

SAW Filter 213.170MHz
Part No: MP06184

Model: TB1012A
Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device

1. Operating temperature range: -55°C to 125°C
2. Storage temperature range: -55°C to 125°C
3. Input Power Level: 10dBm
4. Maximum DC Voltage: 10V

B. CHARACTERISTICS:

Ambient Temperature: 25°C

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	213.17	-
Insertion Loss IL	dB	-	10.5	12.5
-1dB bandwidth	MHz	8.16	9.3	-
Passband Ripple Fc ± 4.08MHz	dB	-	0.5	1.0
Group Delay variation Fc ± 4.08MHz	nsec	-	40	120
Absolute Delay	unec	-	0.7	-
Attenuation (Reference level from minimum Insertion loss)				
DC ~ 201.17MHz	dB	40	45	-
225.17MHz ~ 600MHz	dB	40	45	-
Temperature Coefficient	ppm/°C	-	-18	-
Source Impedance	Ohm	-	400	-
Load Impedance	Ohm	-	400	-

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C. FREQUENCY CHARACTERISTICS:

1. Narrow band Response: (span 200MHz)

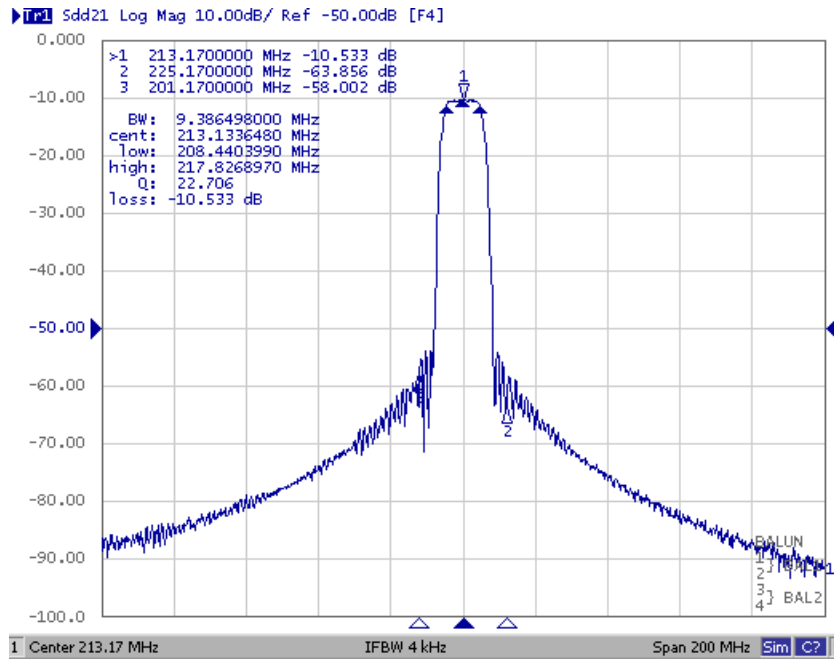


Fig. 1: Horizontal: 20MHz / Div, Vertical: 10Db / Div

2. Pass band Response and Group Time Delay response:

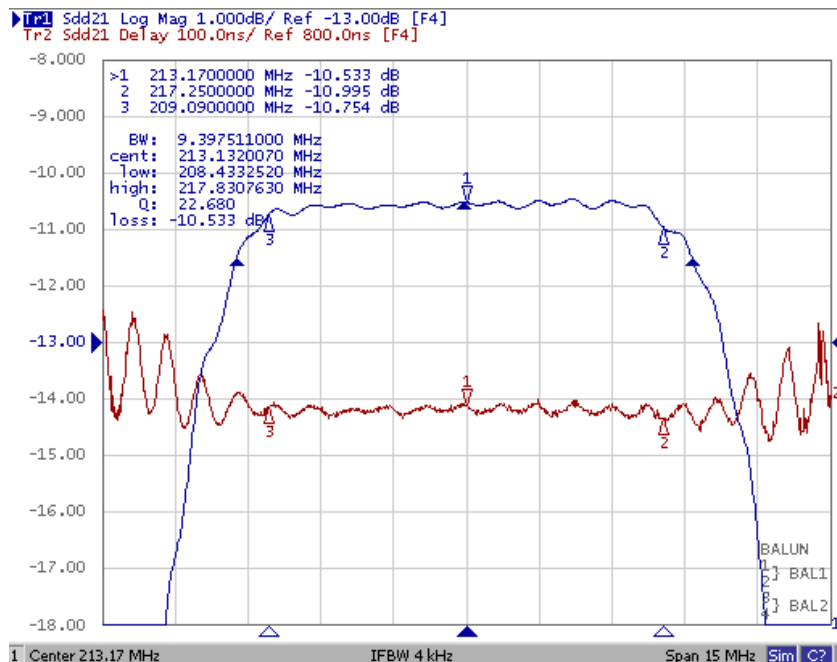
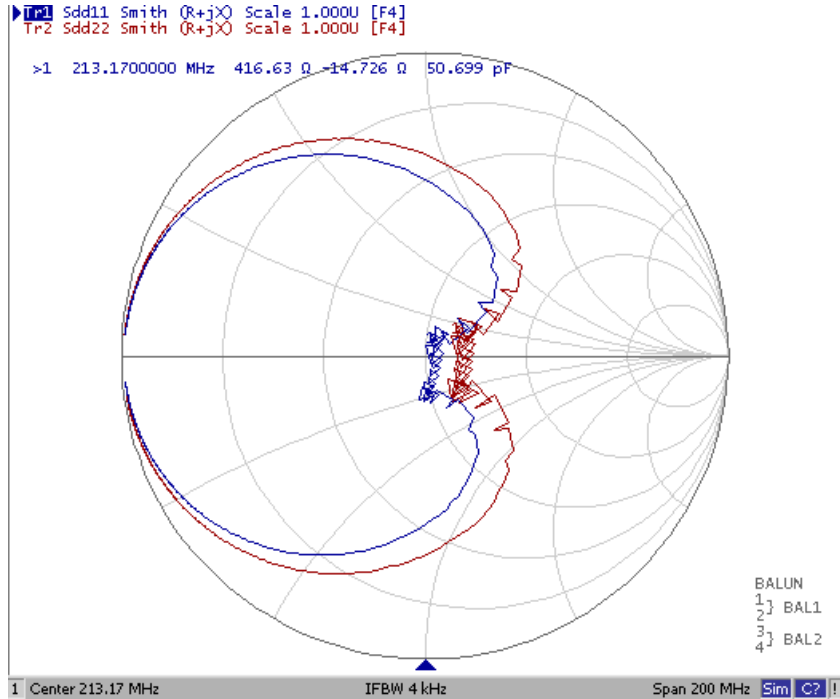


Fig. 2: Horizontal: 1.5MHz / Div, Vertical: 1dB / Div, Vertical: 100ns / Div

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3. Smith Chart:



4. Wide band Response: (span 600MHz)

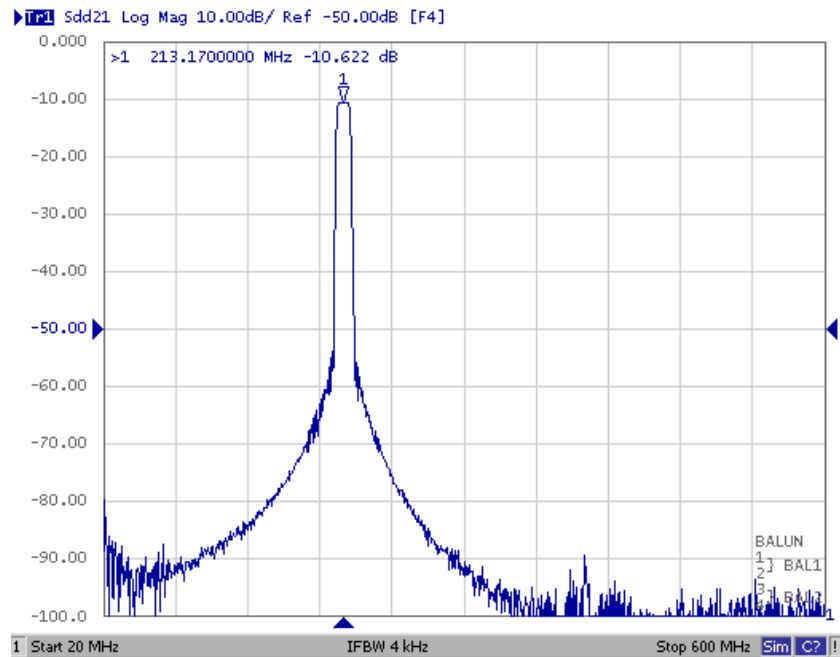
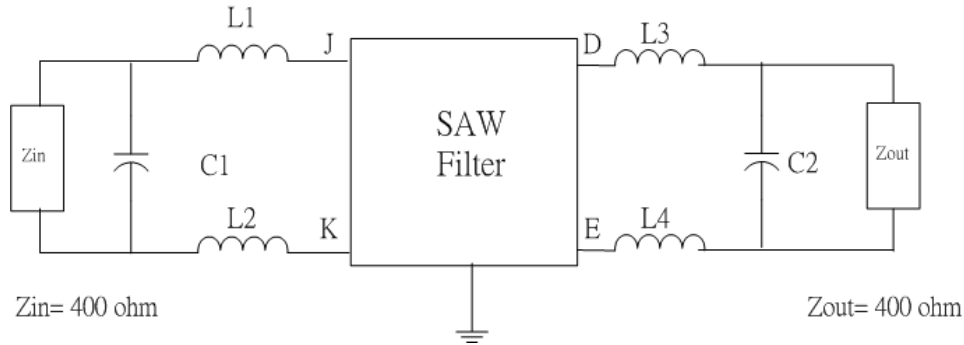


Fig 4: Horizontal: 60MHz / Div, Vertical: 10dB / Div

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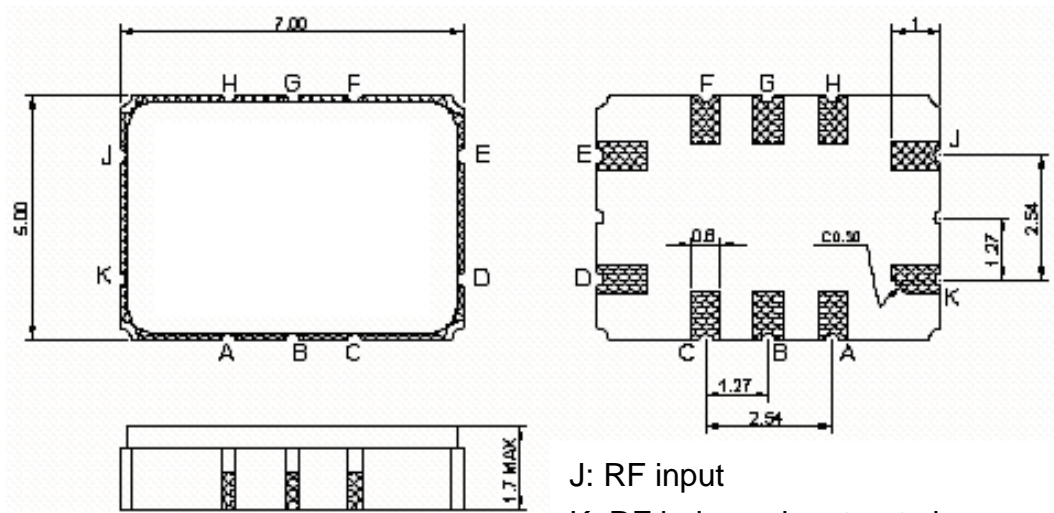
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D. MATCHING CIRCUIT:



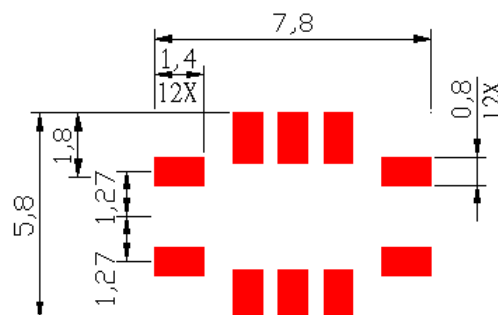
$L1 = L2 = 18\text{nH}$, $L3 = L4 = 22\text{nH}$, $C1 = 15\text{pF}+1\text{pF}$, $C2 = 12\text{pF}+1.5\text{pF}$

E. OUTLINE DRAWING:



J: RF input
 K: RF balance input or to be ground
 D: RF output
 E: RF balance output or to be ground
 A, B, C, F, G, H: Ground
 Unit: mm

