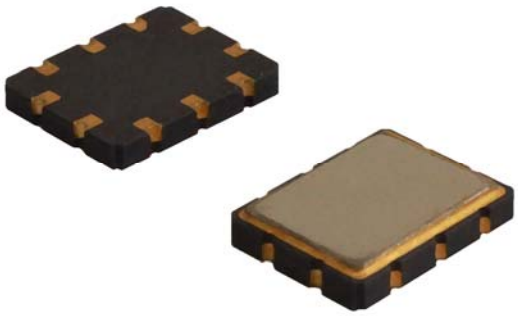
Application

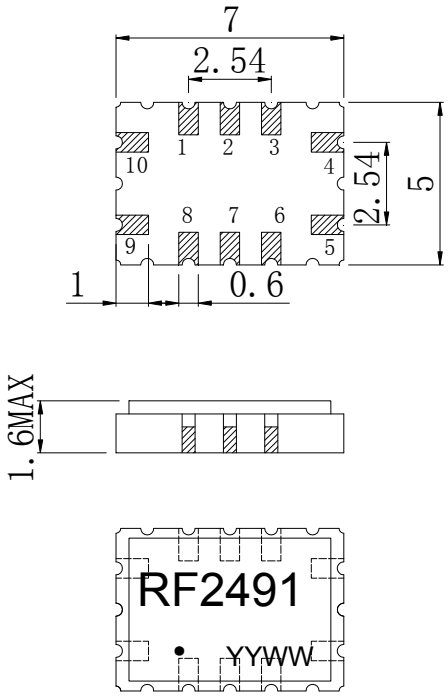


- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 75.0 MHz

Features

- Ceramic Package for **S**urface **M**ounted **T**echnology (**SMT**)
- **RoHS** compatible
- Package size 7.00x5.00x1.60mm^3
- Package Code QCC12C
- **E**lectrostatic **S**ensitive **D**evice(**ESD)**

Package Dimensions (Unit: mm)



Pin Configuration

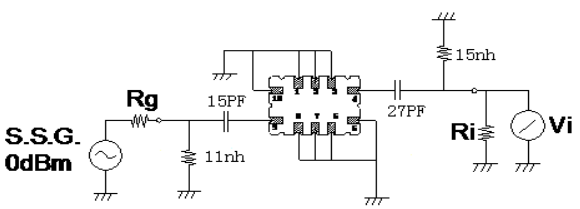
Pin No.	Description
9	Input
4	Output
1,2,3,6,7,8,	Case Ground
5,10	To be Grounded

Marking Description

RF	**R**	Manufacturer
	F	SAW Filter
2491	Part Number	
●	Pin 1	
YYWW	Year Code & Week Code	

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

Test Circuit（Bottom View）



Rg=Ri=50Ω

Performance

Maximum Rating

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

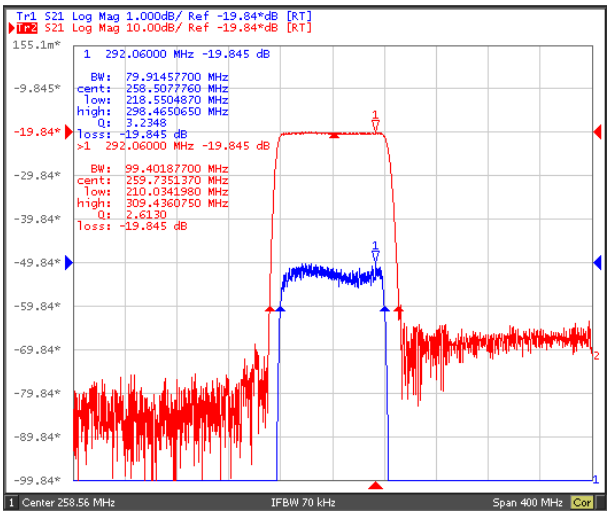
Electronic Characteristics

Test Temperature: 25℃±2℃
Terminating source impedance: 50Ω
Terminating load impedance: 50Ω

