



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Issued Date:

Product Name: SAW IF Filter 145 MHz

TST Parts No.: TB0790A (package 13.3mm x 6.5 mm)

Customer Parts No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Kazuma Lee 

Approval by: _____ Andrew Lee 

Date: _____ 09 / 23 / 2009

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes.



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SAW Filter 145MHz 0.05MHz BW (SMD 13.3×6.5 mm)

MODEL NO.: 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 : 10 dBm
4. Maximum DC Voltage : 10V

RoHS Compliant
Lead free
Lead-free soldering

B. Characteristics :

ELECTRICAL PARAMETERS			VALUE		
Parameter	Sign	Units	MIN	TYP	MAX
Central Frequency	F ₀	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 Fo	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	Ohm	50		

C. Frequency Characteristics :

(1) Wide band Response:(span 1MHz)

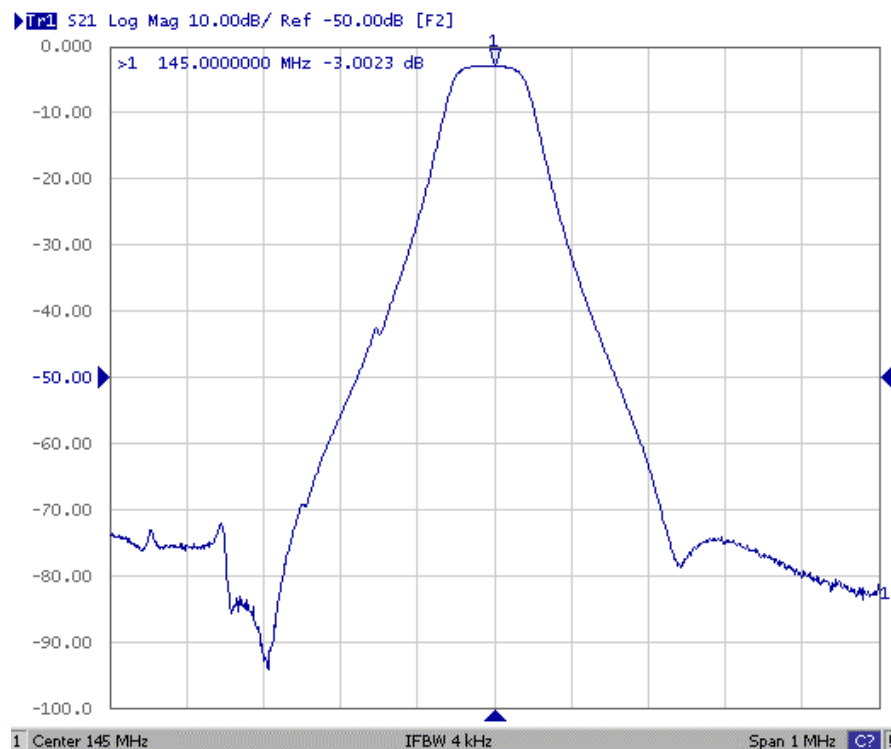


Fig1. Horizontal: 0.1MHz/Div Vertical: 10dB/Div

(2) Pass band Response and Group Time Delay response:

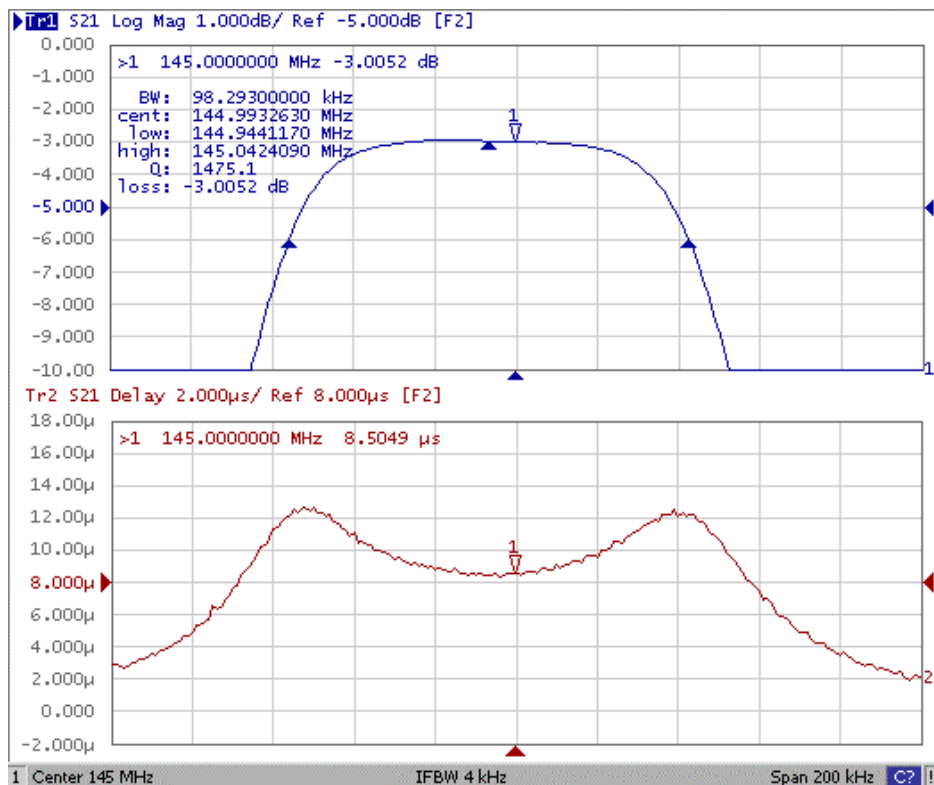


Fig2. Horizontal: 0.02MHz/Div Vertical: 1dB/Div
Vertical: 2us/Div

(3) VSWR:

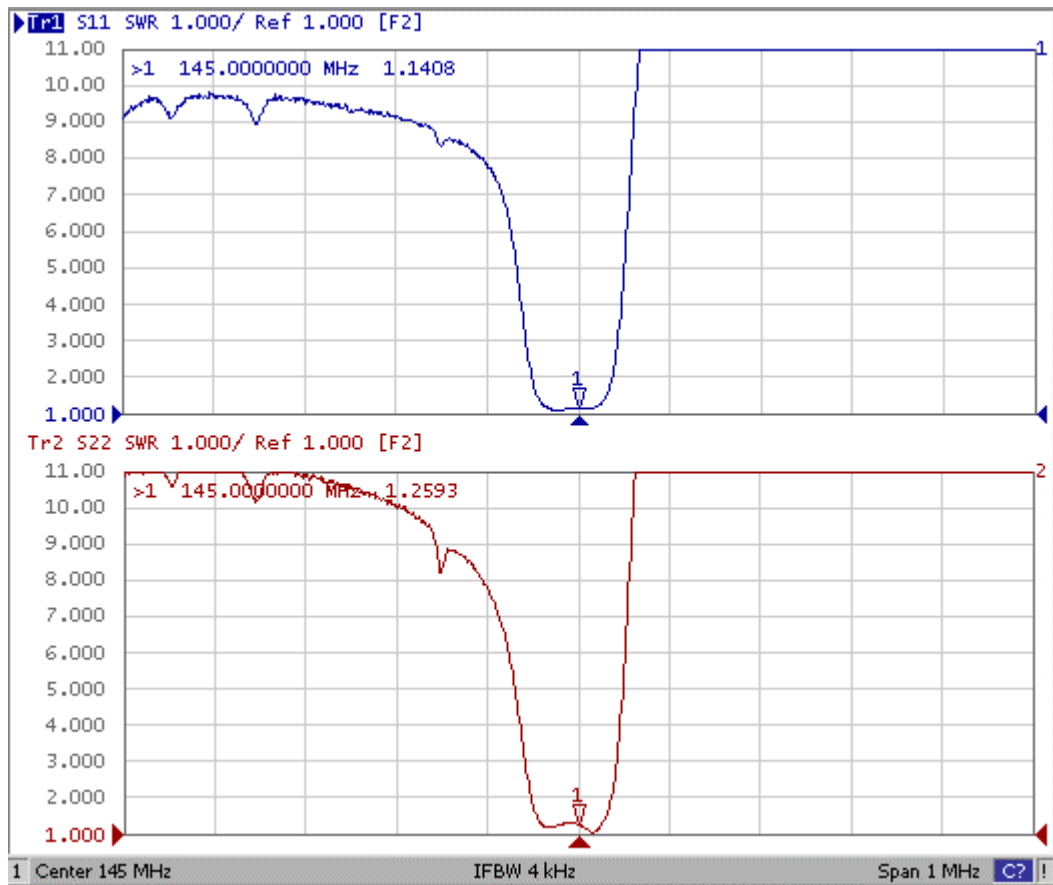
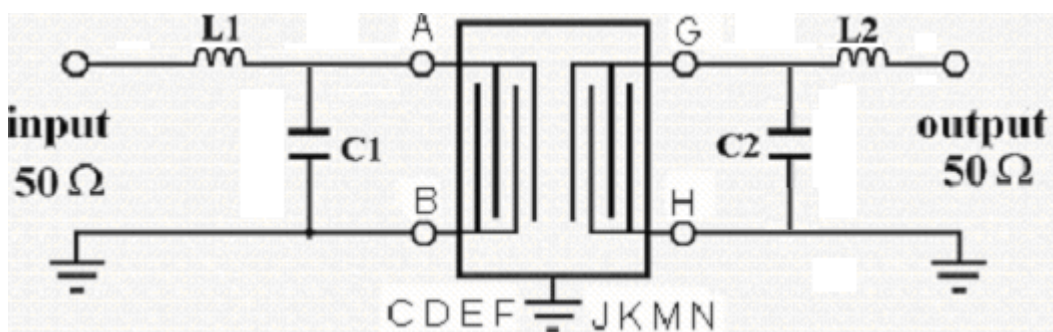


Fig3. Horizontal: 0.1MHz/Div Vertical: 1/Div

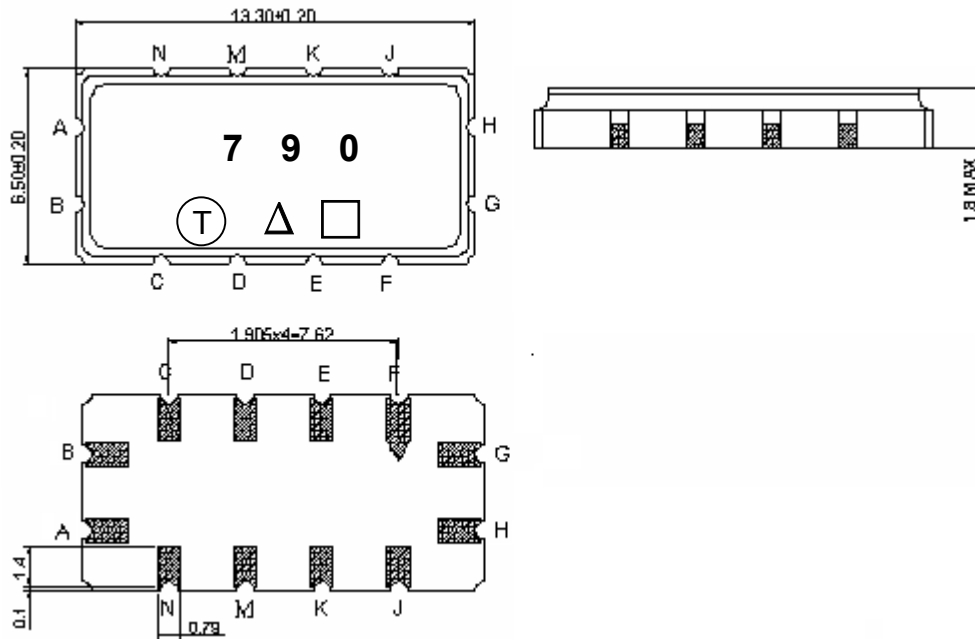
D. Matching Circuit:



$$L1 = 180 \text{ nH}, C1 = 2 \text{ pF} \quad L2 = 180 \text{ nH}, C2 = 2 \text{ pF}$$

$$Z_{in}=50\text{ohm } Z_{out}=50\text{ohm}$$

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

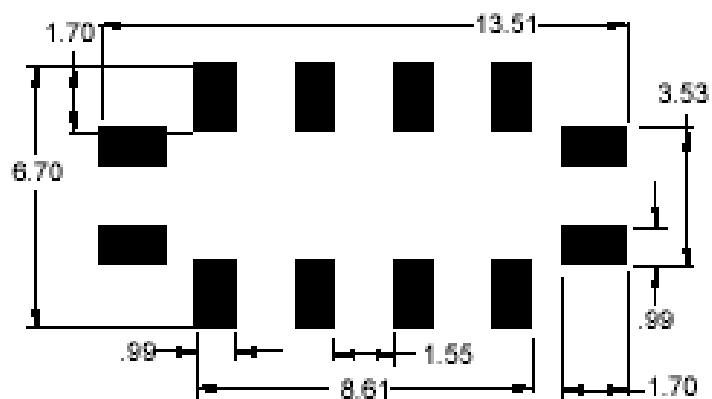
□ : Week Code (Follow the table from planner each year)

Unit : mm

△ : Product / Year Code

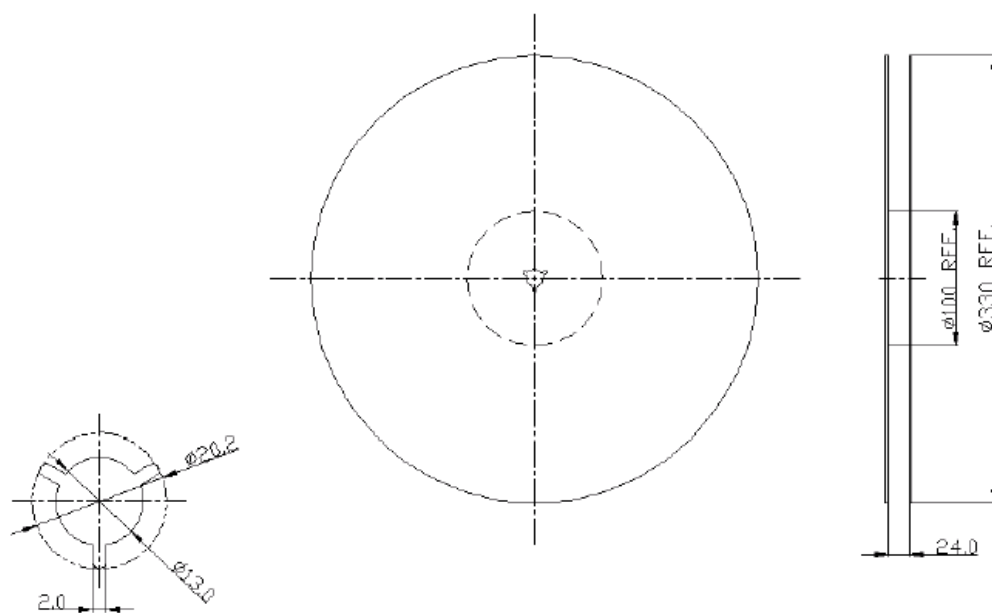
Year	2005 2009	2006 2010	2007 2011	2008 2012
Product Code	B	b	<u>B</u>	<u>b</u>

F. PCB Footprint:



G. PACKING:

1. REEL DIMENSION



Unit: mm

The graph displays the temperature of a substance over time. The y-axis represents Temperature in degrees Celsius, ranging from 20 to 280. The x-axis represents Time in seconds, ranging from 0 to 360. The curve shows a heating phase from 0 to 220 seconds, reaching a maximum temperature of 260°C, followed by a cooling phase from 220 to 360 seconds, ending at 110°C.

Time (Sec)	Temp (Deg C)
0	25
20	28
40	145
60	150
80	158
100	155
120	170
140	178
160	200
180	220
200	250
220	260
240	250
260	175
280	145
300	148
320	135
340	120
360	110