

SAW Filter 192.0MHz
Part No: MP07097

Model: TB1131A
Rev No: 2

A. MAXIMUM RATING:

Electrostatic Sensitive Device

1. Operating temperature range: -30°C to 85°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level: 10dBm
4. Maximum DC Voltage: 0V
5. Moisture Sensitivity Level: Level 1(MSL1)

B. CHARACTERISTICS:

Ambient Temperature: 25°C

Item	Unit	Min.	Typ.	Max.
Center frequency, Fc	MHz	-	192	-
Insertion Loss, IL	dB	-	16.5	17.5
1.2dB Bandwidth	MHz	60	64	-
Passband Ripple Fc ± 30MHz	dB	-	0.7	1.2
Phase Delay Fc ± 30MHz	deg	-	9.4	-
Absolute group Delay	us	-	0.4	-
Group Delay variation Fc ± 30MHz	ns	-	40	60
Attenuation (Reference level from minimum Insertion loss)				
10MHz ~ 135.5MHz	dB	40	44	-
135.5MHz ~ 145.5MHz	dB	35	44	-
238.5MHz ~ 248.5MHz	dB	35	42	-
248.5MHz ~ 450MHz	dB	40	42	-
450MHz ~ 770MHz	dB	35	43	-
770MHz ~ 1000MHz	dB	40	60	-
Temperature Coefficient	ppm/°C	-	-94	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

SAW Filter 192.0MHz
Part No: MP07097

Model: TB1131A
Rev No: 2

C. FREQUENCY CHARACTERISTICS:

1. Narrow Band Response:

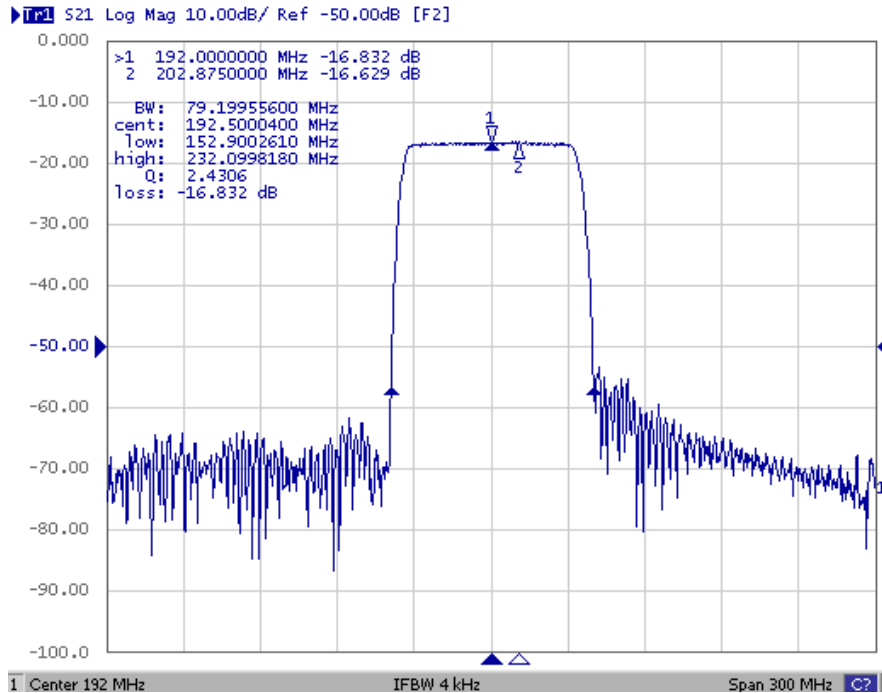


Fig. 1: Horizontal: 30MHz / Div, Vertical: 10dB / Div

2. Pass Band Response and Group Delay Response:

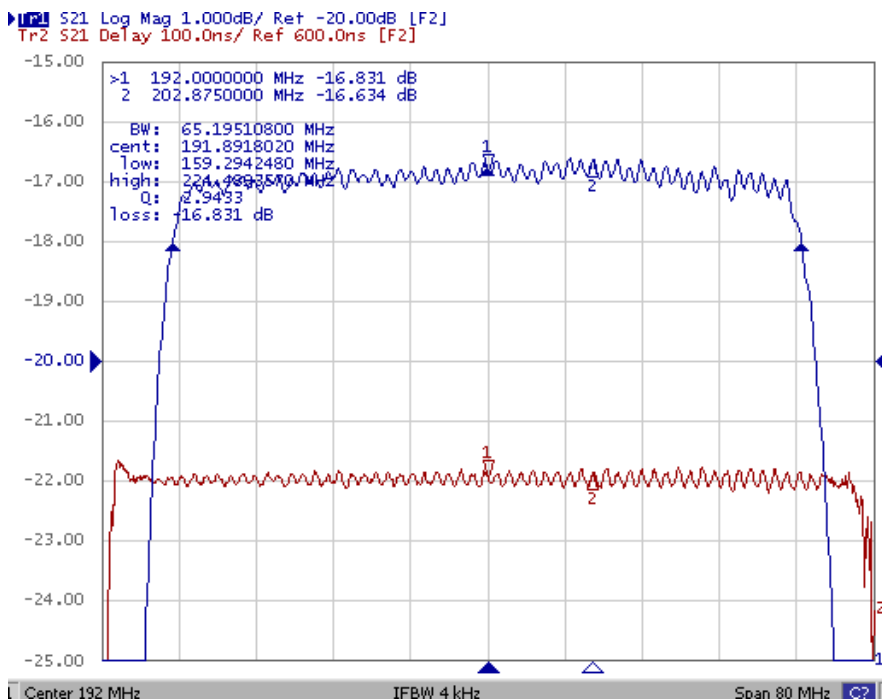
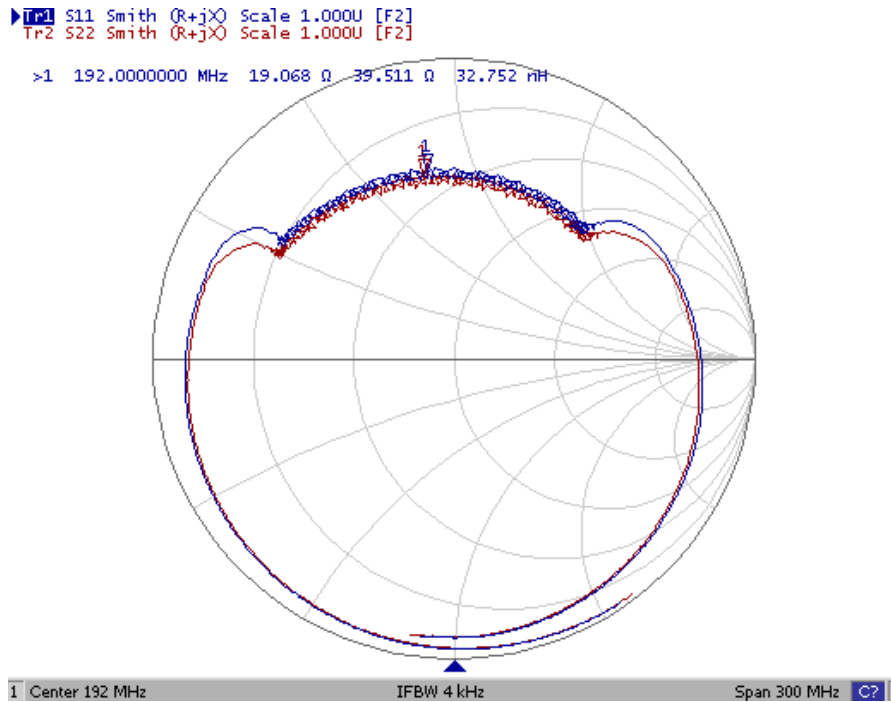