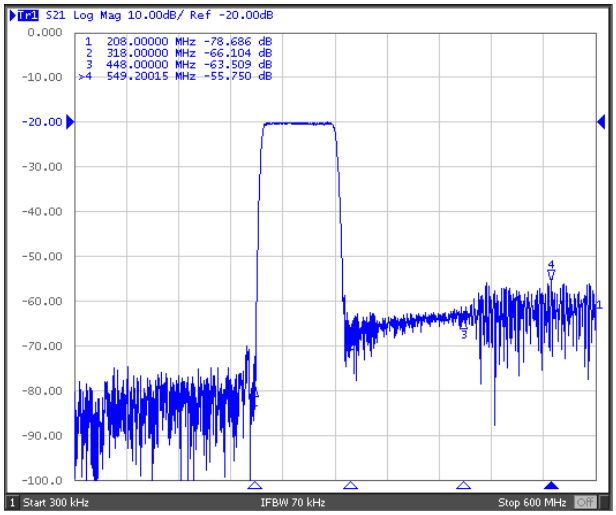
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		258.56		MHz
Insertion Loss(min)	IL		20.0	21.0	dB
Amplitude Ripple	△α		0.5	1.0	dB
1 dB Bandwidth	BW_{1dB}	75.0	79.9		MHz
3 dB Bandwidth	BW_{3dB}	81.92	83.93		MHz
40 dB Bandwidth	BW_{40dB}		99.5	106.0	MHz
Absolute Delay	AD		0.5	3.0	us
Absolute Attenuation	α				
DC – 208.00MHz		45.0	50.0		dB
318.00 – 448.00MHz		35.0	40.0		dB

