

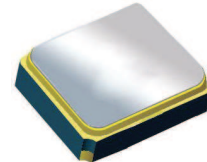
# Surface Mount 1902.00MHz SAW Filter

AFS14A35-1902.00-T3

Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable



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

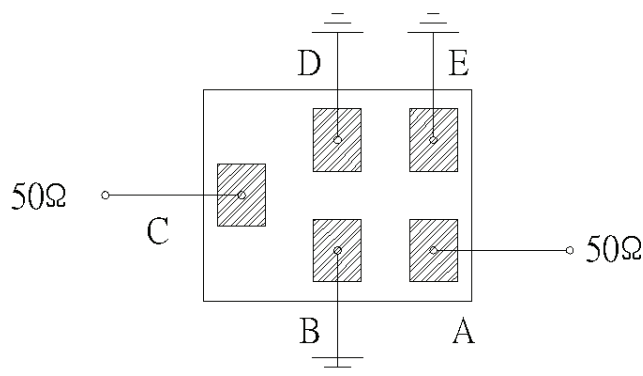
## ELECTRICAL SPECIFICATIONS:

### Maximum Ratings

| Item                        | Value           |
|-----------------------------|-----------------|
| Input Power Level           | +10 dBm max.    |
| DC Permissive Voltage       | 3.0V DC max.    |
| Operating Temperature Range | -20°C to + 75°C |
| Storage Temperature Range   | -30°C to + 85°C |

| Parameters                                                         | Minimum | Typical              | Maximum | Units    | Notes                 |
|--------------------------------------------------------------------|---------|----------------------|---------|----------|-----------------------|
| Center Frequency ( $f_c$ )                                         |         | 1902.00              |         | MHz      |                       |
| Insertion Loss (IL)                                                |         | 1.8                  | 2.4     | dB       | (1884.55~1919.45MHz)  |
| Effective Bandwidth                                                |         | 35                   |         | MHz      |                       |
| Amplitude Ripple                                                   |         | 0.5                  | 1.0     | dB       | (1884.55~1919.45MHz)  |
| Worst-Case Input / Output Return Loss                              |         | 9.54                 | 7.35    | dB       | (1884.55~1919.45MHz)  |
| Output amplitude balance ( $ S_{31}/S_{21} $ )                     | -3      | +1.9                 | +3.0    | dB       | (1884.55~1919.45 MHz) |
| Output Phase Balance ( $\Phi(S_{31}) - \Phi(S_{21}) + 180^\circ$ ) | -12     | +6                   | +12     | °        | (1884.55~1919.45 MHz) |
| Stop-band Attenuation<br>(Referenced to 0.0 dB)                    | 35      | 40                   |         | dB       | 1349~1455 MHz         |
|                                                                    | 35      | 46                   |         |          | 1614~1687 MHz         |
|                                                                    | 34      | 36                   |         |          | 1731~1801 MHz         |
|                                                                    | 18      | 22                   |         |          | 1986~2056 MHz         |
|                                                                    | 25      | 33                   |         |          | 2037~2039 MHz         |
|                                                                    | 35      | 42                   |         |          | 2113~2186 MHz         |
|                                                                    | 40      | 48                   |         |          | 2386~2451 MHz         |
|                                                                    | 40      | 51                   |         |          | 3000~3840 MHz         |
|                                                                    | 35      | 48                   |         |          | 4941~5760 MHz         |
| Terminating Source Impedance ( $Z_s$ )                             |         | 50                   |         | $\Omega$ |                       |
| Terminating Load Impedance ( $Z_L$ )<br>(Differential)             |         | 200 $\Omega$ // 22nH |         |          |                       |

## TEST CIRCUIT:

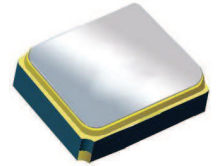


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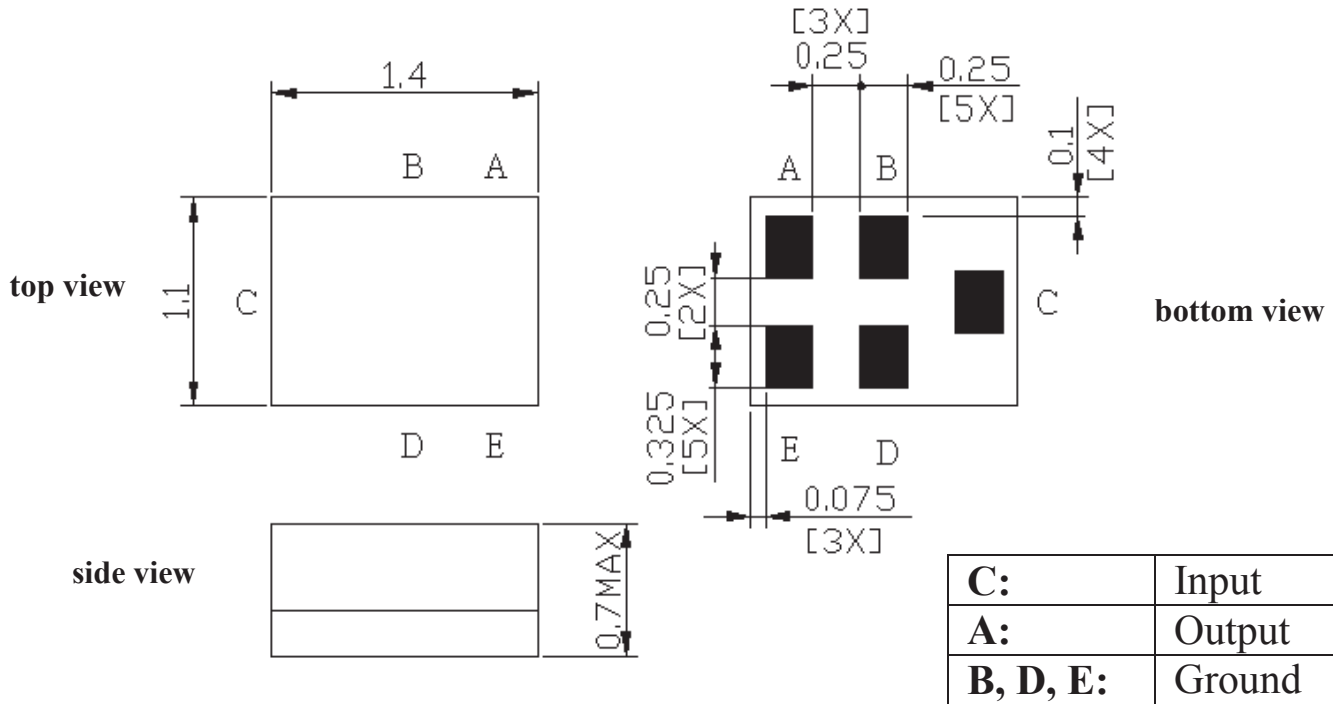


