



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> |

BEIJING ZHONGXUN SIFANG SCIENCE & TECHNOLOGY CO.,LTD.

Tel: +86-010-62968745
 Fax: +86-010-62973654
 E-mail: bjzxsf@bjzxsf.net
 Website: <http://www.bjzxsf.net>
 Add: NO.7 NieGeZhuang Rd,SuJiaTuo Town,
 HaiDian District,Beijing,P.R.China



| | | |
|----------|---|-----------|
| Part No. | : | SF0172 |
| Pages | : | 6 |
| Date | : | 2013/5/14 |
| Revision | : | 1.0 |

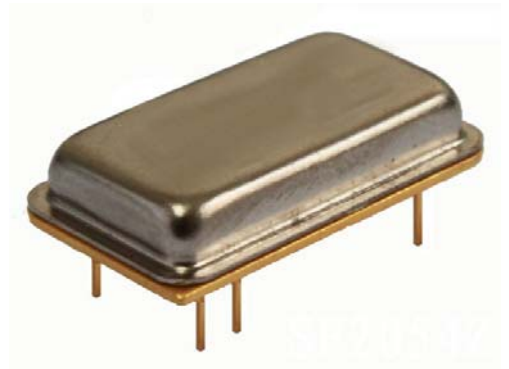
| | |
|---------------------|-----|
| Prepared by: | 郑宝琴 |
| Checked by: | |
| Approved by: | |

Application

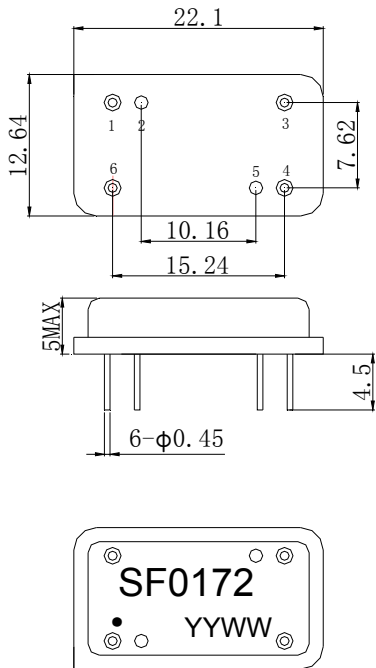
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 2 MHz

Features

- RoHS compatible
- Package size 22.1x12.64x5.00mm³
- Package Code DIP2212J
- Electrostatic Sensitive Device(ESD)



Package Dimensions (Unit: mm)



Pin Configuration

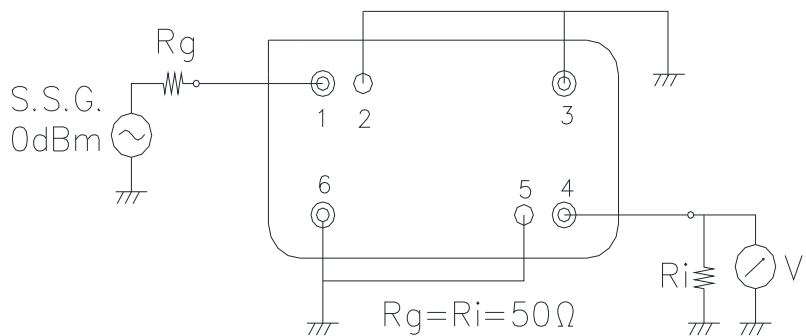
| Pin No. | Description |
|---------|-------------|
| 1 | Input |
| 4 | Output |
| 2,3,5,6 | Ground |

Marking Description

| | |
|-------------|-----------------------|
| S | Trademark |
| F | SAW Filter |
| 0172 | 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



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

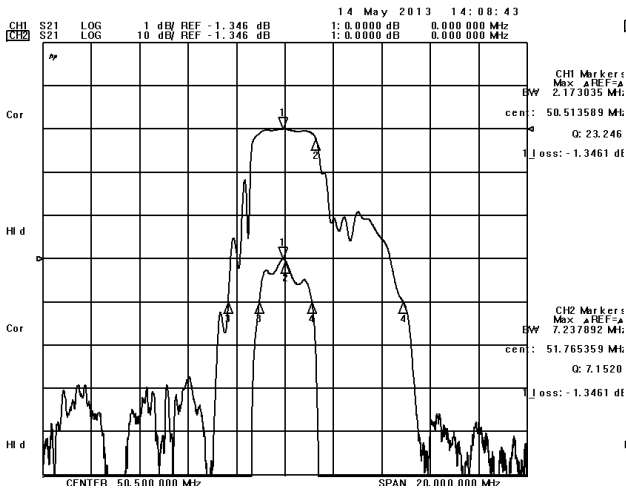
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

