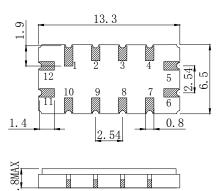
# Application

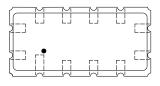
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 5 MHz

#### 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**

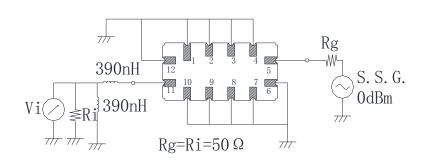
Pin No.	Description		
5	Input		
11	Output		
1,2,3,4,6,7,8,9,10,12	Ground		

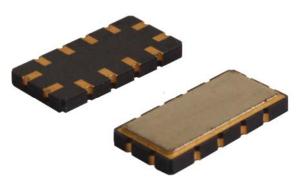
# **Marking Description**

S	Trademark
F	SAW Filter
0210	Part Number
•	Pin 1
YYWW	Year Code & Week Code

# \*Fig: If the products produced in 06<sup>th</sup> week of 2012, The year code & week code is 1206.

## **Test Circuit**





## 5 MHz Bandwidth

#### 5 MHz Bandwidth

#### 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	10	dBm

#### **Electronic Characteristics**

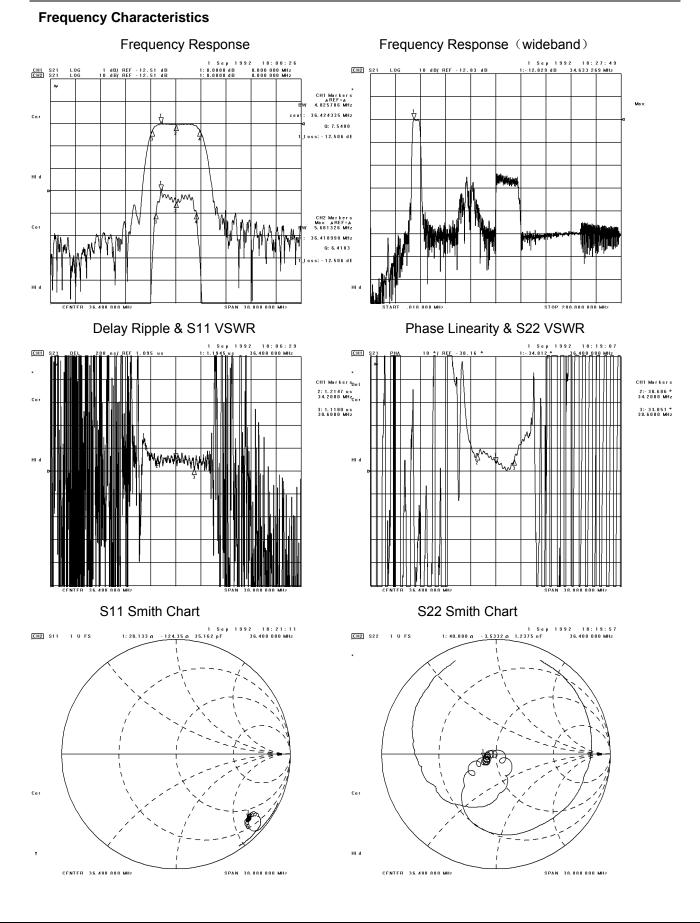
Test Temperature:  $25^{\circ}C \pm 2^{\circ}C$ 

Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

Item	Minimum	Typical	Maximum	Unit	
Center Frequency	fc	36.3	36.4	36.5	MHz
Insertion Loss(min)	IL		12.5	15.0	dB
Amplitude Ripple (p-p) 34.40-38.40 MHz	∆a		0.5	1.0	dB
1 dB Bandwidth	BW1dB	4.5	4.8		MHz
Absolute Attenuation	a				
DC -31.00 MHz		35.0	36.0		dB
43.00-66.00 MHz		35.0	37.0		dB

#### 5 MHz Bandwidth

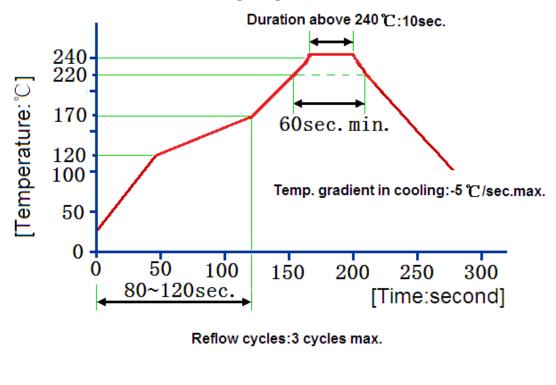


5 MHz Bandwidth

No.	Test item	Test condition		
1 Temperature Storage		(1) Temperature: 85℃±2℃, Duration: 250h, Recovery time: 2h±0.5h		
		(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		
3		Heat cycle conditions: TA=-55℃±3℃, TB=85℃±2℃, t1=t2=30min, Switch		
3 Thermal Shock		time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.		
4	4 Mibratian Estimus	Frequency of vibration: 10~55Hz Amplitude:1.5mm		
4 VIDIALION	Vibration Fatigue	Directions: X,Y and Z Duration: 2h		
5	Drop Test	Cycle time: 10 times Height: 1.0m		
		Temperature: 245°C±5°CDuration: 3.0s5.0s		
6	Solder Ability Test	Depth: DIP2/3 , SMD1/5		
		(1)Thickness of PCB:1mm , Solder condition: 260 $^\circ\!\!\mathrm{C}\pm5^\circ\!\!\mathrm{C}$ , 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		

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

## **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.