Frequency Characteristics

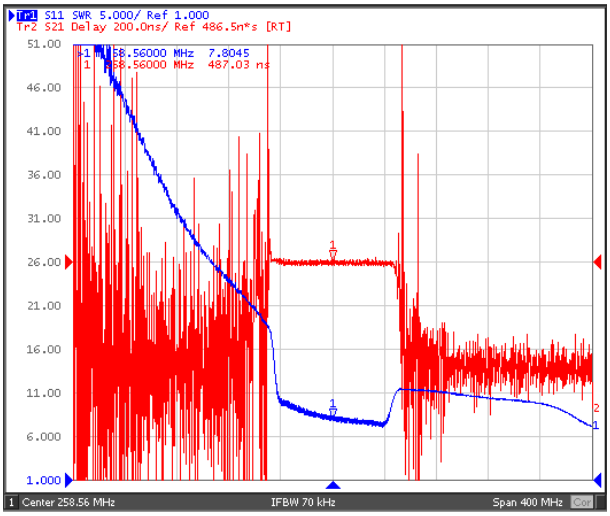
Frequency Response



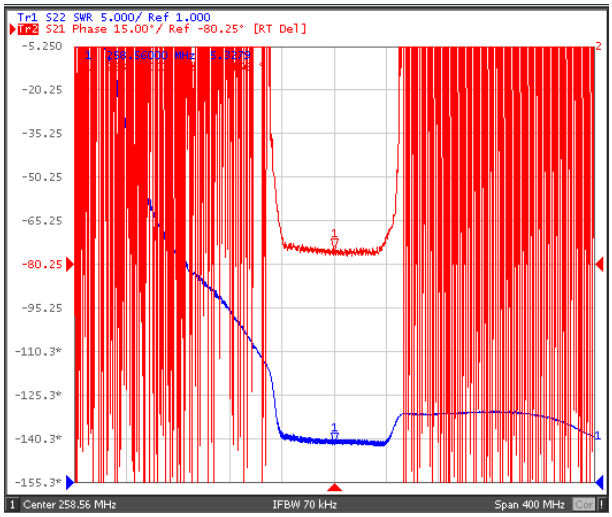
Frequency Response（wideband）



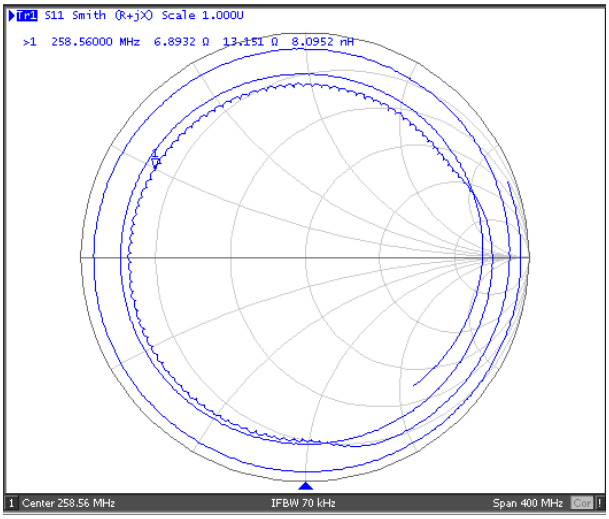
Delay Ripple & S11 VSWR



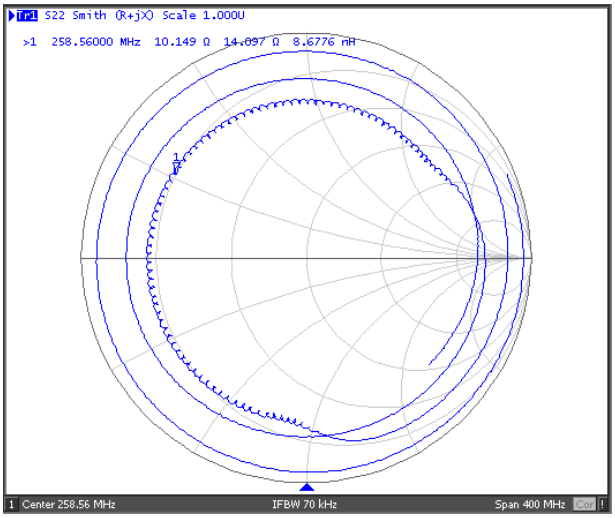
Phase Linearity & S22 VSWR



S11 Smith Chart



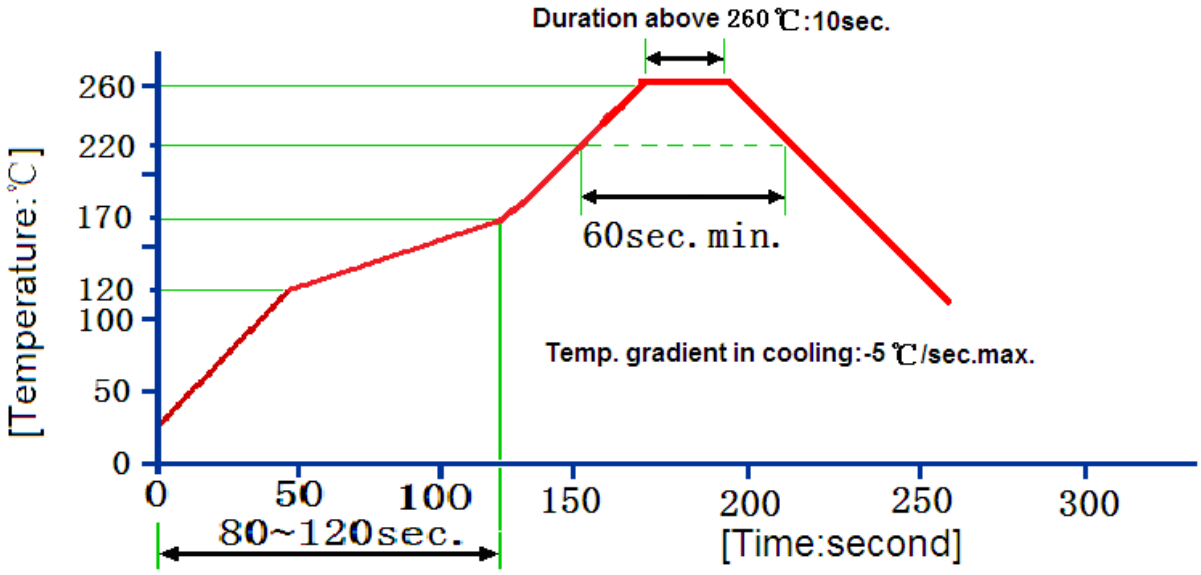
S22 Smith Chart



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

No.	Test item	Test condition
1	Temperature Storage	(1) Temperature: 85℃±2℃ , Duration: 250h , Recovery time: 2h±0.5h (2) Temperature: –55℃±3℃ , Duration: 250h ,Recovery time: 2h±0.5h
2	Humidity Test	Conditions: 60℃±2℃ , 90~95% RH Duration: 250h
3	Thermal Shock	Heat cycle conditions: TA=-55℃±3℃, TB=85℃±2℃, 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℃±5℃ 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℃±5℃ , Duration: 10±1s (2)Temperature of Soldering Iron: 350℃±10℃ , 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.