

**SAW Filter 71.0MHz**

**Model: TB0630A**

**Part No: MP01948**

**Rev No: 3**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device

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

**B. CHARACTERISTICS:**

Item	Unit	Min.	Typ.	Max.
Center frequency, Fc	MHz	-	71	-
Insertion Loss IL	dB	-	7.2	8.0
1dB Passband width	kHz	250	330	-
Amplitude Ripple Fc ±125kHz	P-P dB	-	0.9	2.0
Group delay at Fc	usec	1.9	2.34	2.4
Group delay ripple Fc ±125kHz	nsec	-	550	1500
Relative Attenuation				-
Fc ±300kHz ~ Fc ±500kHz	dB	15	18	-
Fc ±500kHz ~ Fc ±700kHz	dB	30	34	-
Fc ±700kHz ~ Fc ±3MHz	dB	35	39	-
Fc ±800kHz	dB	41	46	-
Fc ±3MHz ~ Fc ±35MHz	dB	43	50	-
Temperature Coefficient	ppm/°C <sup>2</sup>	-0.036		
Source Impedance (Balanced)	Ohm	200		
Load Impedance (Balanced)	Ohm	200		

Note: The Insertion loss has included loss of balun

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**C. FREQUENCY CHARACTERISTICS:**

1. S21 Response (Span 5MHz)

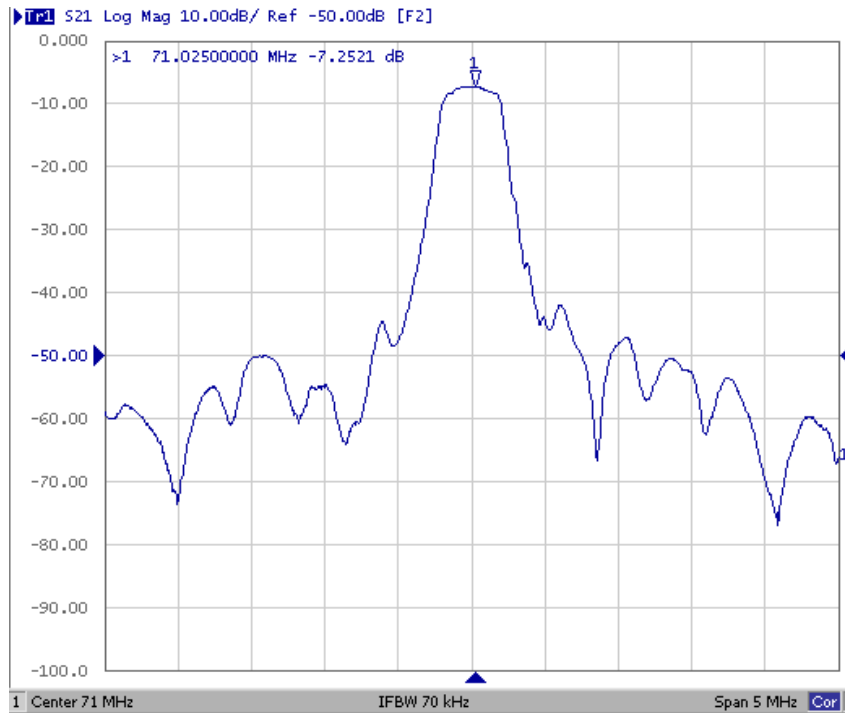


Fig. 1. Horizontal: 0.5MHz / Div, Vertical: 10dB / Div

2. S21 Response (Span 1MHz)

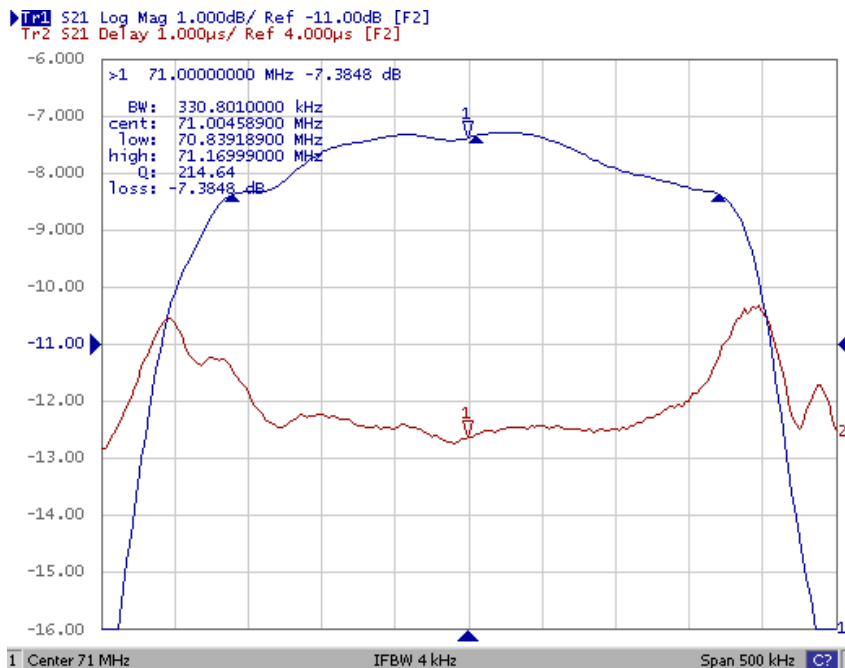
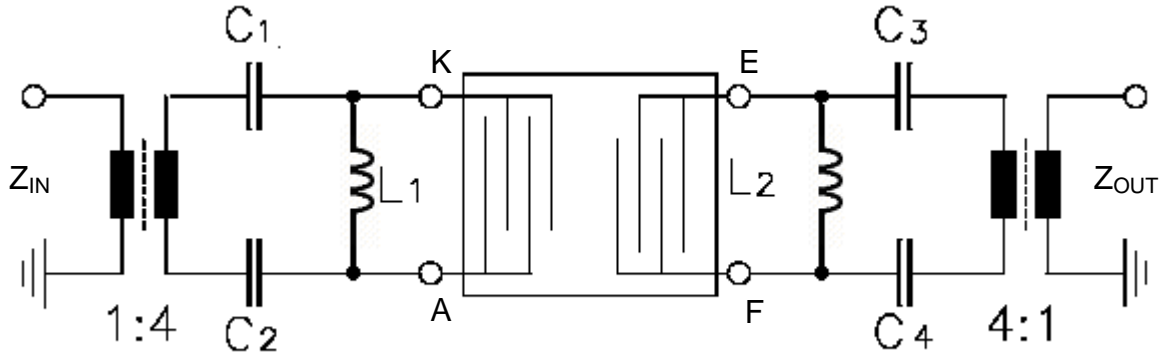


Fig. 2. Horizontal: 0.05MHz / Div, Vertical: 1dB / Div, Vertical: 1µs / Div

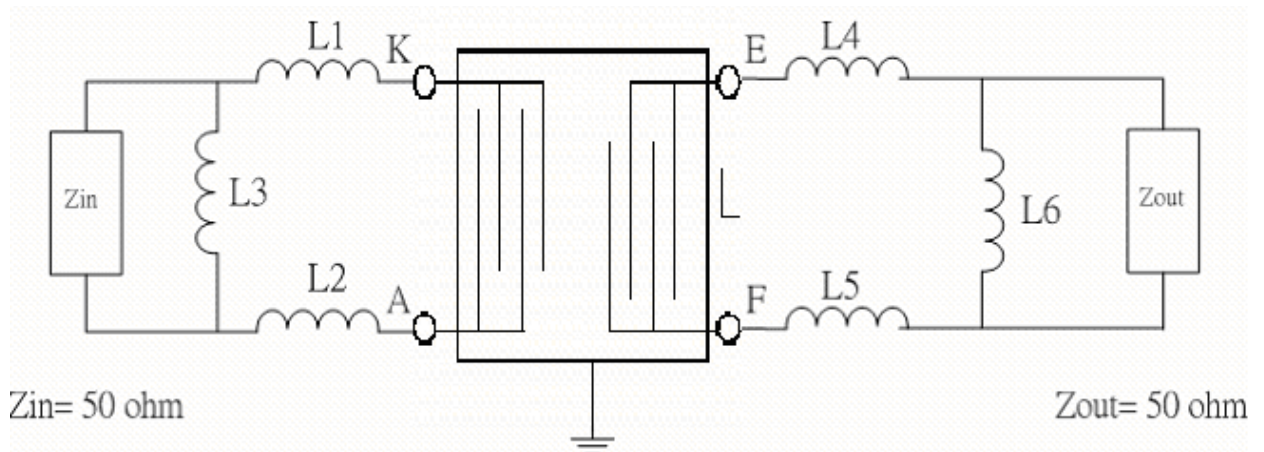
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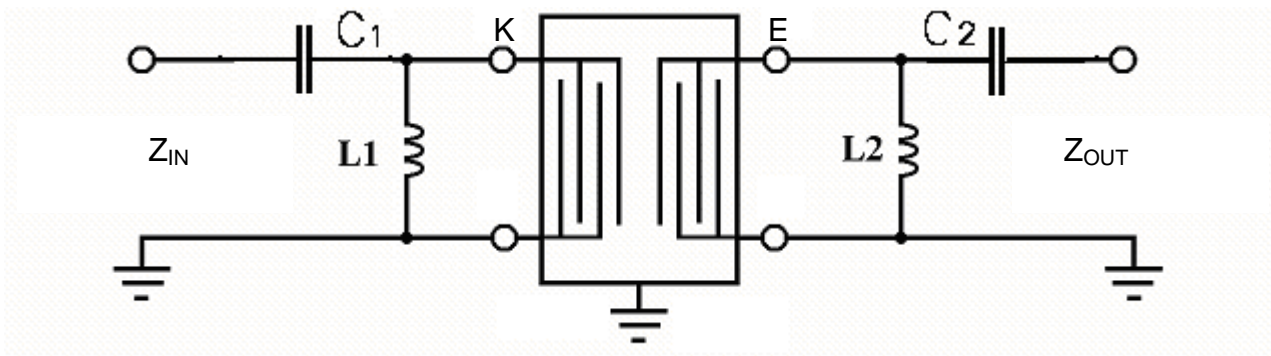
**D. MEASUREMENT CIRCUIT:**



$L1 = 297\text{nH}$ ,  $C1 = C2 = 9\text{pF}$ ,  $L2 = 306\text{nH}$ ,  $C3 = C4 = 8\text{pF}$   
 $Z_{IN} = Z_{OUT} = 50\text{ohm}$



$L1 = L2 = 165\text{nH}$ ,  $L3 = 68\text{pF}$ ,  $L4 = L5 = 165\text{nH}$ ,  $L6 = 82\text{pF}$

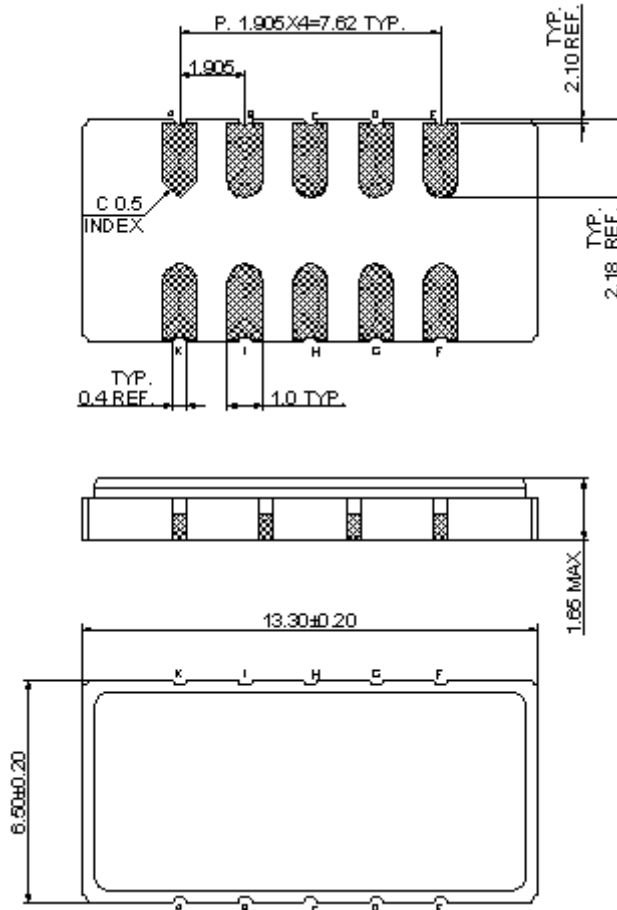


$L1 = 220\text{nH}$ ,  $C1 = 9\text{pF}$ ,  $L2 = 220\text{nH}$ ,  $C2 = 9\text{pF}$   
 $Z_{IN} = Z_{OUT} = 50\text{ohm}$

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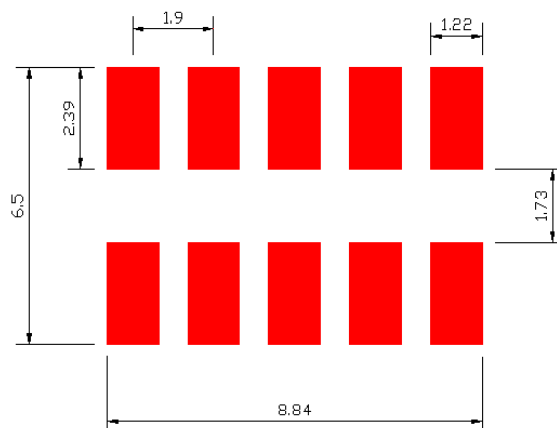
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**E. OUTLINE DRAWING:**



