



APPROVAL SHEET

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

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Part No.	:	SF1230
Pages	:	6
Date	:	2014/5/13
Revision	:	1.1

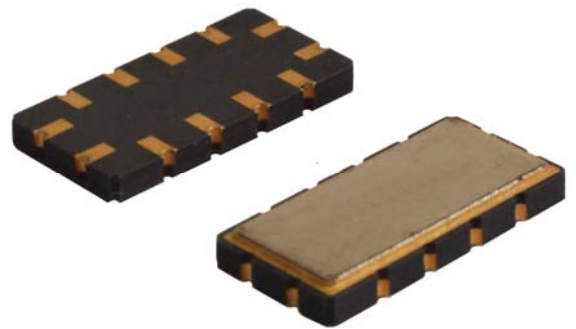
Prepared by:	梁浩
Checked by:	
Approved by:	

Application

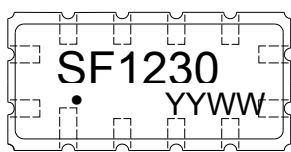
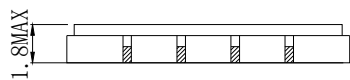
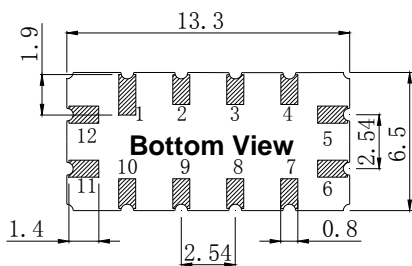
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 6.0 MHz

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

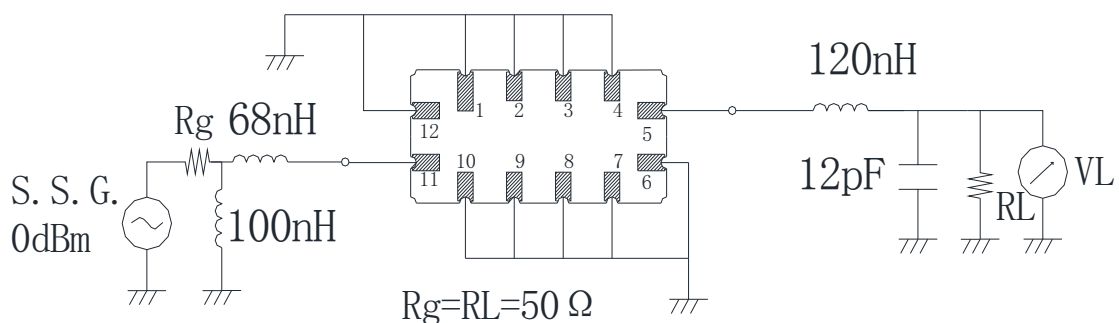
Pin No.	Description
11	Input
5	Output
1,2,3,4,6,7,8,9,10,12	Ground

Marking Description

S	Trademark
F	SAW Filter
1230	Part Number
●	Pin 1
YYWW	Year Code & Week Code

*Fig: If the products produced in 06th week of 2012, The year code & week code is 1206.

Test Circuit(Bottom View)



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°C ± 2°C

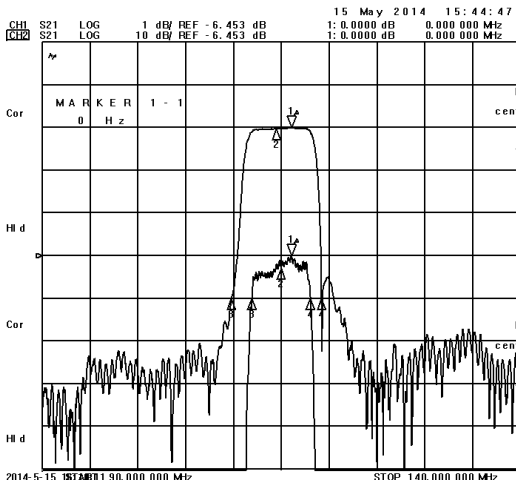
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

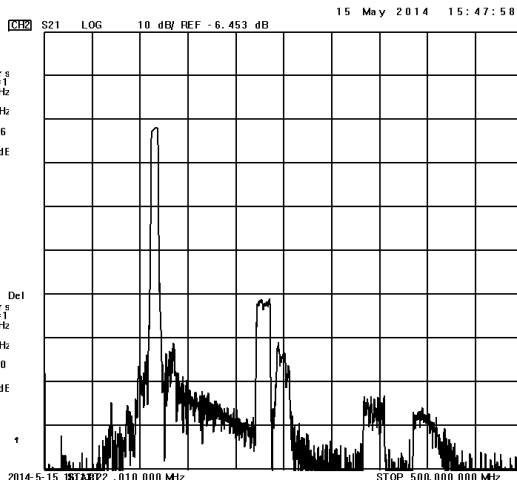
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f _c	114.85	115.0	115.15	MHz
Insertion Loss	IL		6.5	15.0	dB
Amplitude Ripple	Δα		0.9	1.0	dB
1 dB Bandwidth	BW _{1dB}	5.8	6.1		MHz
3 dB Bandwidth	BW _{1dB}	6.5	6.7		MHz
40 dB Bandwidth	BW _{40dB}		9.5	10.5	MHz
Absolute Delay	AD		1.5	2.0	us
Group Delay Ripple 112.50-117.50MHz	GDR		45.0	60.0	ns
Absolute Attenuation	α				
65-108.00MHz		42.0	45.0		dB
122.00-165.00 MHz		42.0	45.0		dB
Input VSWR 112.50-117.50MHz			1.5:1	3.0:1	/
Output VSWR 112.50-117.50MHz			2.3:1	3.0:1	/

Frequency Characteristics

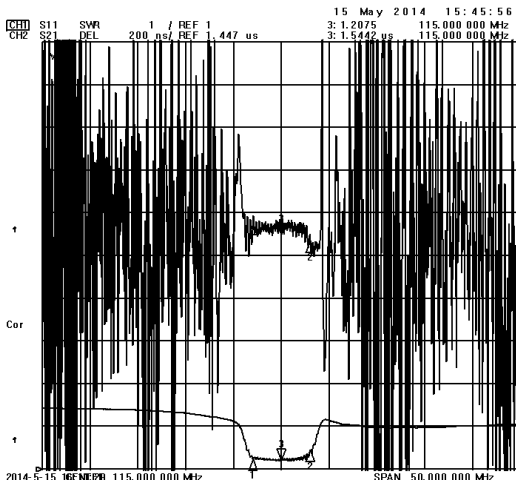
Frequency Response



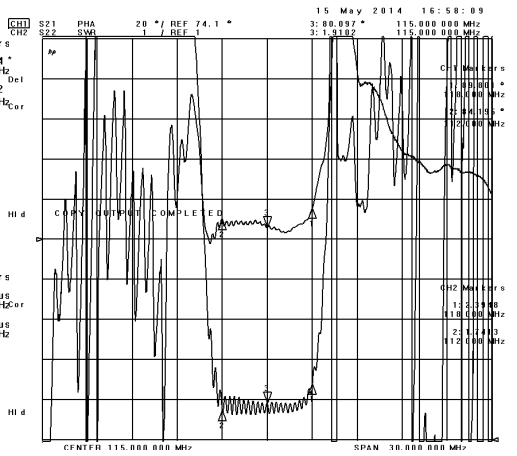
Frequency Response (wideband)



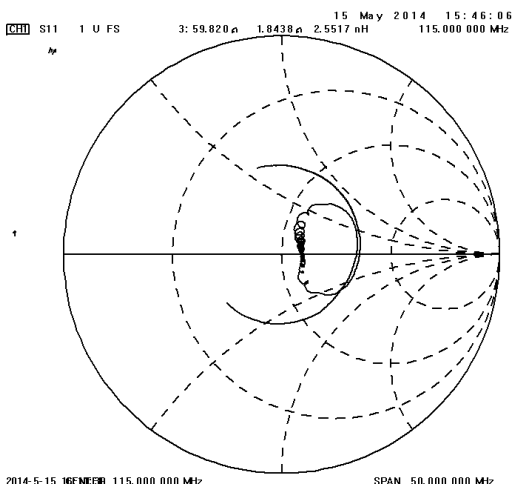
Delay Ripple & S11 VSWR



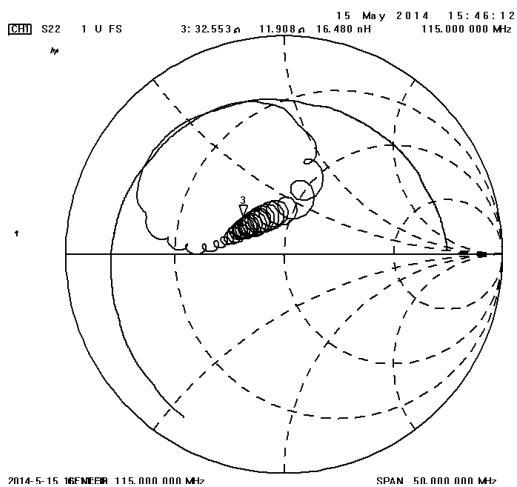
Phase Linearity & S22 VSWR



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.