**SAW Filter** 

### **RF0622**

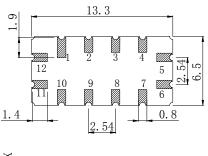
#### Application

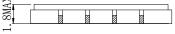
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 0.015 MHz

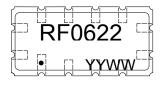
#### Features

- 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)

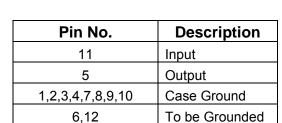






#### Test Circuit (Bottom View)

# 

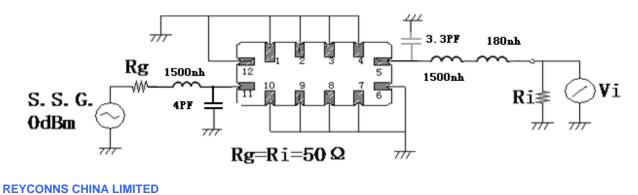


#### **Marking Description**

**Pin Configuration** 

RF	R Manufacture		
	F	SAW Filter	
0622	Part Number		
•	Pin 1		
YYWW	Year Code & Week Code		

\*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 <sub>DC</sub>	3	V
Operation Temperature	т	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +125	°C
RF Power Dissipation	Р	15	dBm

## **Electronic Characteristics**

Test Temperature: 25℃±2℃

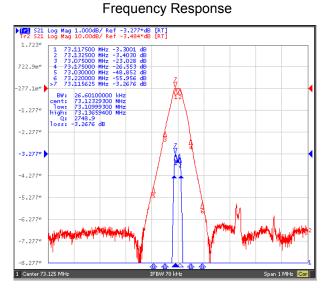
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

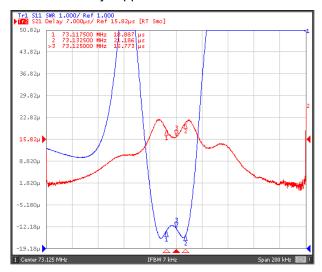
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		73.125		MHz
Insertion Loss(min) -30~+85℃	IL		3.5	5.5	dB
Insertion Loss(min) -10~+65℃			3.3	5.0	dB
Amplitude Ripple (p-p) 73.1175-73.1325 MHz	$ riangle \mathbf{a}$		0.3	0.6	dB
Group Delay Ripple 73.1175-73.1325 MHz	GDR		5.0	10.0	us
Absolute Delay	AD		16.7	25.0	us
Absolute Attenuation					
63.125-73.030MHz		20.0	40.0		dB
73.030-73.075MHz		10.0	20.0		dB
73.175-73.220MHz		10.0	20.0		dB
73.220-83.125MHz		20.0	40.0		dB

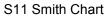
# **RF0622**

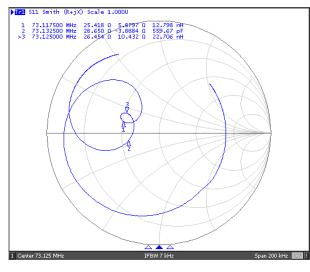
#### **Frequency Characteristics**



## Delay Ripple & S11 VSWR

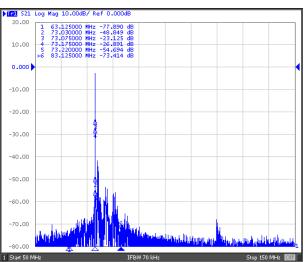




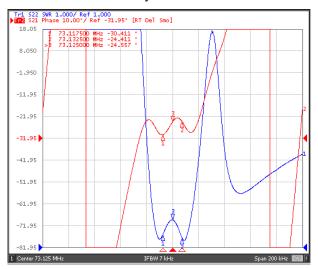


**REYCONNS CHINA LIMITED** 

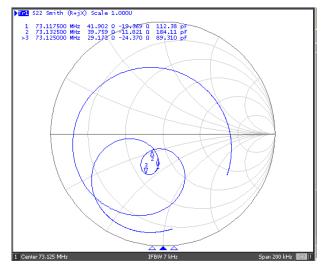
Frequency Response (wideband)



Phase Linearity & S22 VSWR



S22 Smith Chart



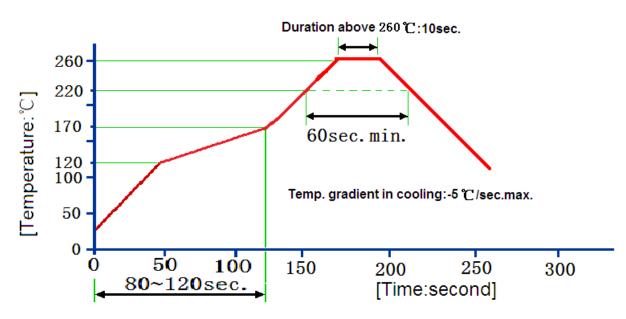
SAW Filter

## **RF0622**

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

No.	Test item	Test condition		
1 Temperature	(1) Temperature: $85^{\circ}C \pm 2^{\circ}C$ , Duration: 250h, Recovery time: 2h±0.5h			
	Storage	(2) Temperature: –55 $^\circ\!\mathrm{C}\pm\!3^\circ\!\mathrm{C}$ , Duration: 250h ,Recovery time: 2h±0.5h		
2	Humidity Test	Conditions: 60℃±2℃ , 90~95% RH Duration: 250h		
2	3 Thermal Shock	Heat cycle conditions: TA=-55℃±3℃, TB=85℃±2℃, t1=t2=30min, Switch		
3		time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.		
4	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		
		Temperature: 245°C±5°C Duration: 3.0s5.0s		
6 Solder Ability Test	Depth: DIP2/3 , SMD1/5			
		(1)Thickness of PCB:1mm , Solder condition: 260 $^\circ\!\!\mathbb{C}\pm5^\circ\!\!\mathbb{C}$ , Duration: 10±1s		
7	Resistance to Soldering Heat	(2)Temperature of Soldering Iron: 350 $^\circ\!\!\mathrm{C}\pm10^\circ\!\!\mathrm{C}$ , Duration: 3~4s ,		
		Recovery time : 2 ± 0.5h		

# **Recommended Reflow Soldering Diagram**



#### Reflow cycles:3 cycles max.

#### 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.