



# APPROVAL SHEET

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

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Part No.	:	SF0180
Pages	:	6
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Revision	:	1.0

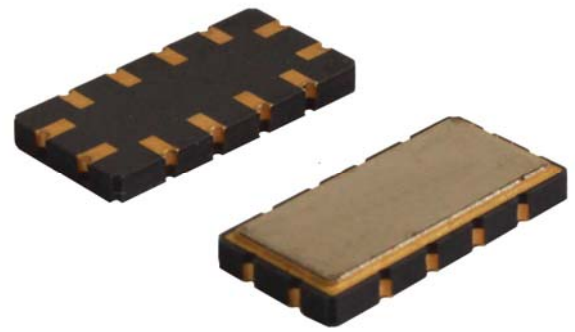
<b>Prepared by:</b>	
<b>Checked by:</b>	
<b>Approved by:</b>	

### Application

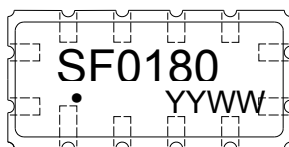
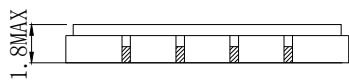
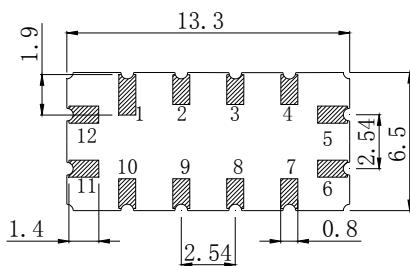
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 0.6 MHz

### 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

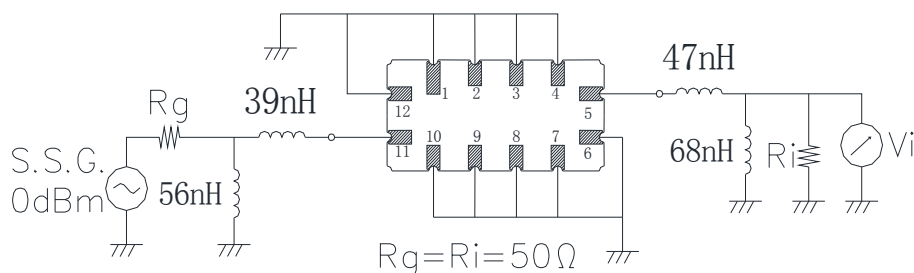
Pin No.	Description
11	Input
5	Output
1,2,3,4,6,7,8,9,10,12	Ground

### Marking Description

<b>S</b>	Trademark
<b>F</b>	SAW Filter
<b>0180</b>	Part Number
●	Pin 1
<b>YYWW</b>	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



**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	10	dBm

**Electronic Characteristics**

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

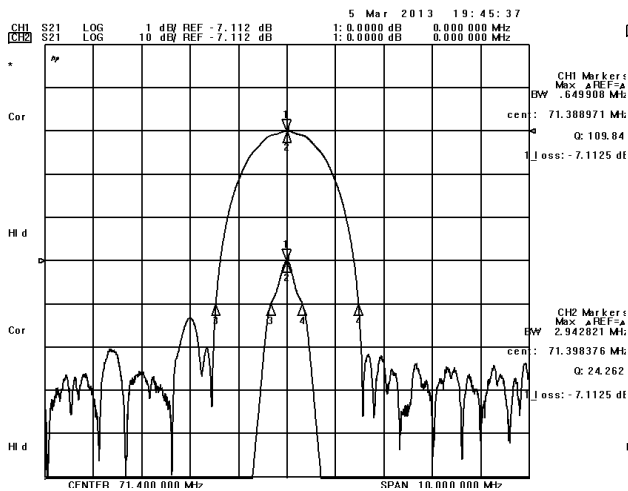
Terminating source impedance:  $50\Omega$

Terminating load impedance:  $50\Omega$

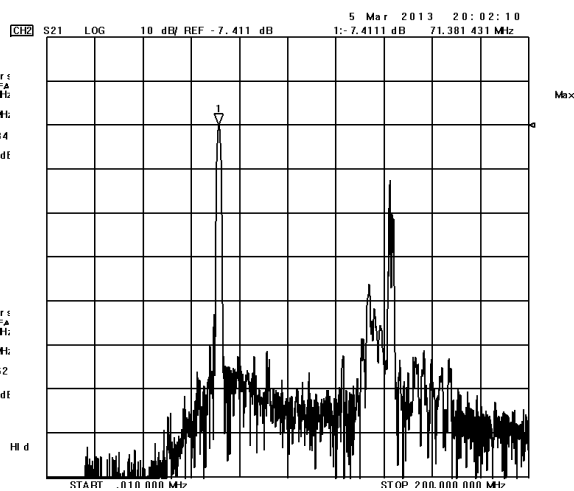
Item		Minimum	Typical	Maximum	Unit
Center Frequency	$f_c$		71.4		MHz
Insertion Loss(min)	IL		7.1	8.0	dB
Amplitude Ripple (p-p)	$\Delta a$		0.3	0.5	dB
1 dB Bandwidth	$BW_{1dB}$	0.60	0.64		MHz
40 dB Bandwidth	$BW_{40dB}$		3.0	4.5	MHz
Absolute Attenuation	$a$				
	DC -59.40 MHz	40.0	42.0		dB
	59.40 MHz	55.0	57.0		dB
	66.40 MHz	50.0	55.0		dB
	69.90 MHz	40.0	44.0		dB
	72.90 MHz	40.0	44.0		dB
	76.40 MHz	50.0	55.0		dB
	83.40 MHz	55.0	57.0		dB
	72.90-100.00 MHz	40.0	50.0		dB
Input VSWR	71.10-71.70 MHz		1.8:1	2.0:1	/
Output VSWR	71.10-71.70 MHz		1.8:1	2.0:1	/

Frequency Characteristics

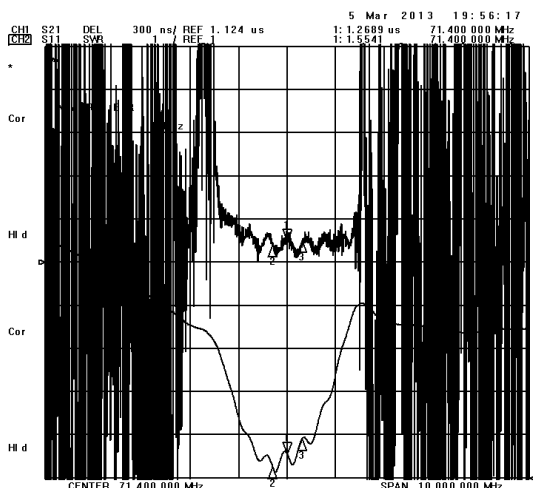
Frequency Response



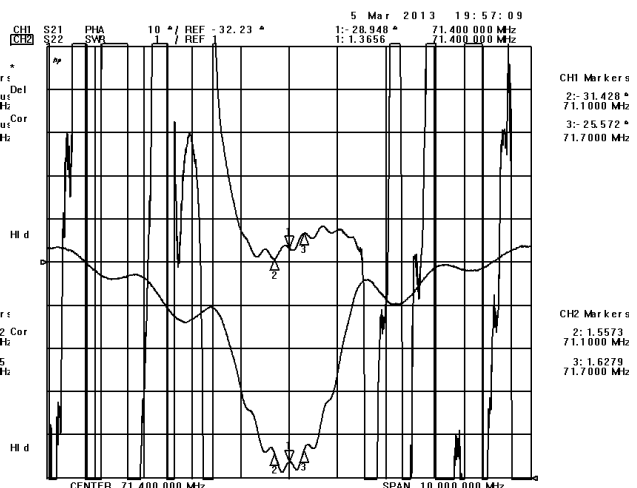
Frequency Response (wideband)



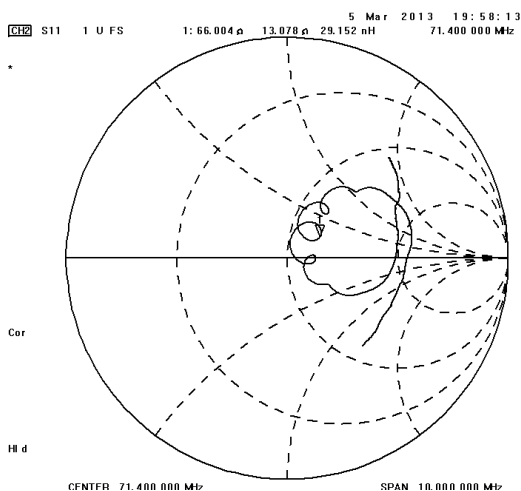
Delay Ripple & S11 VSWR



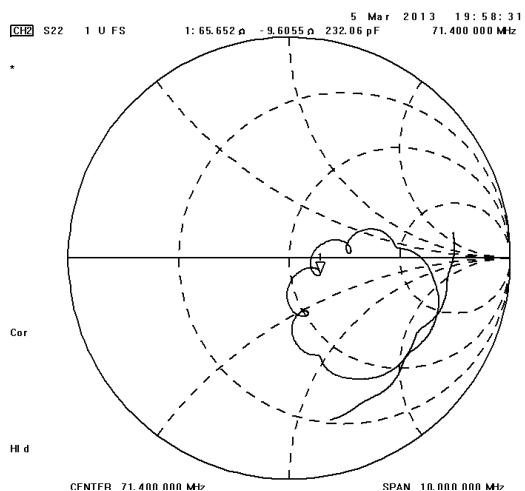
Phase Linearity & S22 VSWR



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.