

**SAW Filter 737.50MHz**

**Model: TA1949A**

**Part No: MP08141**

**Rev No: 1**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device (ESD)

1. Operating temperature range: -30°C to +85°C
2. Storage temperature range: -40°C to +85°C
3. Maximum Input Power: 15dBm

**B. ELECTRICAL CHARACTERISTICS:**

1. Terminating source impedance:  $Z_S = 50\Omega$  (Single-ended)
2. Terminating load impedance:  $Z_L = 100\Omega$  (Balanced)

Parameters Description		Unit	Min.	Typ.	Max.	
Center Frequency		MHz	-	737.5	-	
Insertion Loss	729 ~ 746MHz	dB	-	1.6	2.5	
Amplitude Ripple	729 ~ 746MHz	dB	-	0.5	1.5	
VSWR	Input	729 ~ 746MHz	-	-	1.8	2.1
	Output	729 ~ 746MHz	-	-	1.8	2.1
Amplitude balance	729 ~ 746MHz	dB	-1.0	-0.1~+0.2	+1.0	
Phase balance	729 ~ 746MHz	deg	-10	-1.0~+1.0	+10	
Attenuation:						
10 ~ 698MHz		dB	40	59	-	
699 ~ 716MHz		dB	48	55	-	
791 ~ 4000MHz		dB	35	45	-	
4000 ~ 6000MHz		dB	30	48	-	

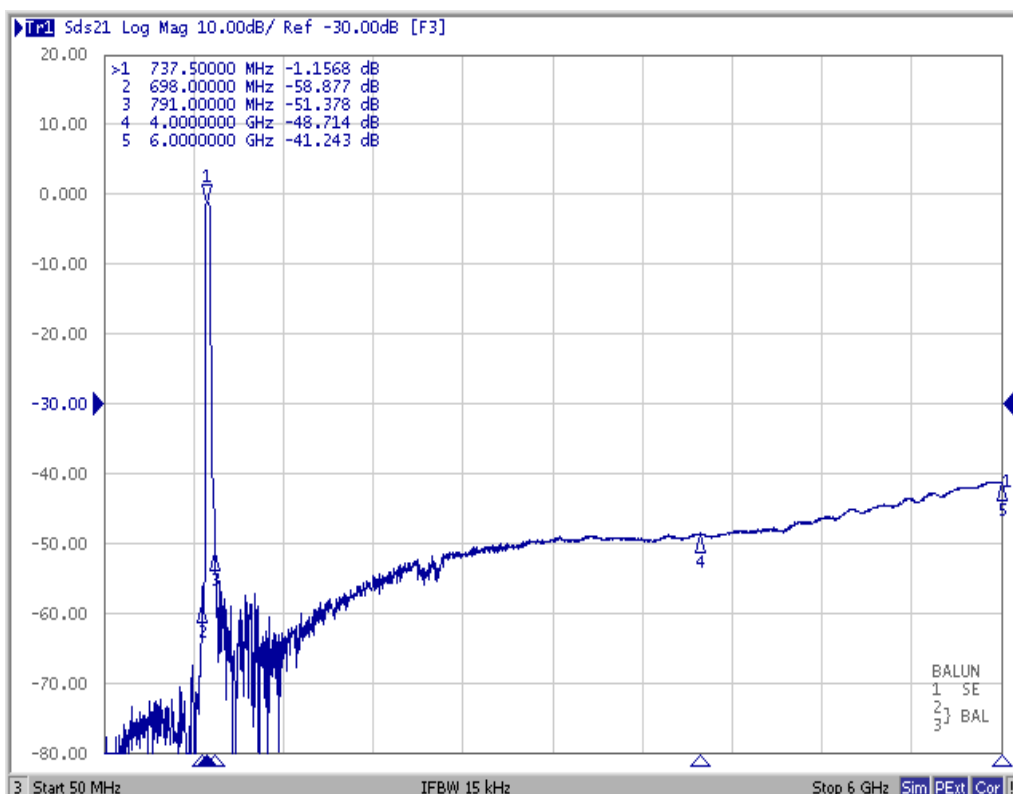
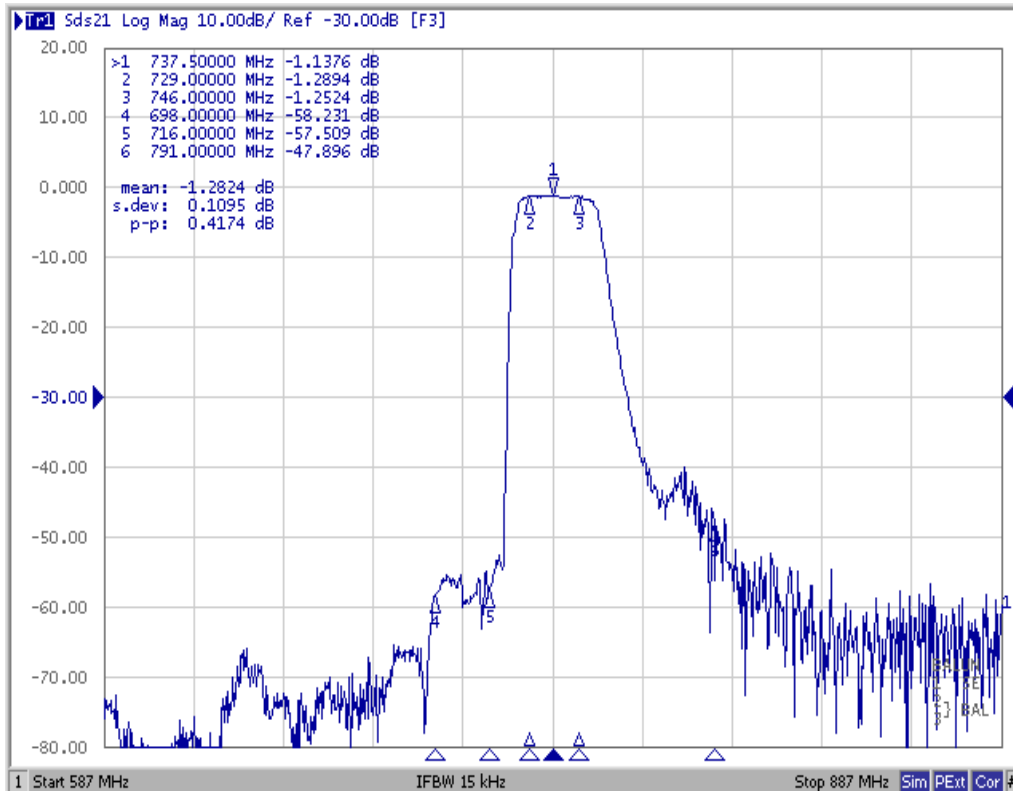
Note: No Matching Network.

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**C. FREQUENCY CHARACTERISTICS:**

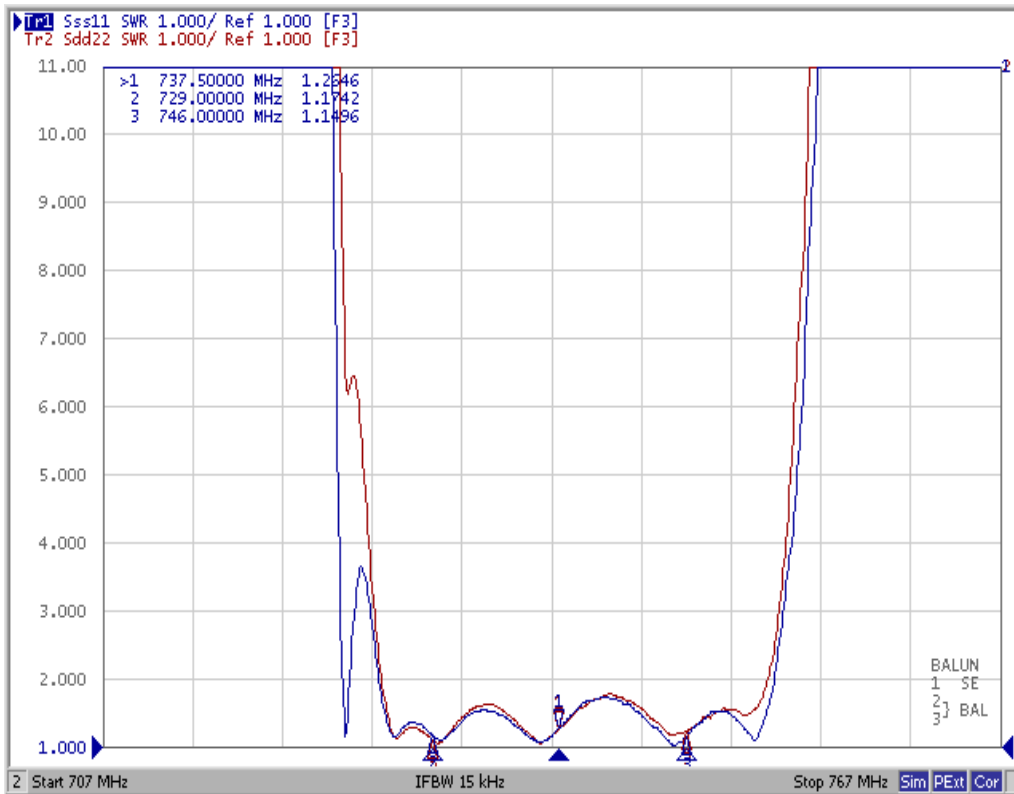
1. Frequency Response



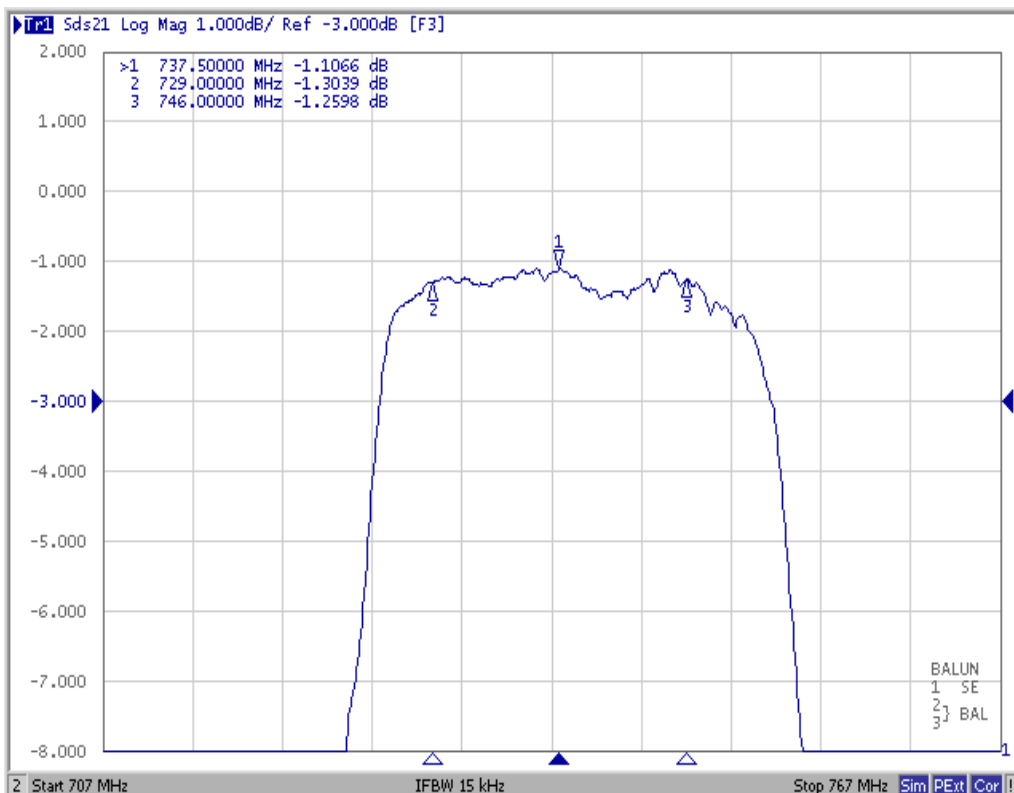
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### 2. VSWR