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

**F. PCB FOOTPRINT:**

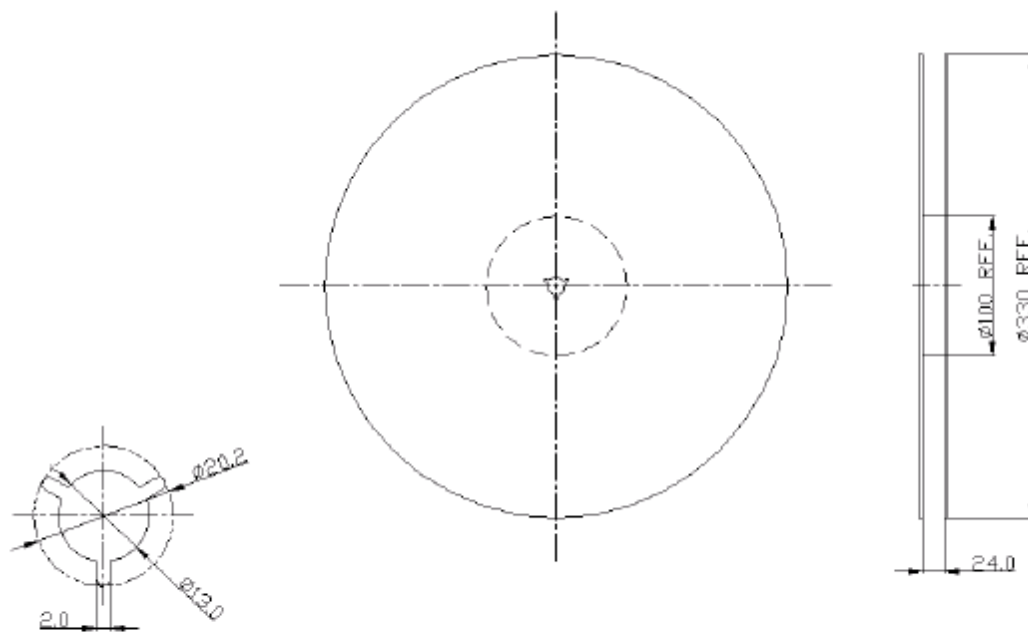


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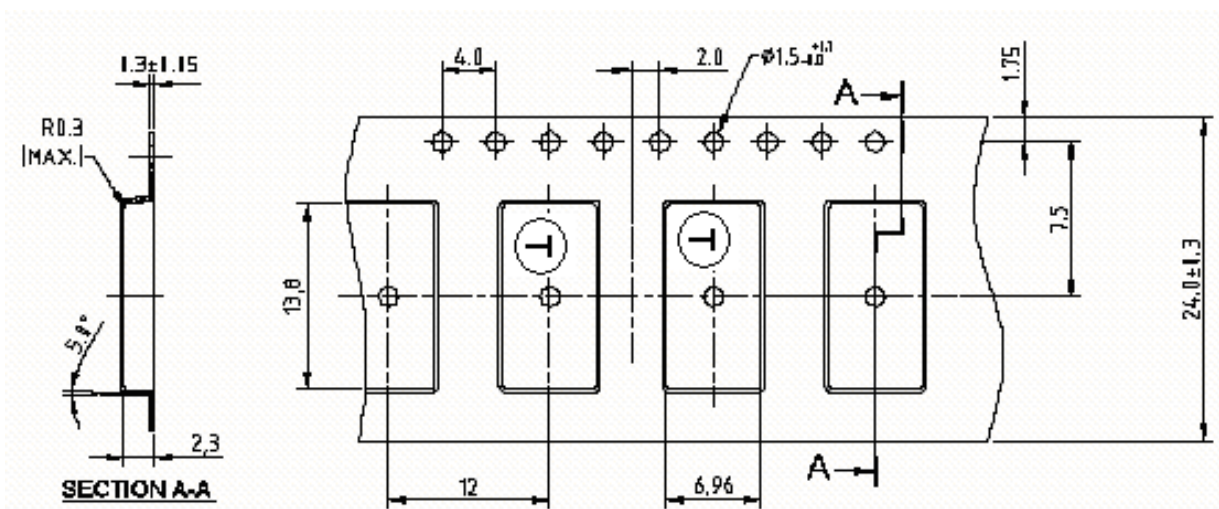
**G. PACKING:**

1. Reel Dimension

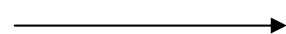


Unit: mm

2. Tape Dimension



Direction of feed



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**H. RECOMMENDED REFLOW PROFILE:**

