



APPROVAL SHEET

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

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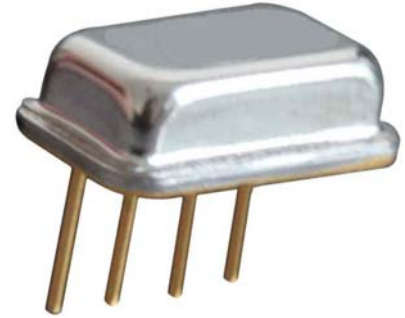


Part No.	:	SF3109
Pages	:	6
Date	:	2013/2/25
Revision	:	1.1

Prepared by:	郑宝琴
Checked by:	
Approved by:	

Application

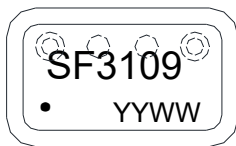
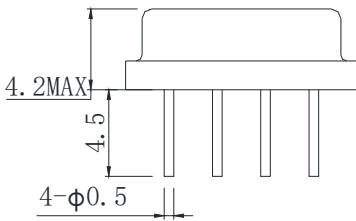
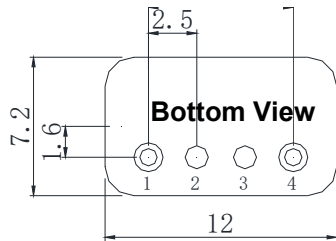
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 7 MHz



Features

- RoHS compatible
- Package size 12.0x7.20x4.20mm³
- Package Code SC04-01
- Electrostatic Sensitive Device(ESD)

Package Dimensions (Unit: mm)



Pin Configuration

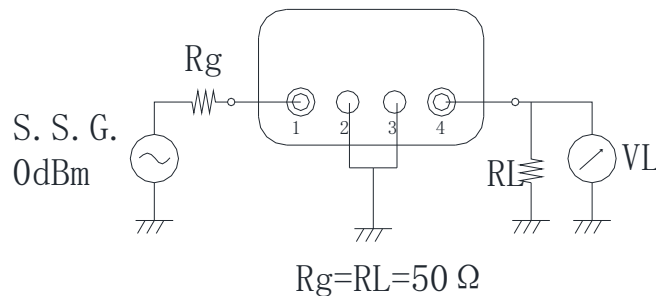
Pin No.	Description
1	Input
4	Output
2,3	Ground

Marking Description

S	Trademark
F	SAW Filter
3109	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

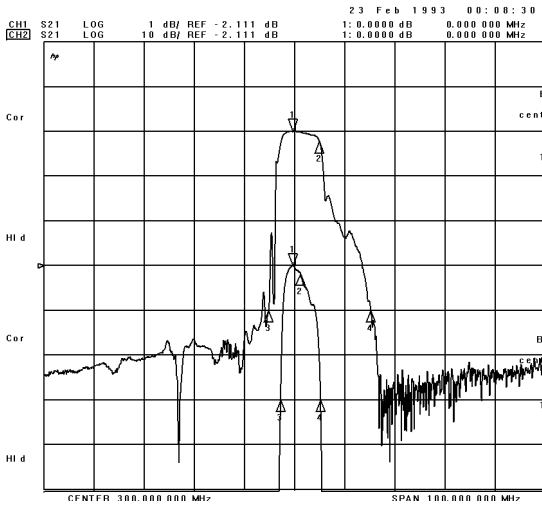
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

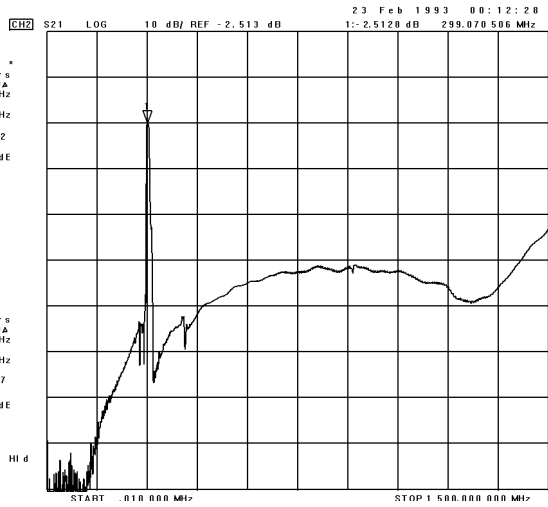
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f _c	298.0	300.0	302.0	MHz
Insertion Loss(min)	IL		2.2	3.0	dB
Amplitude Ripple (p-p)	Δα		0.6	1.0	dB
3dB Bandwidth	BW _{3dB}	7.0	7.8		MHz
40 dB Bandwidth	BW _{40dB}		21.0	22.0	MHz
Group Delay Ripple 298.00-302.00MHz	GDR		200.0	250.0	ns
Absolute Attenuation	α				
	DC -285.00 MHz	40.0	43.0		dB
	320.00-440.00MHz	45.0	41.0		dB
	440.00-1200.00 MHz	30.0	31.0		dB
Input VSWR 298.00-302.00MHz			1.7:1	2.0:1	/
Output VSWR 298.00-302.00MHz			1.7:1	2.0:1	/

