

SAW Filter 315.0MHz

Model: TA1564A

Part No: MP05190 AEC-Q200 level 1

Rev No: 2

A. MAXIMUM RATING:

Electrostatic Sensitive Device

1. Input Power Level: 10dBm
2. DC Voltage: 6V
3. Operating Temperature: -40°C to +95°C
4. Storage Temperature: -40°C to +95°C

B. ELECTRICAL CHARACTERISTICS:

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	315	-
3dB BW	kHz	-	560	-
Minimum insertion loss IL (min)				
Include. loss of matching elements (Q = 71)*1)	dB	-	2.4	3.4
Exclude loss in matching elements *2)	dB	-	2.1	3.1
Passband (relative to IL min)*1)				
314.82 ~ 315.18MHz	dB	-	1.1	3.5
Attenuation (relative to IL min) *1)				
10.000 ~ 294.50MHz	dB	42	49	-
294.50 ~ 304.50MHz	dB	37	44	-
304.50 ~ 312.80MHz	dB	24	31	-
312.80 ~ 313.20MHz	dB	29	36	-
313.20 ~ 314.00MHz	dB	20	27	-
315.90 ~ 323.00MHz	dB	12	16	-
323.00 ~ 335.00MHz	dB	33	39	-
335.00 ~ 600.00MHz	dB	40	46	-
600.00 ~ 1000.0MHz	dB	60	70	-
1000.0 ~ 2500.0MHz	dB	50	56	-
Impedance at Fc, Input *1) $Z_{IN} = R_{IN} // C_{IN} Z_S$	Ω	181 Ω // 1.38pF		
Impedance at Fc, Output *1) $Z_{OUT} = R_{OUT} // C_{OUT} Z_L$	Ω	190 Ω // 1.30pF		