**RoHS**  
Compliant

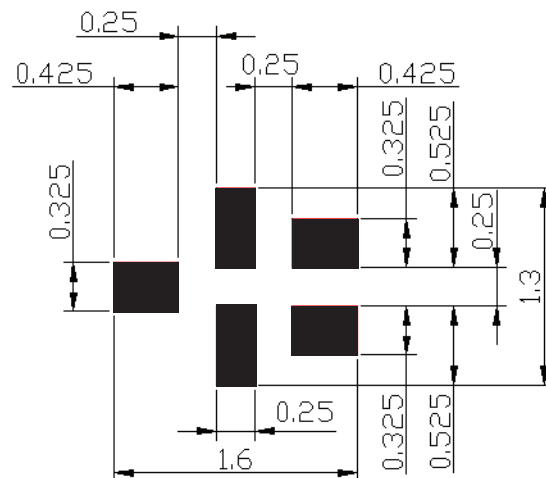


1.4 x 1.1 x 0.7 mm

## OUTLINE DIMENSIONS:



## Recommended Land Pattern:



■ : Land Pattern  
Unit : mm

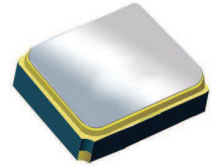
\*All Dimensions are in mm

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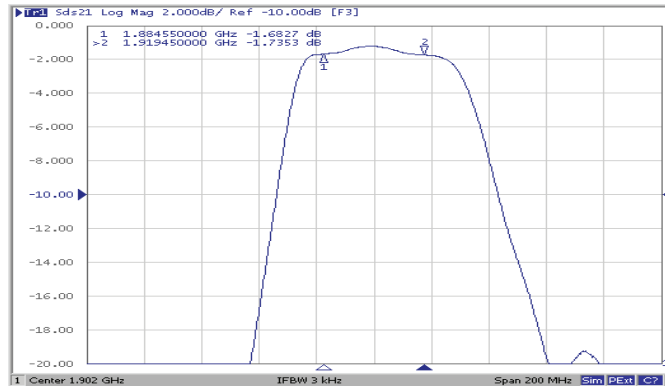
RoHS  
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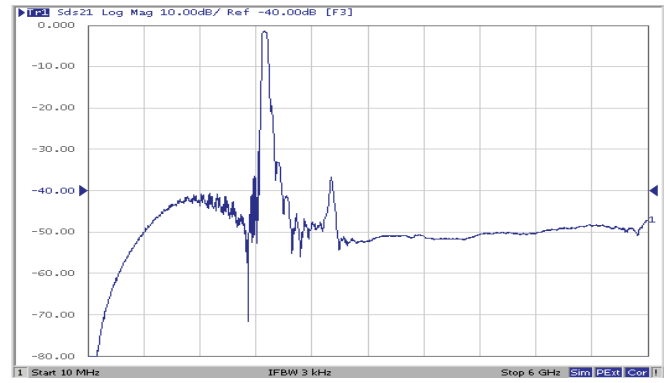
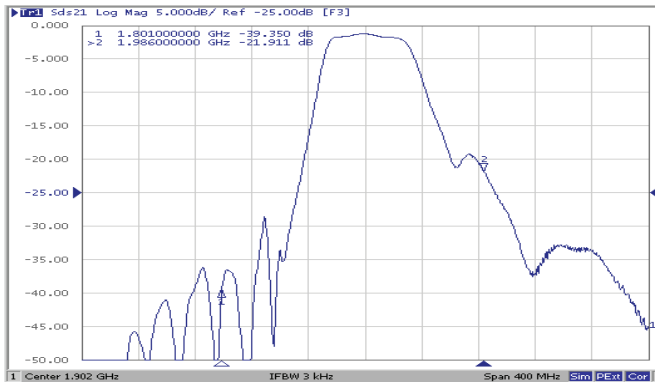
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## FREQUENCY CHARACTERISTICS:

Filter Frequency Response (Narrowband)

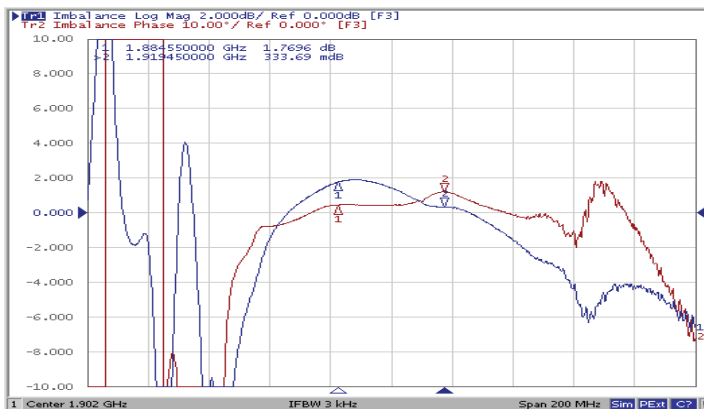


Filter Frequency Response (Wideband)

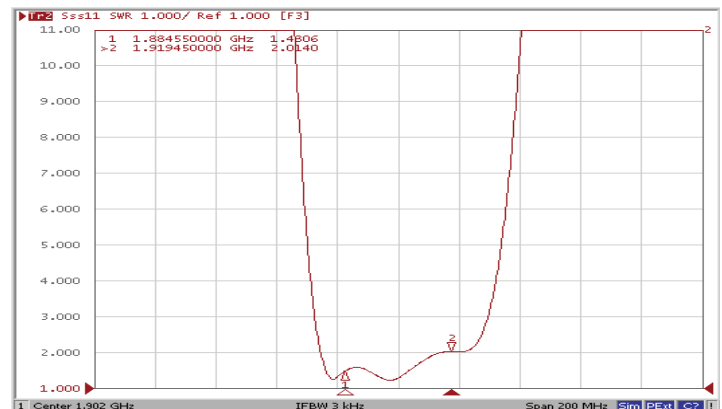


## REFLECTION FUNCTIONS:

S11



S22

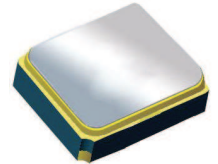


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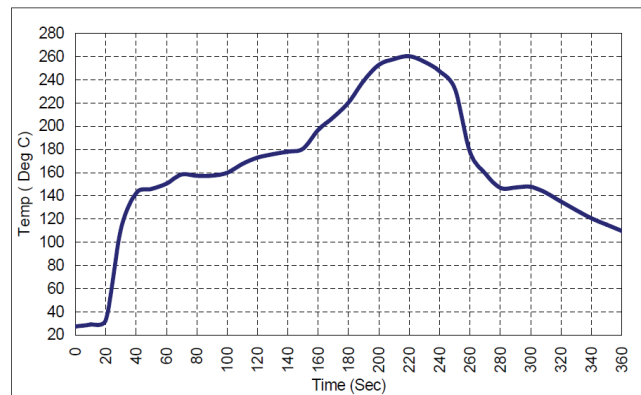


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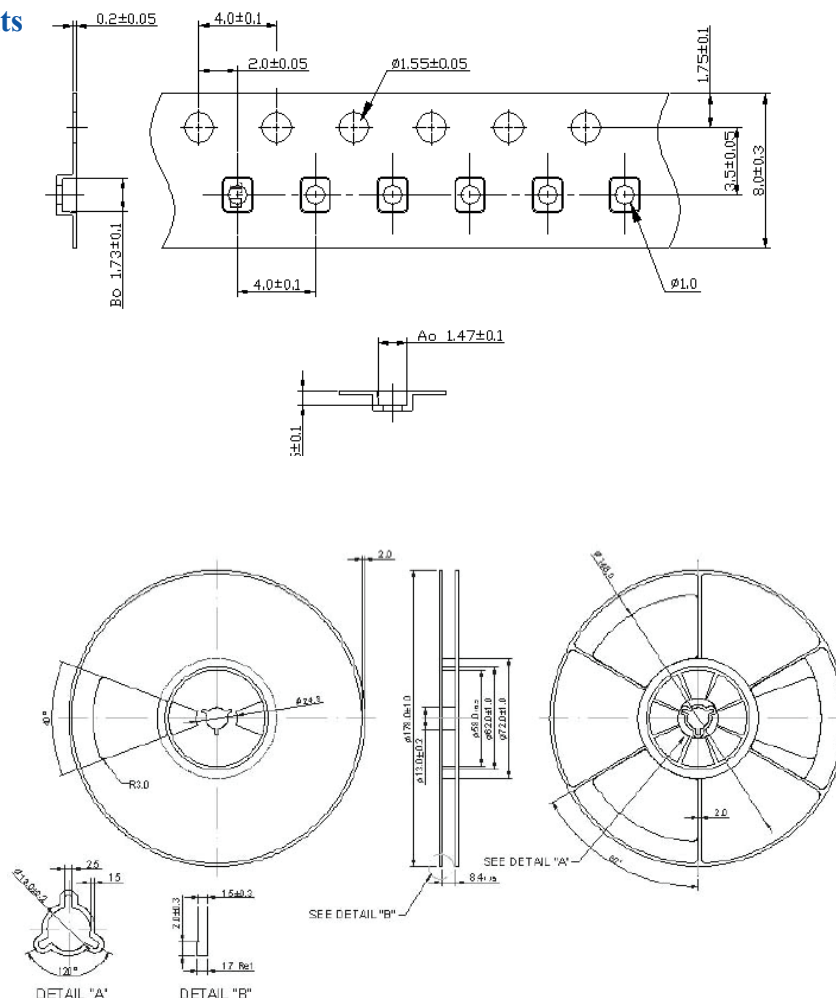
1.4 x 1.1 x 0.7 mm

## REFLOW PROFILE:



## PACKAGING: 3000 Units/Reel "-T2" parts (2k/reel) are no longer available effective 01/01/2013

Reel Count : 7" = 3k units



Dimensions: mm

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