

SAW Filter 238.60MHz
Part No: MP08711

Model No: TB1162A
Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device

1. Operating temperature range: -40°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	-	238.6	-
Insertion Loss IL	dB	-	3.4	5.0
-1dB bandwidth	kHz	92	195	-
-3dB bandwidth	kHz	-	211	-
-40dB bandwidth	kHz	-	555	-
Passband Ripple Fc ±46kHz	dB	-	1.1	2.0
Group Delay Variation Fc ±46kHz	us	-	2.2	10
Attenuation: (Reference level from Min IL)				
Fc -10 ~ Fc -2MHz	dB	55	65	-
Fc -2 ~ Fc -1MHz	dB	50	59	-
Fc -1 ~ Fc -0.5MHz	dB	40	52	-
Fc -0.5 ~ Fc -0.2MHz	dB	8	17	-
Fc +0.2 ~ Fc +0.5MHz	dB	8	26	-
Fc +0.5 ~ Fc +1MHz	dB	37	45	-
Fc +1 ~ Fc +2MHz	dB	50	63	-
Fc +2 ~ Fc +10MHz	dB	40	51	-
Temperature Coefficient	ppm/°C ²	-	-0.036	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

Note: Considering -37kHz frequency shift from -40°C to +85°C

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C. FREQUENCY CHARACTERISTICS:

1. Wide band Response:

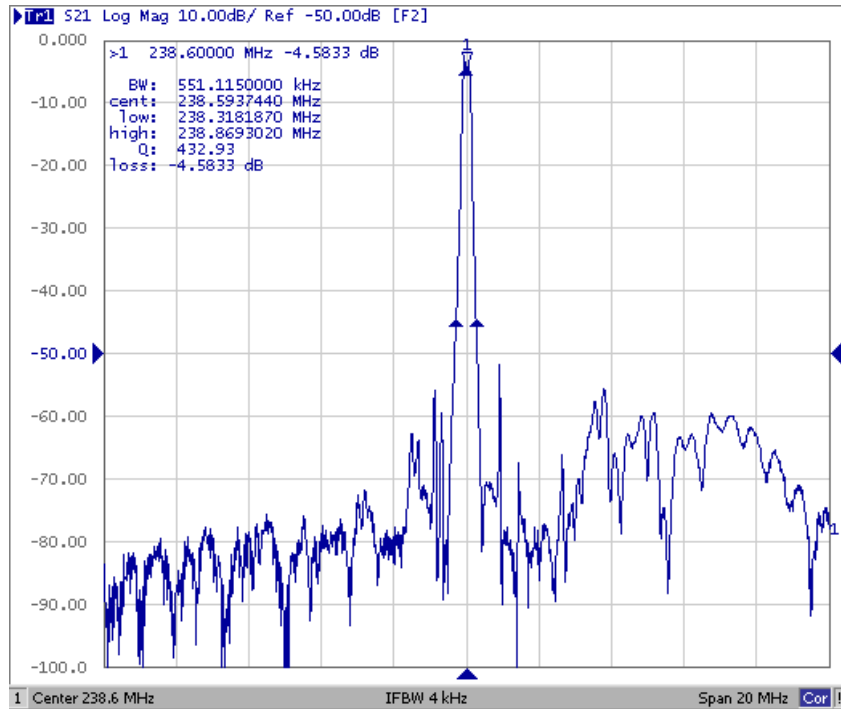


Fig. 1: Horizontal: 2MHz / Div, Vertical: 10Db / Div

2. Pass band Response and Group Delay Response:

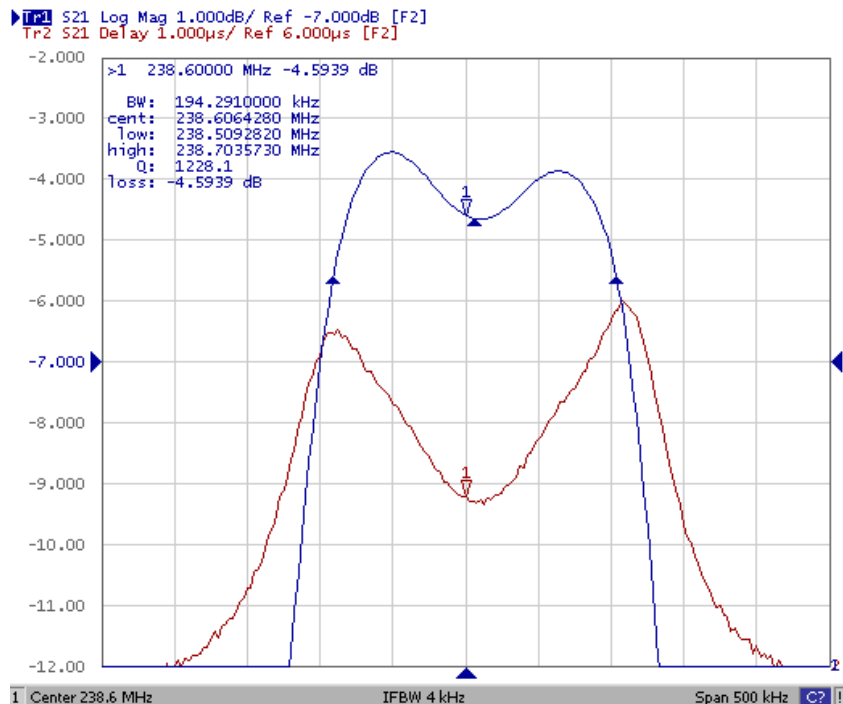
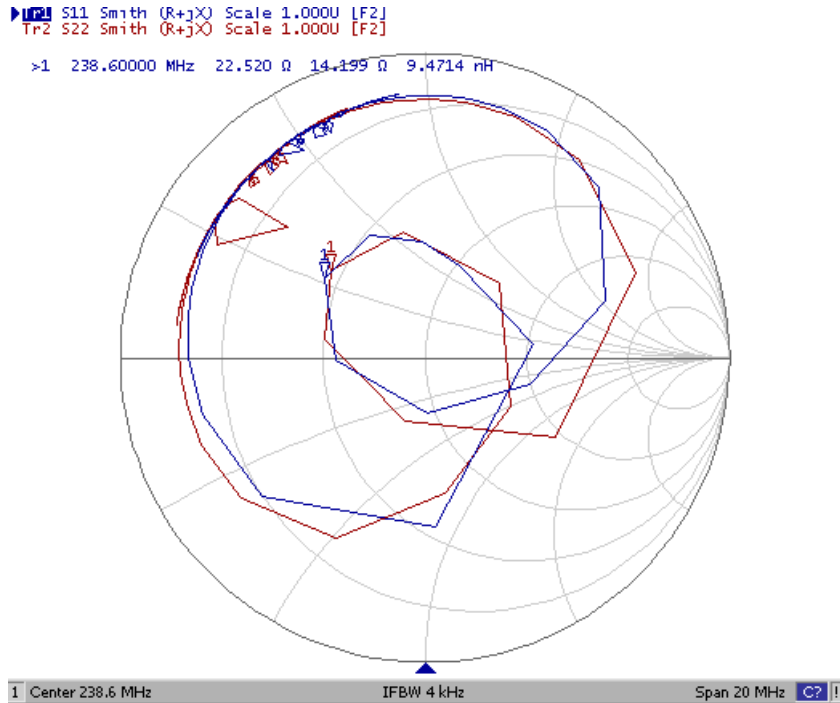


Fig 2: Horizontal: 0.05MHz / Div, Vertical: 1dB / Div, Vertical: 1us / Div

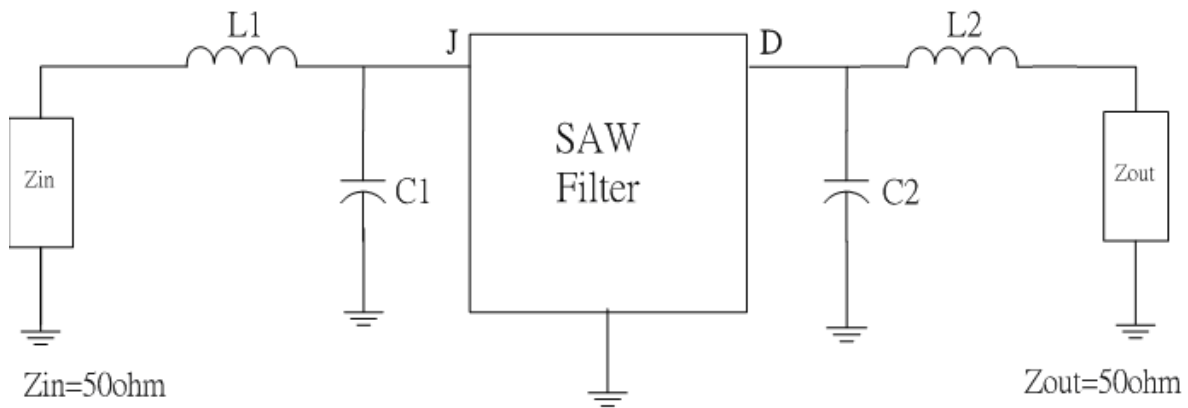
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3. Smith Chart:



D. MATCHING CIRCUIT:



$L1 = 100\text{nH} + 27\text{nH}$ $L2 = 100\text{nH} + 27\text{nH}$ $C1 = 1\text{pF}$ $C2 = 1\text{pF}$

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H. RECOMMENDED REFLOW PROFILE:

