



# APPROVAL SHEET

Approval Specification	Customer's Approval Certificate
<b>TO:</b>	Please return this copy as a certification of your approval
<b>Part No.:</b>	<b>Checked &amp; Approved by:</b>
<b>Customer's Part No.:</b>	<b>Date:</b>

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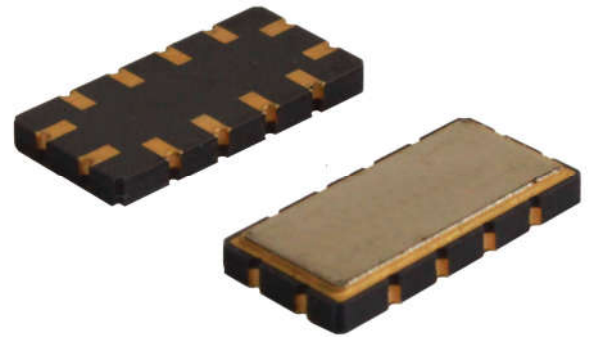


Part No.	:	SF0714
Pages	:	6
Date	:	2017/1/18
Revision	:	1.0

<b>Prepared by:</b>	
<b>Checked by:</b>	
<b>Approved by:</b>	

**Application**

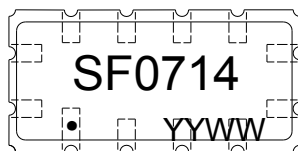
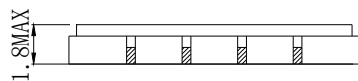
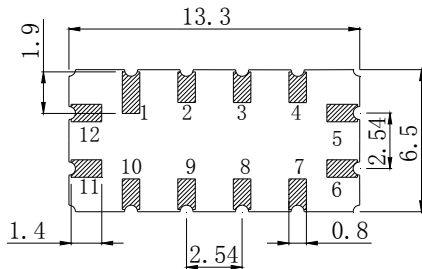
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 4.40 MHz



**Features**

- Ceramic Package for **Surface Mounted Technology (SMT)**
- **RoHS** compatible
- Package size 13.30x6.50x1.80mm<sup>3</sup>
- Package Code QCC12
- **Electrostatic Sensitive Device(ESD)**

**Package Dimensions (Unit: mm)**



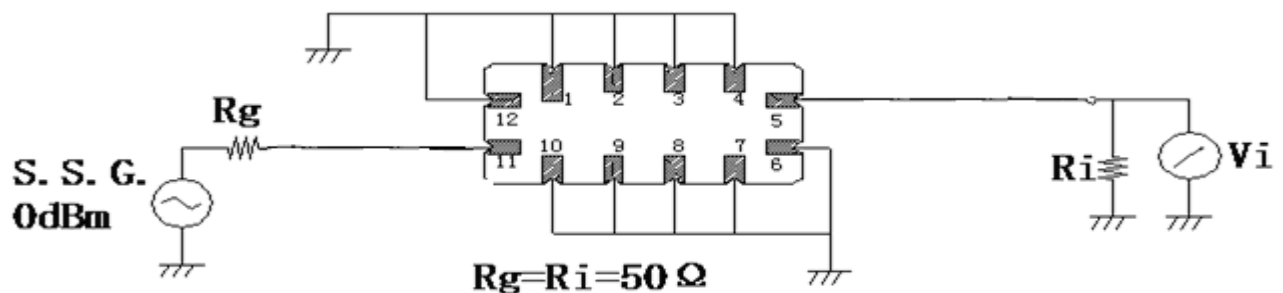
**Pin Configuration**

Pin No.	Description
11	Input
5	Output
1,2,3,4,7,8,9,10	Case Ground
6,12	To be Grounded

**Marking Description**

<b>SF</b>	<b>SF</b>	Trademark
	<b>F</b>	SAW Filter
<b>0714</b>	Part Number	
●	Pin 1	
<b>YYWW</b>	Year Code & Week Code	

**Test Circuit (Bottom View)**



\*Fig: If the products produced in 06<sup>th</sup> week of 2015, The year code & week code is 1506.

**Performance****Maximum Rating**

Item		Value	Unit
DC Voltage	$V_{DC}$	3	V
Operation Temperature	T	-40 ~ +85	°C
Storage Temperature	$T_{stg}$	-55 ~ +125	°C
RF Power Dissipation	P	15	dBm

**Electronic Characteristics**

Test Temperature:  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$

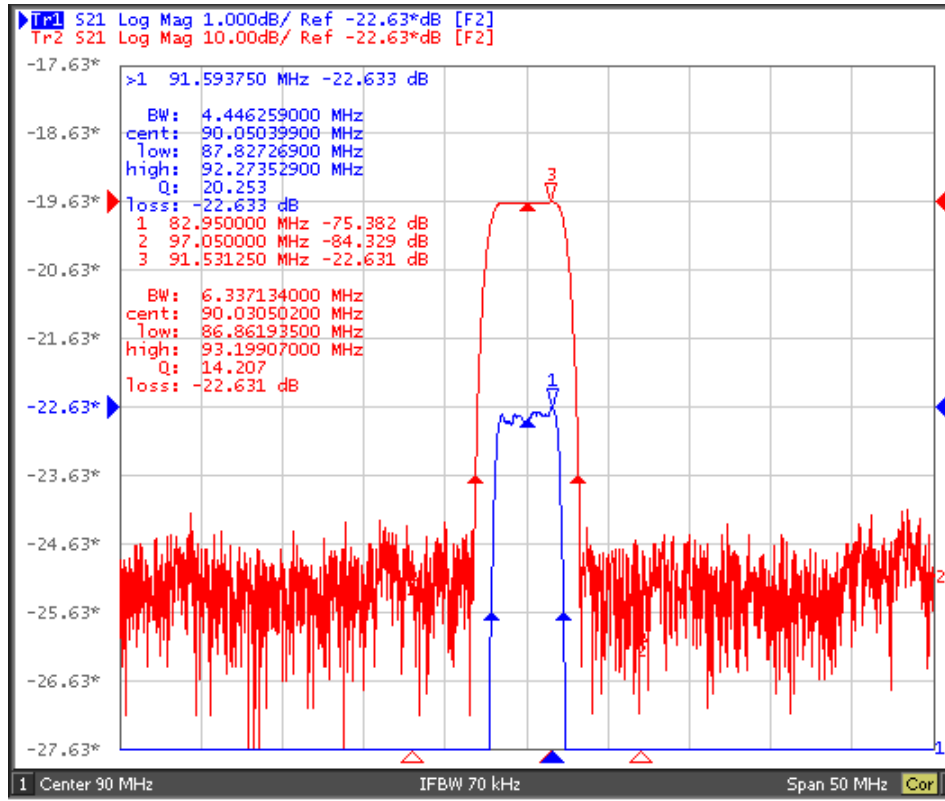
Terminating source impedance:  $50\Omega$

Terminating load impedance:  $50\Omega$

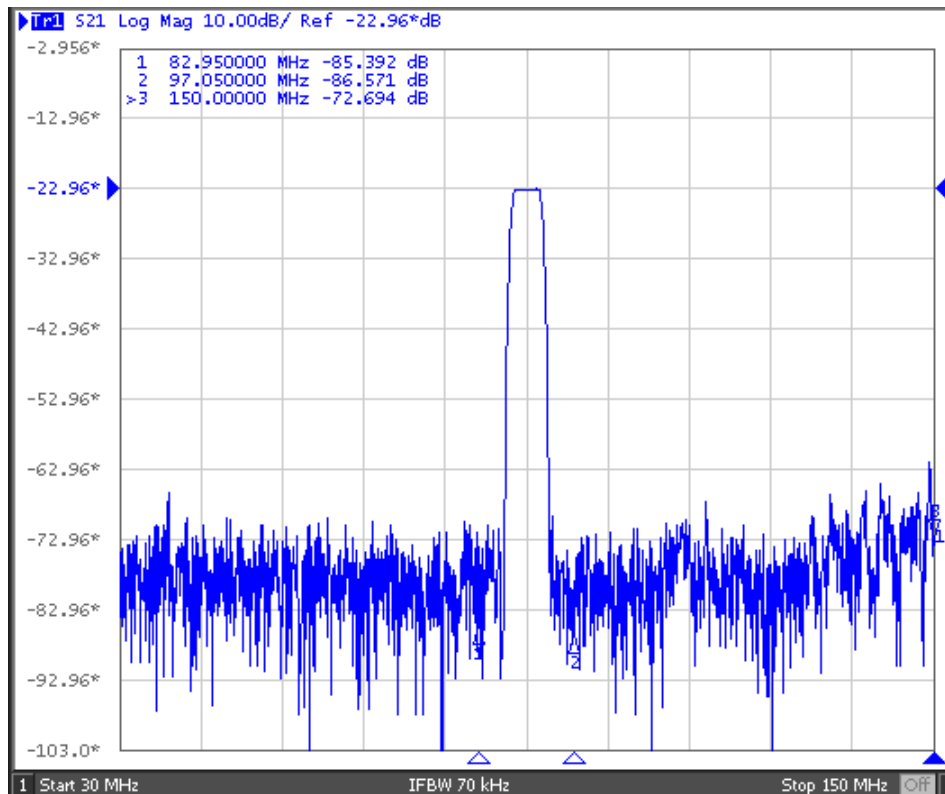
Item		Minimum	Typical	Maximum	Unit
Center Frequency	$f_c$		90.00		MHz
Insertion Loss(min)	IL		22.7	25.0	dB
Amplitude Ripple (p-p)	$\Delta\alpha$		0.8	1.0	dB
3 dB Bandwidth	$BW_{3dB}$	4.30	4.44		MHz
10 dB Bandwidth	$BW_{10dB}$		5.18	5.35	MHz
40 dB Bandwidth	$BW_{40dB}$		6.33	6.60	MHz
Absolute Group Delay @ $F_c$	GDR		1.31		us
Absolute Attenuation	$\alpha$				
$F_c - (4.1/2+5)$ MHz		45.0	50.0		dB
$F_c + (4.1/2+5)$ MHz		45.0	50.0		dB

Frequency Characteristics

Frequency Response



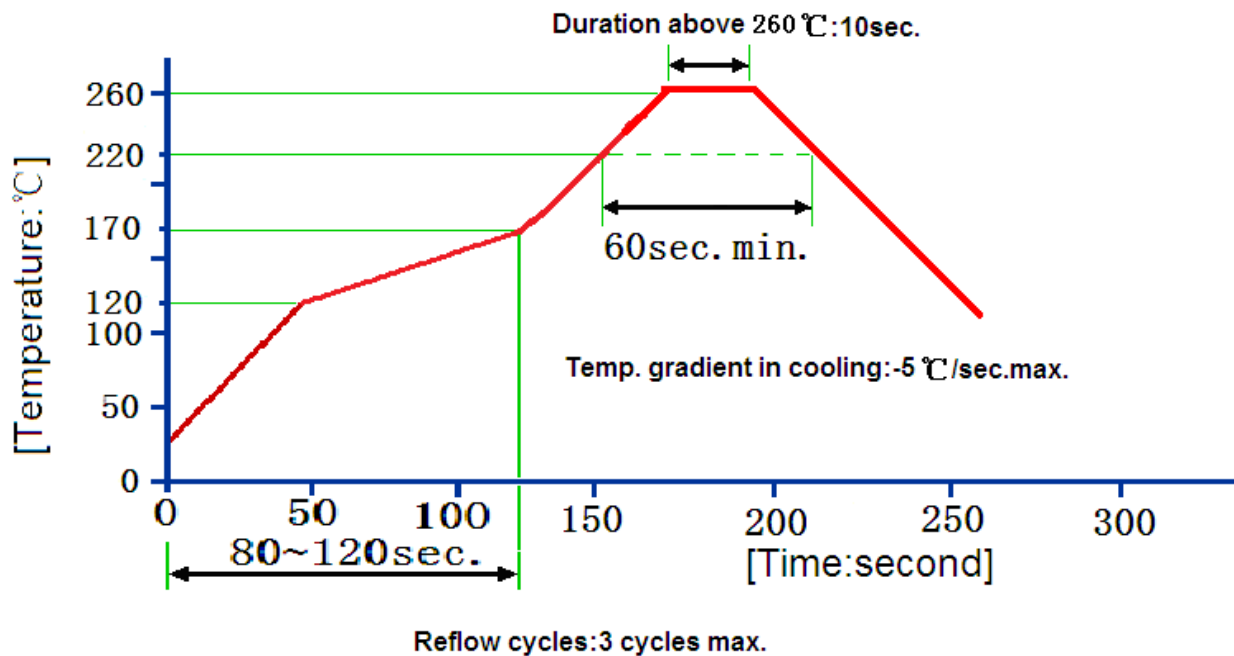
Frequency Response (wideband)



**Reliability (The SAW components shall remain electrical performance after tests)**

No.	Test item	Test condition
1	Temperature Storage	(1) Temperature: 85°C±2°C , Duration: 250h , Recovery time: 2h±0.5h (2) Temperature: -55°C±3°C , Duration: 250h ,Recovery time: 2h±0.5h
2	Humidity Test	Conditions: 60°C±2°C , 90~95% RH                                  Duration: 250h
3	Thermal Shock	Heat cycle conditions: TA=-55°C±3°C, TB=85°C±2°C, t1=t2=30min, Switch time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.
4	Vibration Fatigue	Frequency of vibration: 10~55Hz                                  Amplitude:1.5mm Directions: X,Y and Z    Duration: 2h
5	Drop Test	Cycle time: 10 times    Height: 1.0m
6	Solder Ability Test	Temperature: 245°C±5°C    Duration: 3.0s--5.0s Depth: DIP--2/3 , SMD--1/5
7	Resistance to Soldering Heat	(1)Thickness of PCB:1mm , Solder condition: 260°C±5°C , Duration: 10±1s (2)Temperature of Soldering Iron: 350°C±10°C , Duration: 3~4s , Recovery time : 2 ± 0.5h

**Recommended Reflow Soldering Diagram**



## Notes

1. As a result of the particularity of inner structure of SAW products, it easy to be breakdown by electrostatic, so we should pay attention to **ESD protect** in the test.
2. **Static voltage** between signal load and ground may cause deterioration and destruction of the component. Please avoid static voltage.
3. **Ultrasonic cleaning** may cause deterioration and destruction of the component. Please avoid ultrasonic cleaning.
4. Only leads of component may **be soldered**. Please avoid soldering another part of component.
5. There is a close relationship between the device's performance and **matching network**. The specifications of this device are based on the test circuit shown above. L and C values may change depending on board layout. Values shown are intended as a guide only.