

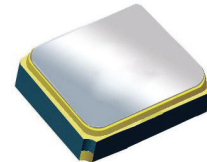
# Surface Mount 1900.00MHz SAW Filter

**AFS14A40-1900.00-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:

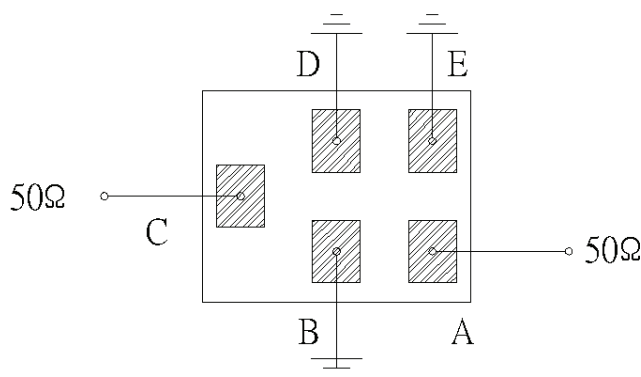
### Maximum Ratings

| Item                        | Value           |
|-----------------------------|-----------------|
| Input Power Level           | +13 dBm max.    |
| DC Permissive Voltage       | 3.0V DC max.    |
| Operating Temperature Range | -30°C to + 85°C |
| Storage Temperature Range   | -40°C to + 85°C |

| Parameters                                      | Minimum | Typical | Maximum | Units    | Notes          |
|---|---------|---------|---------|----------|----------------|
| Center Frequency ( $f_c$ )                      |         | 1900.00 |         | MHz      |                |
| Insertion Loss (IL)                             |         | 2.0     | 2.7     | dB       | 1880 ~ 1920MHz |
| Effective Bandwidth                             |         | 40      |         | MHz      |                |
| Amplitude Ripple                                |         | 0.5     | 1.2     | dB       | 1880 ~ 1920MHz |
| Worst-Case Input / Output Return Loss           | 9.5     | 11.7    |         | dB       |                |
| Stop-band Attenuation<br>(Referenced to 0.0 dB) | 40      | 45      |         | dB       | D.C~1395 MHz   |
|   | 40      | 48      |         |          | 1395~1435 MHz  |
|   | 33      | 36      |         |          | 1435~1805 MHz  |
|   | 25      | 33      |         |          | 1805~1840 MHz  |
|   | 25      | 27      |         |          | 2000~2135 MHz  |
|   | 31      | 34      |         |          | 2135~2175 MHz  |
|   | 30      | 36      |         |          | 2175~3500 MHz  |
|   | 22      | 29      |         |          | 3500~6000 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:



Bottom View

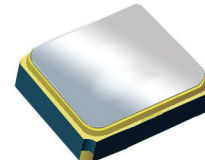


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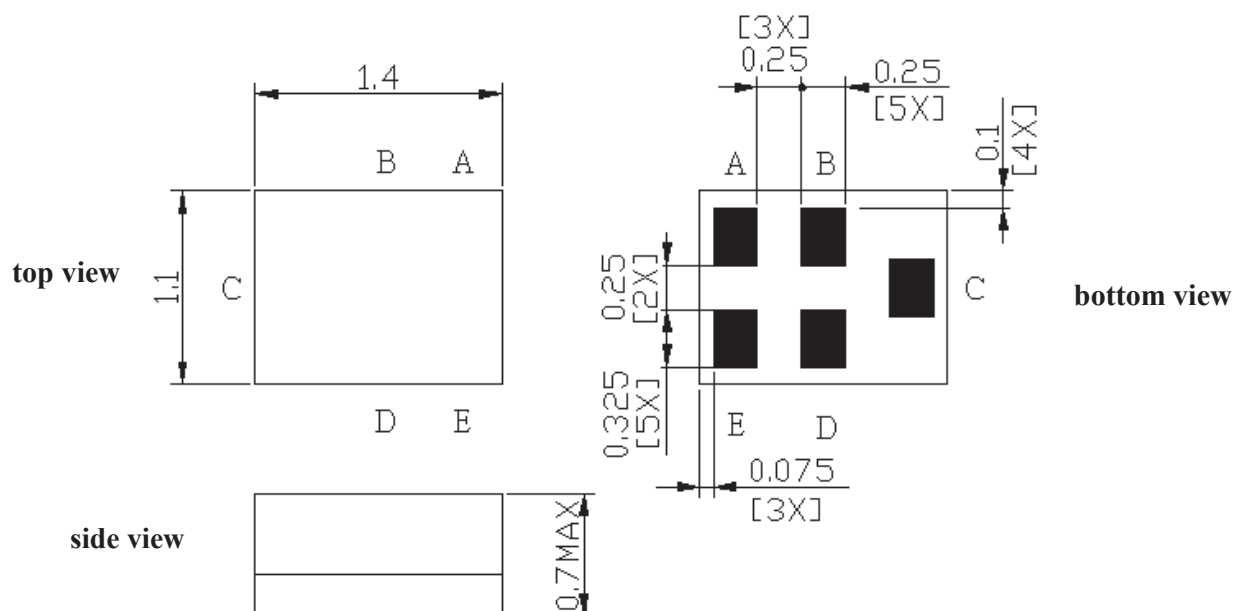


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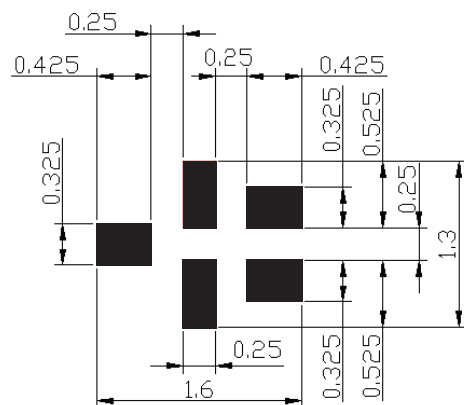
1.4 x 1.1 x 0.7 mm

## OUTLINE DIMENSIONS:



|                 |        |
|-----------------|--------|
| <b>C:</b>       | Input  |
| <b>A:</b>       | Output |
| <b>B, D, E:</b> | Ground |

## Recommended Land Pattern:



■ : Land Pattern  
Unit : mm

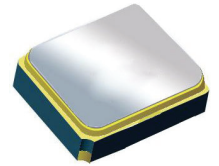
\*All Dimensions are in mm

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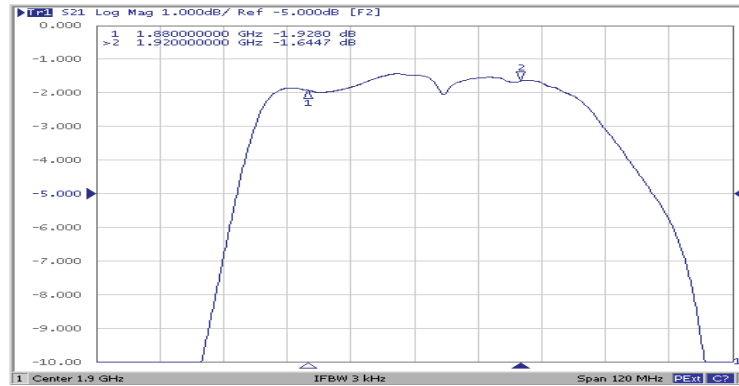
RoHS  
Compliant



