



# APPROVAL SHEET

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

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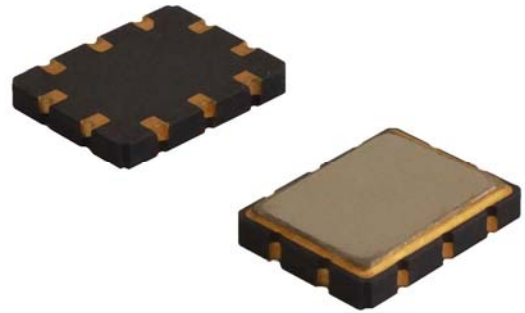


|          |   |           |
|----------|---|-----------|
| Part No. | : | SF1424    |
| Pages    | : | 6         |
| Date     | : | 2014/12/4 |
| Revision | : | 2.1       |

|                     |    |
|---------------------|----|
| <b>Prepared by:</b> | 梁浩 |
| <b>Checked by:</b>  |    |
| <b>Approved by:</b> |    |

**Application**

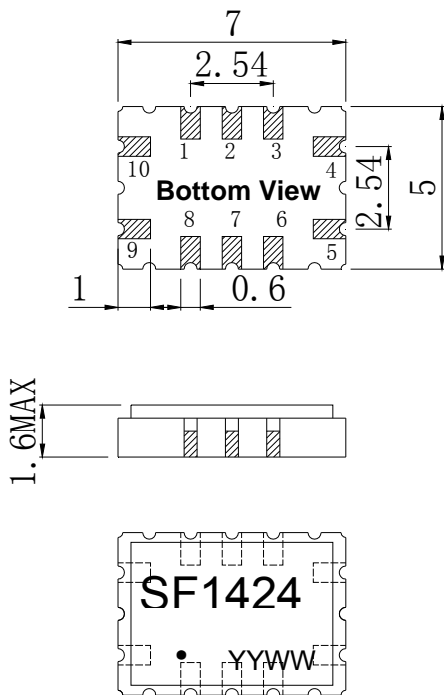
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Passband 11 MHz
- Low Shape factor



**Features**

- Ceramic Package for **Surface Mounted Technology (SMT)**
- **RoHS** compatible
- Package size 7.00x5.00x1.60mm<sup>3</sup>
- Package Code QCC12C
- **Electrostatic Sensitive Device(ESD)**

**Package Dimensions (Unit: mm)**



**Pin Configuration**

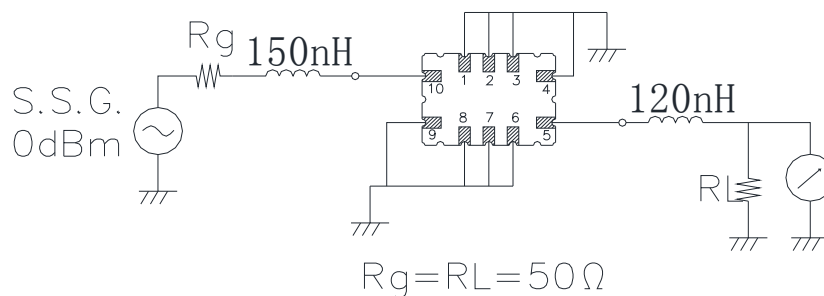
| Pin No.         | Description |
|-----------------|-------------|
| 10              | Input       |
| 5               | Output      |
| 1,2,3,4,6,7,8,9 | Ground      |

**Marking Description**

|             |                       |
|-------------|-----------------------|
| <b>S</b>    | Trademark             |
| <b>F</b>    | SAW Filter            |
| <b>1424</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            | $V_{DC}$  | 3          | V    |
| Operation Temperature | T         | -55 ~ +85  | °C   |
| Storage Temperature   | $T_{stg}$ | -55 ~ +125 | °C   |
| RF Power Dissipation  | P         | 10         | dBm  |

**Electronic Characteristics**

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

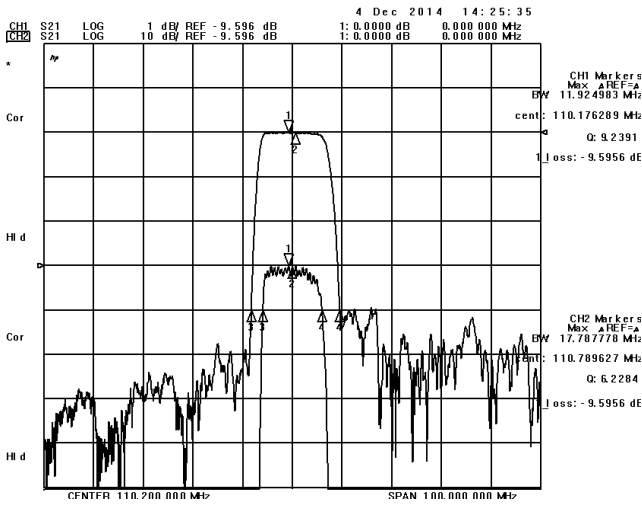
Terminating source impedance:  $50\Omega$

Terminating load impedance:  $50\Omega$

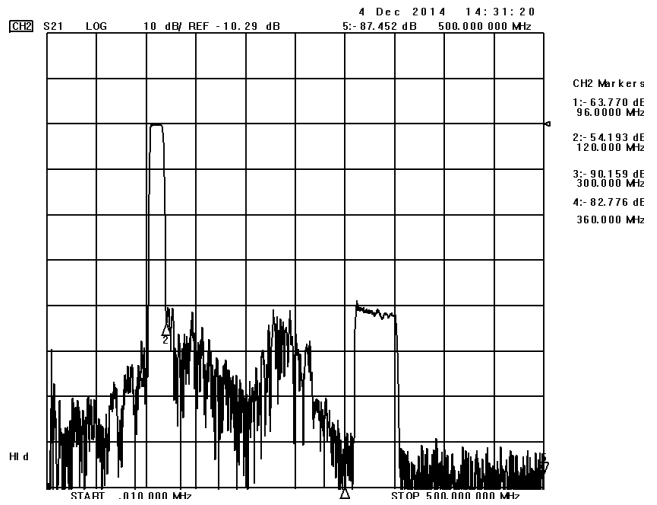
| Item                 |                   | Minimum | Typical | Maximum | Unit |
|----------------------|-------------------|---------|---------|---------|------|
| Center Frequency     | $f_c$             |         | 110.2   |         | MHz  |
| Insertion Loss(min)  | IL                |         | 9.6     | 12.0    | dB   |
| Amplitude Ripple     | $\Delta a$        |         | 0.5     | 1.0     | dB   |
| 1 dB Bandwidth       | $BW_{1dB}$        | 11.0    | 11.9    |         | MHz  |
| 3 dB Bandwidth       | $BW_{3dB}$        | 12.0    | 13.09   |         | MHz  |
| 40 dB Bandwidth      | $BW_{40dB}$       |         | 17.8    | 20.0    | MHz  |
| Absolute Attenuation | $a$               |         |         |         |      |
|                      | DC-100.20 MHz     | 35.0    | 45.0    |         | dB   |
|                      | 120.20-200.00 MHz | 35.0    | 40.0    |         | dB   |

Frequency Characteristics

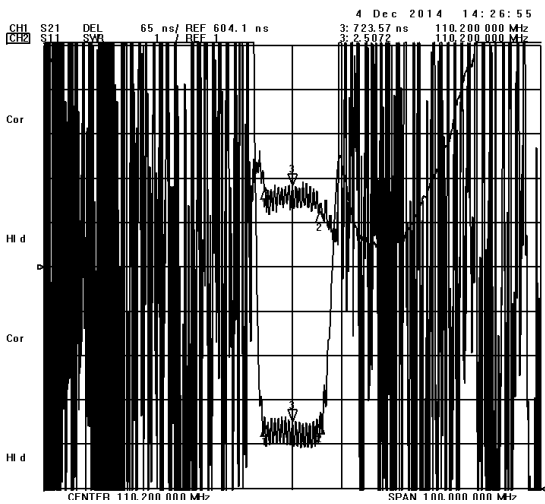
Frequency Response



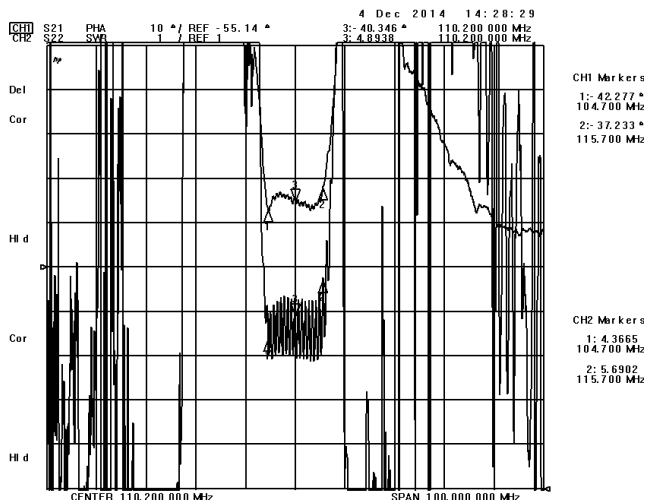
Frequency Response (wideband)



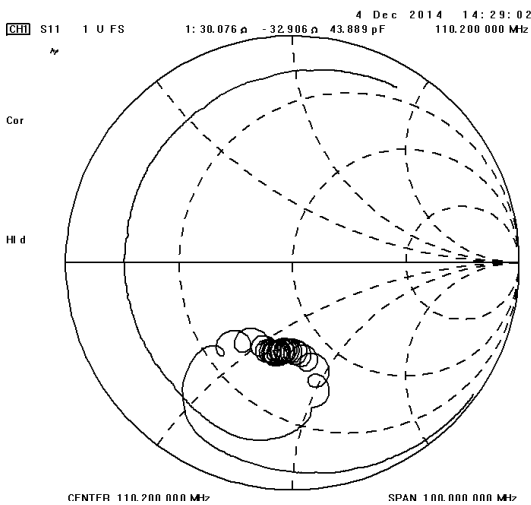
Delay Ripple & S11 VSWR



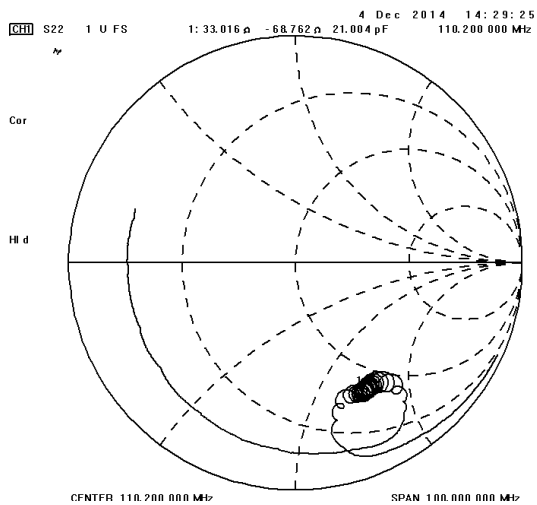
Phase Linearity & S22 VSWR



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.