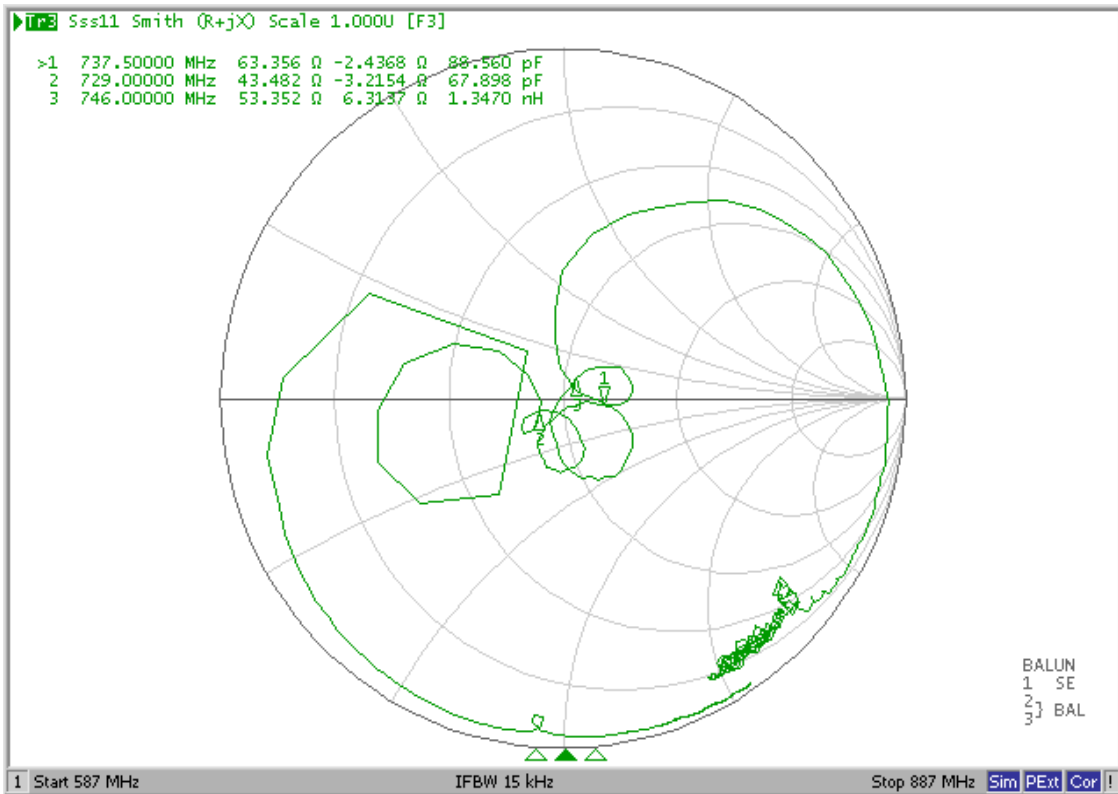
### 3. Ripple



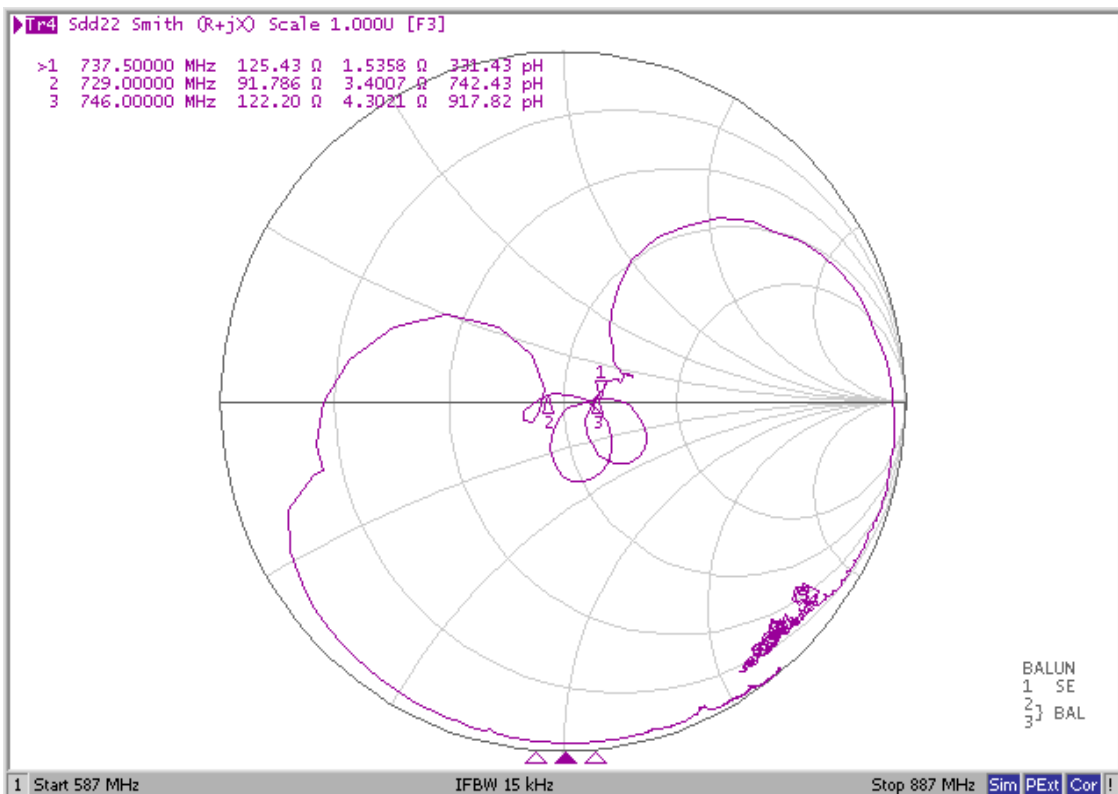
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#### 4. Smith Chart (S11)



