



*Total Solution Provider in Saw Device*

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# SA1503CM

Wireless, RF SAW Filter  
Revision 0: December 2009



- Electrical Characteristics
  - Package Dimensions
  - Testing Environment
  - Frequency Characteristics
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## □ Electrical Characteristics

### Maximum Ratings

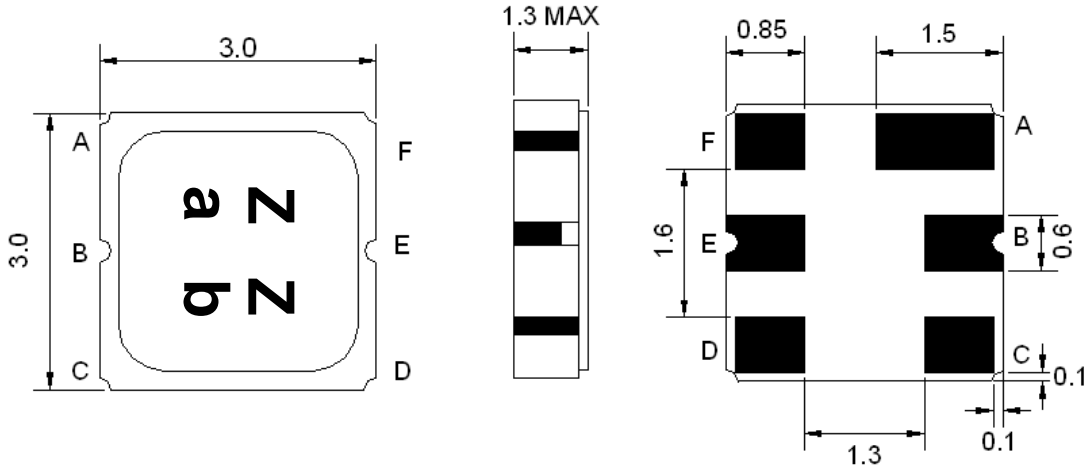
| Parameters Description                         | Unit            | Minimum | Typical   | Maximum |
|--|-----------------|---------|-----------|---------|
| Operating Temperature Range                    | °C              | -30     | -         | +85     |
| Storage Temperature Range                      | °C              | -40     | -         | +85     |
| Maximum DC Voltage                             | V               | -       | -         | 0       |
| Maximum Input Power                            | dBm             | -       | -         | 10      |
| Source Impedance (single ended) <sup>(1)</sup> | Ω               | -       | 50        | -       |
| Load Impedance (single ended) <sup>(1)</sup>   | Ω               | -       | 50        | -       |
| Package type & size                            | M               |         |           |         |
| Length x Width                                 | mm <sup>2</sup> | -       | 3.0 x 3.0 | -       |
| Height   | mm              | -       | -         | 1.3     |

### Electrical Specification

| Parameters Description                      | Unit              | Minimum | Typical | Maximum |
|---|-------------------|---------|---------|---------|
| Center Frequency (Fo)                       | MHz               | -       | 1503.4  | -       |
| Insertion Loss within 1498.4 ~ 1508.4 MHz   | dB                | -       | 1.9     | 3.2     |
| Amplitude Ripple within 1498.4 ~ 1508.4 MHz | dB <sub>p-p</sub> | -       | 0.7     | 1.5     |
| <b>Attenuation:</b>                         |                   |         |         |         |
| D.C. ~ 1300.0 MHz                           | dB                | 30      | 38      | -       |
| 1400.0 ~ 1475.0 MHz                         | dB                | 8       | 17      | -       |
| 1550.0 ~ 1750.0 MHz                         | dB                | 35      | 39      | -       |
| 1750.0 ~ 3000.0 MHz                         | dB                | 30      | 39      | -       |
| VSWR within 1498.4 ~ 1508.4 MHz             | -                 | -       | 1.6     | 2.2     |

**Notes :** (1) No Matching Network (Ref. Testing Environment Circuit as shown below).

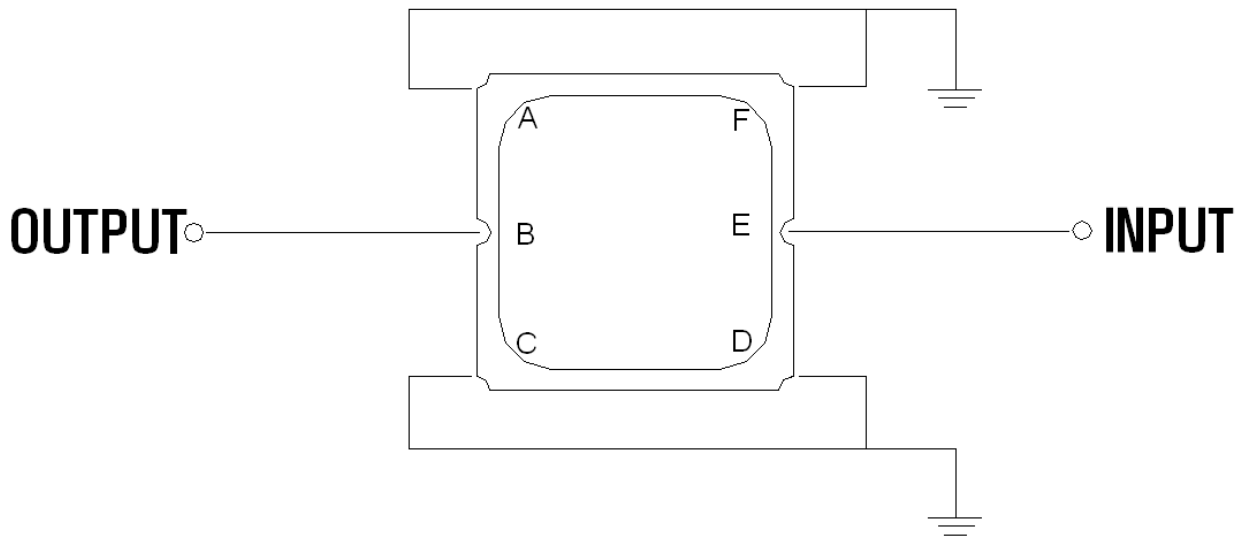
**Package Dimensions**



| Marking Descriptions |                      |
|----------------------|----------------------|
| Z                    | Wireless Application |
| Z                    | Series Number        |
| a                    | Date Code(Year)      |
| b                    | Date Code(Month)     |

| Pin Description |           |
|-----------------|-----------|
| A, C, D, F      | Ground    |
| B               | In or Out |
| E               | Out or In |

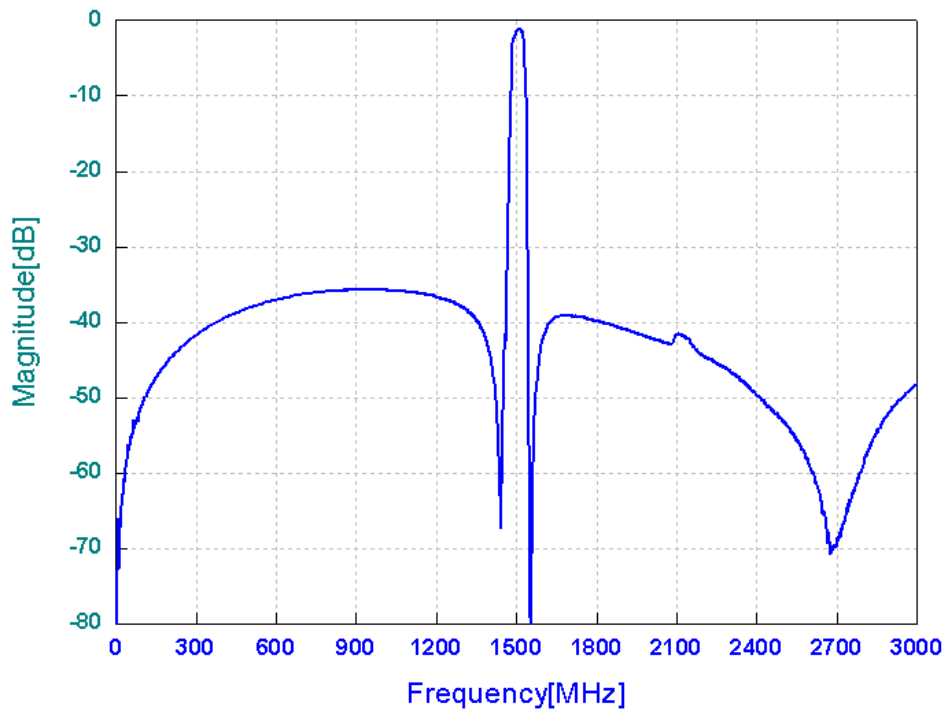
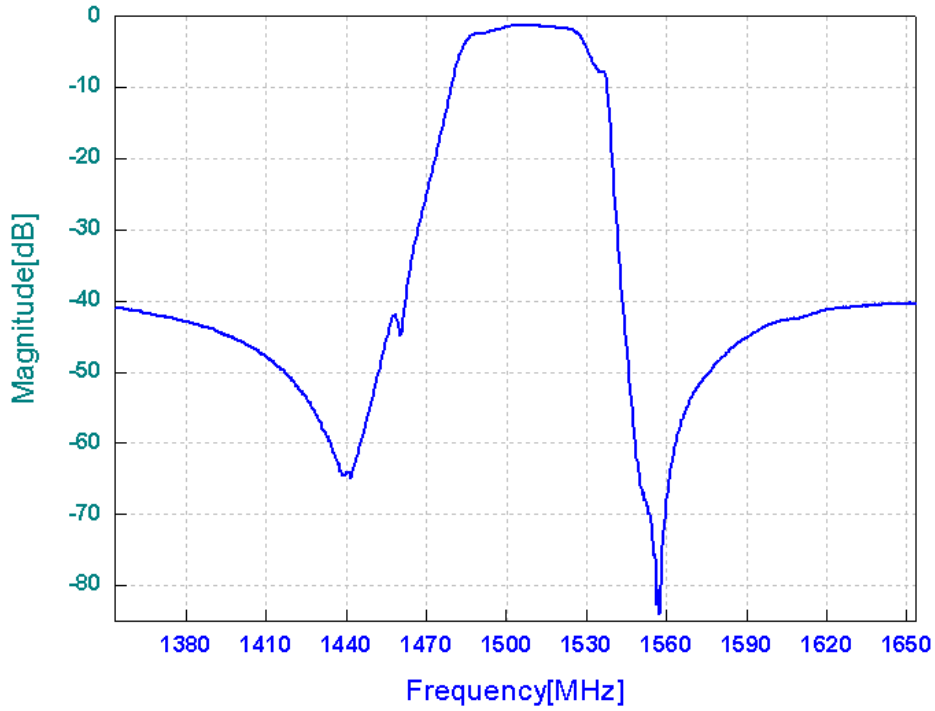
**Testing Environment**



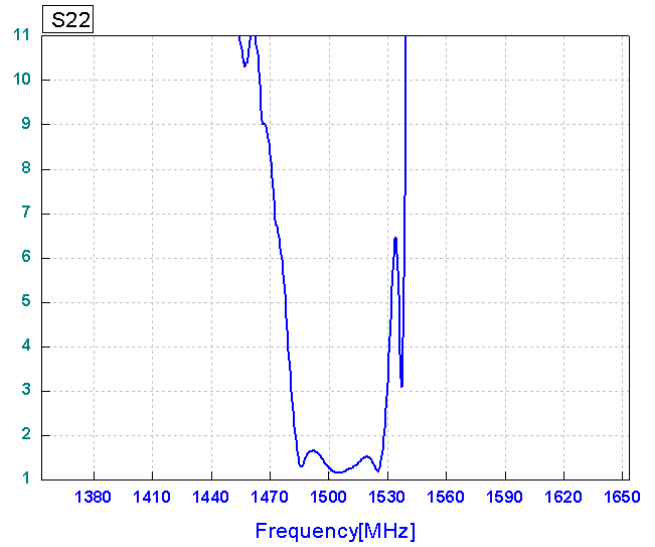
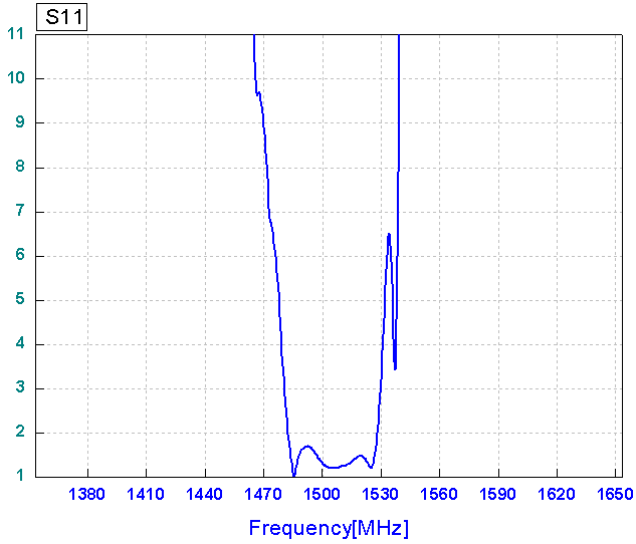
Source & Load Impedance: 50 Ω

**□ Frequency Characteristics**

Frequency Response



### VSWR



### Smith Chart

