

SAW Filter 119.640MHz
Part No: MA05334

Model: TB0196A
Rev No: 2

A. MAXIMUM RATING:

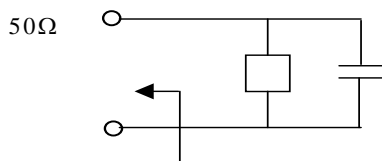
Electrostatic Sensitive Device (ESD)

1. Input Power Level: 10dBm
2. DC voltage: 13 V
3. Operating Temperature: -20°C to +75°C
4. Storage Temperature: -40°C to +85°C

B. ELECTRICAL CHARACTERISTICS:

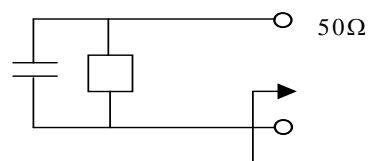
Item	Unit	Min.	Typ.	Max.	Note
Center frequency Fc	MHz	-	119.64	-	-
Minimum Insertion Loss IL	dB	-	4	5.5	-
3 dB bandwidth (from Fc)	KHz	±15	-	-	-
Group delay ripple in Fc ± 15kHz GD	µs	-	5	10	-
Attenuation:(Reference level from min IL)					
Fc - 2.5 to Fc + 2.5kHz	dB	-	1.2	3.0	-
Fc ± 80 to Fc ± 120kHz	dB	13	23	-	-
Fc ± 120 to Fc ± 240kHz	dB	43	50	-	-
Fc ± 240 to Fc ± 330kHz	dB	45	55	-	-
Fc ± 330 to Fc ± 480kHz	dB	45	55	-	-
Fc ± 480 to Fc ± 660kHz	dB	45	55	-	-
Temperature coefficient of frequency TCf	-0.033ppm / C ²				

Source impedance



$$Z_{IN}=416.2\Omega // -4.65pF$$

Load impedance

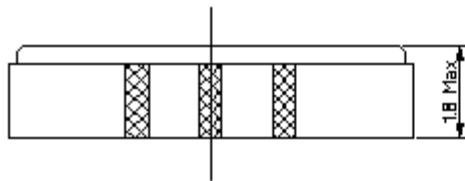
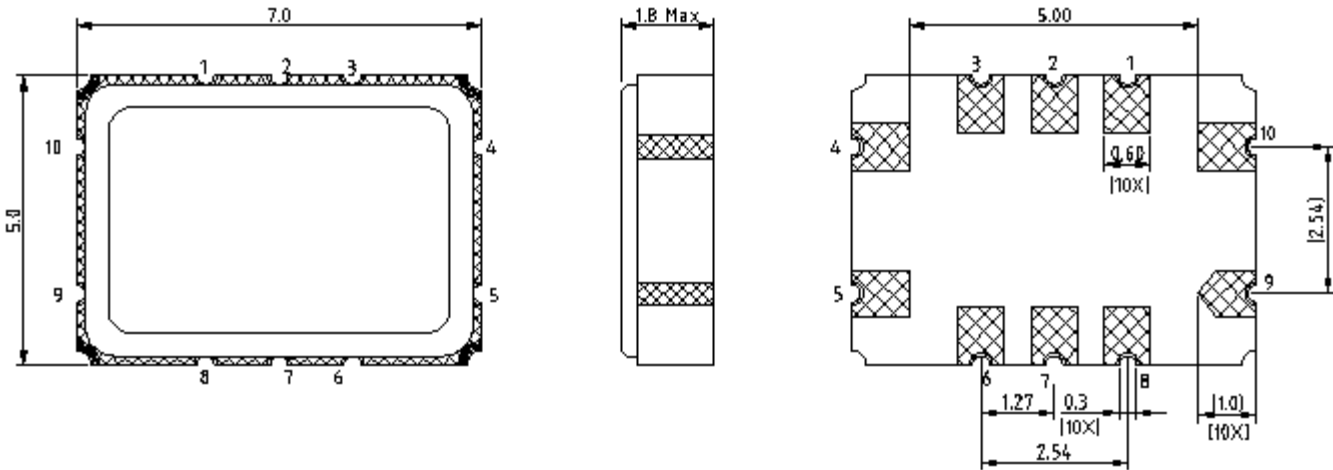


$$Z_{OUT}=416.2\Omega // -4.65pF$$

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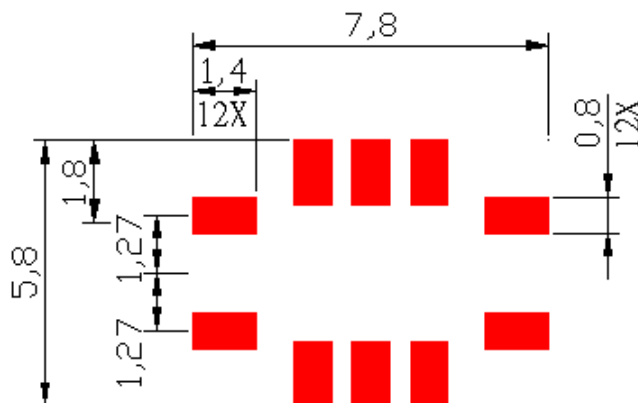
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C. OUTLINE DRAWING:



- 9: Input
 - 4: Output
 - 10: Balance input or input ground
 - 5: Balance output or output ground
 - 1, 2, 3, 6, 7, 8: To be grounded
- Unit: mm

D. PCB FOOTPRINT:



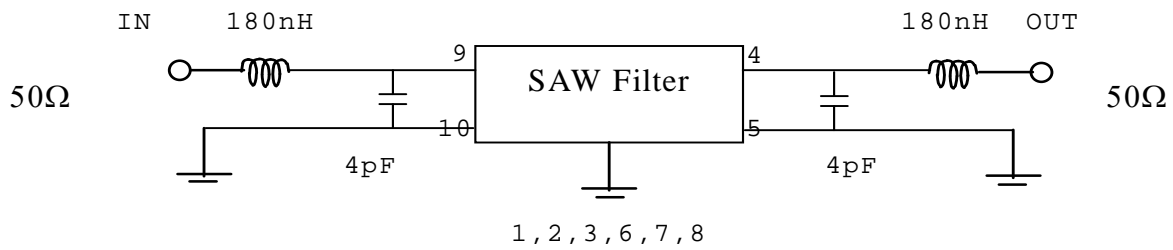
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E. MEASUREMENT CIRCUIT:

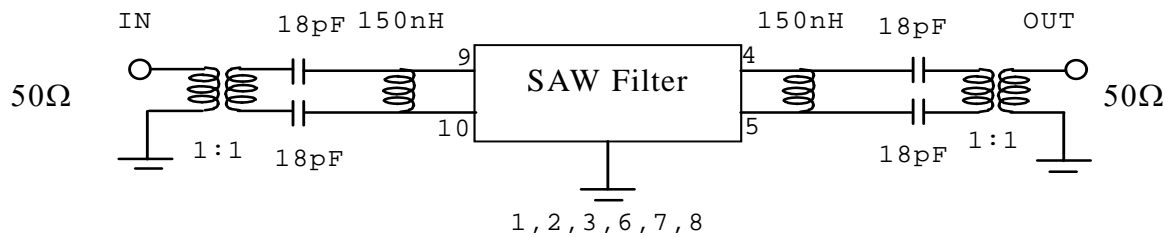
1. 50Ohm Test circuit 1 (single-ended / single-ended)

HP Network analyzer



2. 50Ohm Test circuit 2 (balance / balance)

