



# APPROVAL SHEET

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

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Part No.	:	SF3151
Pages	:	6
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Revision	:	1.1

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

### Application

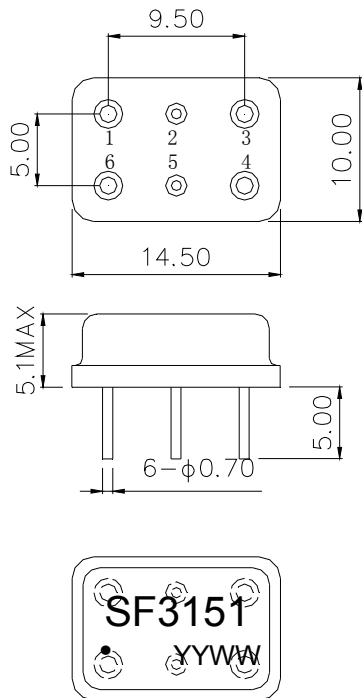
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 3 MHz

### Features

- RoHS compatible
- Package size 14.5x10.0x5.10mm<sup>3</sup>
- Package Code DIP1510J
- Electrostatic Sensitive Device(ESD)



### Package Dimensions (Unit: mm)



### Pin Configuration

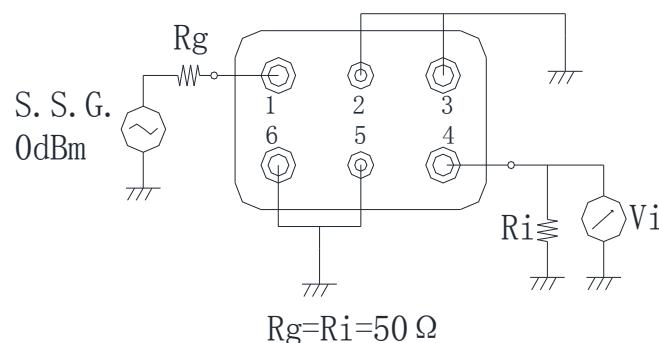
Pin No.	Description
1	Input
4	Output
2,3,5,6	Ground

### Marking Description

<b>S</b>	Trademark
<b>F</b>	SAW Filter
<b>3151</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:  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$

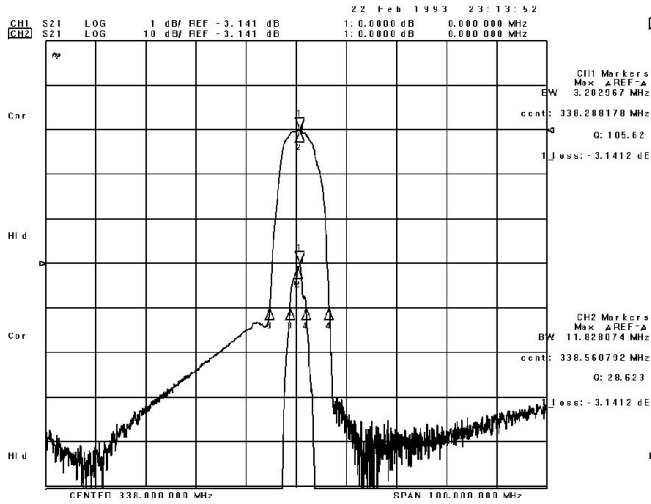
Terminating source impedance:  $50\Omega$

Terminating load impedance:  $50\Omega$

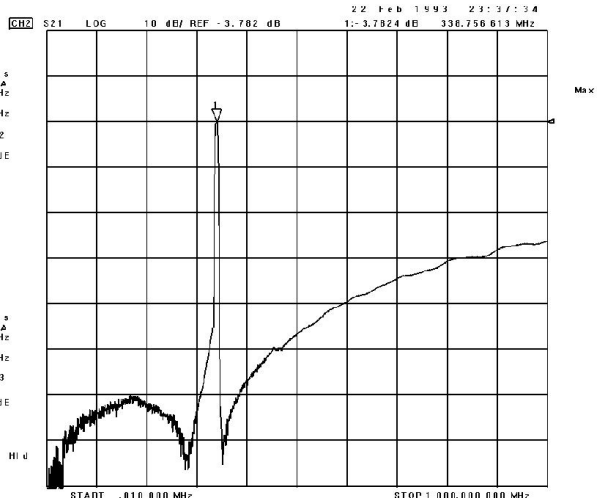
Item		Minimum	Typical	Maximum	Unit
Center Frequency	$f_c$	337.5	338.0	338.5	MHz
Insertion Loss(min)	IL		3.1	4.0	dB
Amplitude Ripple (p-p) 337.00-339.00MHz	$\Delta\alpha$		0.6	1.0	dB
1 dB Bandwidth	$BW_{1dB}$	3.0	3.2		MHz
40 dB Bandwidth	$BW_{40dB}$		11.8	13.0	MHz
Absolute Attenuation	$\alpha$				
DC -318.00 MHz		50.0	55.0		dB
318.00-330.00MHz		40.0	42.0		dB
346.00-430.00MHz		50.0	51.0		dB
430.00-750.00 MHz		30.0	33.0		dB
Input VSWR 336.50-339.50MHz			1.7	2.0	/
Output VSWR 336.50-339.50MHz			1.7	2.0	/

