



# 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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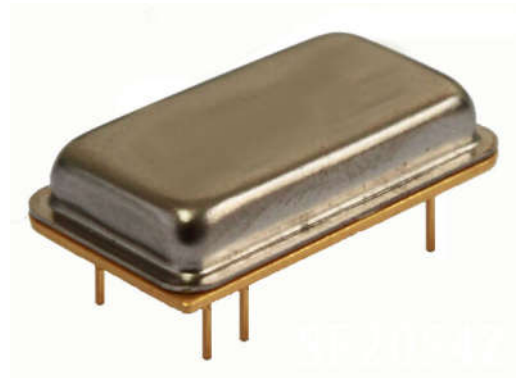
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<b>Checked by:</b>	卢翠
<b>Approved by:</b>	高亚京

**Application**

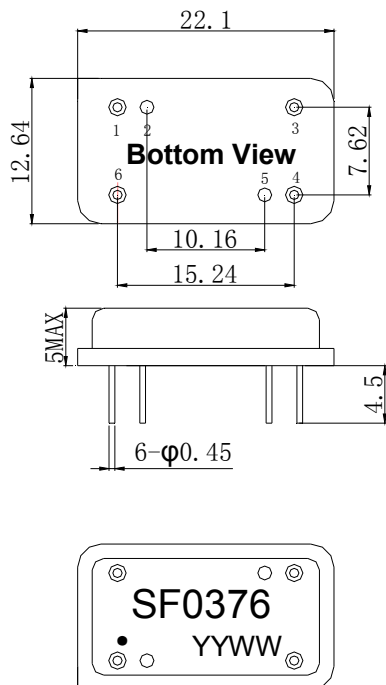
- Low -loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable Passband 100 KHz

**Features**

- **RoHS** compatible
- Package size 22.1x12.64x5.00mm<sup>3</sup>
- Package Code DIP2212
- **Electrostatic Sensitive Device(ESD)**



**Package Dimensions (Unit: mm)**



**Pin Configuration**

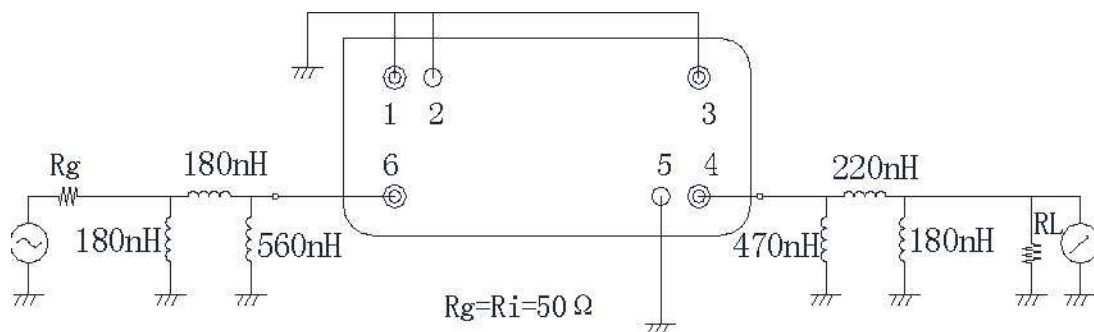
Pin No.	Description
6	Input
4	Output
1,2,3,5	Ground

**Marking Description**

<b>S</b>	Trademark
<b>F</b>	SAW Filter
<b>0376</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(Bottom View)**



**Performance****Maximum Rating**

Item		Value	Unit
DC Voltage	V <sub>DC</sub>	3	V
Operation Temperature	T	-40 ~ +70	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +125	°C
RF Power Dissipation	P	10	dBm

**Electronic Characteristics**

Test Temperature: 25°C ± 2°C

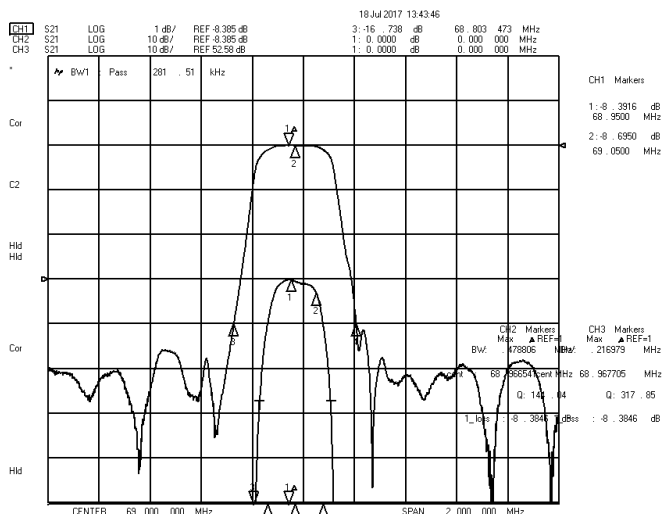
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