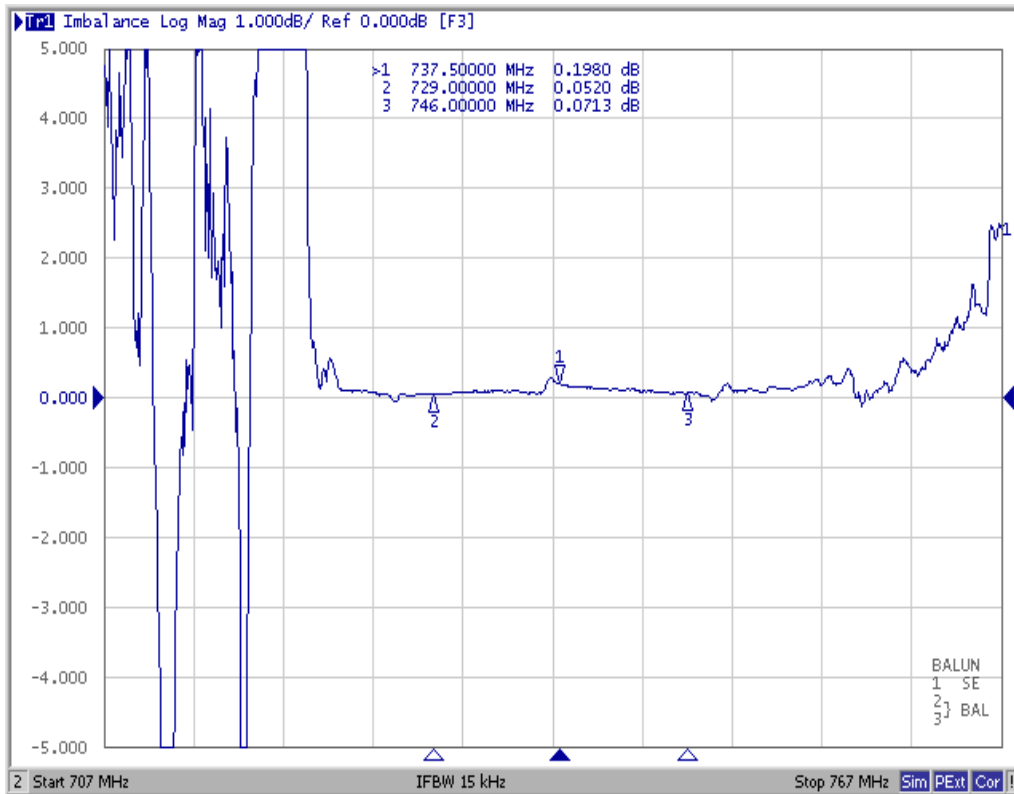
#### 5. Smith Chart (S22)



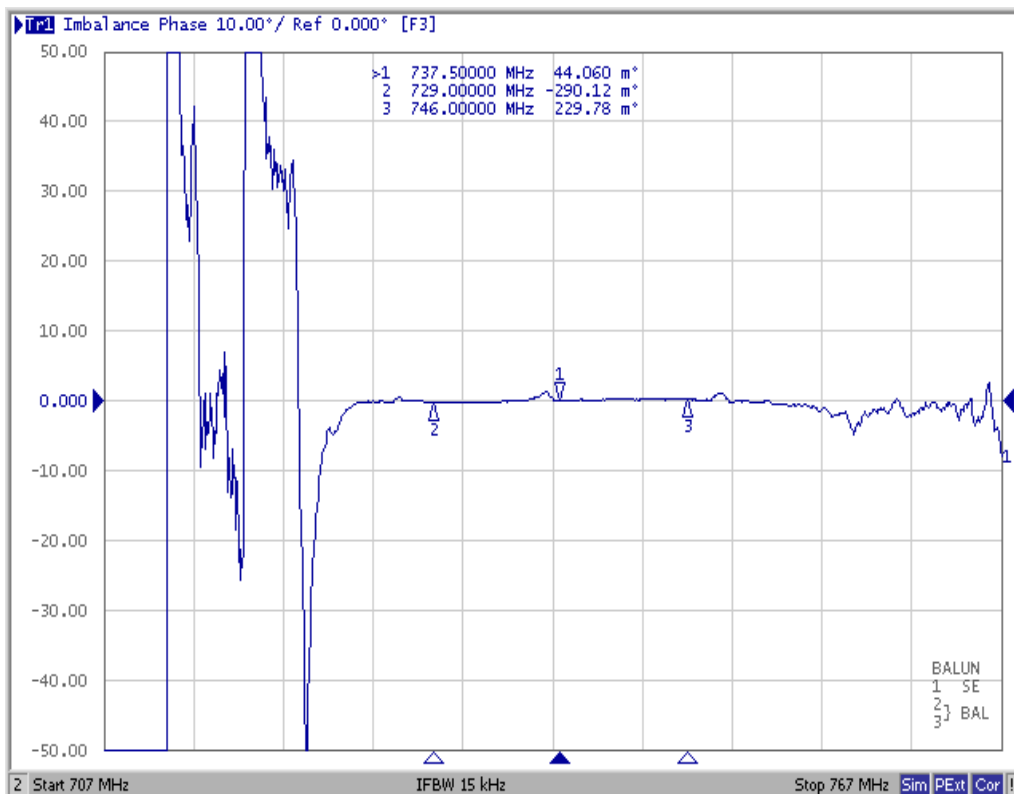
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### 6. Amplitude balance