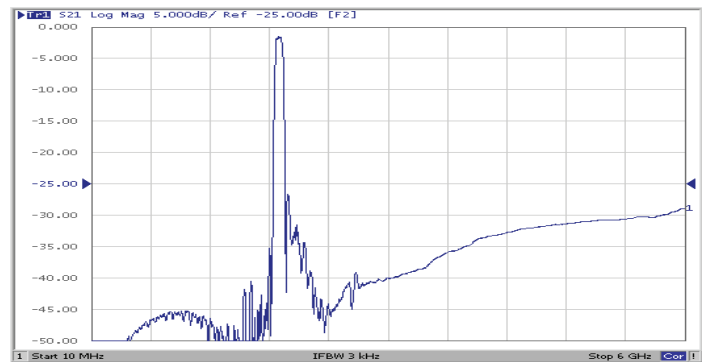
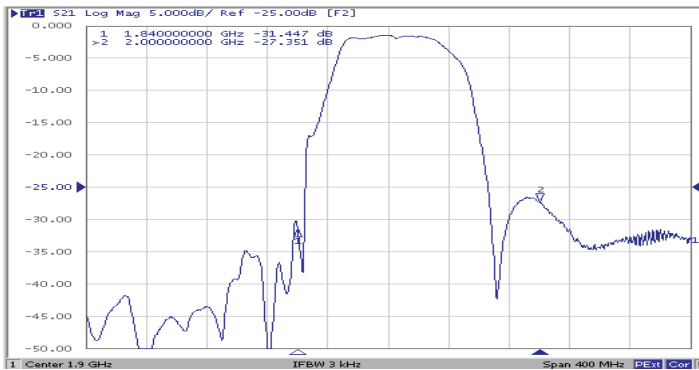
1.4 x 1.1 x 0.7 mm

## FREQUENCY CHARACTERISTICS:

Filter Frequency Response (Narrowband)

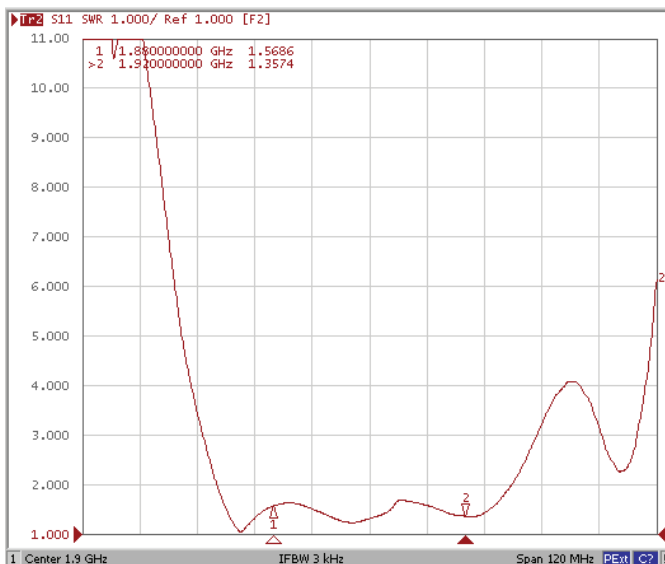


Filter Frequency Response (Wideband)

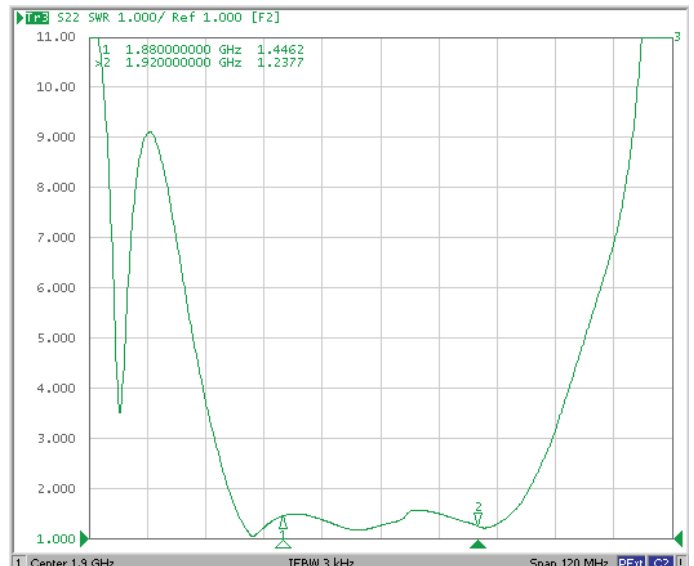


## REFLECTION FUNCTIONS:

S11



S22

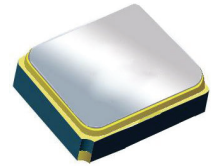


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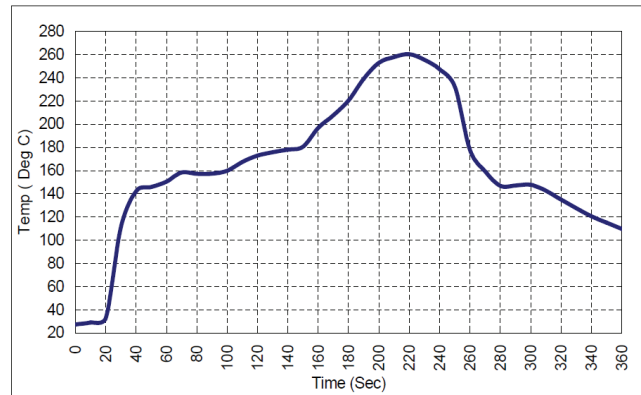


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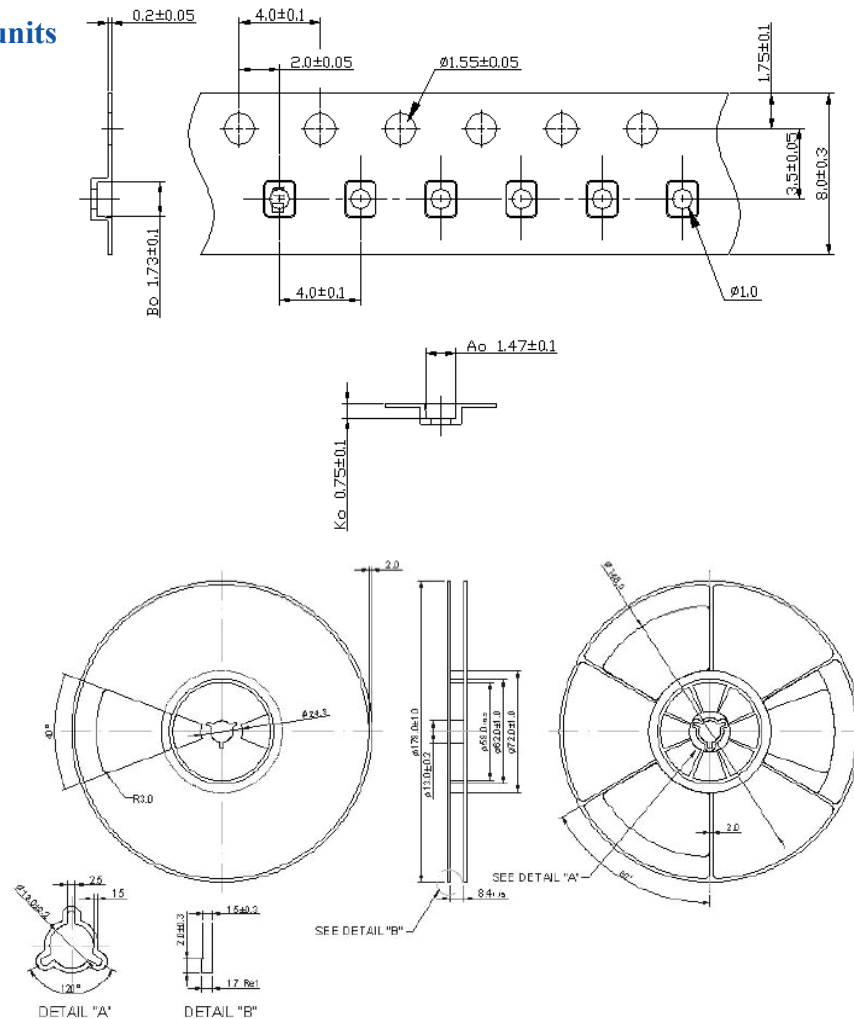
1.4 x 1.1 x 0.7 mm

## 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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