Frequency Characteristics

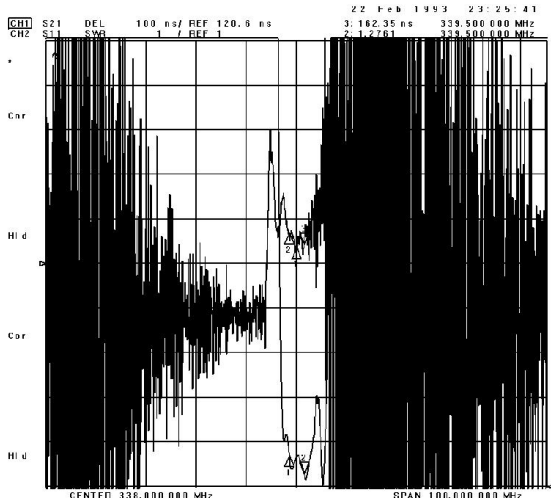
Frequency Response



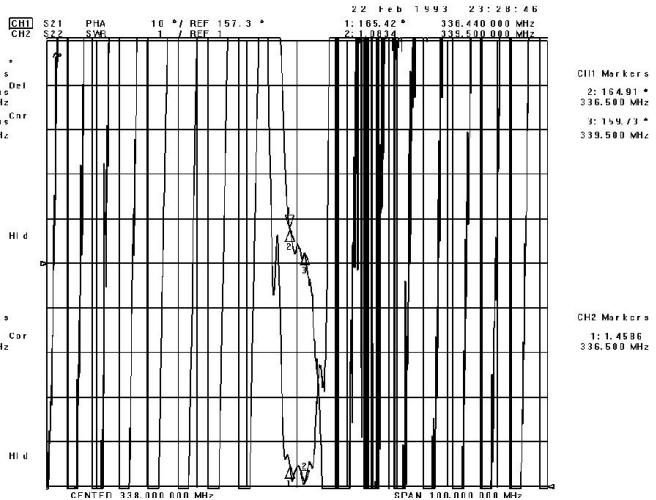
Frequency Response (wideband)



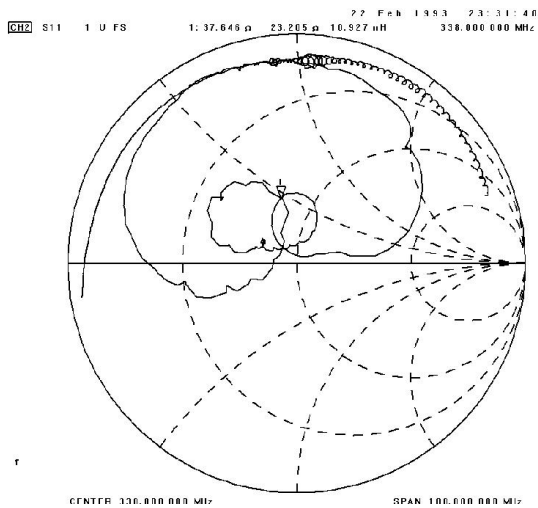
Delay Ripple & S11 VSWR



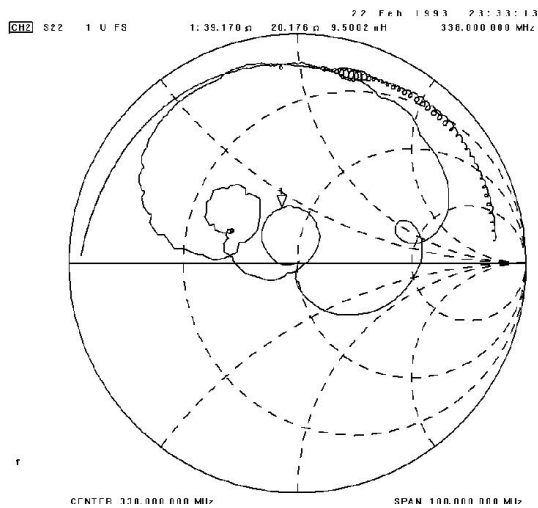
Phase Linearity & S22 VSWR



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.