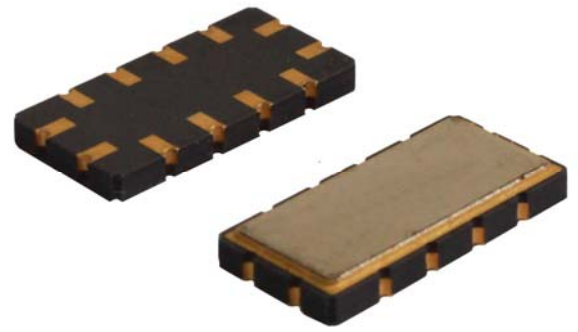


Application

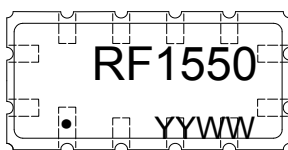
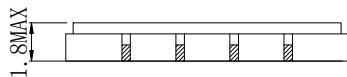
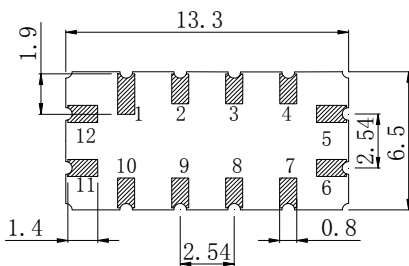
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 4.8 MHz



Features

- Ceramic Package for **Surface Mounted Technology (SMT)**
- **RoHS** compatible
- Package size 13.30x6.50x1.80mm³
- Package Code QCC12
- **Electrostatic Sensitive Device(ESD)**

Package Dimensions (Unit: mm)



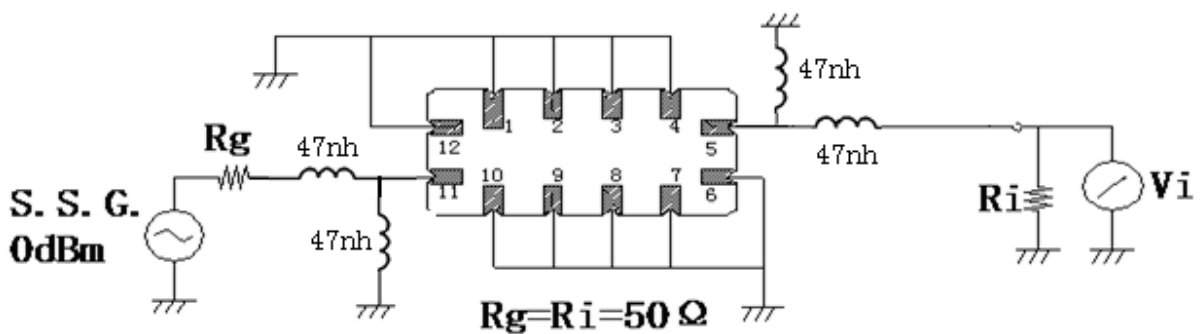
Pin Configuration

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

Marking Description

RF	R	Manufacturer
	F	SAW Filter
1550	Part Number	
●	Pin 1	
YYWW	Year Code & Week Code	

Test Circuit (Bottom View)



*Fig: If the products produced in 06th 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: $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$

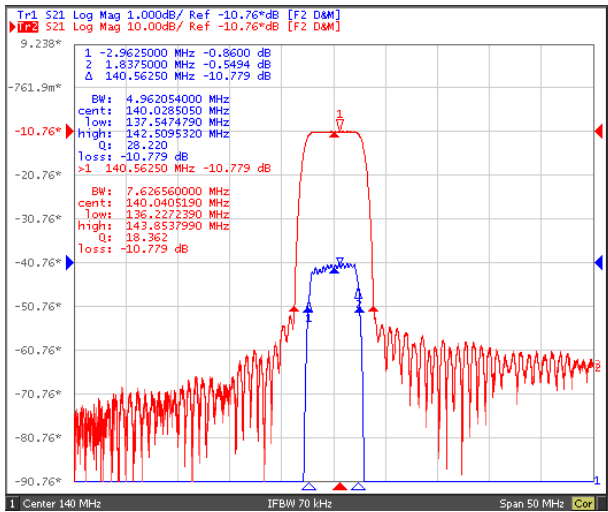
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

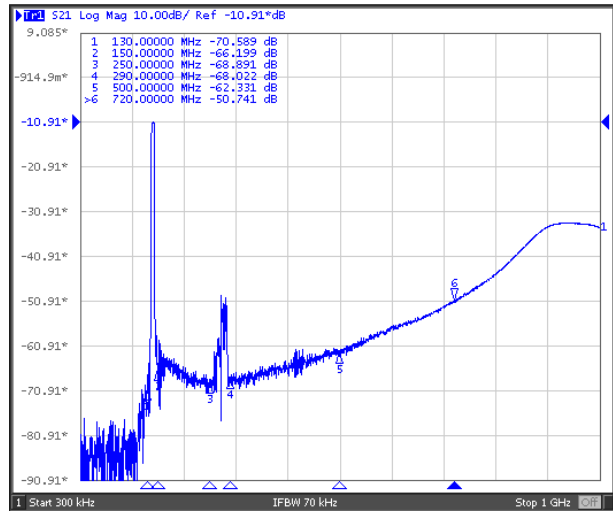
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc	139.9	140.0	140.1	MHz
Insertion Loss(min)	IL		11.0	13.0	dB
1 dB Bandwidth	BW_{1dB}	4.5	4.8		MHz
40 dB Bandwidth	BW_{40dB}		7.6	7.8	MHz
Amplitude Ripple (p-p) $F_c \pm 2.4$ MHz	Δa		0.7	1.0	dB
Group Delay Ripple $F_c \pm 2.4$ MHz	GDR		50.0	150.0	ns
Absolute Delay	AD	1.31	1.32	1.33	us
Absolute Attenuation		40.0	45.0		dB
Temperature Coefficient of Frequency			-18		ppm/°C

Frequency Characteristics

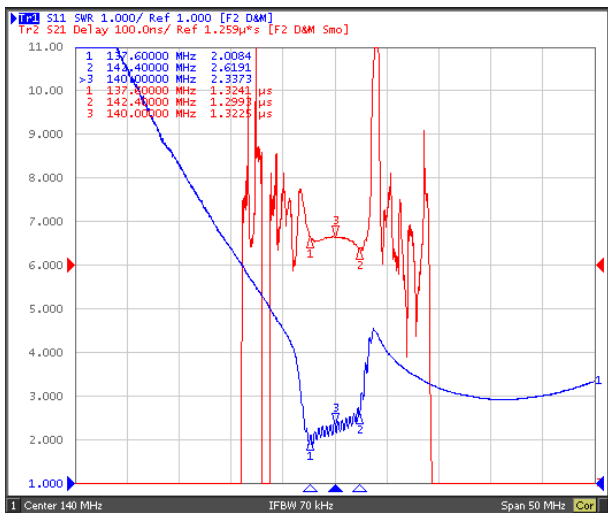
Frequency Response



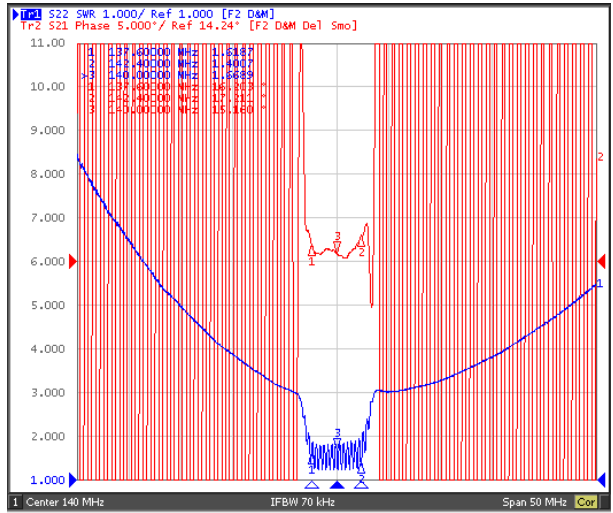
Frequency Response (wideband)



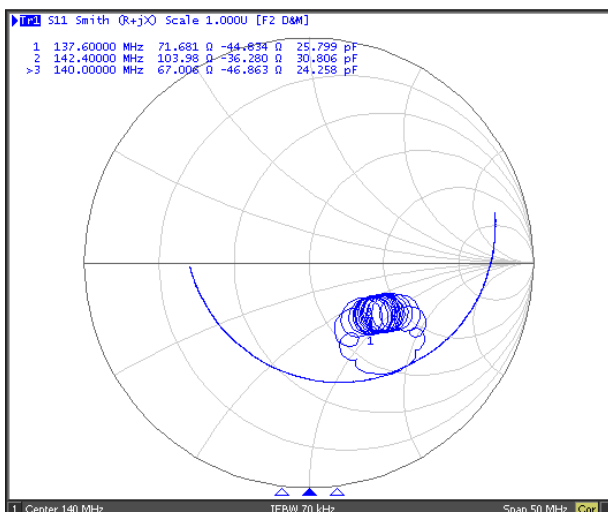
Delay Ripple & S11 VSWR



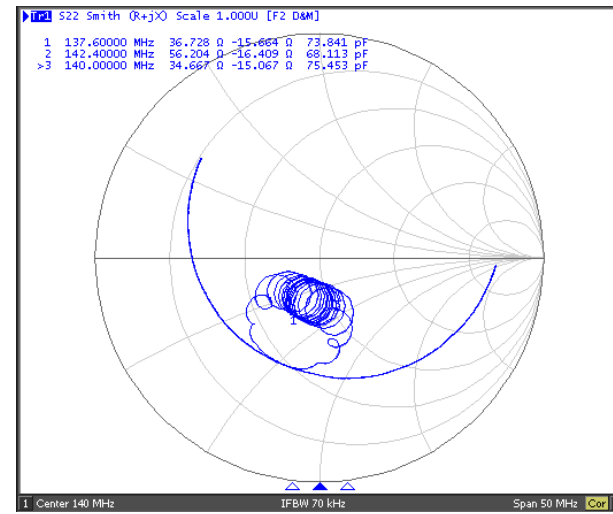
Phase Linearity & S22 VSWR



S11 Smith Chart



S22 Smith Chart



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.