

SAW Filter 140.0MHz
Part No: MP05234

Model: TB0966A
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	-	10.4	14
Amplitude Ripple Fc ± 1.9MHz	dB	-	0.4	1.0
Group Delay Ripple Fc ± 1.9MHz	ns	-	60	200
Absolute Group Delay at Fc	us	-	0.75	-
Triple Transit Suppression	dB	40	45	-
In / Output Return Loss Fc ± 1.9MHz	dB	-	14	-
Attenuation (Reference level from minimum Insertion loss)				
DC ~ 110MHz	dB	40	59	-
110MHz ~ 134MHz	dB	30	44	-
146 MHz ~ 170 MHz	dB	30	41	-
170MHz ~ 250 MHz	dB	40	59	-
250 MHz ~ 425 MHz	dB	20	60	-
Temperature Coefficient	ppm/°C	-	-23	-
Source Impedance	Ohm	-	200	-
Load Impedance	Ohm	-	200	-

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C. FREQUENCY CHARACTERISTICS:

1. Wide band Response: (span 100MHz)

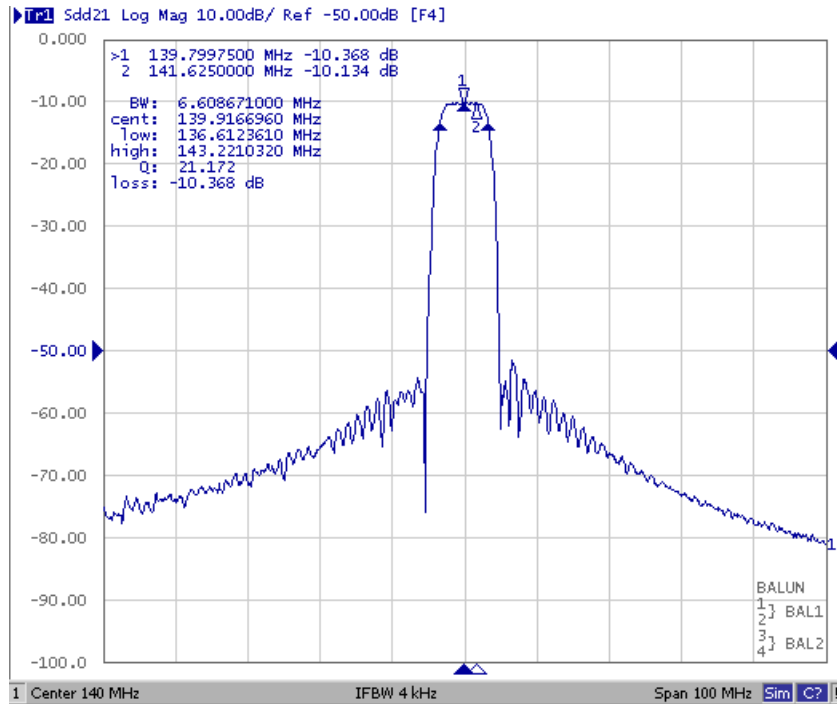


Fig. 1: Horizontal: 10MHz / Div, Vertical: 10dB / Div

2. Pass band Response and Group Time Delay response:

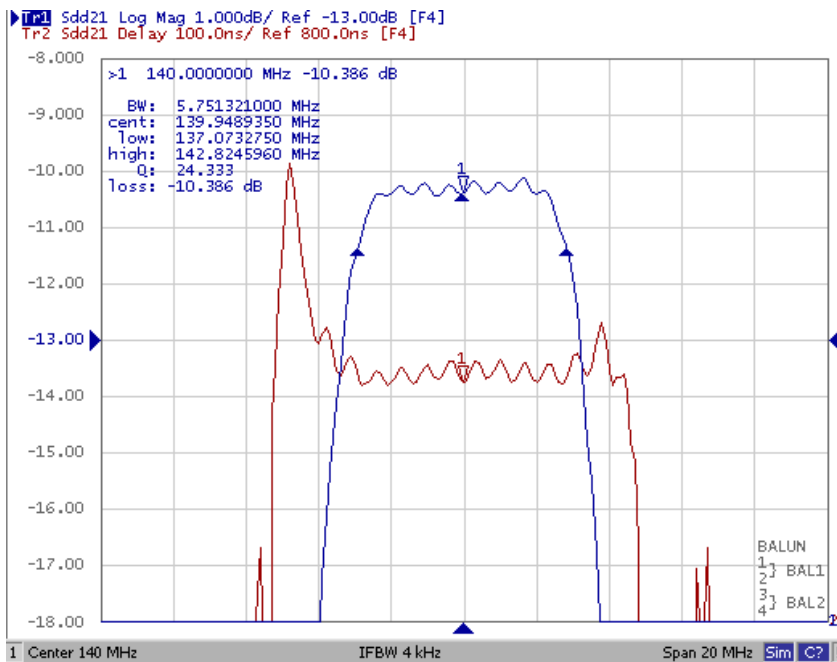
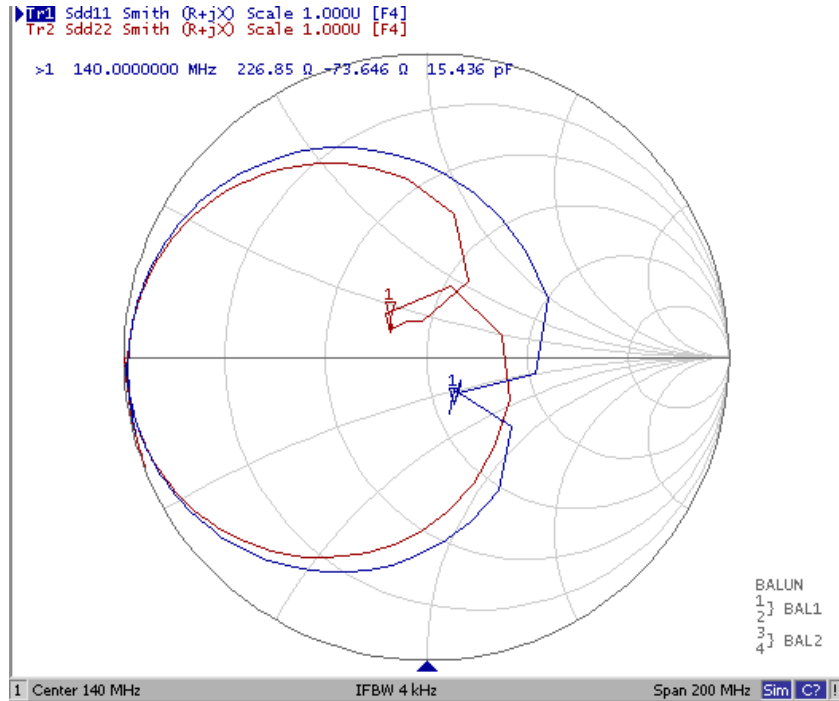


Fig. 2: Horizontal: 2MHz / Div, Vertical: 1dB / Div, Vertical: 100ns / Div

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3. Smith Chart:



4. Wide Band:

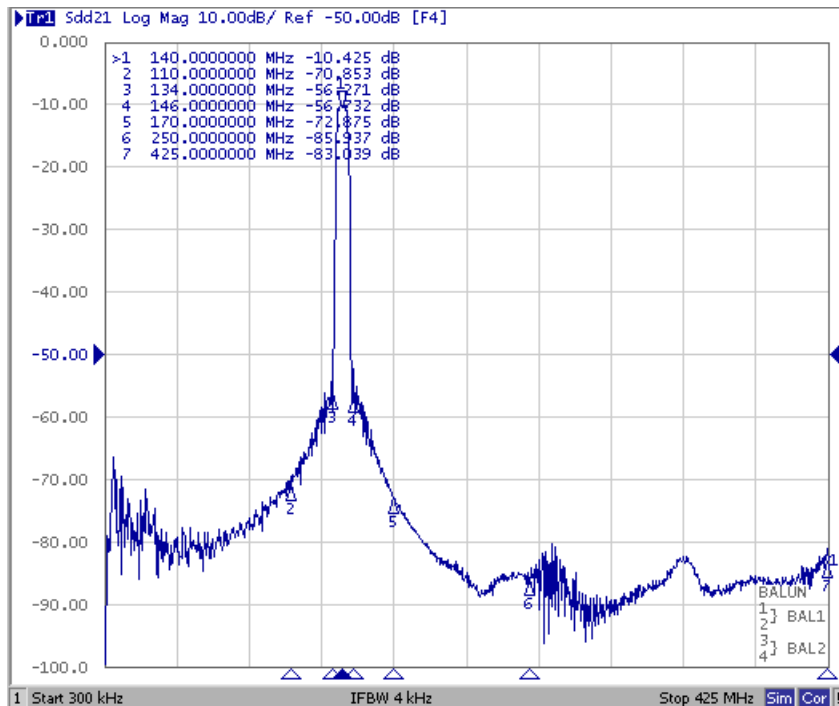


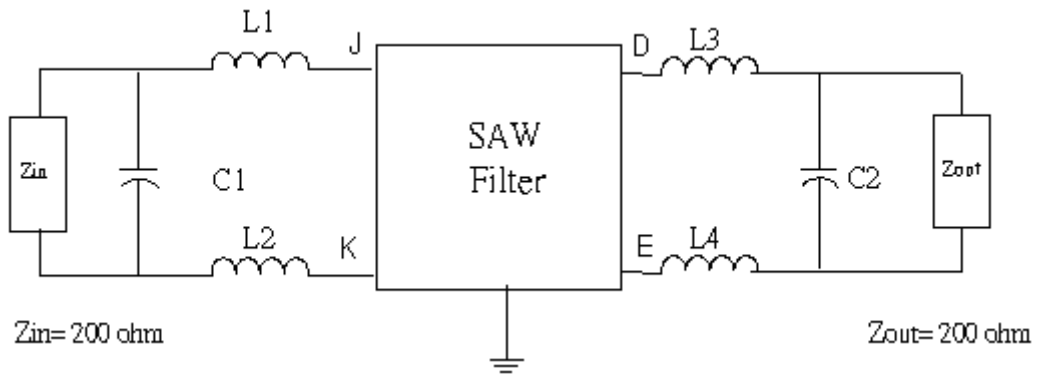
Fig. 4: Horizontal: 100MHz / Div, Vertical: 10dB / Div

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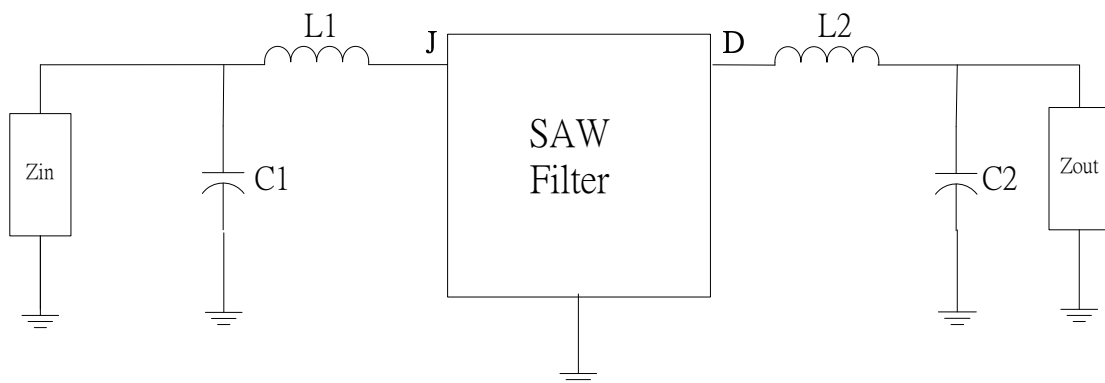
D. MATCHING CIRCUIT:

1. 200ohm balance in / out



$L1 = L2 = 27\text{nH}$ $L3 = L4 = 27\text{nH}$ $C1 = 30\text{pF}$ $C2 = 33\text{pF}$

