

- Remote Control, RF SAW Filter
- Revision 0: November 2011

## Electrical Characteristics

| MAXIMUM RATING                                 |                 |         |           |         |
|--|-----------------|---------|-----------|---------|
| PARAMETERS DESCRIPTION                         | UNIT            | MINIMUM | TYPICAL   | MAXIMUM |
| Operating Temperature Range                    | °C              | -40     | -         | +85     |
| Storage Temperature Range                      | °C              | -40     | -         | +85     |
| Maximum DC Voltage                             | V               | -       | -         | 12      |
| 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              | -       | -         | 1.4     |

| ELECTRICAL SPECIFICATION                    |                   |         |         |         |
|---|-------------------|---------|---------|---------|
| PARAMETERS DESCRIPTION                      | UNIT              | MINIMUM | TYPICAL | MAXIMUM |
| Center Frequency (Fo)                       | MHz               | -       | 836.5   | -       |
| Minimum insertion loss(IL)                  |                   |         |         |         |
| Exclude loss in matching elements *1)       | dB                | -       | 2.6     | 4.0     |
| Include loss of matching elements(Q=62) *2) | dB                | -       | 3.3     | 5.0     |
| Passband (relative to ILmin) *1)            |                   |         |         |         |
| 835.5 ~ 837.5 MHz                           | dB <sub>p-p</sub> | -       | 1.5     | 3.0     |
| 3dB Bandwidth                               | MHz               | -       | 4.5     | -       |
| Attenuation(relative to ILmin) *1)          |                   |         |         |         |
| 20.00-785.00 MHz                            | dB                | 40      | 50      | -       |
| 785.00-810.00 MHz                           | dB                | 30      | 38      | -       |
| 810.00-829.00 MHz                           | dB                | 20      | 29      | -       |
| 843.00-850.00 MHz                           | dB                | 15      | 24      | -       |
| 850.00-910.00 MHz                           | dB                | 18      | 23      | -       |
| 910.00-1000.0 MHz                           | dB                | 40      | 46      | -       |

**Notes:** (1) With Matching Network .

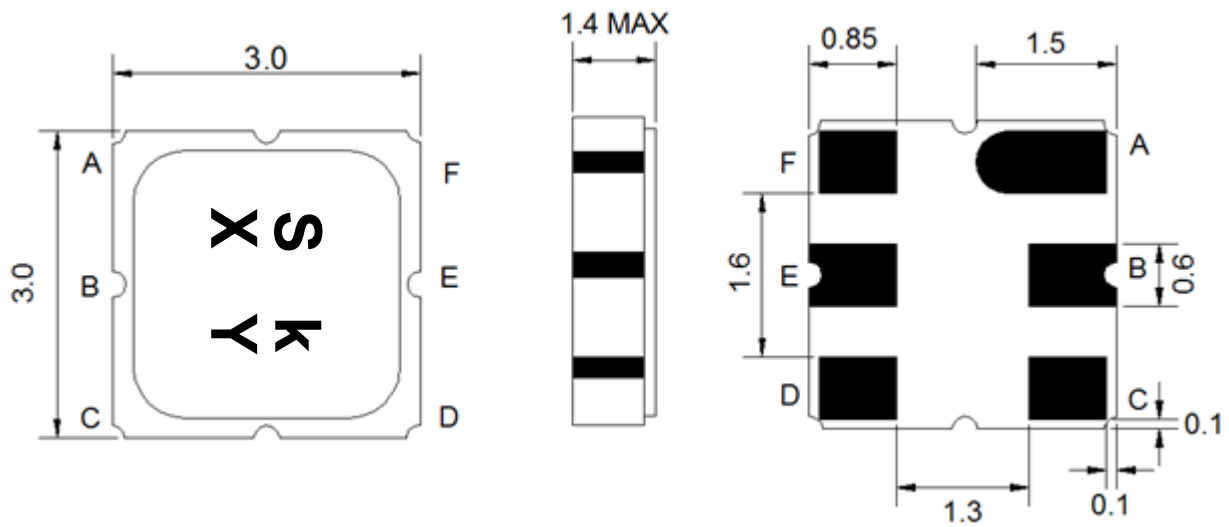
\*1) : The matching circuit is ideal by simulation.

\*2) : The matching circuit is real by actual passive components.

0805 Coilcraft CS series chip conductor is used for inductor.

0402 muRata GRM series is used for capacitor.

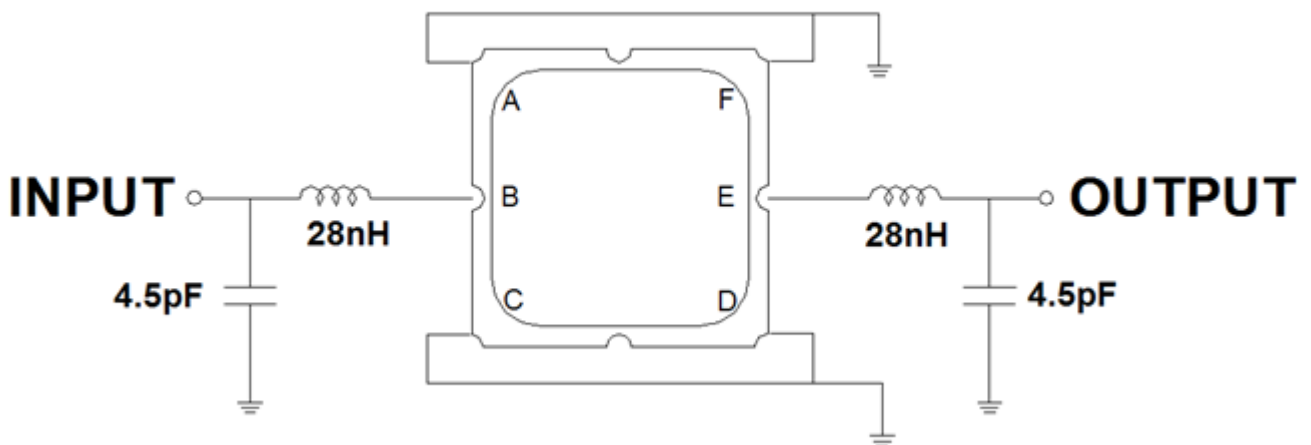
## Package Dimensions



| Marking Descriptions |                   |
|----------------------|-------------------|
| S                    | TCRF Application  |
| k                    | Series Number     |
| X                    | Date Code (Year)  |
| Y                    | Date Code (Month) |

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

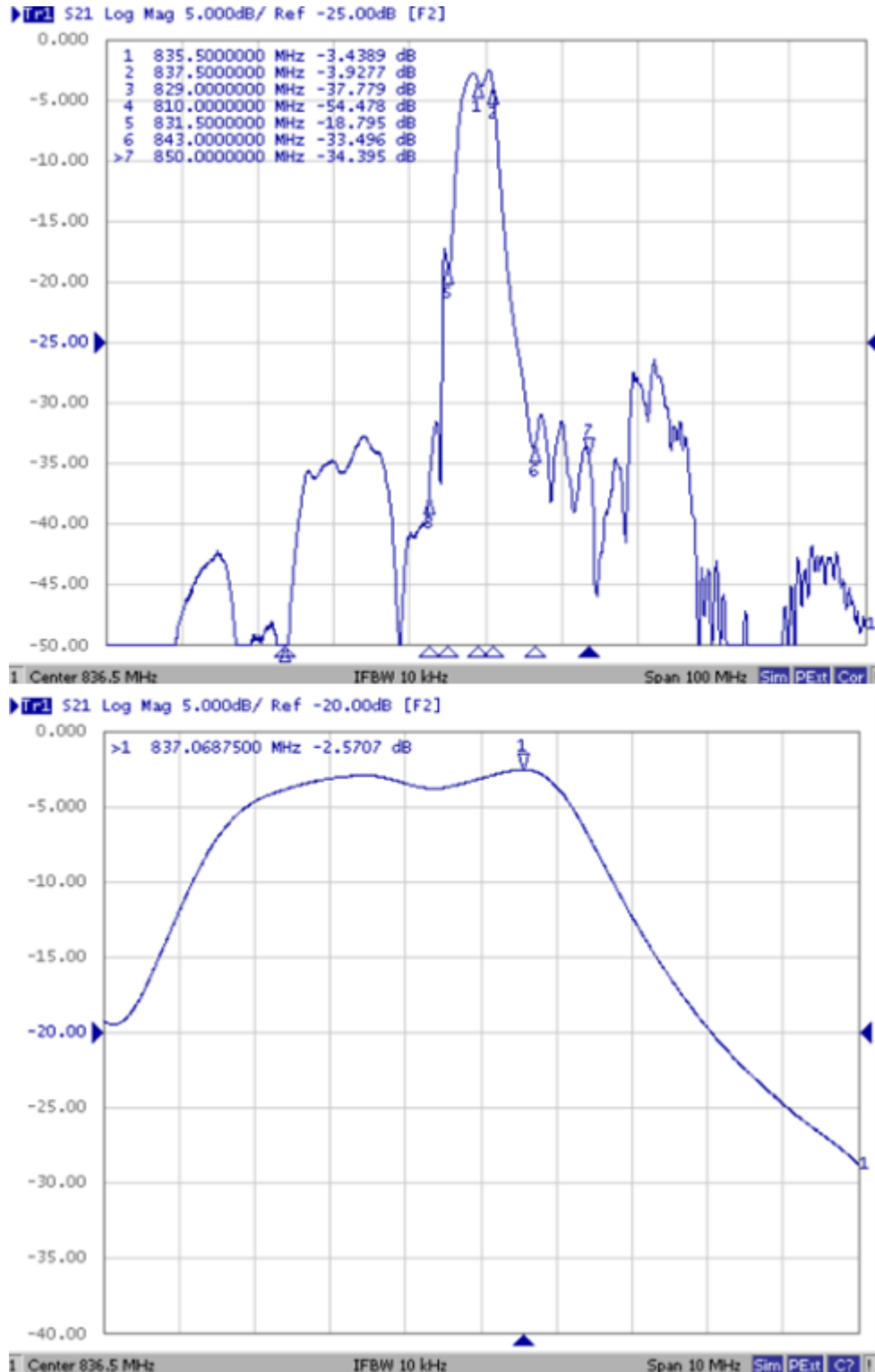
## Testing Environment



Source & Load Impedance: 50  $\Omega$

## Frequency Characteristics

**Frequency Response**



**Wide Span**