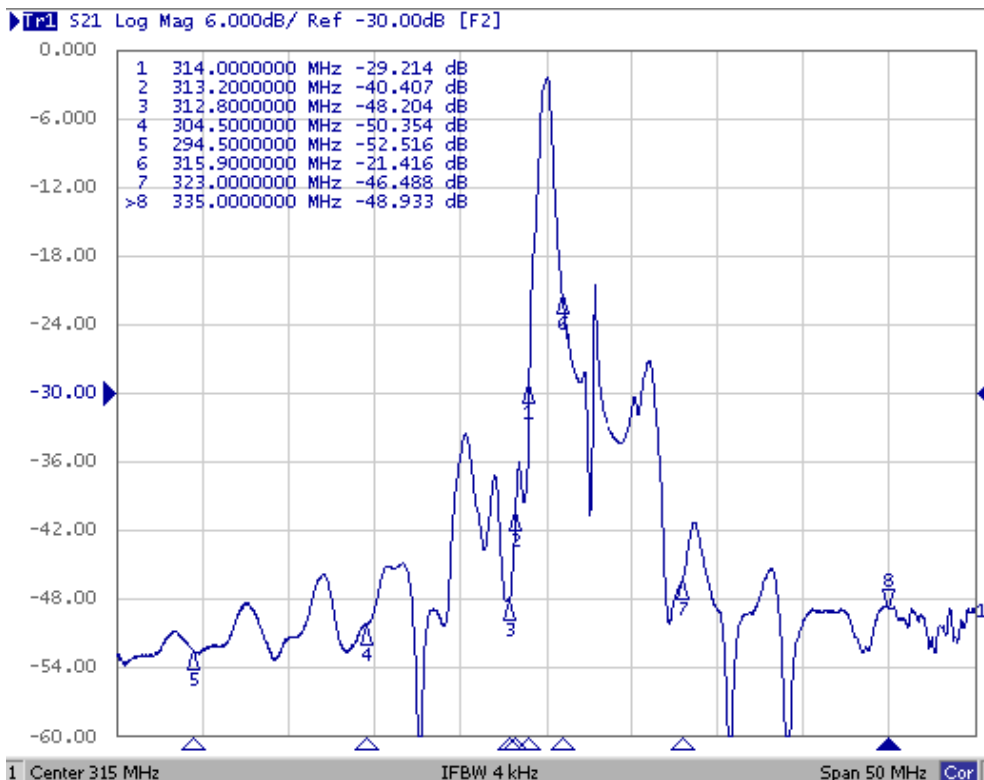
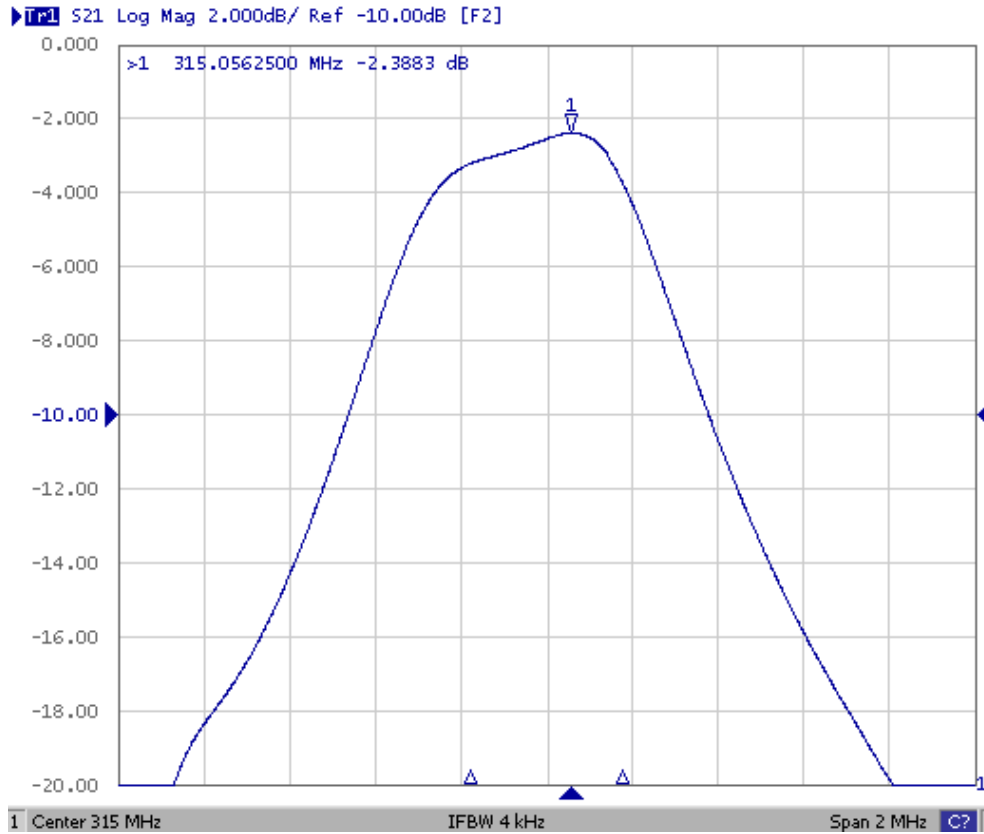
*1): The matching circuit is real by actual passive components.
 0805 Coilcraft CS series chip conductor is used for inductor.
 0402 muRata GRM series is used for capacitor.

*2): The matching circuit is ideal by simulation.