F. PCB FOOTPRINT:

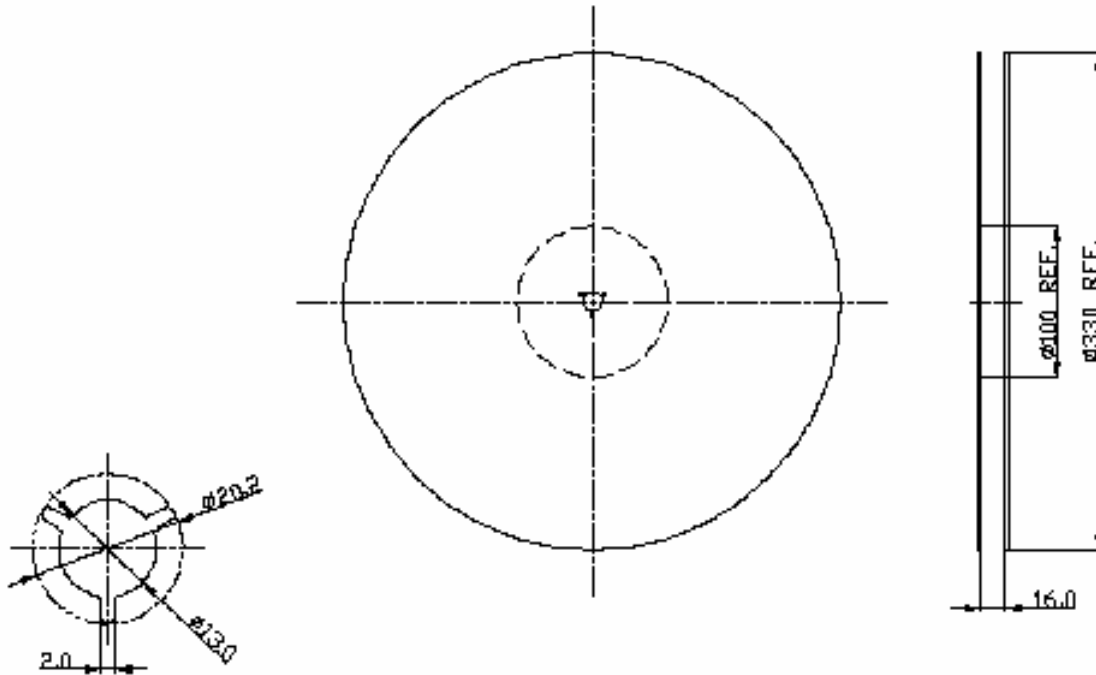


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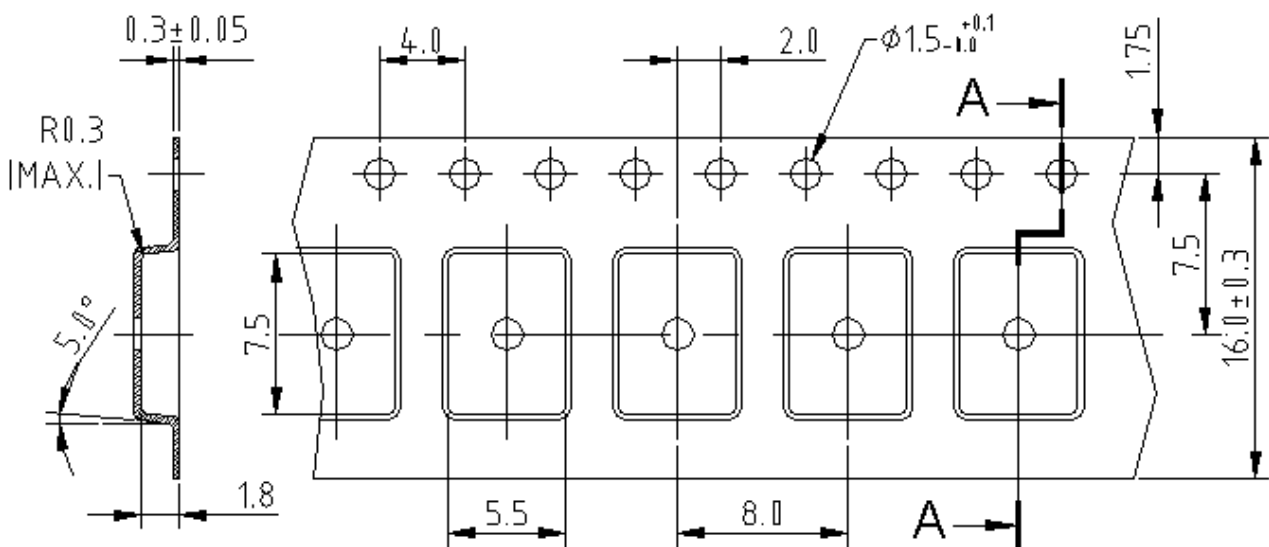
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G. PACKING:

1. Reel Dimension (Please refer to FR-75D10 for packing quantity)



2. Tape Dimension



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H. RECOMMENDED REFLOW PROFILE:

