



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.	:	SF1321
Pages	:	6
Date	:	2014/03/28
Revision	:	1.0

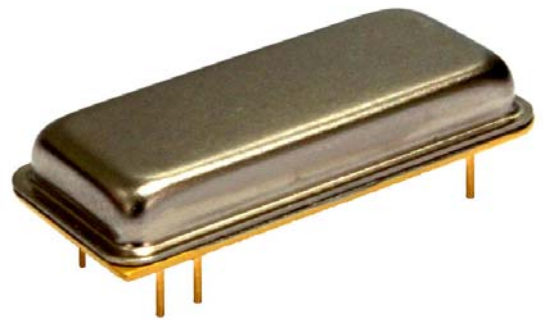
Prepared by:	梁浩
Checked by:	
Approved by:	

Application

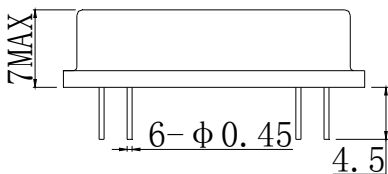
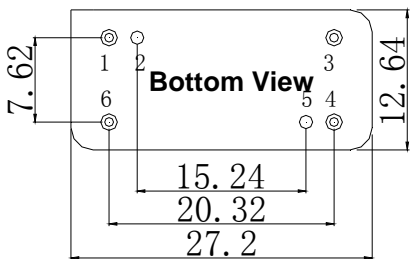
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 0.2 MHz

Features

- RoHS compatible
- Package size 27.2x12.64x7.00mm³
- Package Code DIP2712J
- Electrostatic Sensitive Device(ESD)



Package Dimensions (Unit: mm)



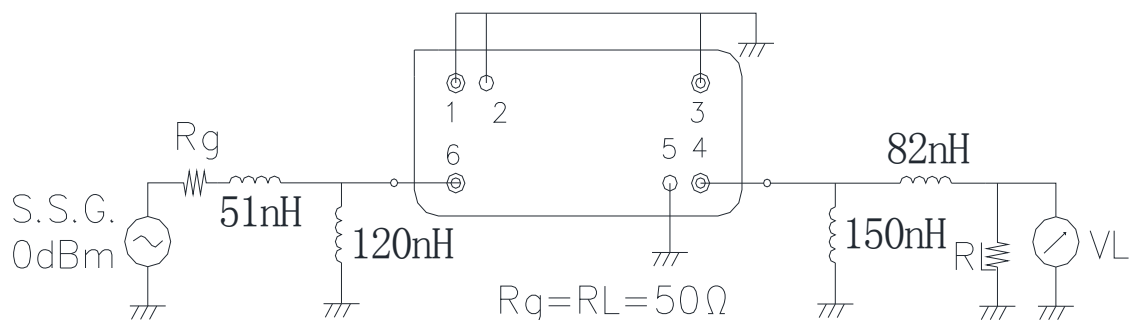
Pin Configuration

Pin No.	Description
6	Input
4	Output
1,2,3,5	Ground

Marking Description

S	Trademark
F	SAW Filter
1321	Part Number
●	Pin 1
YYWW	Year Code & Week Code

Test Circuit(Bottom View)



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

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

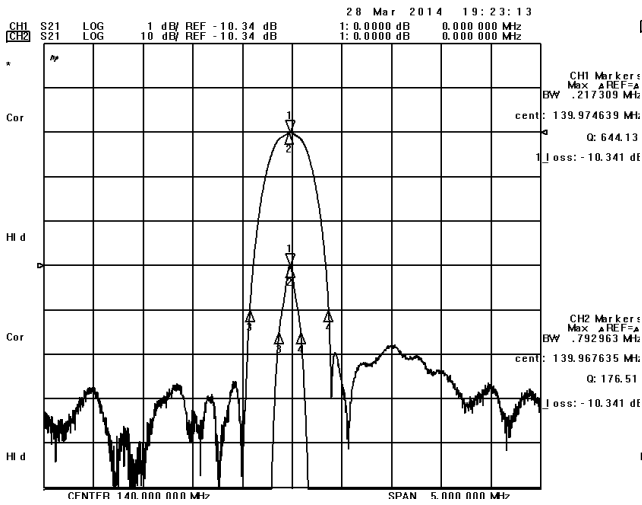
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