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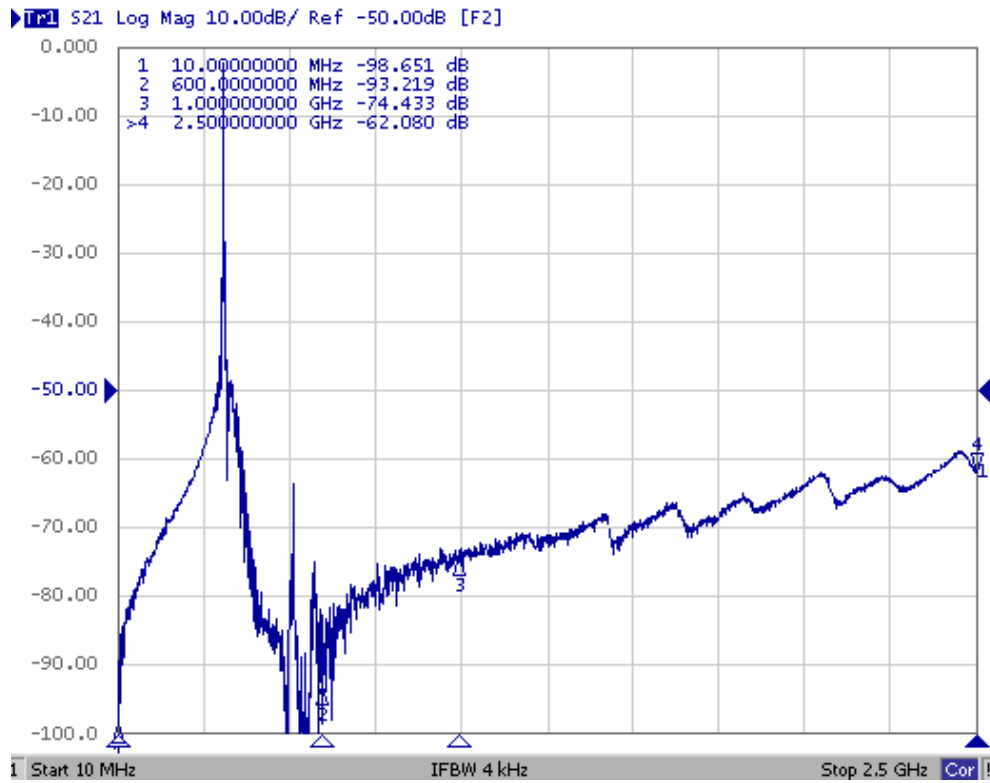
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C. FREQUENCY CHARACTERISTICS:



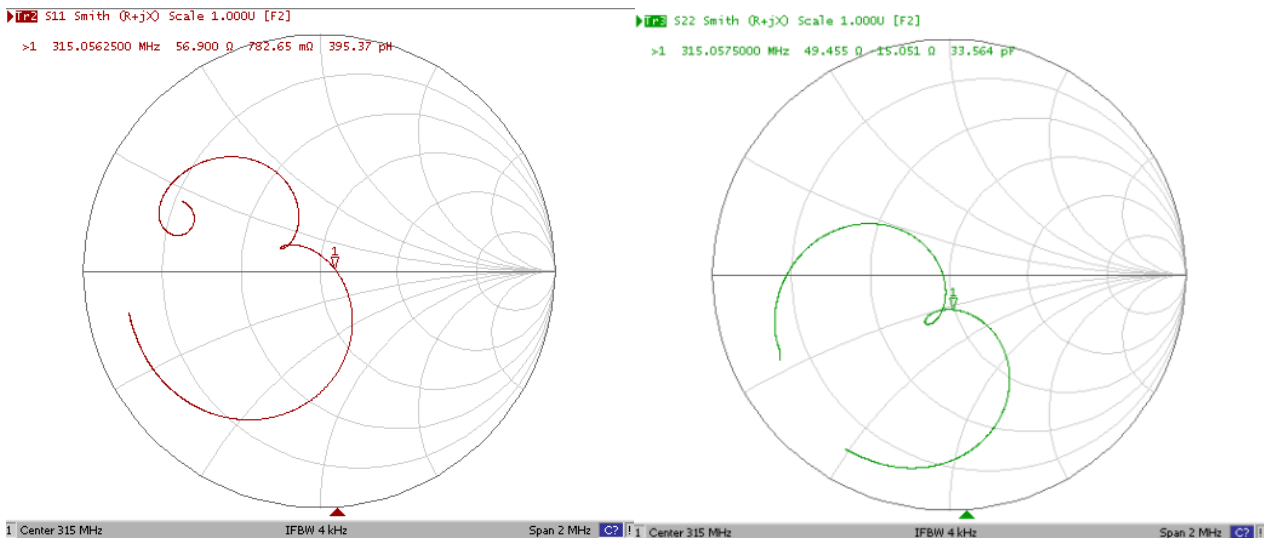
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Smith Chart S11

