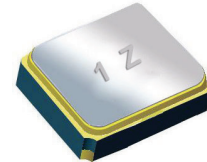


# Surface Mount 1575.42MHz SAW Filter

AFS14A04-1575.42-T2



RoHS  
Compliant



1.4 x 1.1 x 0.7 mm

## FEATURES:

- 1.4 x 1.1 x 0.7 mm low profile SMT package
- Low Insertion loss
- Excellent selectivity with high out-of-band rejection

## APPLICATIONS:

- Wireless Communication
- Remote Control
- Cellular Phones

## ELECTRICAL SPECIFICATIONS:

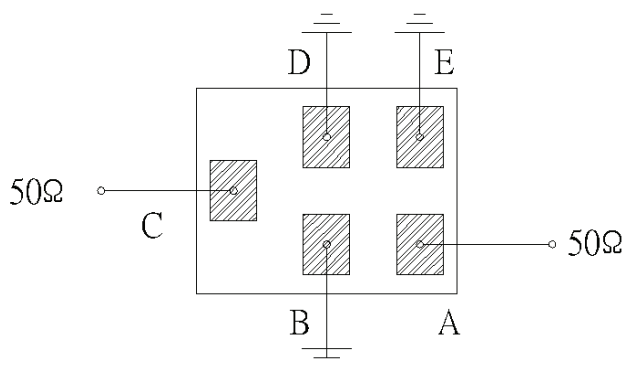
### Maximum Ratings

| Item                        | Value           |
|-----------------------------|-----------------|
| Input Power Level           | +15 dBm max.    |
| DC Permissive Voltage       | 3.0V DC max.    |
| Operating Temperature Range | -40°C to + 85°C |
| Storage Temperature Range   | -40°C to + 85°C |

| Parameters                                      | Minimum | Typical | Maximum | Units    | Notes                 |
|-------------------------------------------------|---------|---------|---------|----------|-----------------------|
| Center Frequency ( $f_c$ )                      |         | 1575.42 |         | MHz      |                       |
| Insertion Loss (IL)                             |         | 0.90    | 1.50    | dB       | (1574.42~1576.42 MHz) |
| 3-dB Bandwidth                                  |         | 40      |         | MHz      |                       |
| Amplitude Ripple                                |         | 0.1     | 0.75    | dB       | (1574.42~1576.42 MHz) |
| Worst-Case Input / Output Return Loss           |         | 23      | 12.7    | dB       | (1574.42~1576.42 MHz) |
| Stop-band Attenuation<br>(Referenced to 0.0 dB) | 35      | 38      |         | dB       | D.C~1450 MHz          |
|                                                 | 30      | 45      |         |          | 1450~1520 MHz         |
|                                                 | 45      | 48      |         |          | 1625~1640 MHz         |
|                                                 | 38      | 40      |         |          | 1640~1805 MHz         |
|                                                 | 38      | 40      |         |          | 1805~1910 MHz         |
|                                                 | 38      | 43      |         |          | 1910~2000 MHz         |
|                                                 | 30      | 45      |         |          | 2000~4000 MHz         |
|                                                 | 20      | 22      |         |          | 4000~6000 MHz         |
| Source Impedance ( $Z_S$ )                      |         | 50      |         | $\Omega$ | See note # 1          |
| Load Impedance ( $Z_L$ )                        |         | 50      |         | $\Omega$ | See note # 1          |

**Note #1:** No matching network required for operation into 50 $\Omega$ 's

## TEST CIRCUIT:

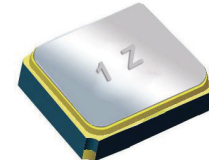


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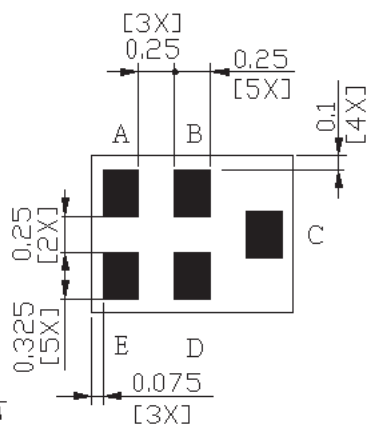
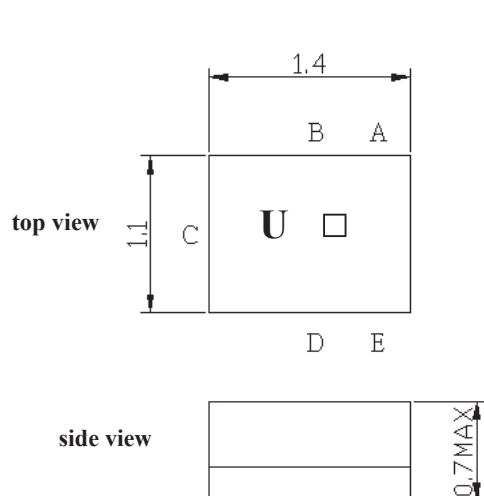


**RoHS**  
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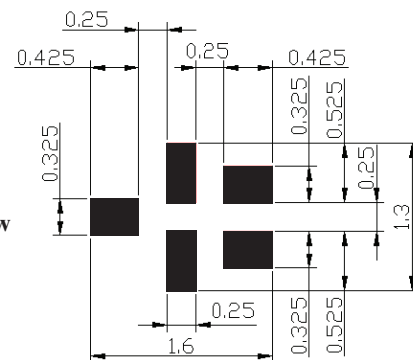


1.4 x 1.1 x 0.7 mm

## OUTLINE DIMENSIONS:



bottom view



■ : Land Pattern  
Unit : mm

|          |        |
|----------|--------|
| C:       | Input  |
| A:       | Output |
| B, D, E: | Ground |

\*All Dimensions are in mm

### □ Year/Month Code (Follow the table)

| Year/Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------------|---|---|---|---|---|---|---|---|---|----|----|----|
| 2009       | A | B | C | D | E | F | G | H | J | K  | L  | M  |
| 2010       | N | P | Q | R | S | T | U | V | W | X  | Y  | Z  |
| 2011       | A | B | C | D | E | F | G | H | J | K  | L  | M  |
| 2012       | N | P | Q | R | S | T | U | V | W | X  | Y  | Z  |
| 2013       | A | B | C | D | E | F | G | H | J | K  | L  | M  |
| 2014       | N | P | Q | R | S | T | U | V | W | X  | Y  | Z  |

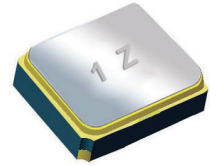


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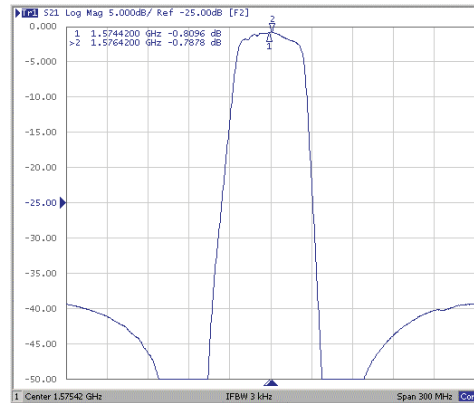
RoHS  
Compliant



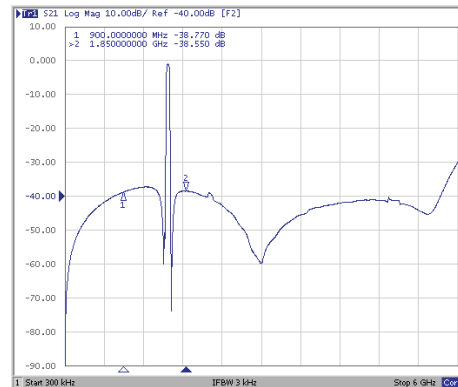
1.4 x 1.1 x 0.7 mm

## FREQUENCY CHARACTERISTICS:

### Filter Frequency Response (Narrowband)

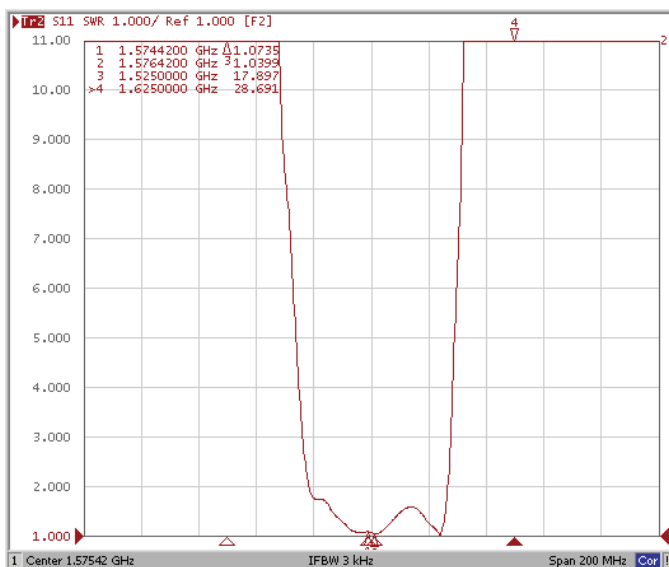


### Filter Frequency Response (Wideband)

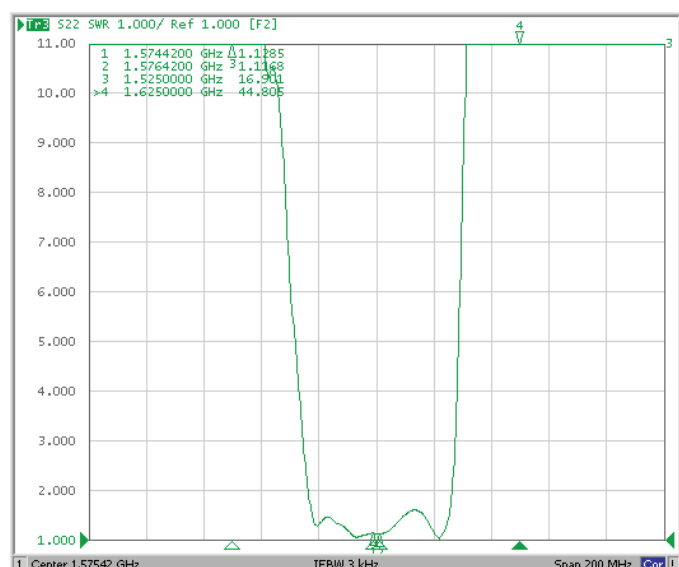


## REFLECTION FUNCTIONS:

### S11



### S22



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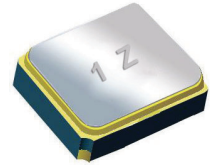
Revised: 06.20.12

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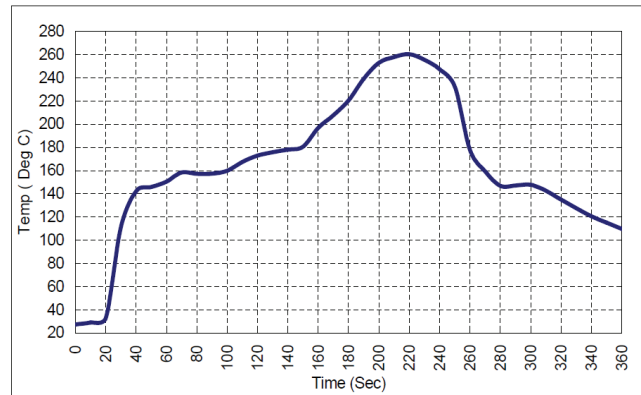


RoHS  
Compliant



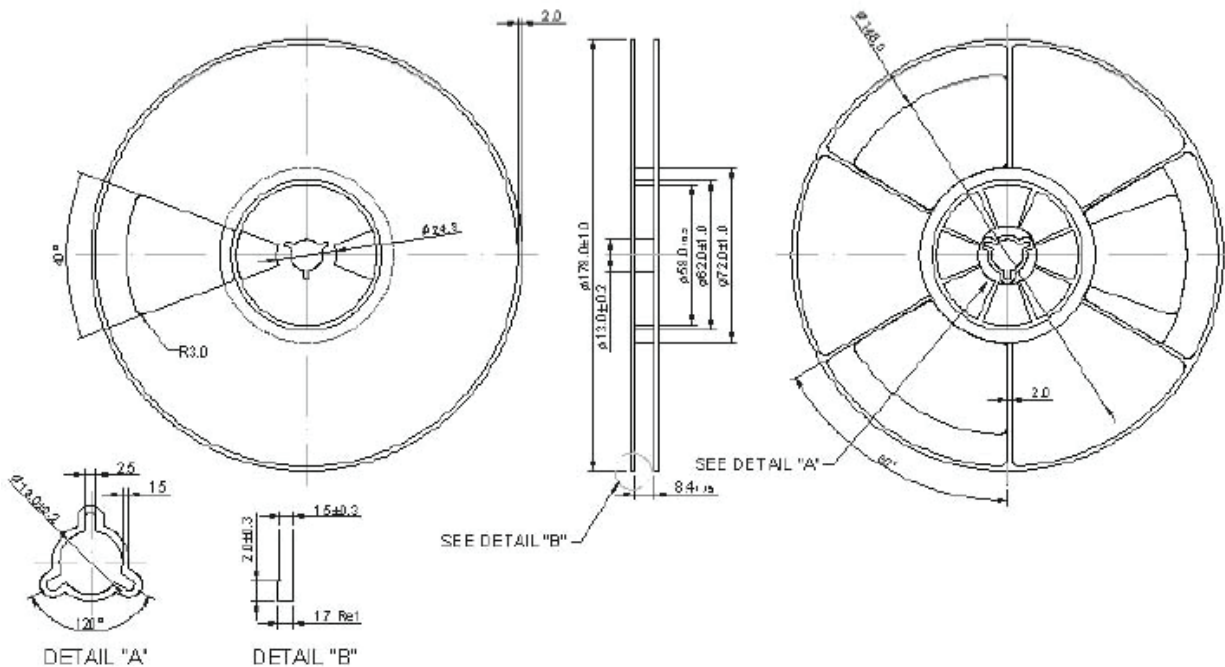
1.4 x 1.1 x 0.7 mm

## REFLOW PROFILE:



## PACKAGING: 2000 Units/Reel

Reel Count : 7" = 2k units



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