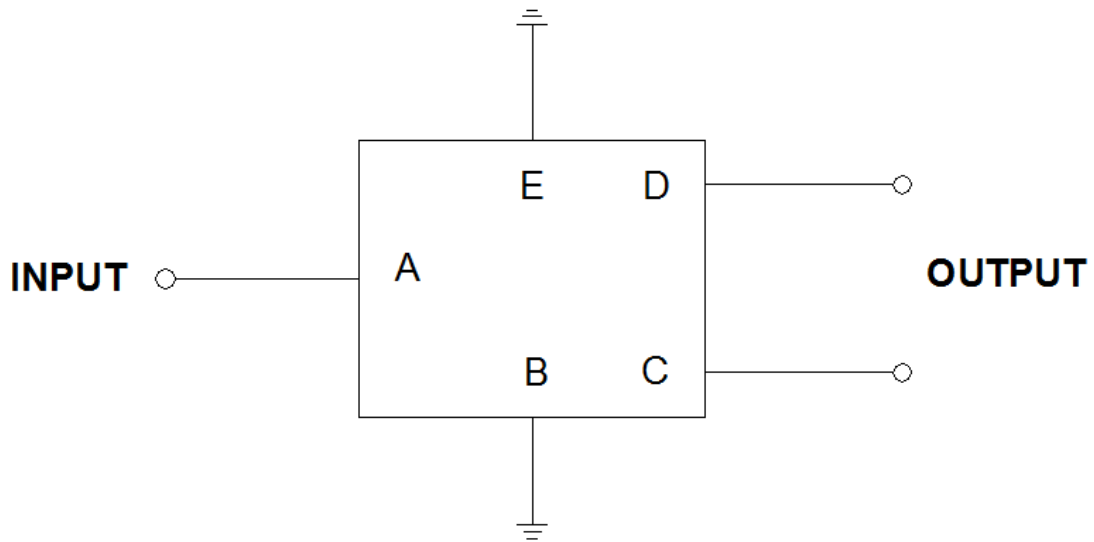
### 7. Phase balance



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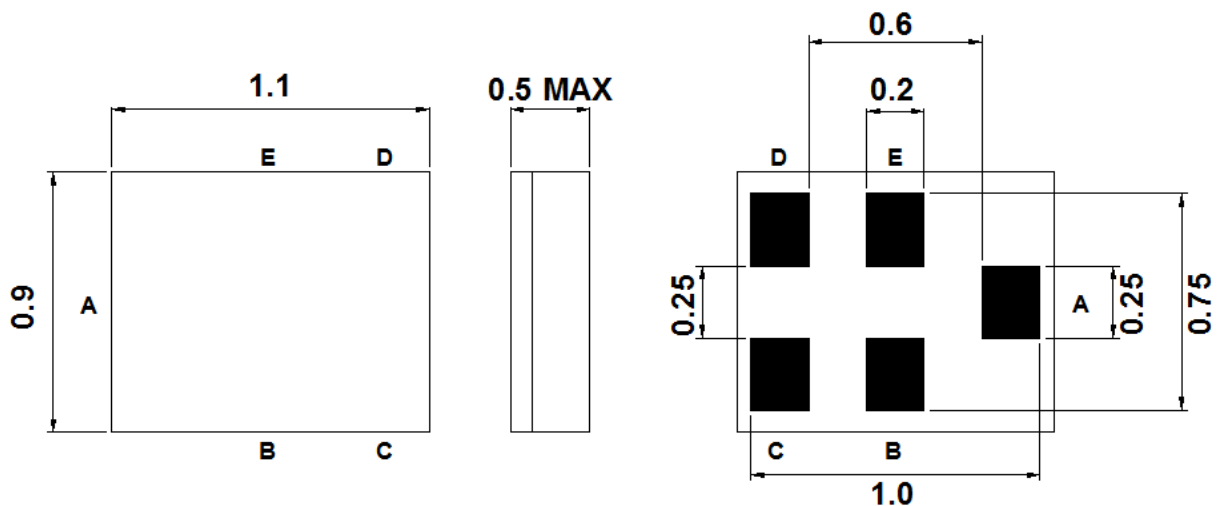
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**D. MEASUREMENT CIRCUIT:**



Source Impedance: 50Ω  
Load Impedance: 100Ω

**E. OUTLINE DRAWING:**



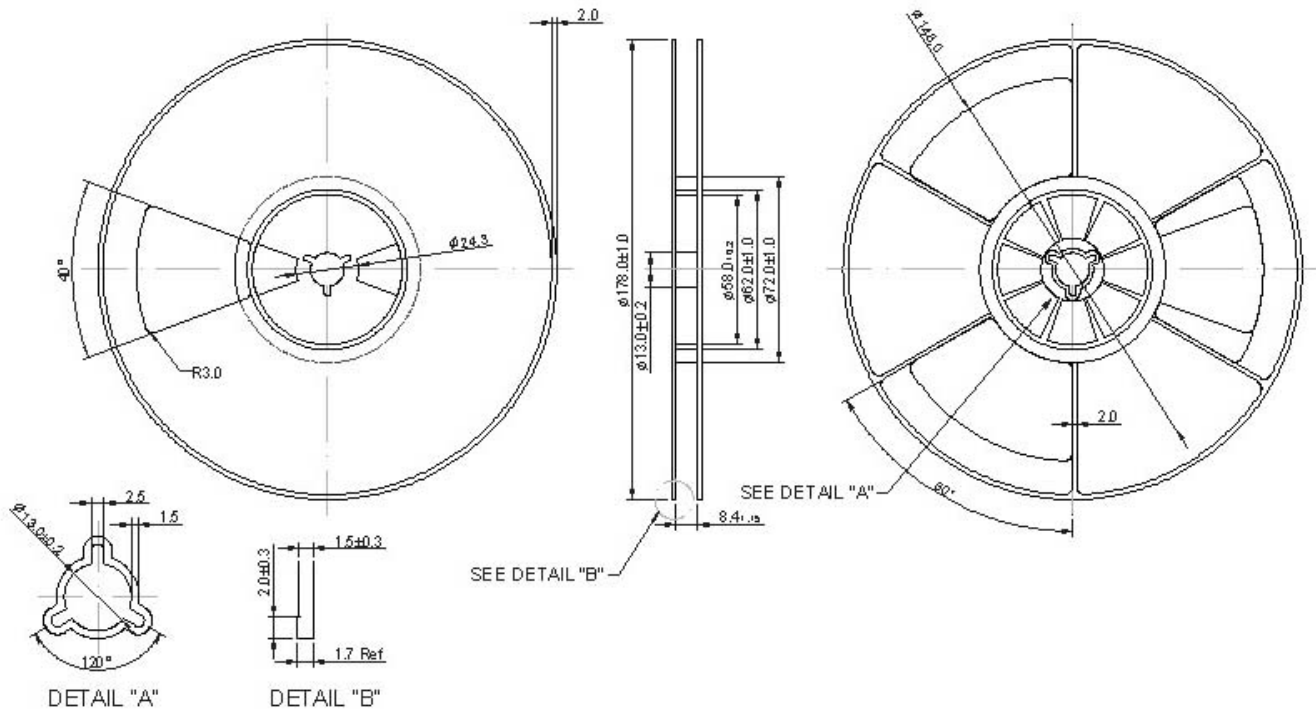
B, E: Group  
A: Input  
C, D: Balanced Output

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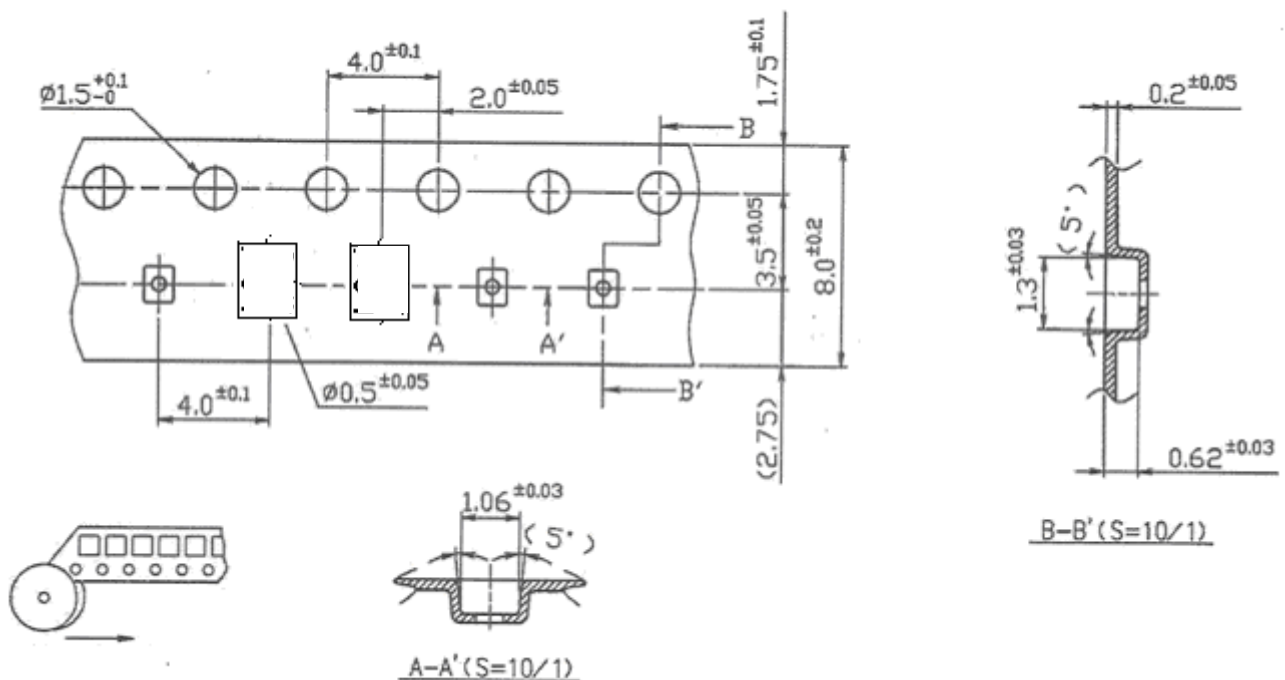
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**F. PACKING:**

1. Reel Dimension



2. Tape Dimension



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**G. 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 260°C +0/-5°C peak (20 ~ 40 sec).
4. Time: 2 times.