Smith Chart S22



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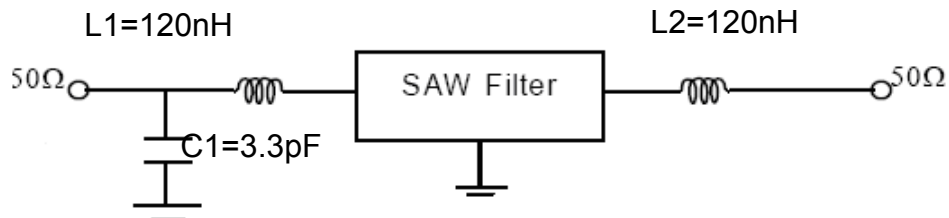
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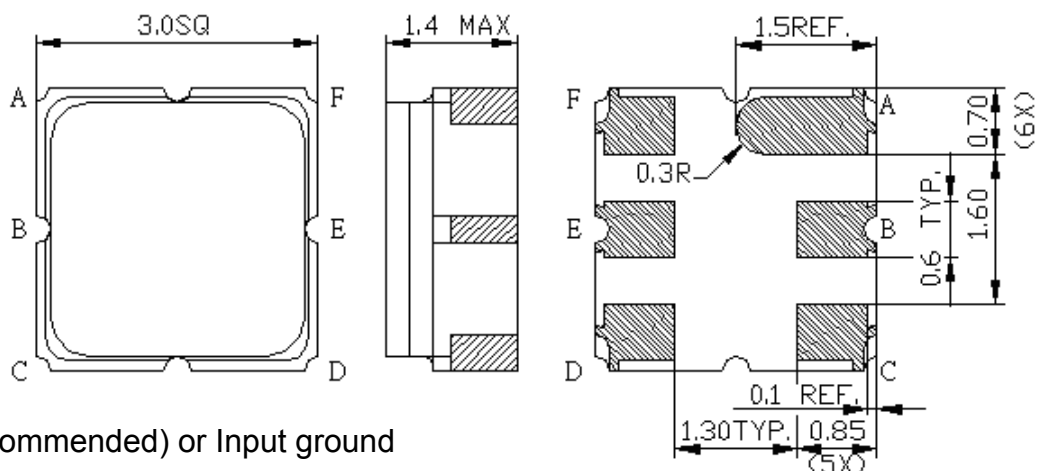
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D. MEASUREMENT CIRCUIT:

The matching circuit is real by actual passive components.



E. OUTLINE DRAWING:

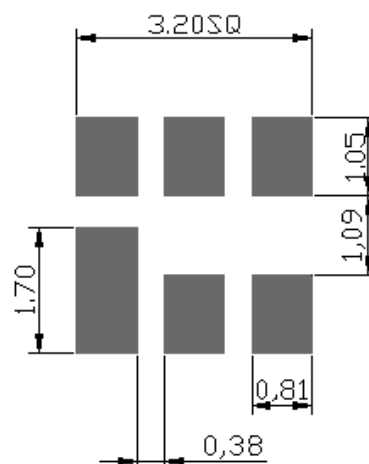


- A: Input (recommended) or Input ground
- B: Input ground (recommended) or Input
- D: Output (recommended) or Output ground
- E: Output ground (recommended) or Output
- C, F: Ground

Unit: mm

*3) The recommended pin configuration offers better suppression of electrical crosstalk.

F. PCB FOOTPRINT:

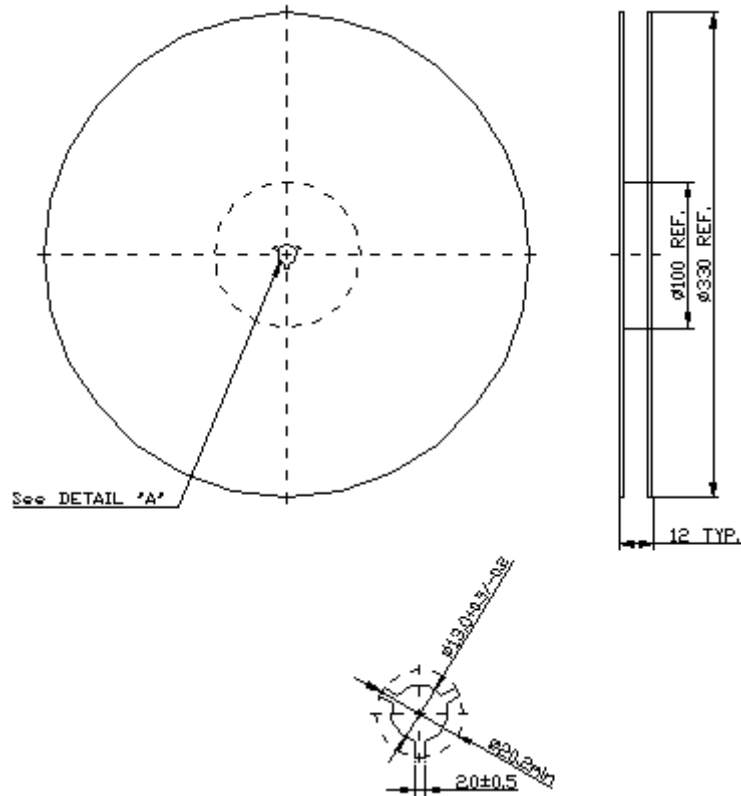


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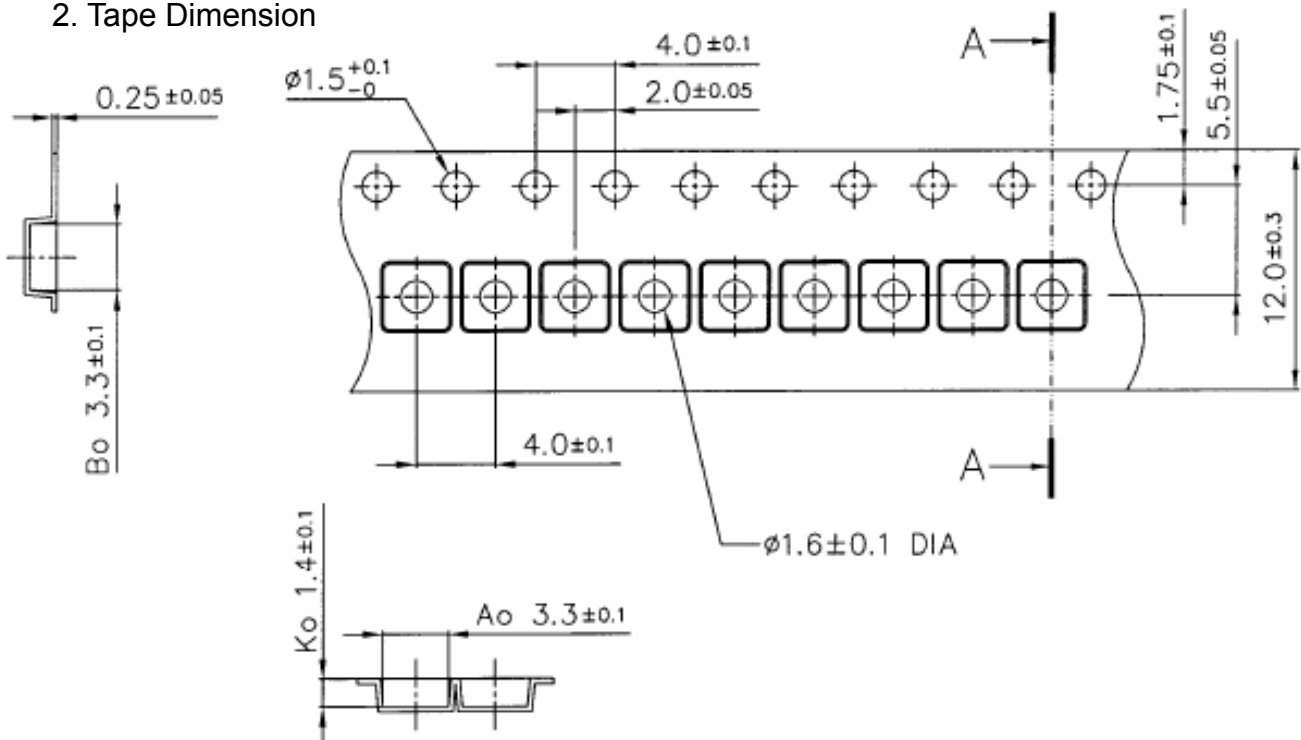
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G. PACKING:

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



2. Tape Dimension



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H. RECOMMENDED REFLOW PROFILE:

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 245~260°C peak (min. 10sec).
4. Time: 2 times.