Fig. 2: Horizontal: 8MHz / Div, Vertical: 1dB / Div, Vertical: 100ns / Div

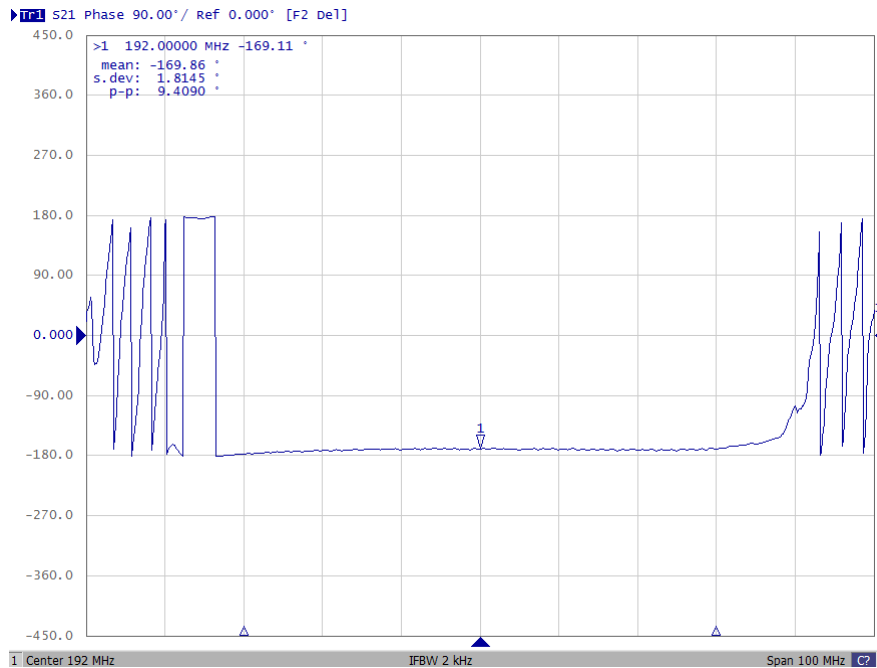
SAW Filter 192.0MHz
Part No: MP07097

Model: TB1131A
Rev No: 2

3. Smith Chart:



4. Phase:



SAW Filter 192.0MHz
Part No: MP07097

Model: TB1131A
Rev No: 2

5. Wide Band Response:

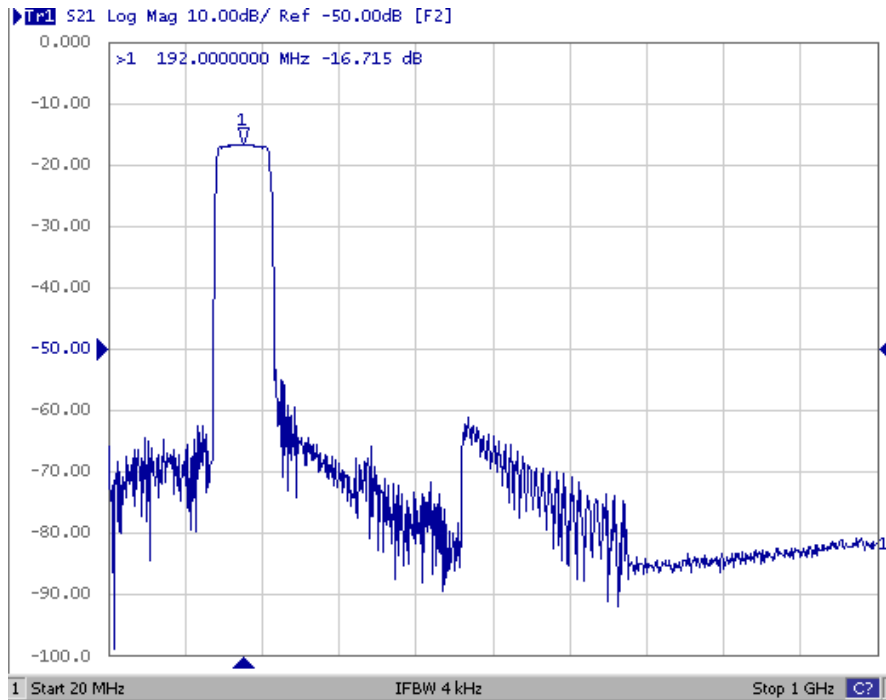
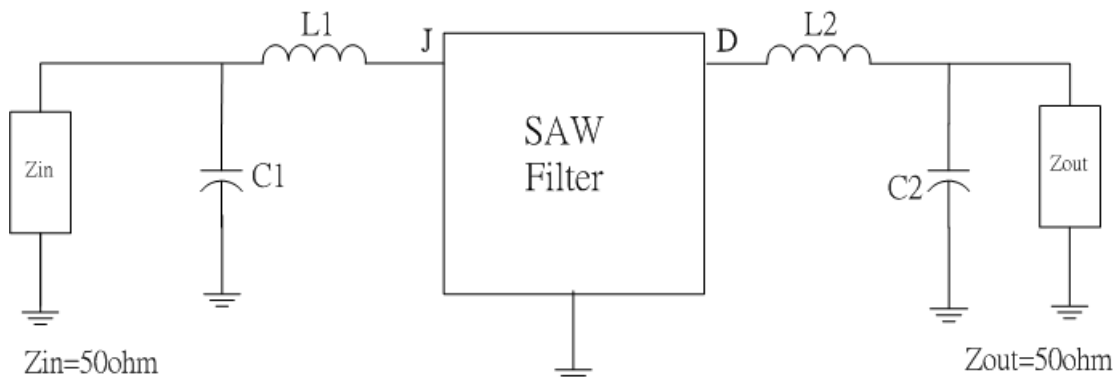


Fig. 4: Horizontal: 100MHz / Div, Vertical: 10dB / Div

D. MATCHING CIRCUIT:

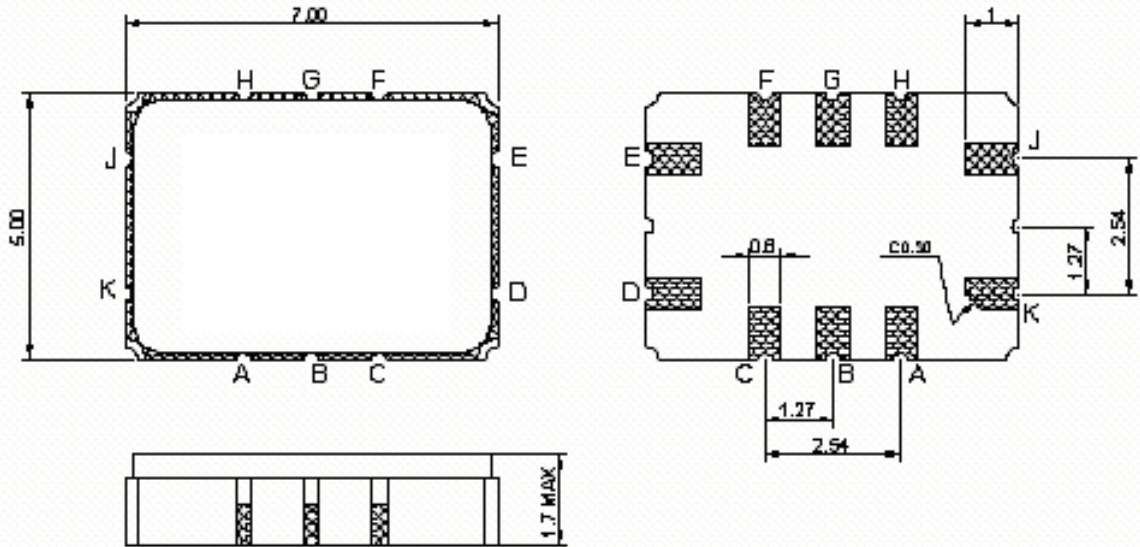


$L1 = 39\text{nH}$, $L2 = 43\text{nH}$, $C1 = 12\text{pF}$, $C2 = 12\text{pF}$

SAW Filter 192.0MHz
Part No: MP07097

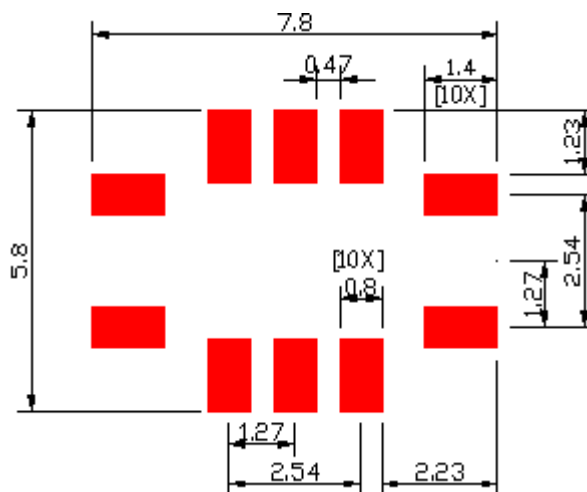
Model: TB1131A
Rev No: 2

E. OUTLINE DRAWING:



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

F. PCB FOOTPRINT:

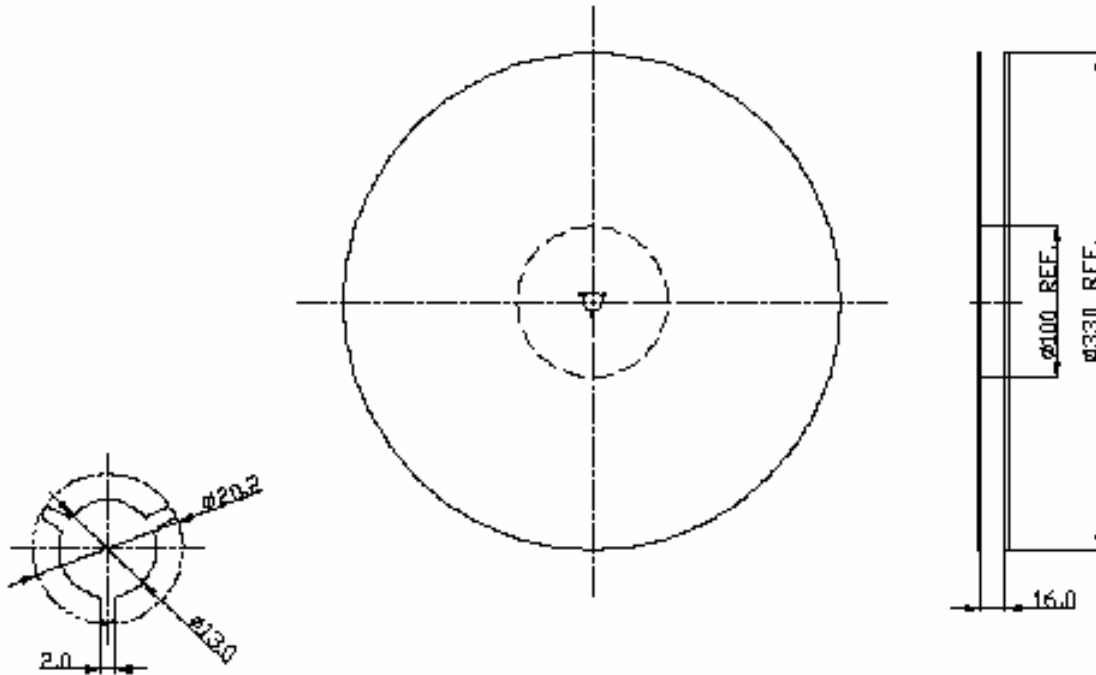


SAW Filter 192.0MHz
Part No: MP07097

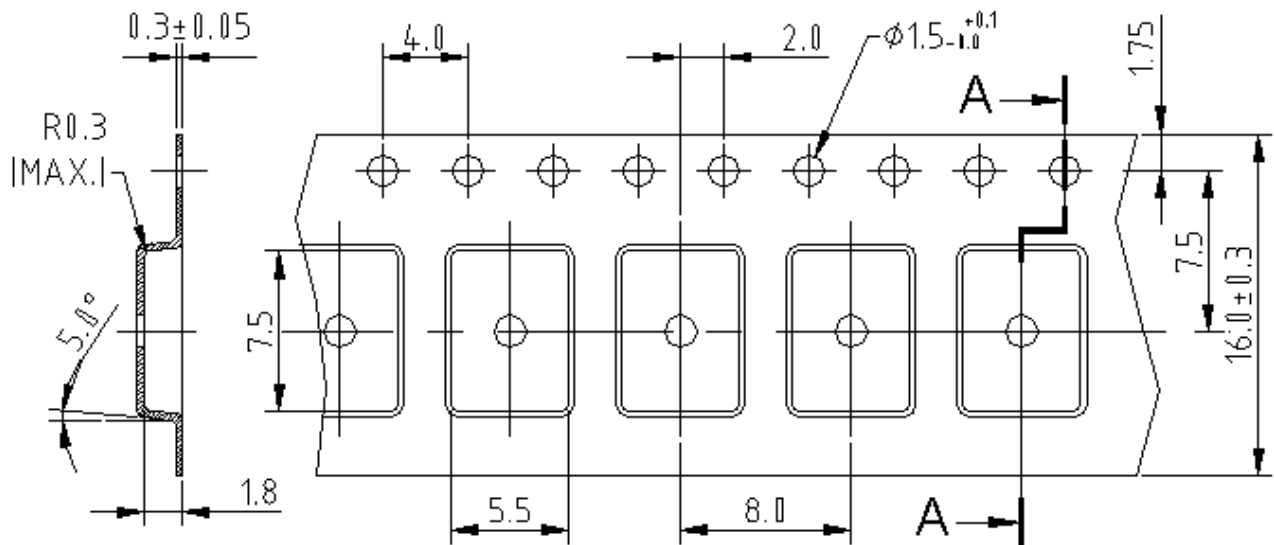
Model: TB1131A
Rev No: 2

G. PACKING:

1. Reel Dimension



2. Tape Dimension



SAW Filter 192.0MHz
Part No: MP07097

Model: TB1131A
Rev No: 2

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.