2. 50ohm single in/out



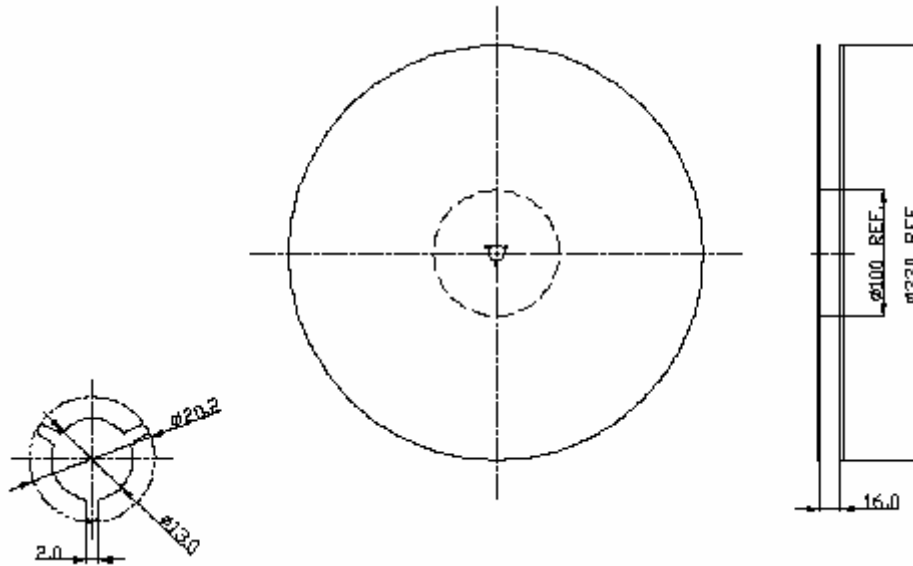
$L1 = 27\text{nH}$ $L2 = 30\text{nH}$ $C1 = 68\text{pF}$ $C2 = 68\text{pF}$

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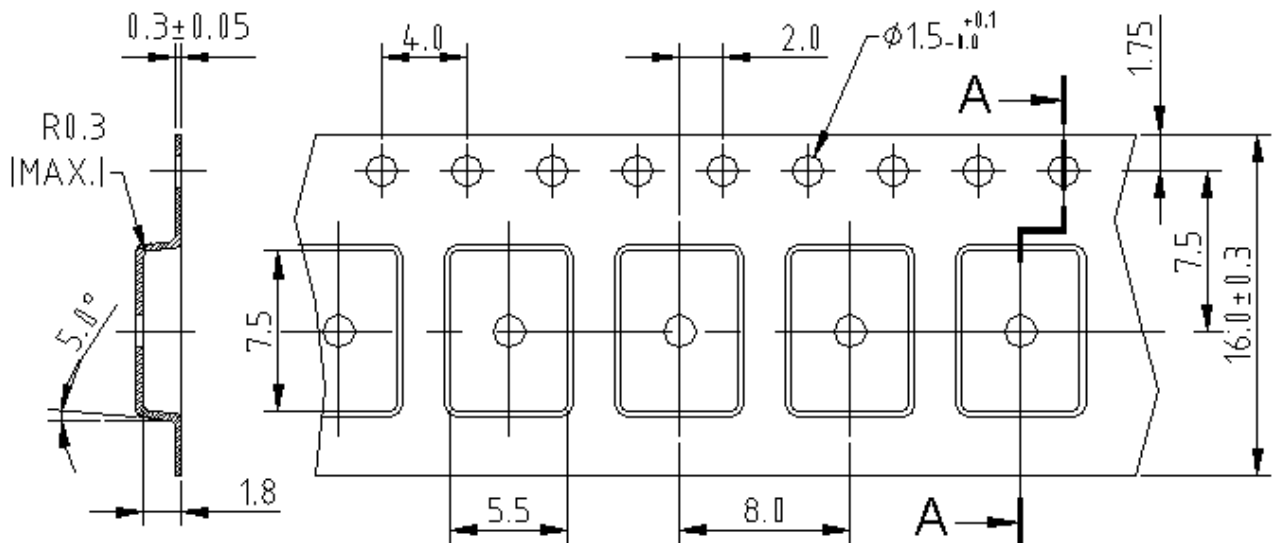
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G. PACKING:

1. Reel Dimension



2. Tape Dimension



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H. RECOMMENDED REFLOW PROFILE:

