

SAW Filter 978.0MHz
Part No: MP09053

Model No: TA1797A
Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device

1. Input Power Level: 10dBm
2. DC Voltage: 6V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 1 (MSL1)

B. ELECTRICAL CHARACTERISTICS:

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	977.5	978	978.5
3dB BW	MHz	-	2.2	-
Minimum insertion loss IL (min)				
Exclude loss in matching elements *1)	dB	-	3.3	3.6
Incl. loss of matching elements (Q = 90) *2)	dB	-	3.5	3.9
Passband (relative to IL min) *2)				
977.375 ~ 978.625MHz	dB	-	0.6	3.0
Attenuation (relative to IL min) *2)				
15.000 ~ 893.50MHz	dB	39	49	-
893.50 ~ 958.50MHz	dB	36	44	-
958.50 ~ 966.50MHz	dB	34	42	-
966.50 ~ 975.50MHz	dB	17	27	-
980.50 ~ 986.50MHz	dB	10	17	-
986.50 ~ 1004.50MHz	dB	22	30	-
1004.50 ~ 1023.5MHz	dB	36	51	-
1023.5 ~ 2023.5MHz	dB	38	57	-
2023.5 ~ 2523.5MHz	dB	55	60	-
Impedance at Fc, Input *2) $Z_{IN} = R_{IN} // C_{IN} Z_S$	Ω	686 Ω //1.60pF		
Impedance at Fc, Output *2) $Z_{OUT} = R_{OUT} // C_{OUT} Z_L$	Ω	298 Ω //1.70pF		

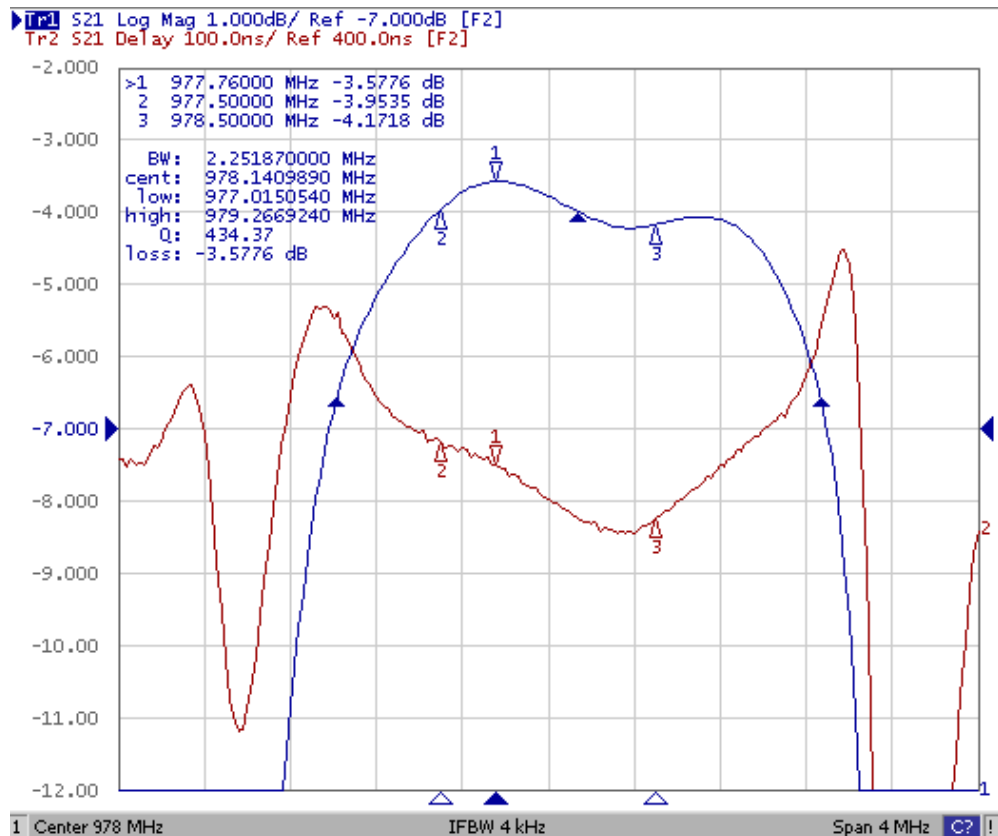
Notes:

- *1. The matching circuit is ideal by simulation.
- *2. The matching circuit is real by actual passive components.
 0805 Coillcraft CS series chip conductor is used for inductor.
 0402 muRata GRM series is used for capacitor.

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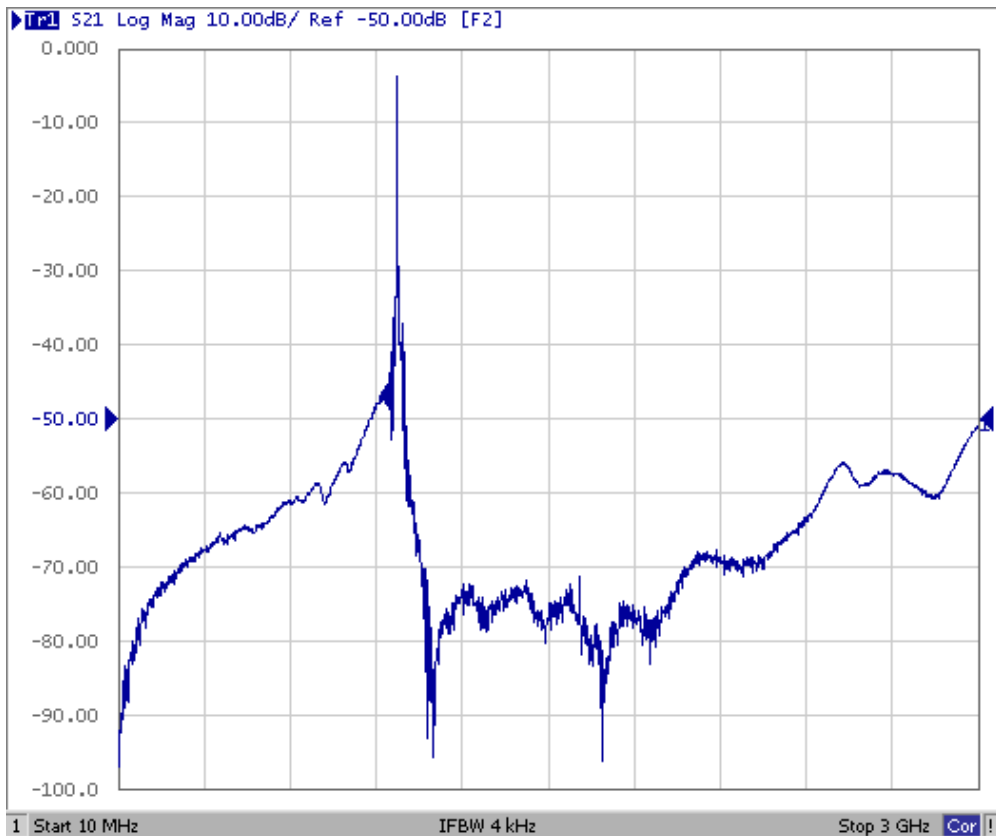
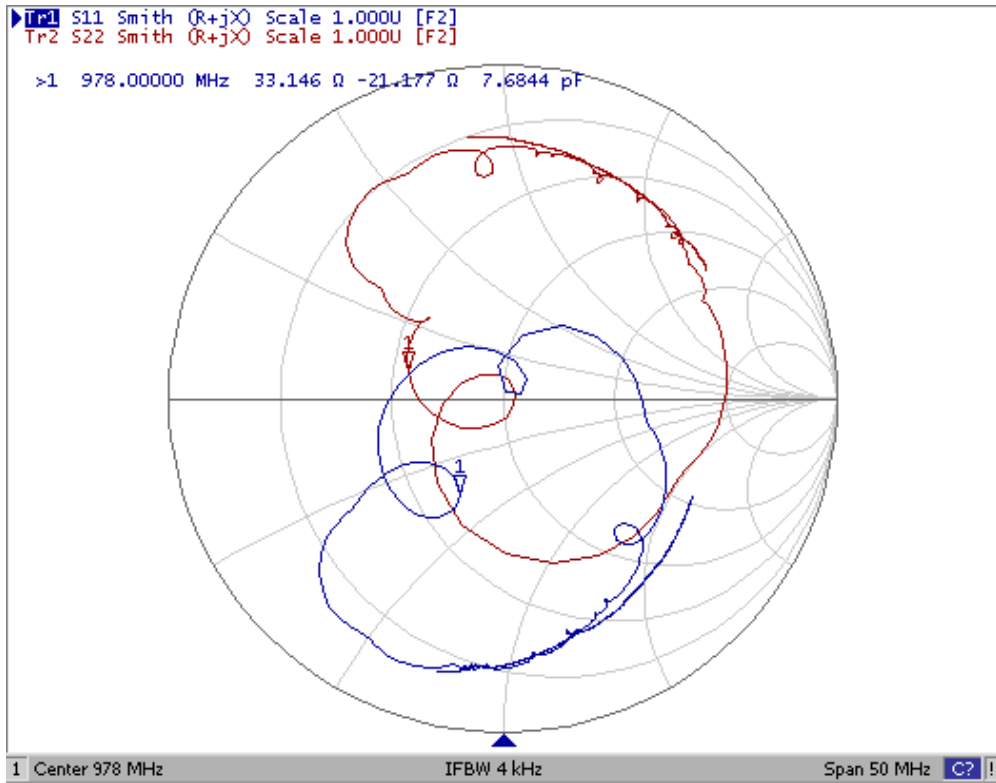
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C. FREQUENCY CHARACTERISTICS:



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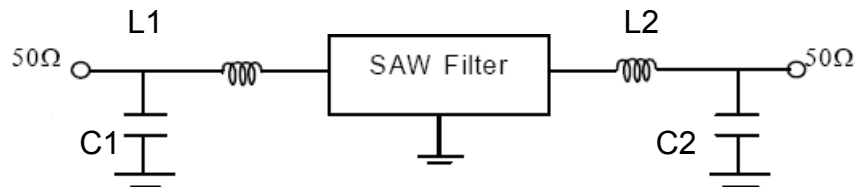
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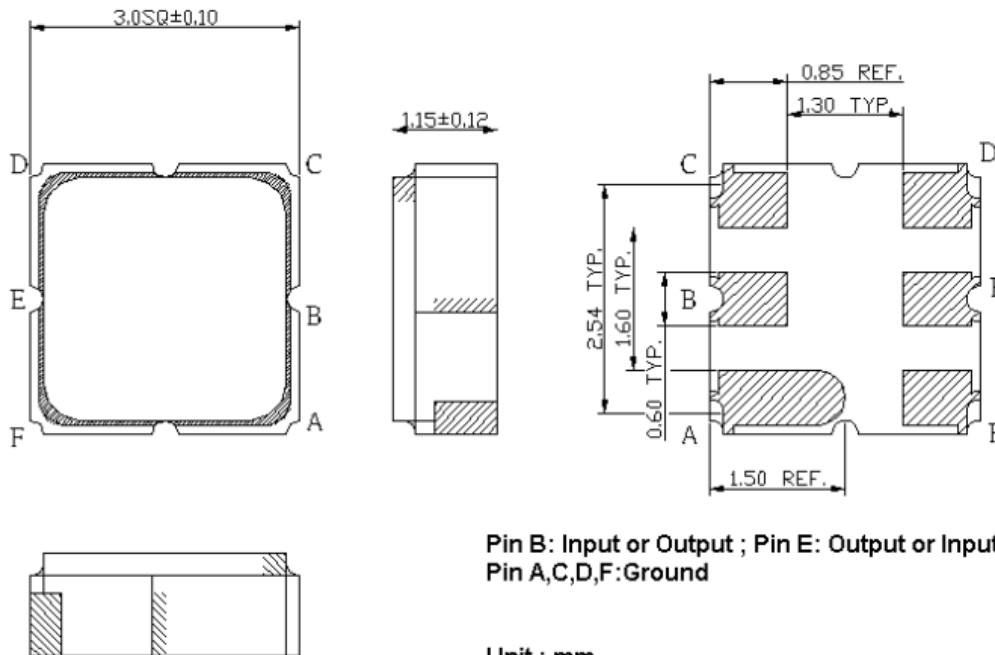
D. MEASUREMENT CIRCUIT:

The matching circuit is real by actual passive components.

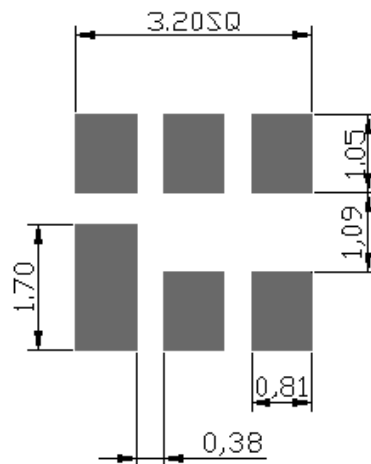


L1: 20nH, L2: 18nH
 C1: 5pF, C2: 3pF

E. OUTLINE DRAWING:



F. PCB FOOTPRINT:



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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.