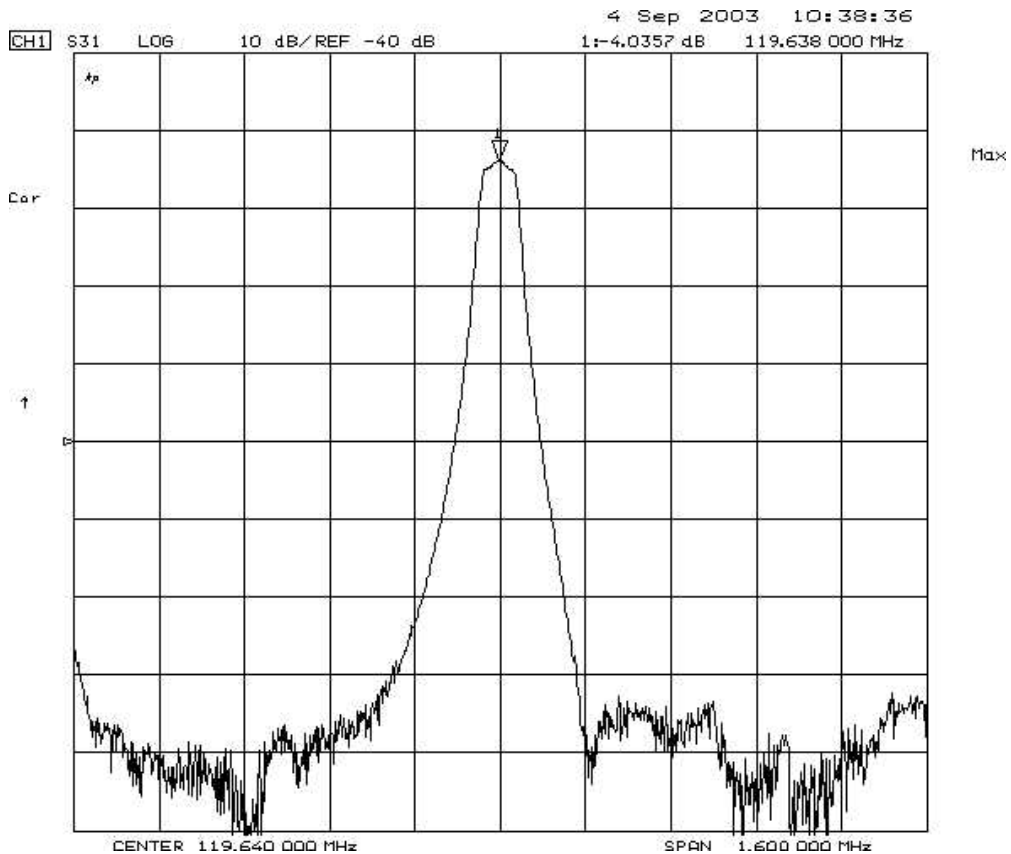
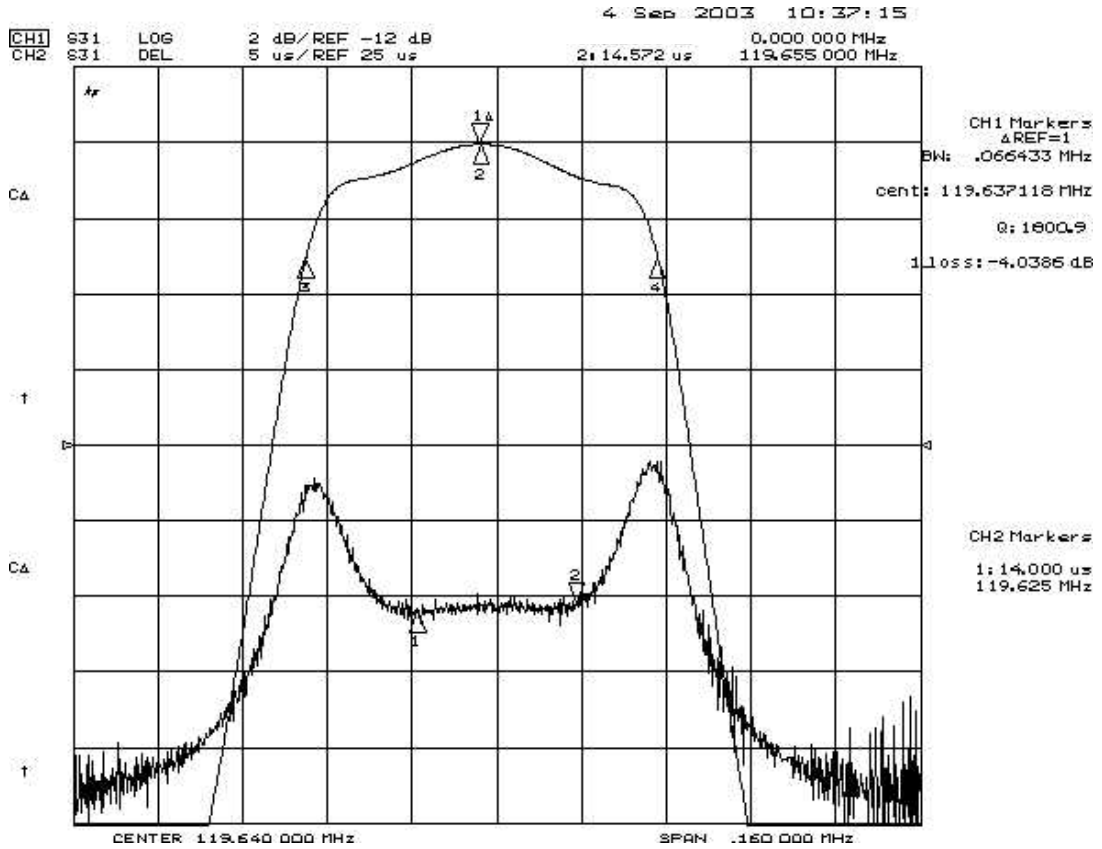
HP Network analyzer



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F. FREQUENCY CHARACTERISTICS:

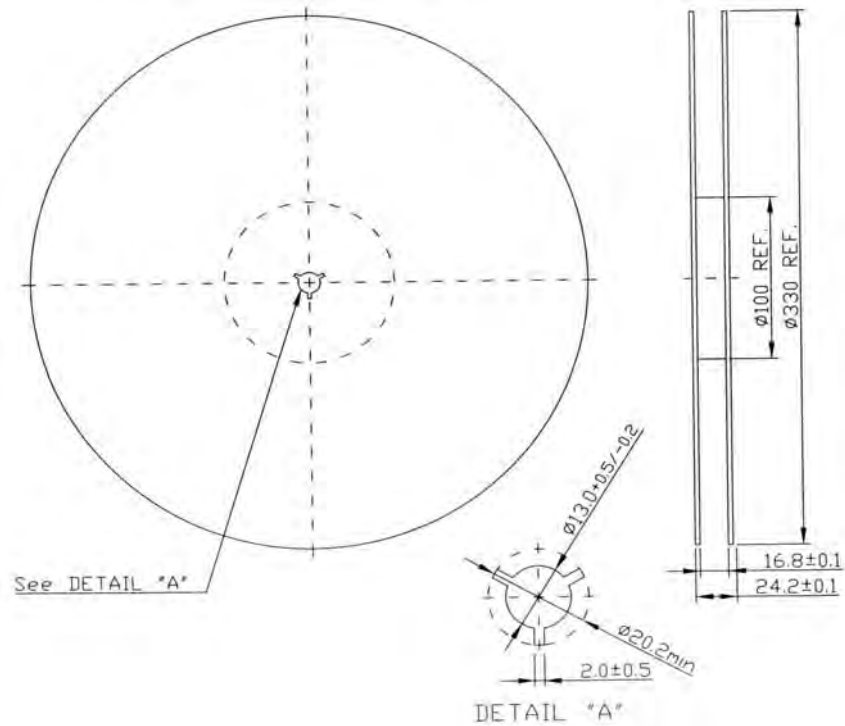


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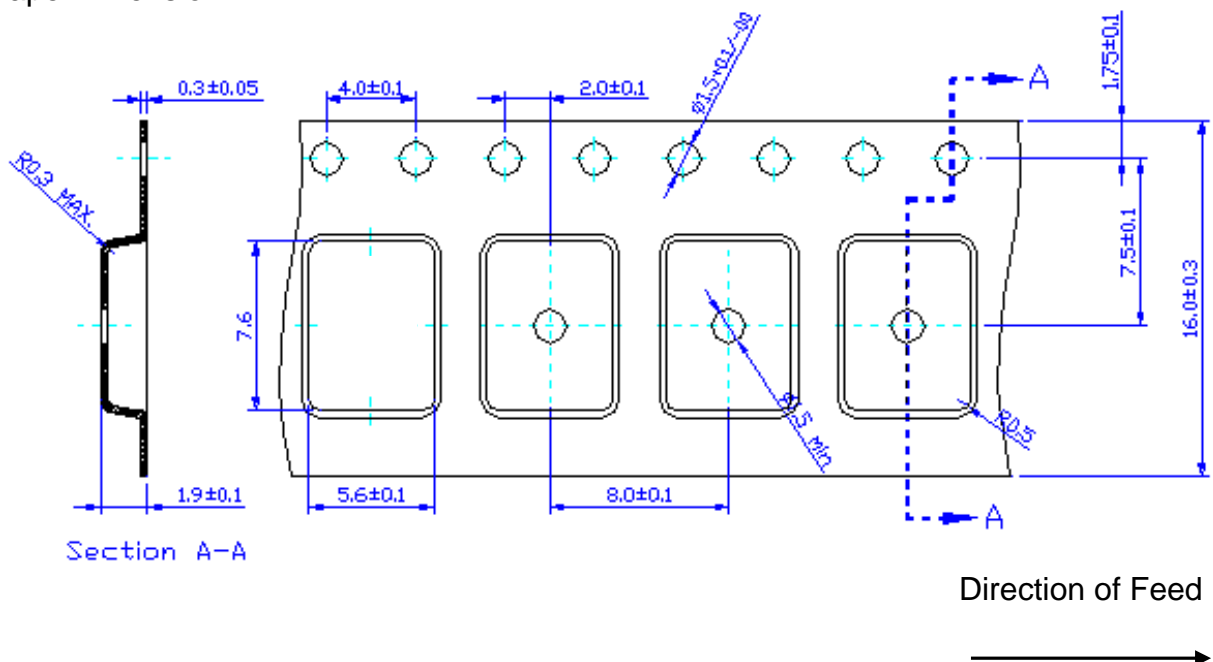
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G. PACKING:

1. Reel Dimension



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° for 50 ~ 80 seconds and at 245 ~ 260°C peak (min. 10sec).
4. Time: 2 times.