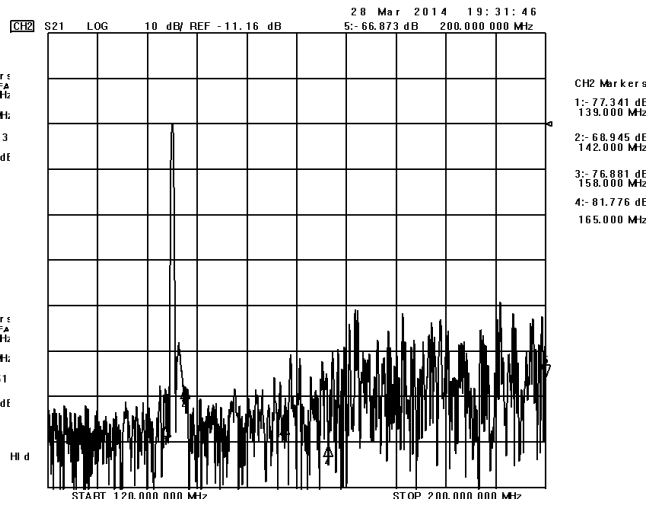
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_c	139.95	140.00	140.05	MHz
Insertion Loss(min)	IL		10.2	10.5	dB
1.5 dB Bandwidth	$BW_{1.5dB}$	0.20	0.21		MHz
Shape Factor	BW_{40dB} / BW_{3dB}		3.2	3.6	/
Absolute Delay	AD		3.0	4.0	us
Group Delay Ripple 139.90-140.10MHz	GDR		300.0	400.0	ns
Absolute Attenuation	α				
120.00-139.50 MHz		45.0	50.0		dB
140.50-160.00 MHz		45.0	48.0		dB

Frequency Characteristics

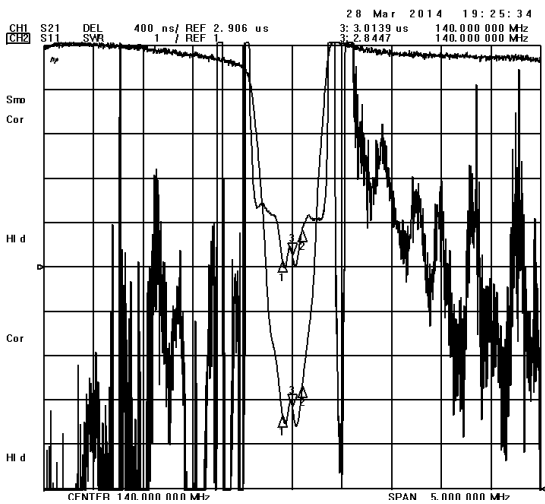
Frequency Response



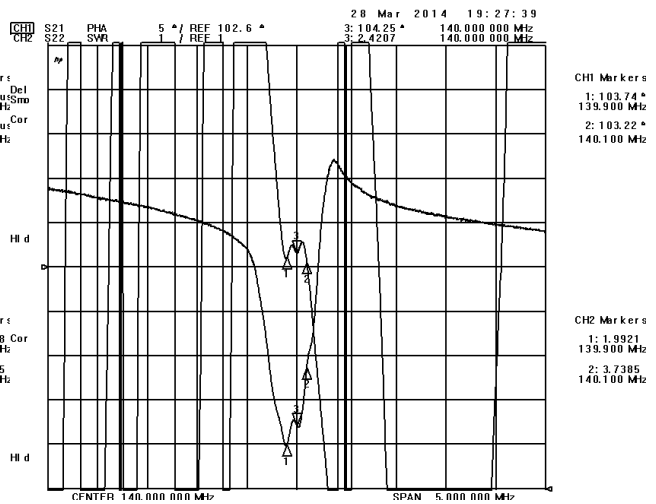
Frequency Response (wideband)



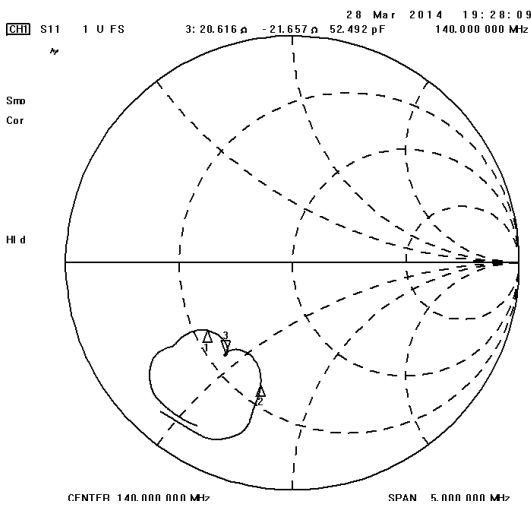
Delay Ripple & S11 VSWR



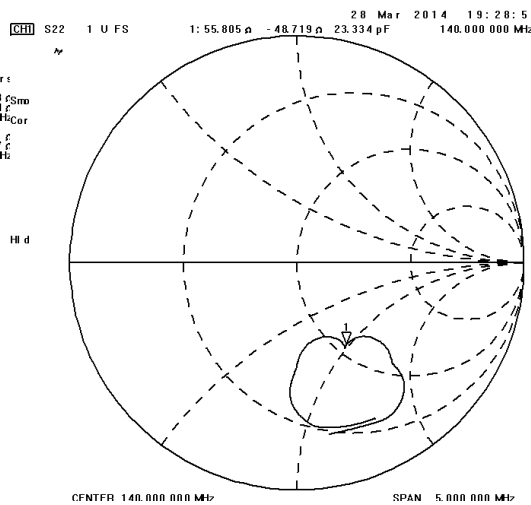
Phase Linearity & S22 VSWR



S11 Smith Chart



S22 Smith Chart



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.