

SAW Filter 140.0MHz
Part No: MP03508

Model: TB0965A
Rev No: 1

A. MAXIMUM RATING:

1. Operating temperature range: -35°C to 85°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level: 10 dBm
4. Maximum DC Voltage: 10V

B. CHARACTERISTICS:

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	140	-
Insertion Loss IL	dB	-	9.0	12.0
Amplitude Ripple Fc ± 0.5MHz	dB	-	0.4	1.0
Amplitude Ripple Fc ± 1.0MHz	dB	-	0.4	3.0
Group Delay Ripple Fc ± 0.5MHz	ns	-	65	200
Absolute Group Delay at Fc	us	-	0.7	-
Triple Transit Suppression	dB	35	40	-
In/Output Return Loss Fc ± 1.0MHz	dB	-	10	-
Attenuation (Reference level from minimum Insertion loss)				
DC ~ 110MHz	dB	40	60	-
110MHz ~ 135MHz	dB	30	45	-
145 MHz ~ 170MHz	dB	30	45	-
170MHz ~ 250MHz	dB	40	60	-
250 MHz ~ 425MHz	dB	20	70	-
Temperature Coefficient	ppm/°C	-	-23	-
Source Impedance	Ω	-	200	-
Load Impedance	Ω	-	200	-

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C. FREQUENCY CHARACTERISTICS:

1. Wide band Response: (span 100MHz)

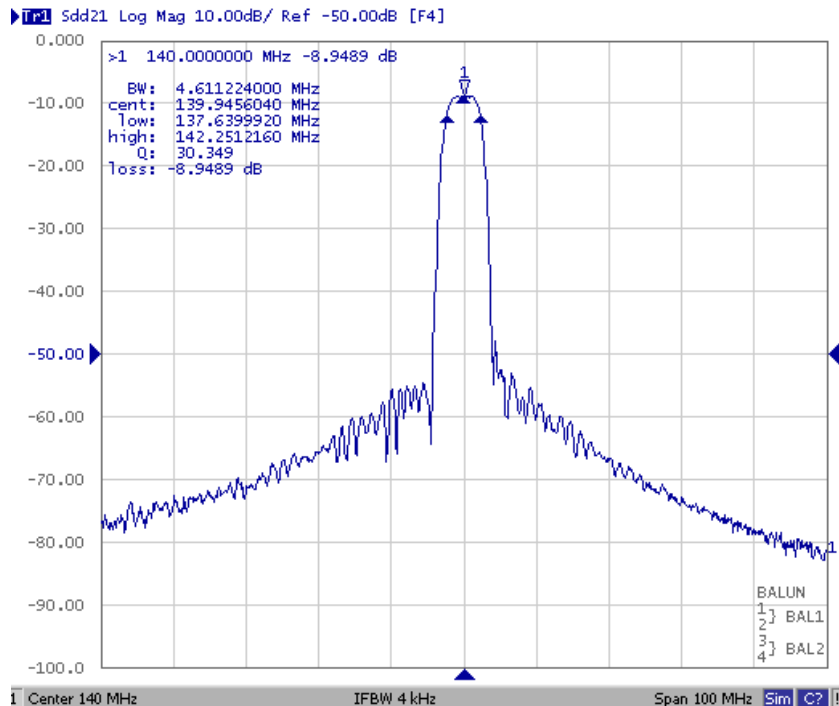


Fig. 1. Horizontal: 10MHz/Div, Vertical: 10dB/Div

2. Pass band Response and Group Time Delay response:

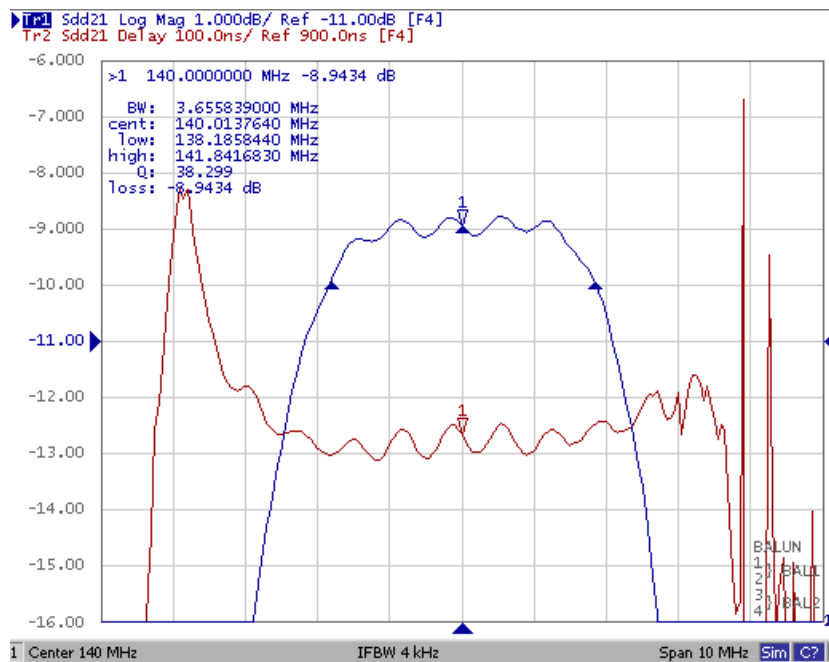
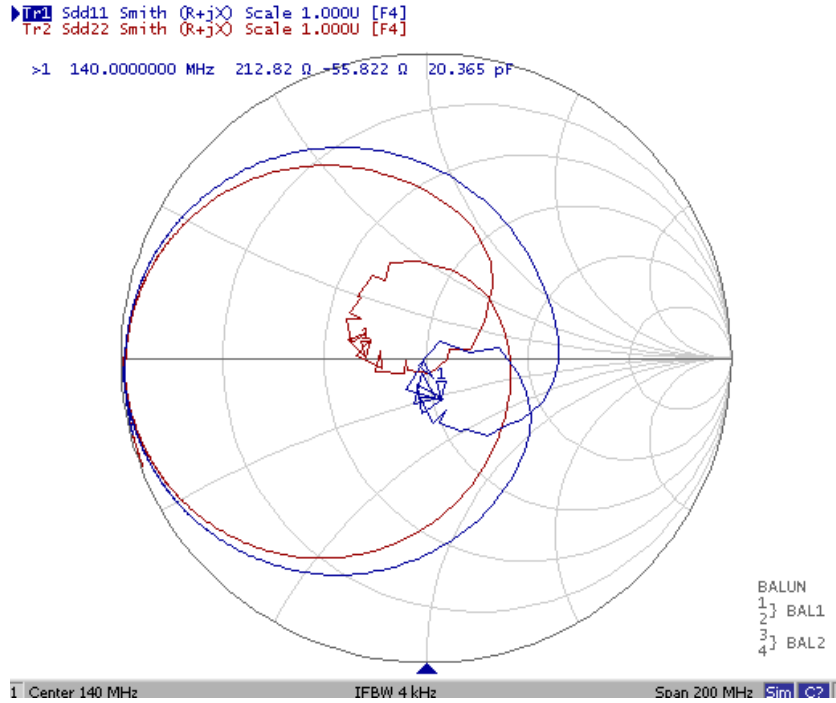


Fig. 2. Horizontal: 1MHz/Div, Vertical: 1dB/Div, Vertical: 100ns/Div

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3. Smith Chart:



4. Wide Band:

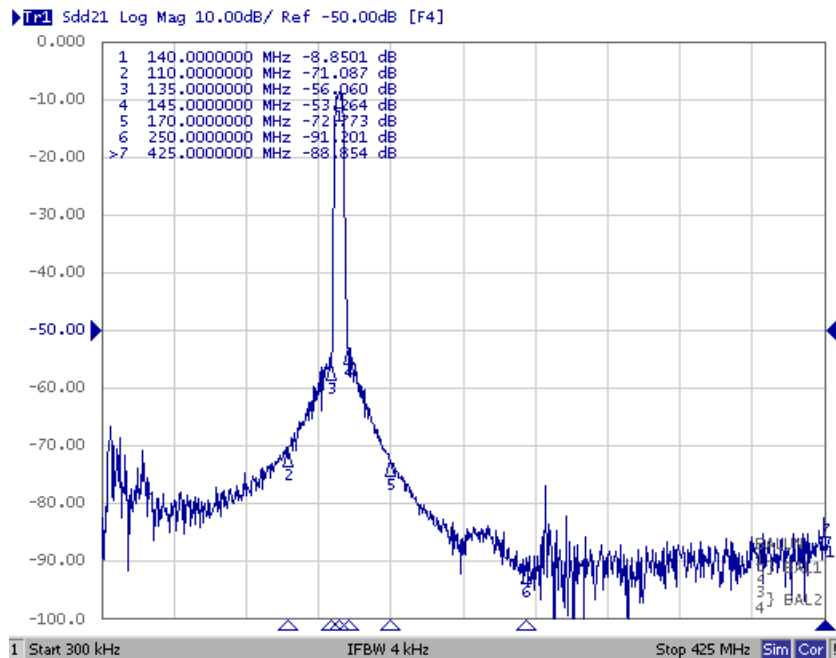


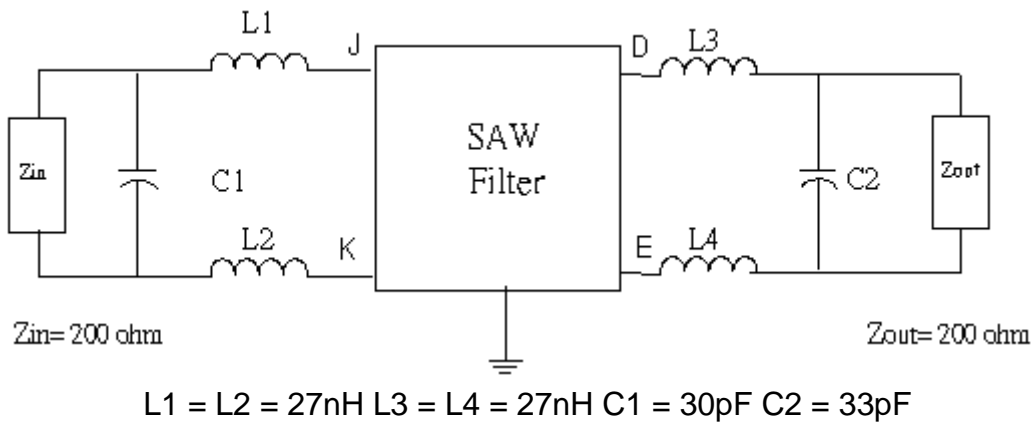
Fig. 4. Horizontal: 100MHz/Div, Vertical: 10dB/Div

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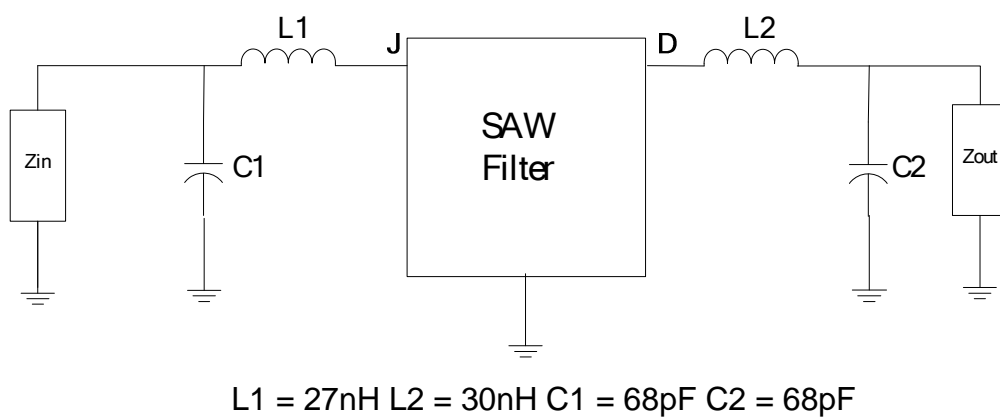
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D. MATCHING CIRCUIT:

1. 200Ω balance in/out



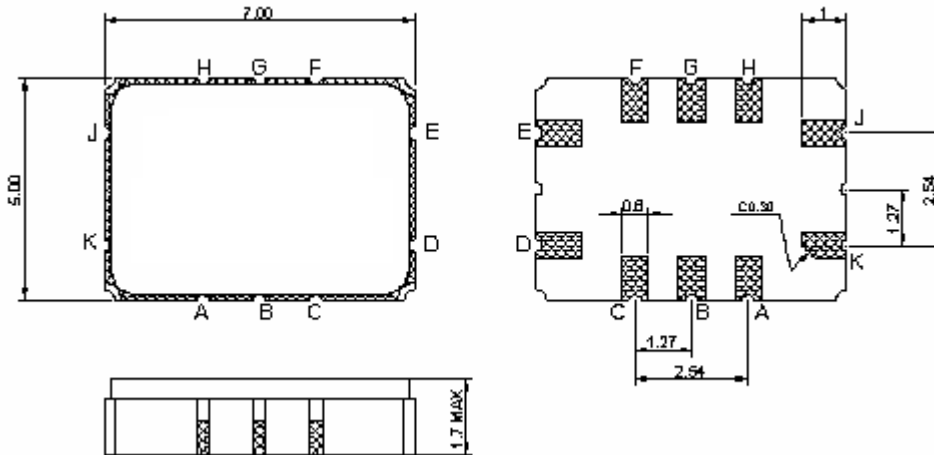
2. 50Ω single in/out



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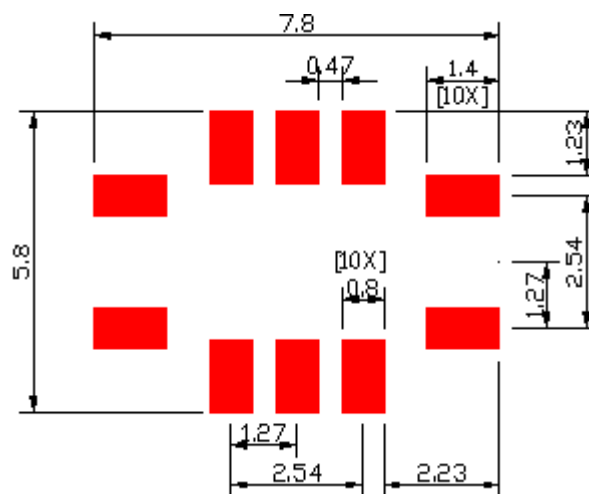
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E. OUTLINE DRAWING:



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

F. PCB FOOTPRINT:

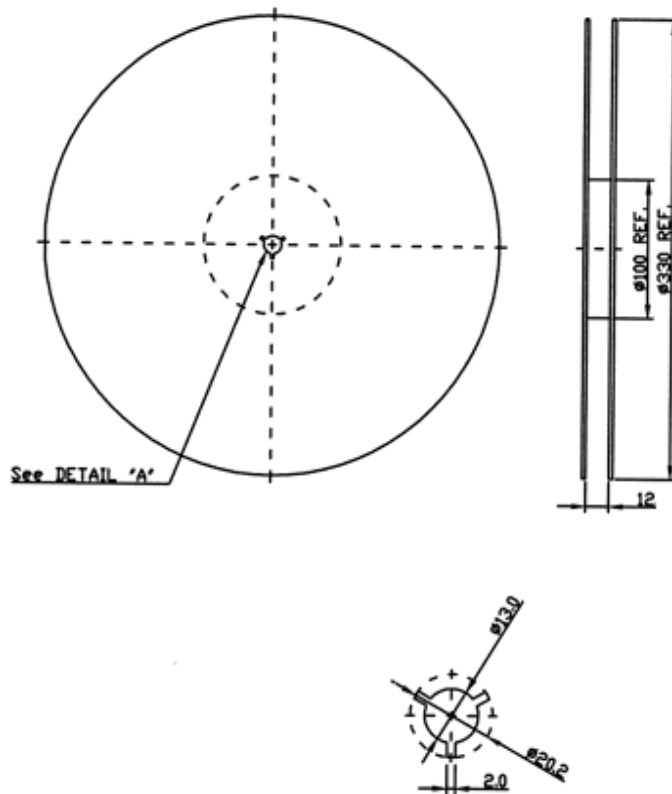


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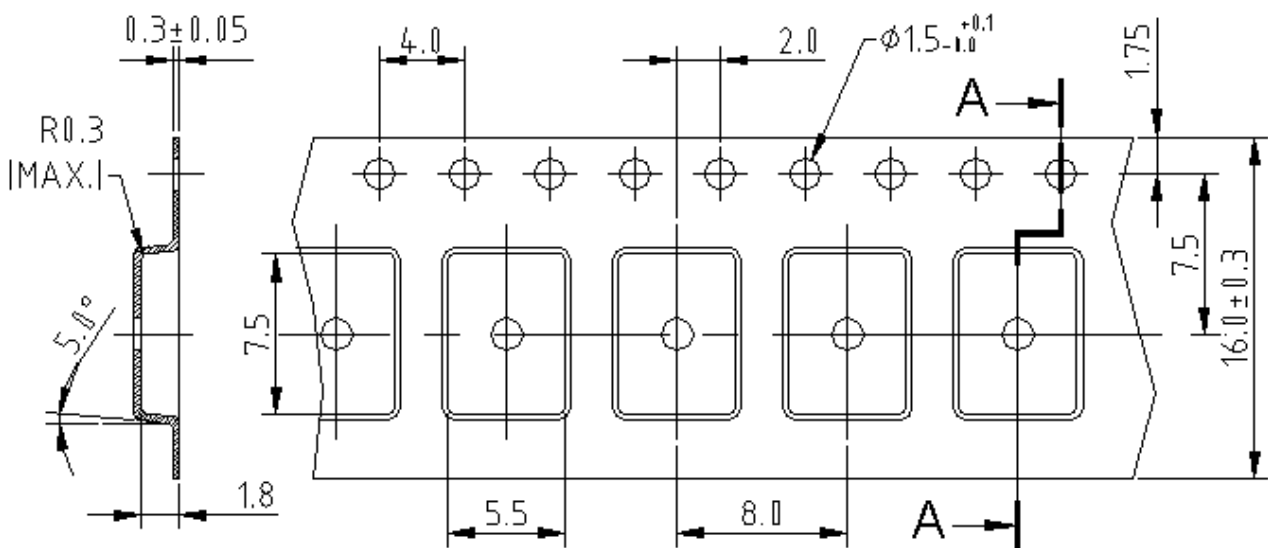
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G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



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H. RECOMMENDED REFLOW PROFILE:

