

**SAW Filter 145MHz**  
**Part No: MP02864**

**Model: TB0790A**  
**Rev No: 1**

**A. MAXIMUM RATING:**

1. Operating temperature range: -40°C to +65°C
2. Storage temperature range: -40°C to +85°C
3. Input Power Level: 10dBm
4. Maximum DC Voltage: 10V

**B. CHARACTERISTICS:**

Electrical Parameters			Value		
Parameter	Sign	Units	Min.	Typ.	Max.
Central Frequency	Fc	MHz	-	145	-
Insertion Loss	IL	dB	-	3.0	3.5
-0.5 dB Pass Bandwidth	BW1	MHz	0.050	0.068	-
-3 dB Pass Bandwidth	BW3	MHz	-	0.098	0.140
-40 dB Pass Bandwidth	BW40	MHz	-	0.28	0.38
Amplitude Ripple Fc ± 0.02MHz	AR	dB	-	0.3	0.5
Input/Output VSWR at Fc	VSWR	-	-	1.2	1.7
Relative Attenuation					
DC ~ 144.6MHz	UR	dB	50	70	-
145.4MHz ~ 290MHz	UR	dB	50	60	-
290MHz ~ 435MHz	UR	dB	50	70	-
Source and Load Impedances	RS/RL	Ω	50		

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**C. FREQUENCY CHARACTERISTICS:**

1. Wide band Response: (span 1MHz)

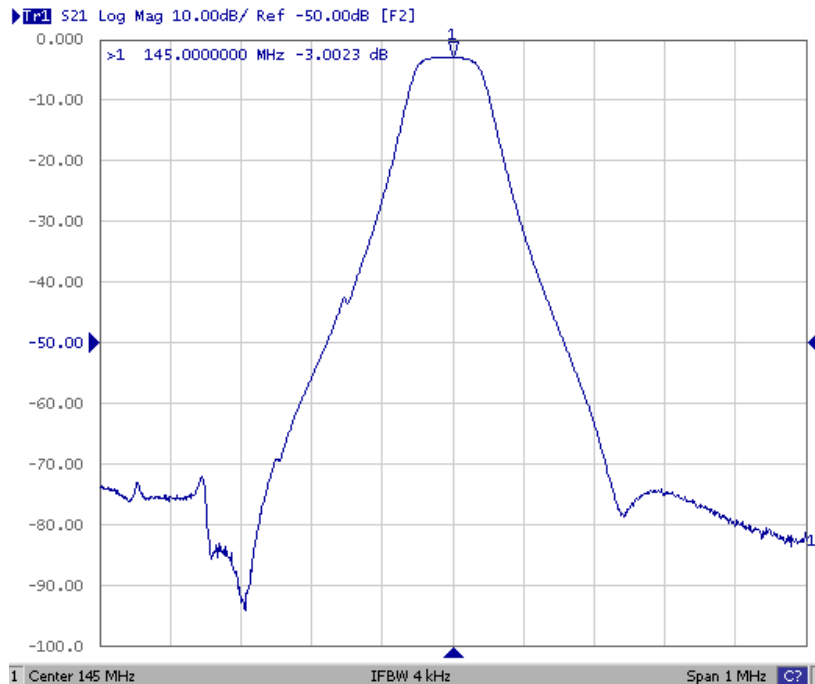


Fig1. Horizontal: 0.1MHz/Div, Vertical: 10dB/Div

2. Pass band Response and Group Time Delay response:

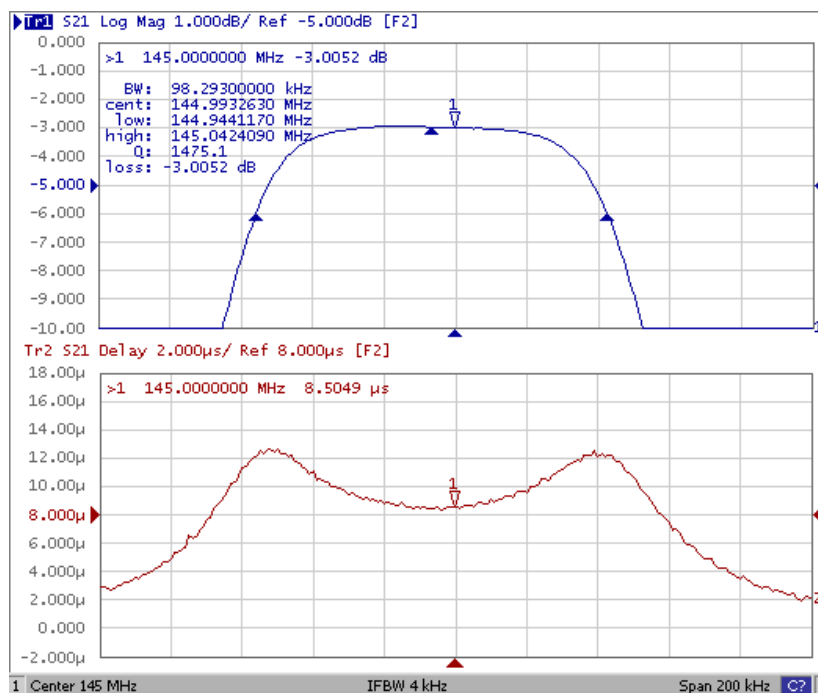


Fig2. Horizontal: 0.02MHz/Div, Vertical: 1dB/Div & Vertical: 2us/Div

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3. VSWR:

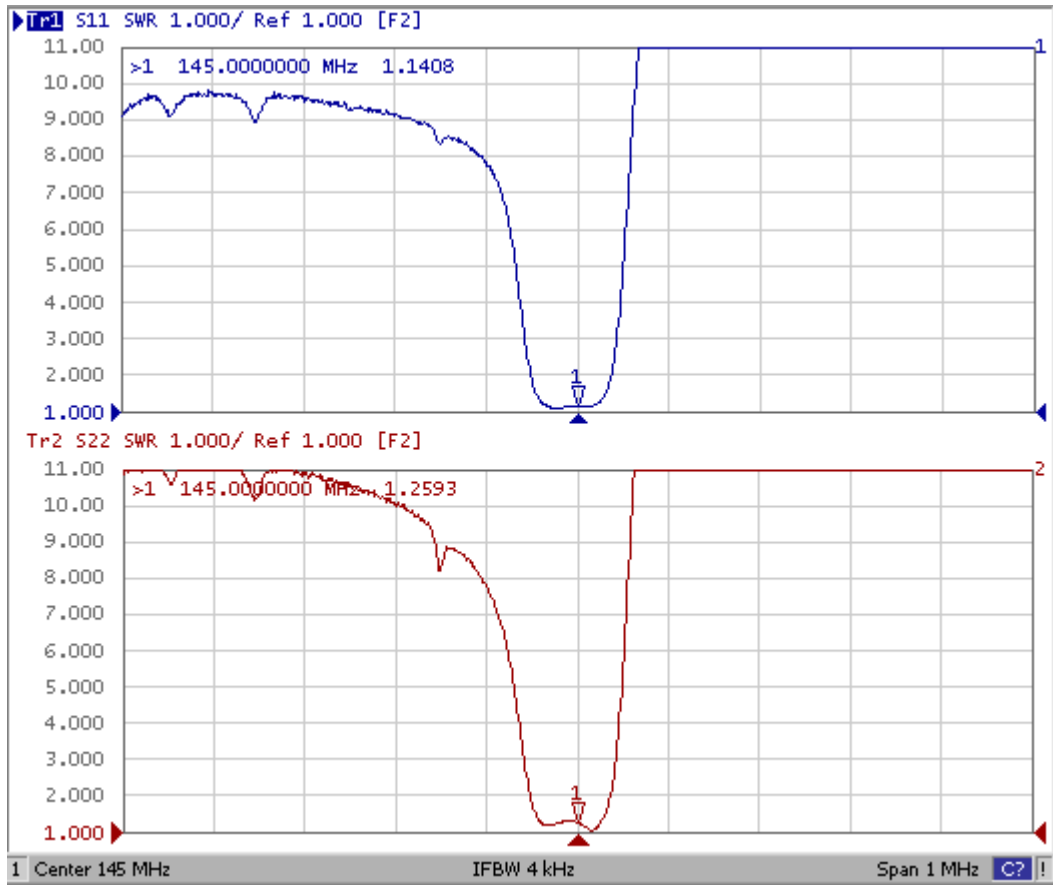
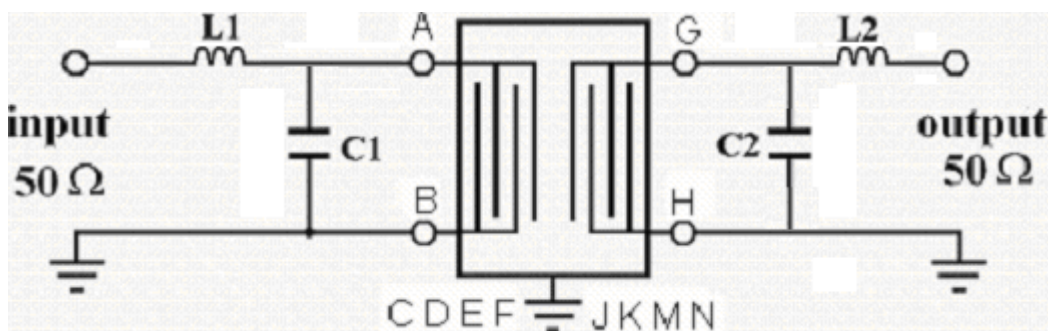


Fig3. Horizontal: 0.1MHz/Div, Vertical: 1/Div

**D. MATCHING CIRCUIT:**

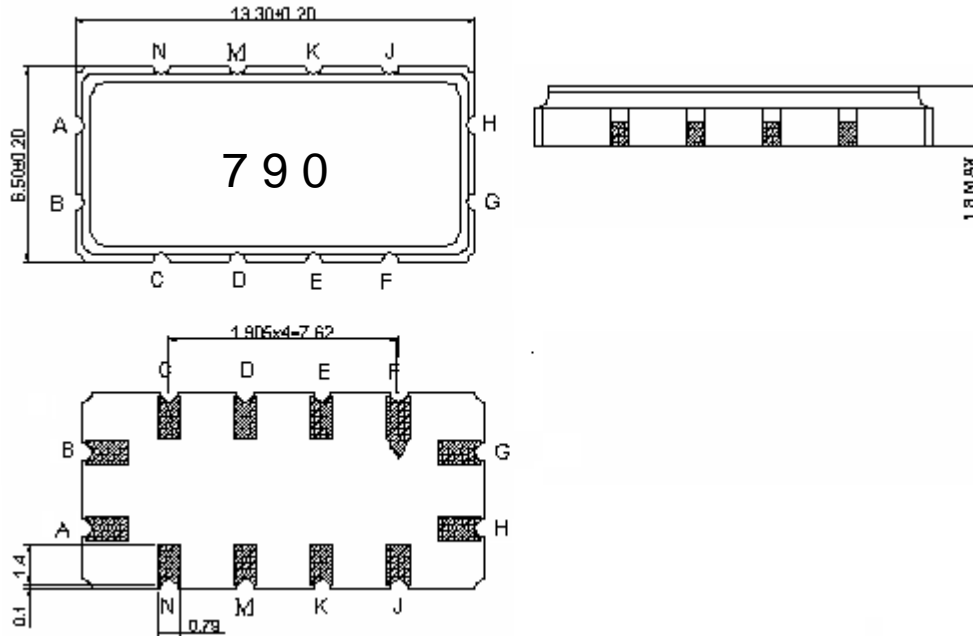


$L1 = 180\text{nH}$ ,  $C1 = 2\text{pF}$ ,  $L2 = 180\text{nH}$ ,  $C2 = 2\text{pF}$   
 $Z_{in} = 50 \Omega$ ,  $Z_{out} = 50 \Omega$

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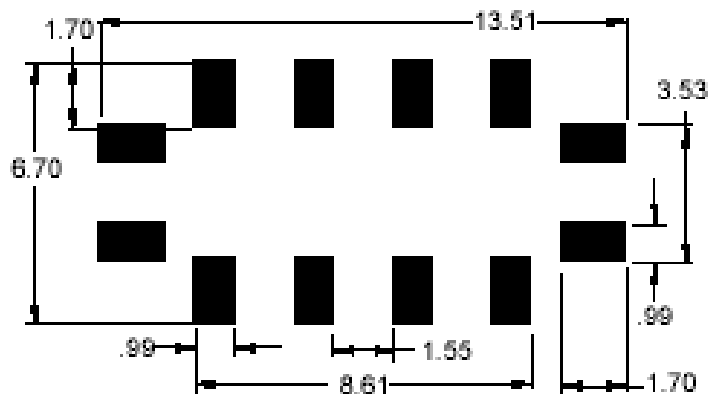
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**E. OUTLINE DRAWING:**



- Pin A: RF input
- Pin B: RF input ground
- Pin G: RF output
- Pin H: RF output ground
- Pin C: D, E, F, J, K, M, N: Ground
- Unit: mm

**F. PCB FOOTPRINT:**

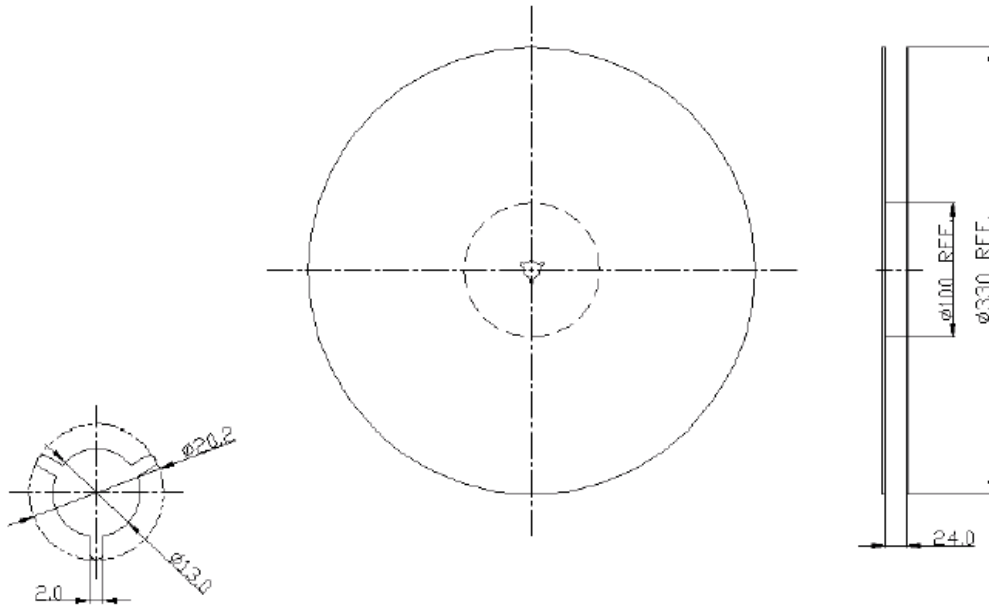


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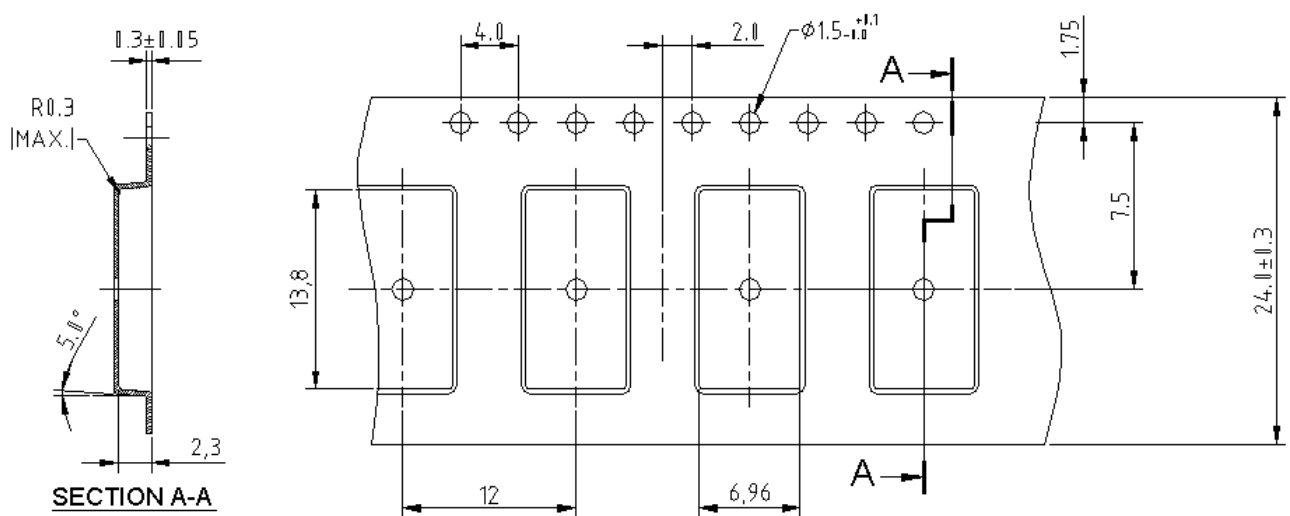
**G. PACKING:**

**1. REEL DIMENSION**



Unit: mm

**2. TAPE DIMENSION**



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**H. RECOMMENDED REFLOW PROFILE:**