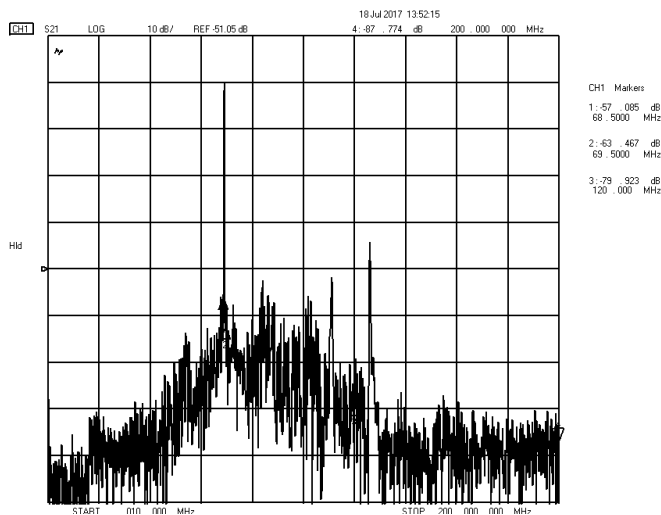
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f <sub>c</sub>		69.0		MHz
Insertion Loss	68.95-69.05MHz IL		8.4	10.0	dB
Amplitude Ripple (p-p)	68.95-69.05MHz Δ <sub>a</sub>		0.2	1.0	dB
1 dB Bandwidth	BW <sub>1dB</sub>	140	217	230	KHz
3dB Bandwidth	BW <sub>3dB</sub>	170	281	300	KHz
40dB Bandwidth	BW <sub>40dB</sub>	450	478	499	KHz
Input VSWR	68.95-69.05MHz		2.3:1	2.5:1	/
Output VSWR	68.95-69.05MHz		2.1:1	2.5:1	/

### Frequency Characteristics

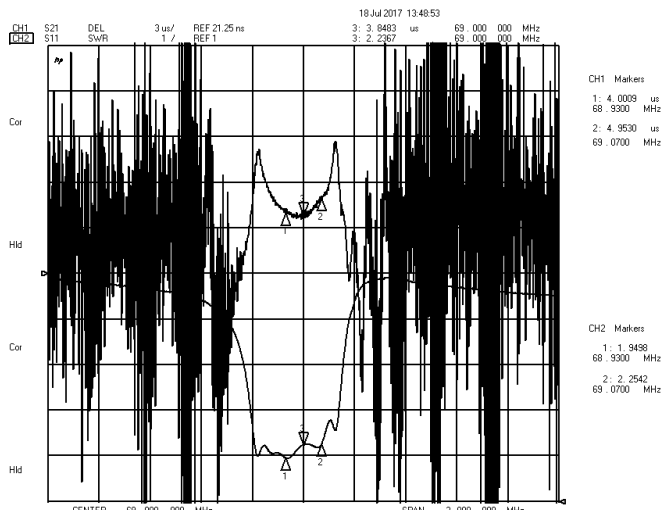
#### Frequency Response



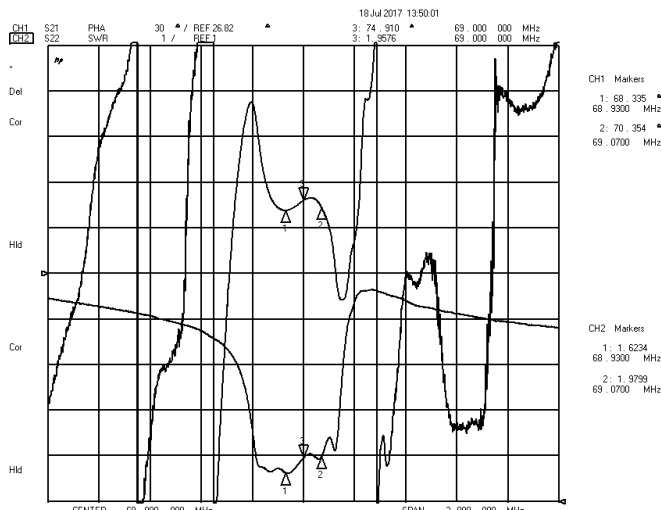
#### Frequency Response (wideband)



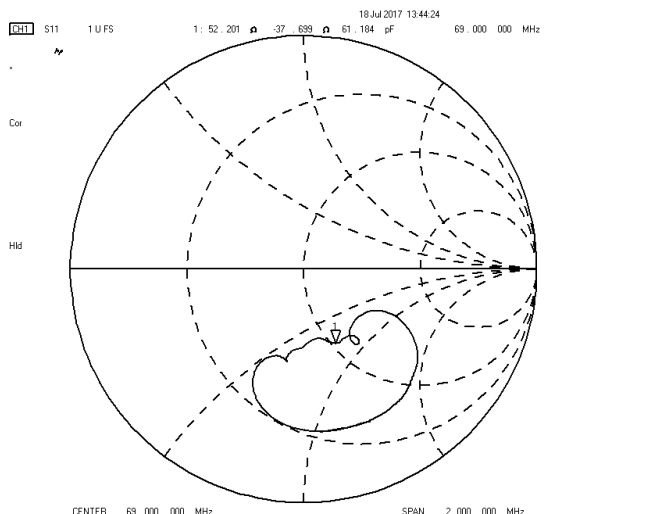
#### Delay Ripple & S11 VSWR



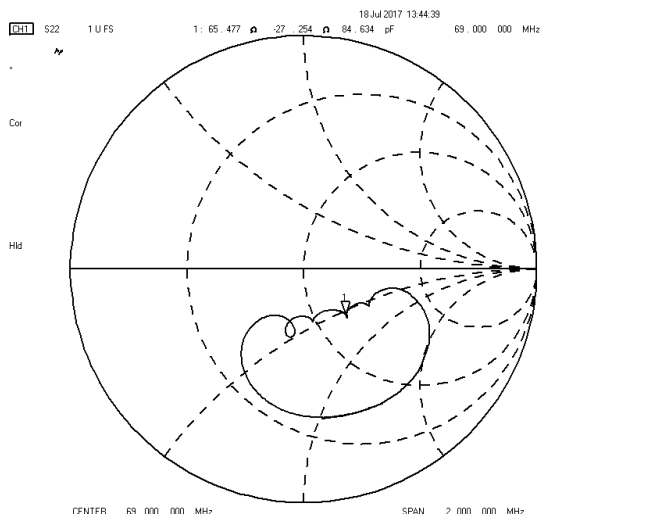
#### Phase Linearity & S22 VSWR



#### S11 Smith Chart

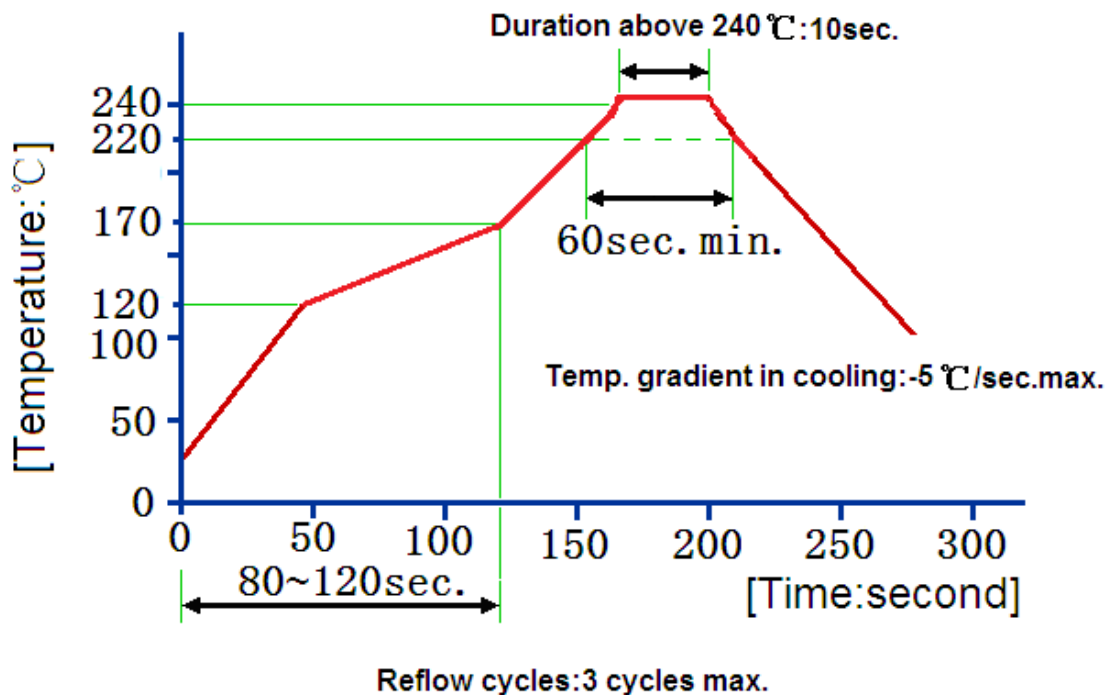


#### S22 Smith Chart



**Reliability (The SAW components shall remain electrical performance after tests)**

No.	Test item	Test condition
1	Temperature Storage	(1) Temperature: 85°C±2°C , Duration: 250h , Recovery time: 2h±0.5h (2) Temperature: -55°C±3°C , Duration: 250h ,Recovery time: 2h±0.5h
2	Humidity Test	Conditions: 60°C±2°C , 90~95% RH                                  Duration: 250h
3	Thermal Shock	Heat cycle conditions: TA=-55°C±3°C, TB=85°C±2°C, t1=t2=30min, Switch time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.
4	Vibration Fatigue	Frequency of vibration: 10~55Hz                                  Amplitude:1.5mm Directions: X,Y and Z                                                  Duration: 2h
5	Drop Test	Cycle time: 10 times                                                  Height: 1.0m
6	Solder Ability Test	Temperature: 245°C±5°C                                          Duration: 3.0s--5.0s Depth: DIP--2/3 , SMD--1/5
7	Resistance to Soldering Heat	(1)Thickness of PCB:1mm , Solder condition: 260°C±5°C , Duration: 10±1s (2)Temperature of Soldering Iron: 350°C±10°C , Duration: 3~4s , Recovery time : 2 ± 0.5h

**Recommended Reflow Soldering Diagram**

**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.