



# 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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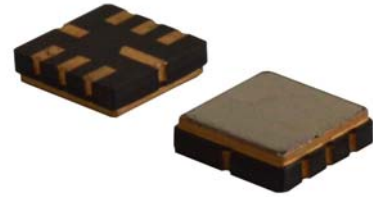


|          |   |           |
|----------|---|-----------|
| Part No. | : | SF4126    |
| Pages    | : | 6         |
| Date     | : | 2013/3/14 |
| Revision | : | 1.0       |

|                     |     |
|---------------------|-----|
| <b>Prepared by:</b> | 郑宝琴 |
| <b>Checked by:</b>  |     |
| <b>Approved by:</b> |     |

**Application**

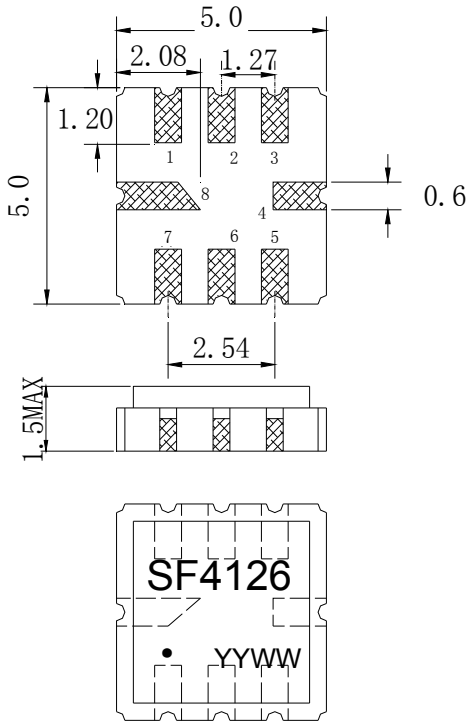
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 10 MHz



**Features**

- Ceramic Package for **Surface Mounted Technology (SMT)**
- **RoHS** compatible
- Package size 5.00x5.00x1.50mm<sup>3</sup>
- Package Code QCC8C
- **Electrostatic Sensitive Device(ESD)**

**Package Dimensions (Unit: mm)**



**Pin Configuration**

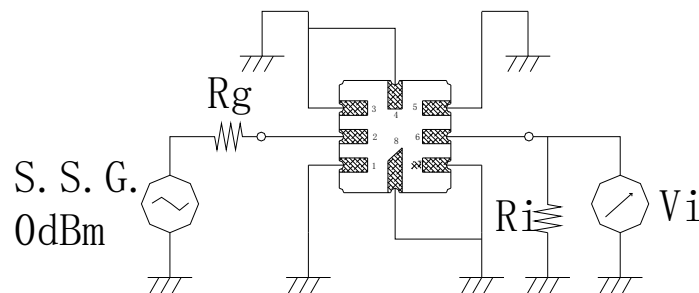
| Pin No.     | Description |
|-------------|-------------|
| 2           | Input       |
| 6           | Output      |
| 1,3,4,5,7,8 | Ground      |

**Marking Description**

|             |                       |
|-------------|-----------------------|
| <b>S</b>    | Trademark             |
| <b>F</b>    | SAW Filter            |
| <b>4126</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:  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$

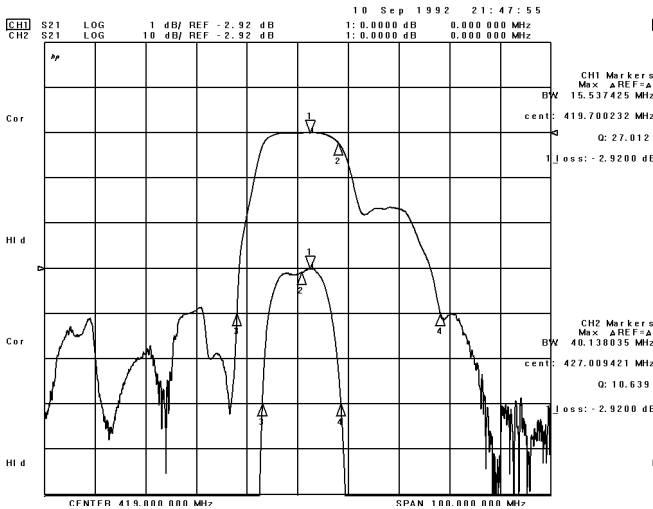
Terminating source impedance:  $50\Omega$

Terminating load impedance:  $50\Omega$

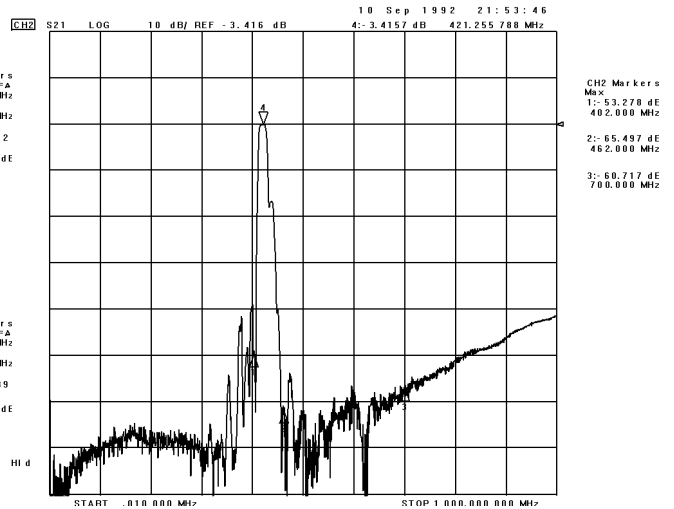
| Item                                       |                  | Minimum | Typical | Maximum | Unit |
|--|------------------|---------|---------|---------|------|
| Center Frequency                           | $f_c$            | 417.00  | 419.00  | 421.00  | MHz  |
| Insertion Loss(min)                        | IL               |         | 2.9     | 4.0     | dB   |
| Amplitude Ripple (p-p)<br>414.00-424.00MHz | $\Delta\alpha$   |         | 0.8     | 1.0     | dB   |
| 3 dB Bandwidth                             | $BW_{3dB}$       | 10.0    | 15.5    |         | MHz  |
| 40dB Bandwidth                             | $BW_{40dB}$      |         | 40.1    | 41.0    | MHz  |
| Absolute Delay<br>419.00MHz                |                  |         | 0.065   | 1.0     | us   |
| Group Delay Ripple<br>414.00-424.00MHz     | GDR              |         | 30.0    | 200.0   | ns   |
| Absolute Attenuation                       | $\alpha$         |         |         |         |      |
|  | DC -400.00 MHz   | 35.0    | 38.0    |         | dB   |
|  | 460.00-700.00MHz | 40.0    | 52.0    |         | dB   |

Frequency Characteristics

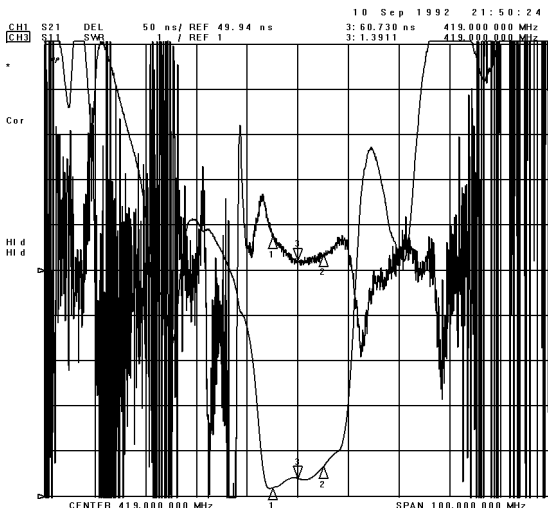
Frequency Response



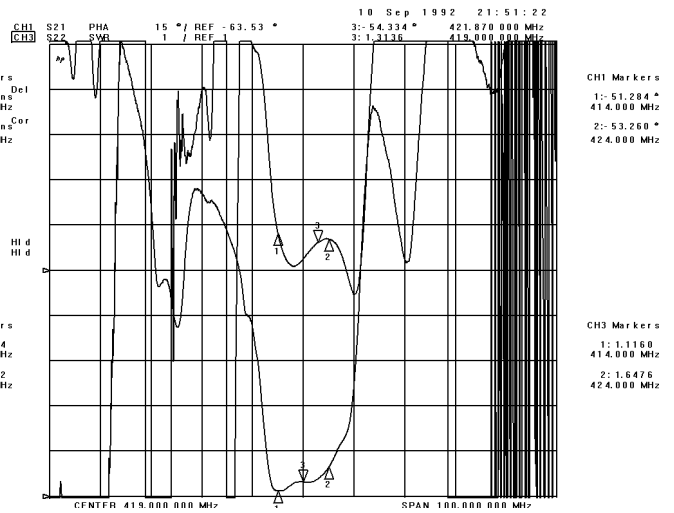
Frequency Response (wideband)



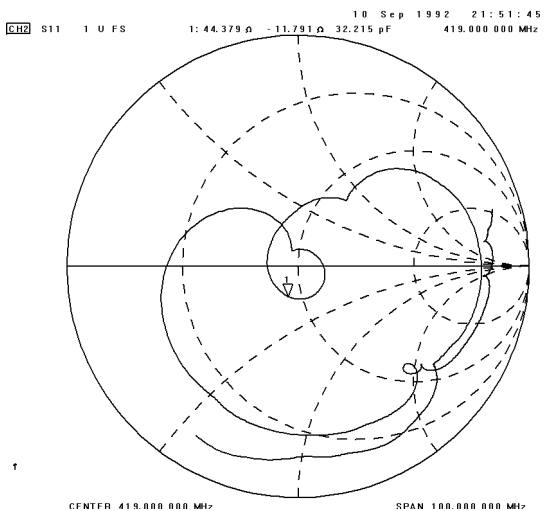
Delay Ripple & S11 VSWR



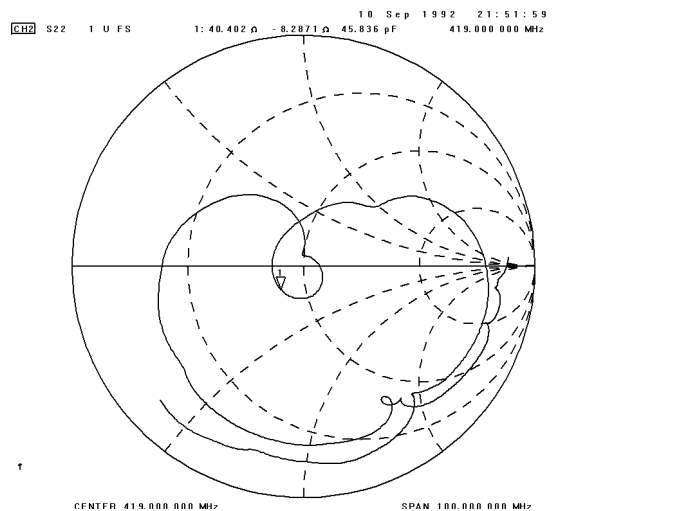
Phase Linearity & S22 VSWR



S11 Smith Chart



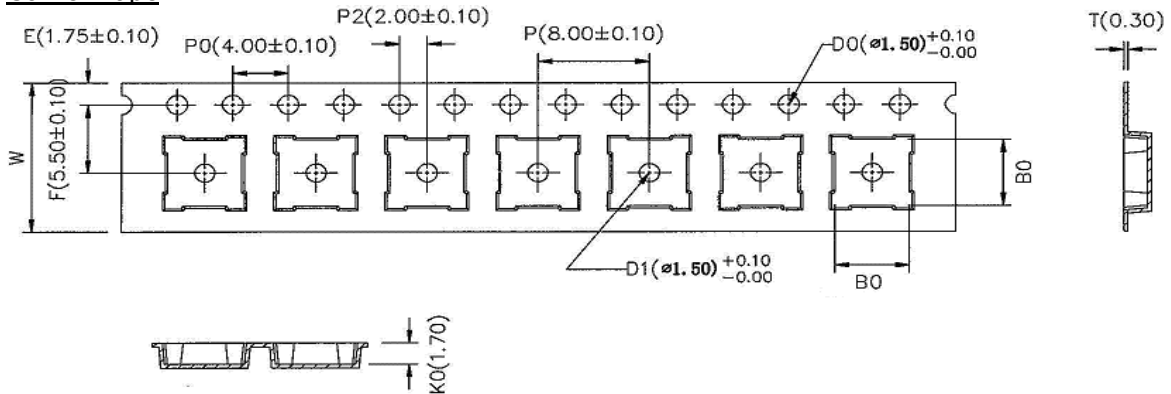
S22 Smith Chart





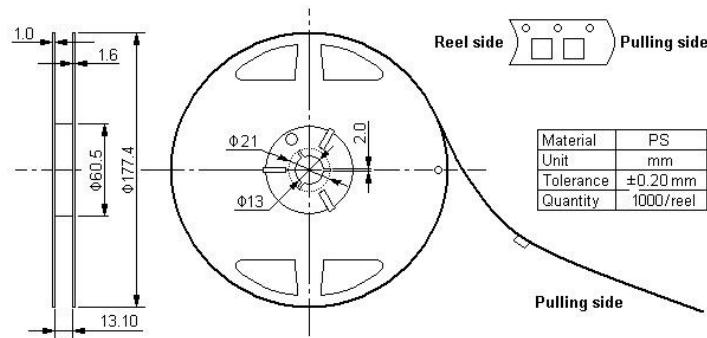
**Packing Information**

Carrier Tape



\* B0: 5.35 for QCC8C; 4.15 for DCC6/QCC8B; 3.35 for DCC6C/QCC8D

Reel Dimensions



Outer Packing

| Type         | Quantity | Dimension   | Description                         | Weight |
|--------------|----------|-------------|-------------------------------------|--------|
| Internal box | 1000     | 190×188×42  | carton box<br>2 reel / internal box | 0.18   |
| External box | 10000    | 235×205×210 | 5 boxes / external box              | 1.80   |

Unit: mm

Unit: kg

**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.