Frequency Characteristics

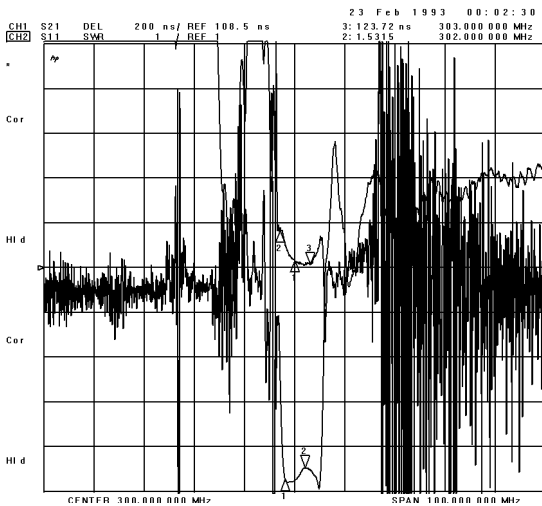
Frequency Response



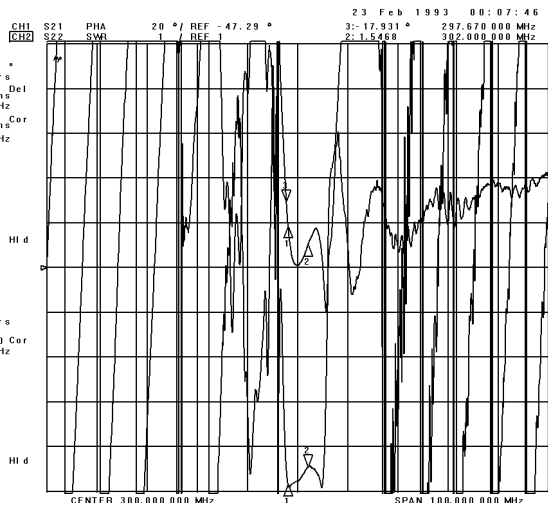
Frequency Response (wideband)



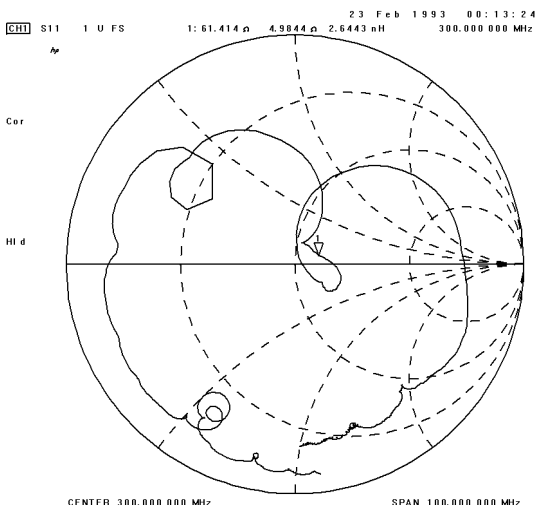
Delay Ripple & S11 VSWR



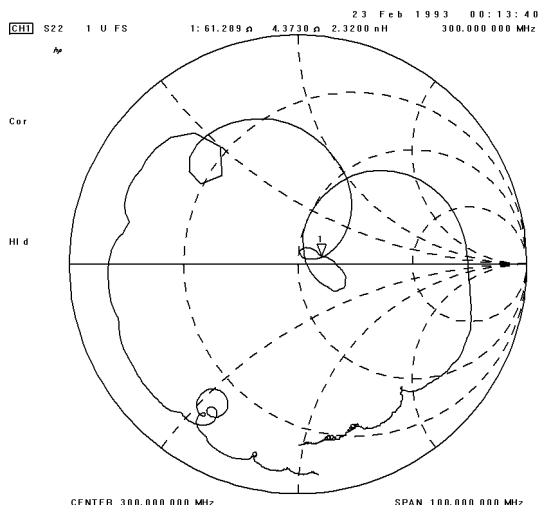
Phase Linearity & S22 VSWR



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.