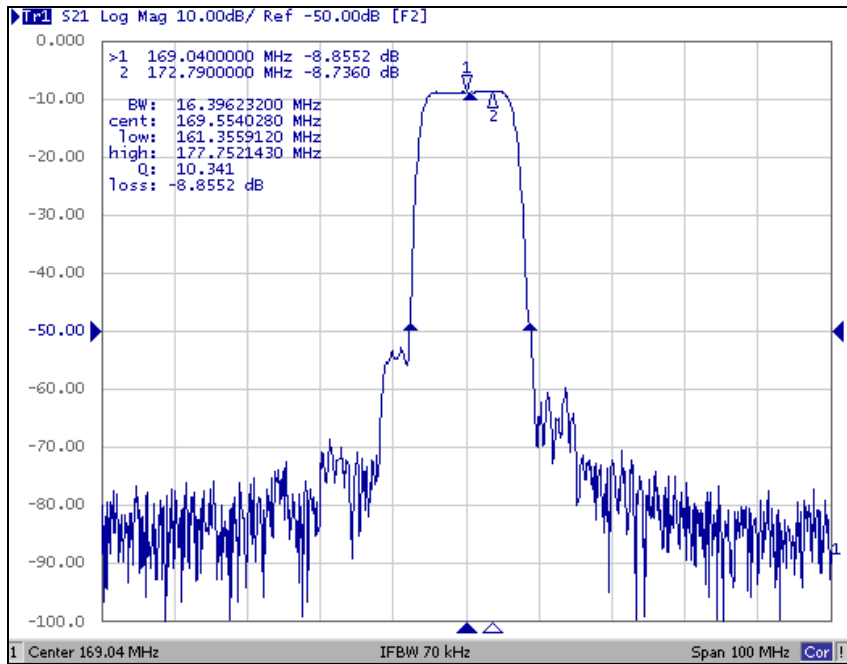


Fig.1. Horizontal: 10MHz/Div, Vertical: 10dB/Div

2. Pass band Response and Group Time Delay response:

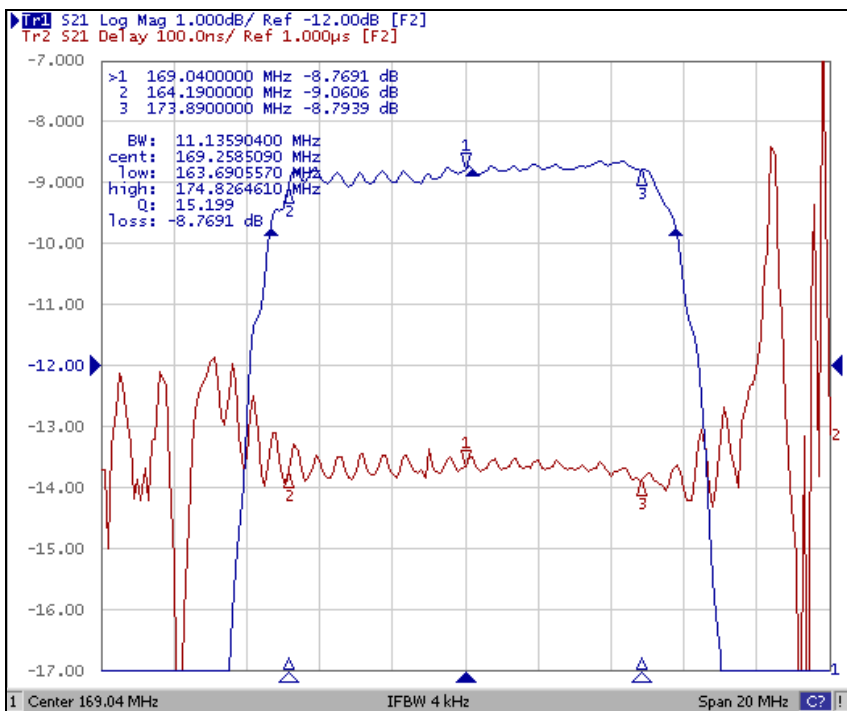


Fig. 2. Horizontal: 2MHz/Div, Vertical: 1dB/Div, Vertical: 100ns/Div

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3. Wide band Response:

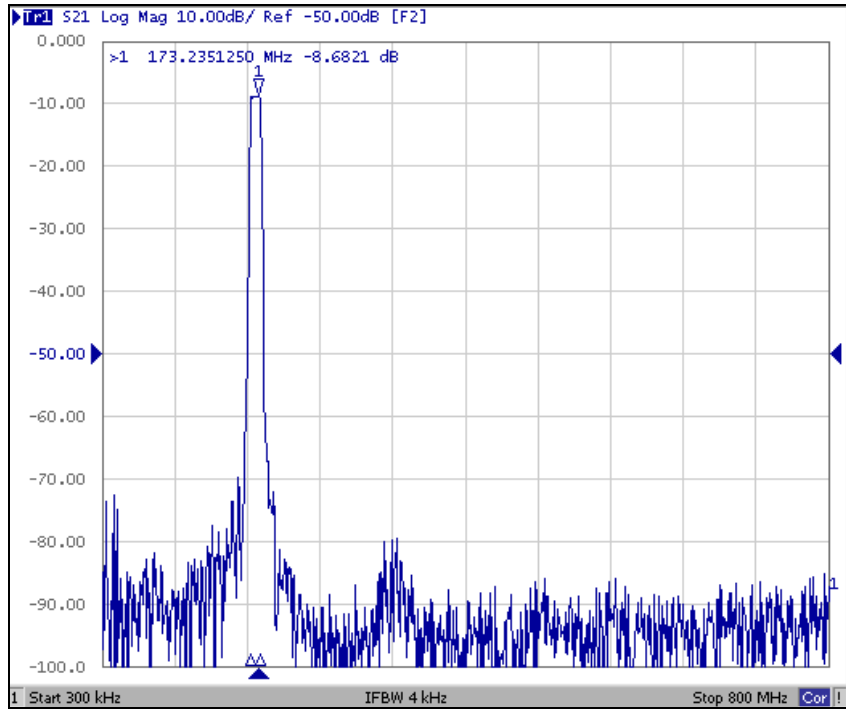
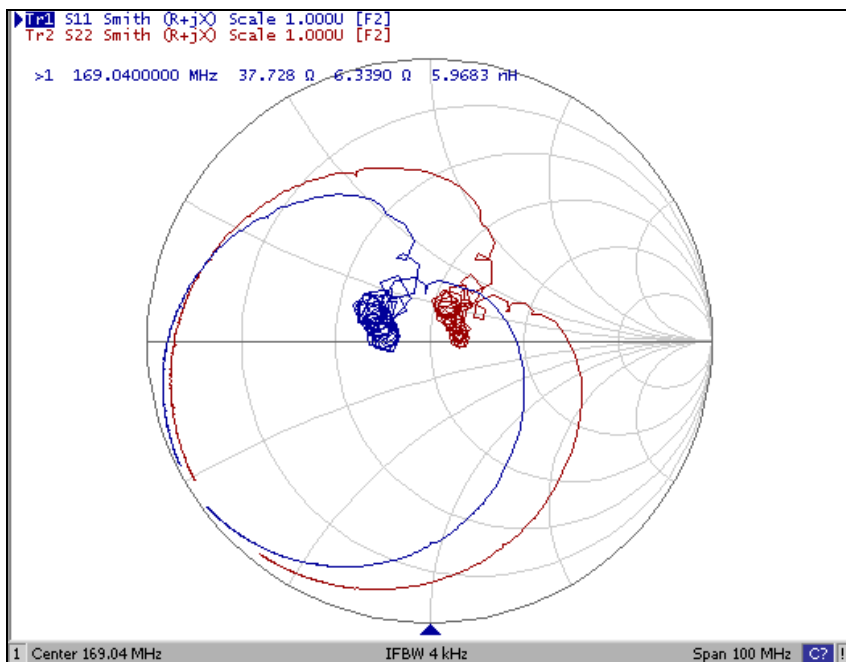


Fig. 3. Horizontal: 80MHz/Div, Vertical: 10dB/Div

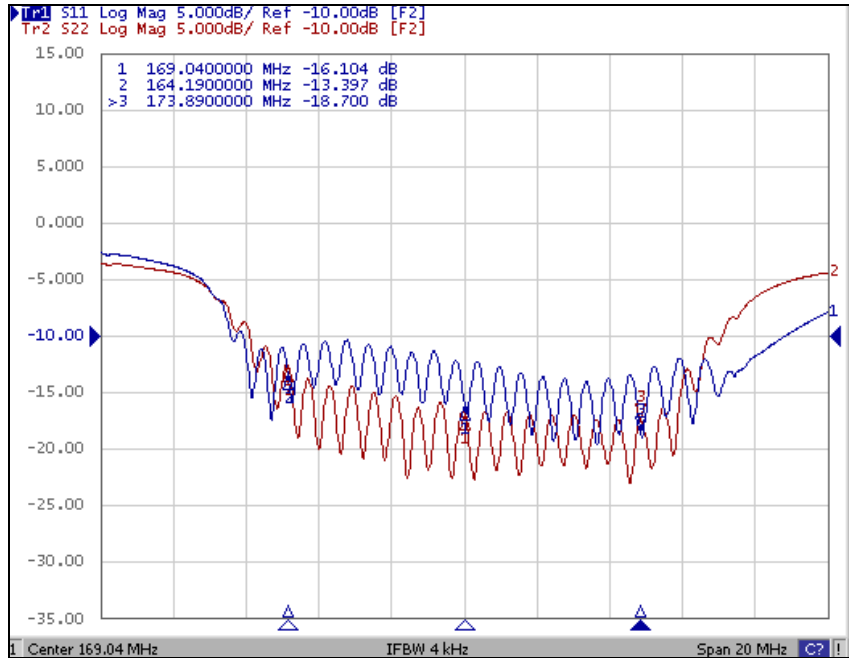
4. Smith Chart:



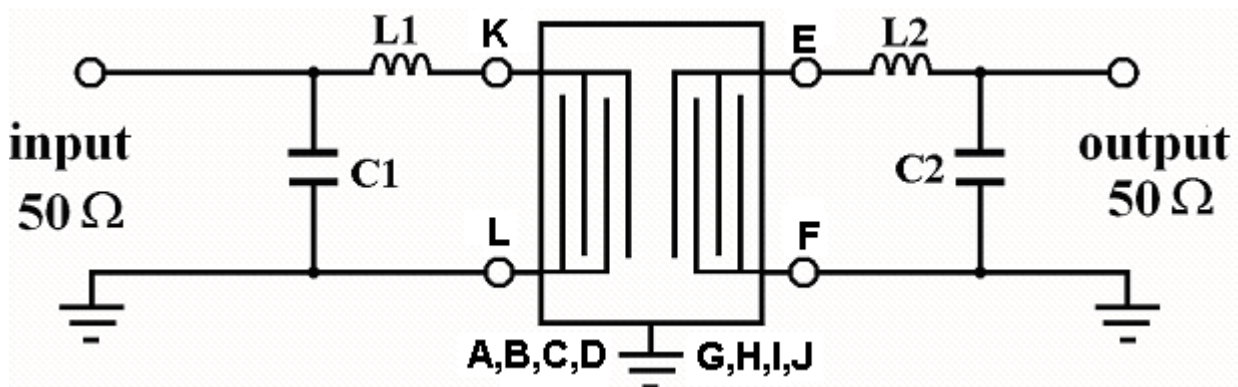
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5. Return Loss:



D. MATCHING CIRCUIT:

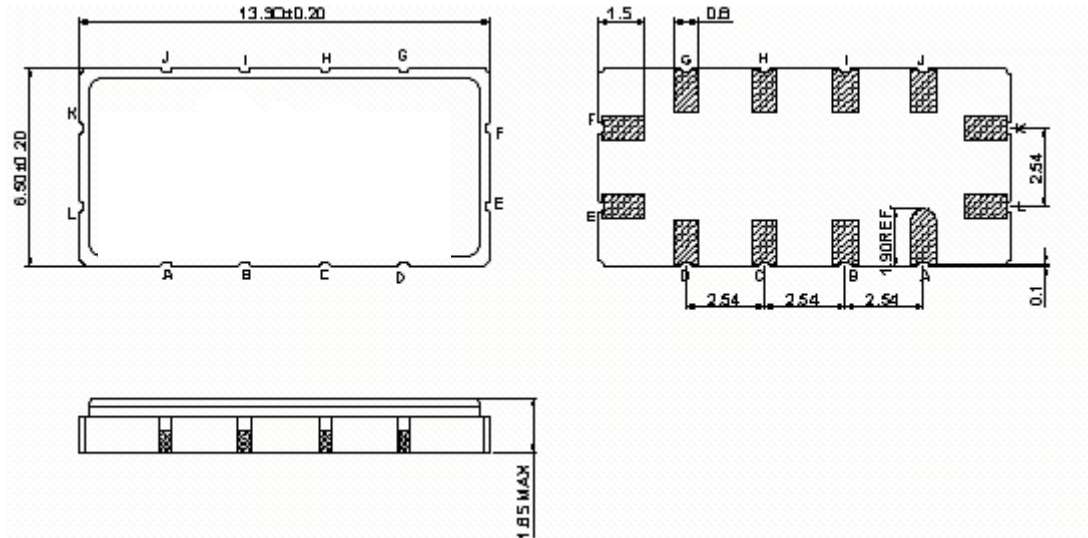


$L1 = 56\text{nH}$ $C1 = 47\text{pF}$ $L2 = 68\text{nH}$ $C2 = 39\text{pF}$

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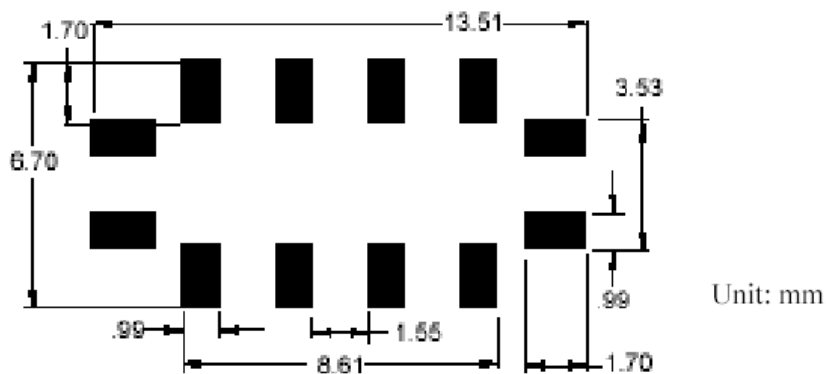
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E. OUTLINE DRAWING:



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

F. PCB FOOTPRINT:



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H. RECOMMENDED REFLOW PROFILE:

