



# 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. | : | SF0487   |
| Pages    | : | 6        |
| Date     | : | 2015/1/9 |
| Revision | : | 1.0      |

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

**Application**

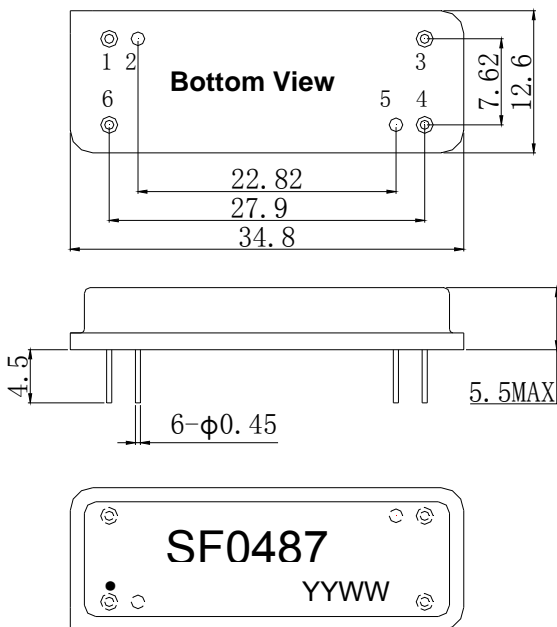
- High-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Passband 2.2 MHz
- Low Shape factor



**Features**

- RoHS compatible
- Package size 34.8x12.6x5.50mm<sup>3</sup>
- Package Code DIP3512
- Electrostatic Sensitive Device(ESD)

**Package Dimensions (Unit: mm)**



**Pin Configuration**

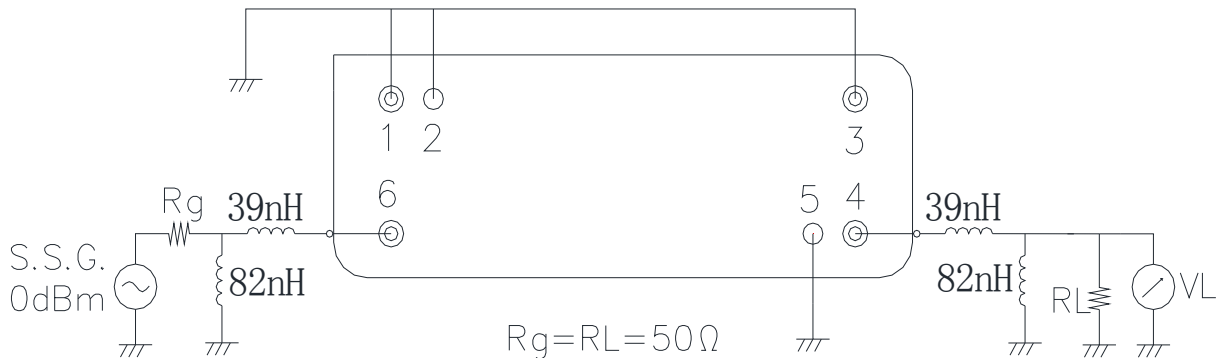
| Pin No. | Description |
|---------|-------------|
| 6       | Input       |
| 4       | Output      |
| 1,2,3,5 | Ground      |

**Marking Description**

|             |                       |
|-------------|-----------------------|
| <b>S</b>    | Trademark             |
| <b>F</b>    | SAW Filter            |
| <b>0487</b> | Part Number           |
| <b>●</b>    | 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 ~ +85  | °C   |
| Storage Temperature   | T <sub>stg</sub> | -55 ~ +125 | °C   |
| RF Power Dissipation  | P                | 10         | dBm  |

**Electronic Characteristics**

Test Temperature: 25°C ± 2°C

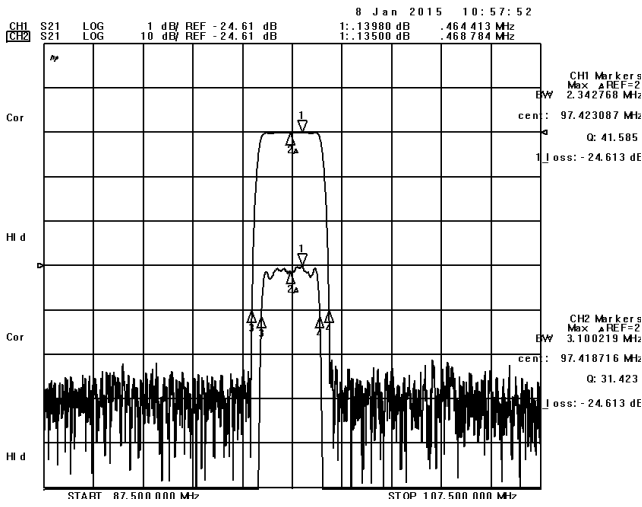
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

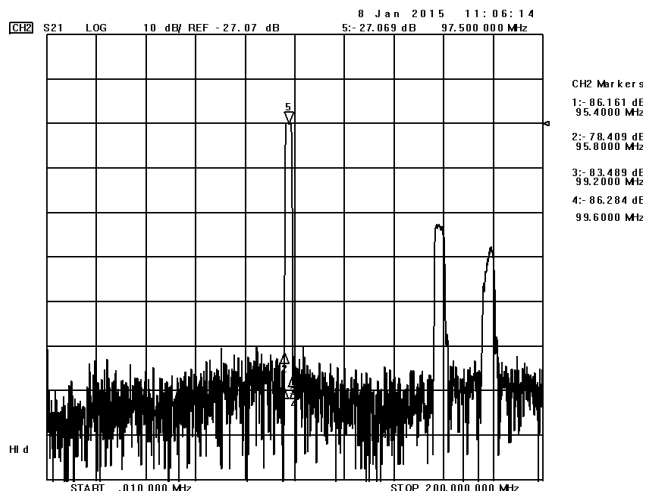
| Item                                     |                    | Minimum | Typical | Maximum | Unit |
|--|--------------------|---------|---------|---------|------|
| Center Frequency                         | f <sub>c</sub>     |         | 97.5    |         | MHz  |
| Insertion Loss(min)                      | IL                 |         | 24.6    | 27.0    | dB   |
| Amplitude Ripple (p-p)<br>96.70-98.30MHz | Δα                 |         | 0.4     | 1.2     | dB   |
| 1 dB Bandwidth(Rel. to f <sub>c</sub> )  | BW <sub>1dB</sub>  |         | 2.3     |         | MHz  |
| 3 dB Bandwidth(Rel. to f <sub>c</sub> )  | BW <sub>3dB</sub>  |         | 2.5     |         | MHz  |
| 40 dB Bandwidth(Rel. to f <sub>c</sub> ) | BW <sub>40dB</sub> |         | 3.1     |         | MHz  |
| 50 dB Bandwidth(Rel. to f <sub>c</sub> ) | BW <sub>50dB</sub> |         | 3.2     | 5.8     | MHz  |
| Absolute Delay                           | AD                 |         | 4.0     | 4.5     | us   |
| Group Delay Ripple<br>96.70-98.30MHz     | GDR                |         | 150     | 240     | ns   |
| Absolute Attenuation                     | α                  |         |         |         |      |
|  | 91.40MHz           | 50.0    | 64.0    |         | dB   |
|  | 95.40MHz           | 50.0    | 64.0    |         | dB   |
|  | 95.80MHz           | 47.0    | 52.0    |         | dB   |
|  | 99.20MHz           | 47.0    | 54.0    |         | dB   |
|  | 99.60MHz           | 50.0    | 66.0    |         | dB   |
|  | 103.60MHz          | 50.0    | 68.0    |         | dB   |

Frequency Characteristics

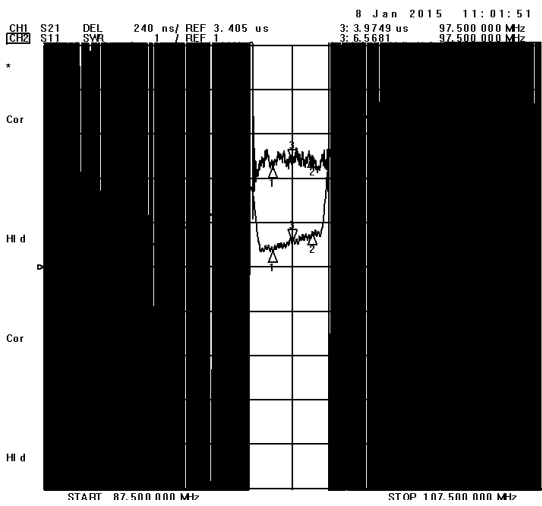
Frequency Response



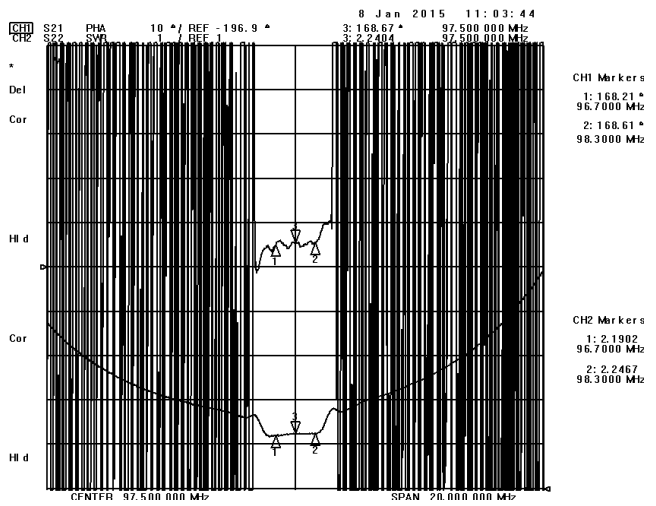
Frequency Response (wideband)



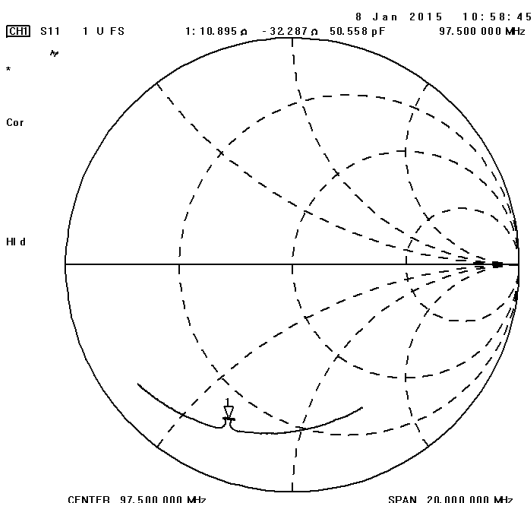
Delay Ripple & S11 VSWR



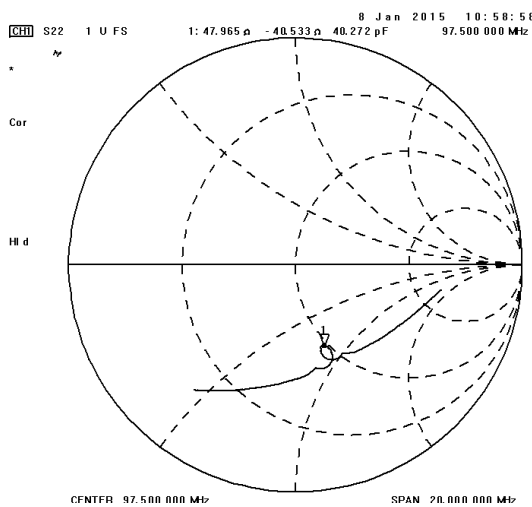
Phase Linearity & S22 VSWR



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.