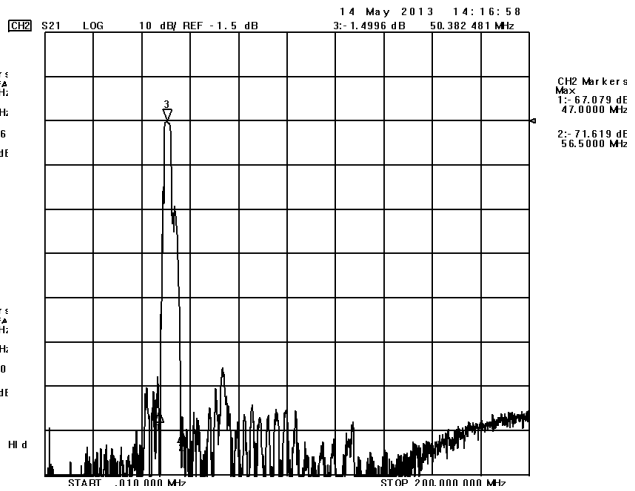
| Item | | Minimum | Typical | Maximum | Unit |
|------------------------------------------|------------------|---------|---------|---------|------|
| Center Frequency | fc | | 50.50 | | MHz |
| Insertion Loss(min) | IL | | 1.4 | 2.3 | dB |
| Amplitude Ripple (p-p) 49.50-51.50MHz | $\Delta\alpha$ | | 0.8 | 1.0 | dB |
| 1 dB Bandwidth | BW_{1dB} | 2.0 | 2.1 | | MHz |
| 20 dB Bandwidth | BW_{20dB} | | 3.8 | 4.6 | MHz |
| 40dB Bandwidth | BW_{40dB} | | 7.2 | 7.5 | MHz |
| Absolute Attenuation | α | | | | |
| | DC -40.50 MHz | 50.0 | 57.0 | | dB |
| | 40.50 -47.50 MHz | 40.0 | 45.0 | | dB |
| | 55.50-170.50MHz | 40.0 | 45.0 | | dB |
| | 170.50-200.00MHz | 50.0 | 55.0 | | dB |

Frequency Characteristics

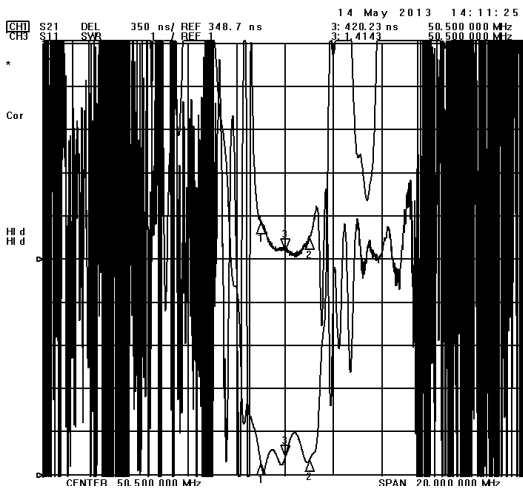
Frequency Response



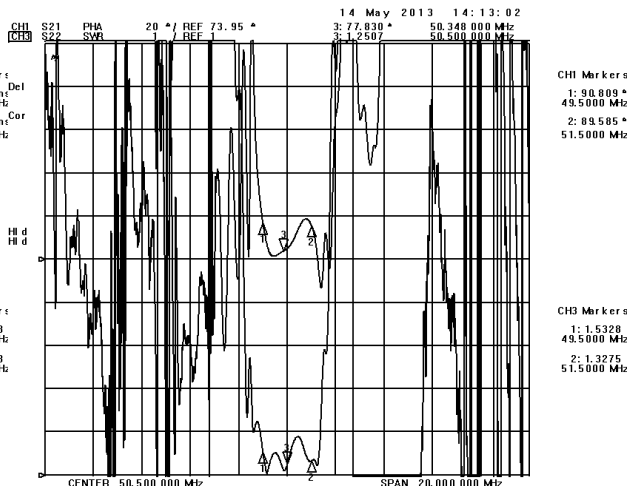
Frequency Response (wideband)



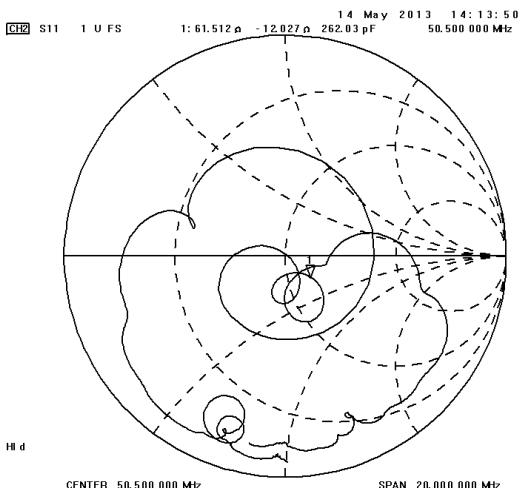
Delay Ripple & S11 VSWR



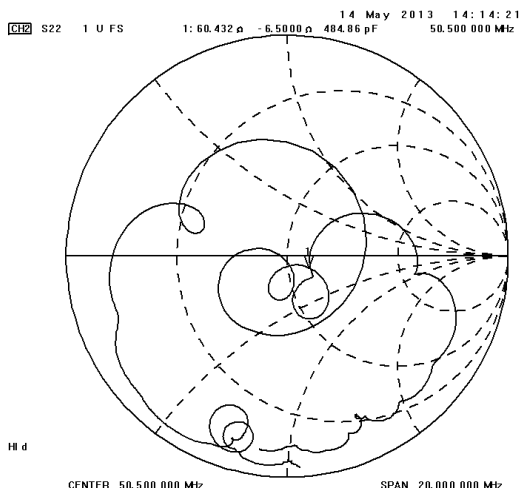
Phase Linearity & S22 VSWR



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.