

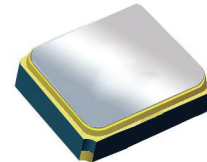
# Surface Mount 1900.00MHz SAW Filter

**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:

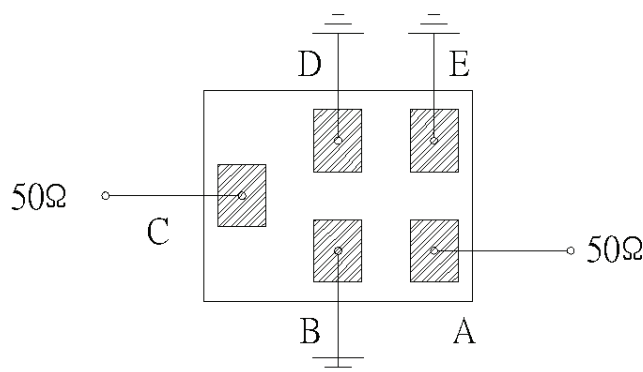
### Maximum Ratings

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 (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:

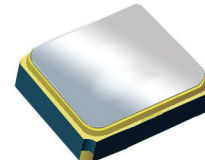


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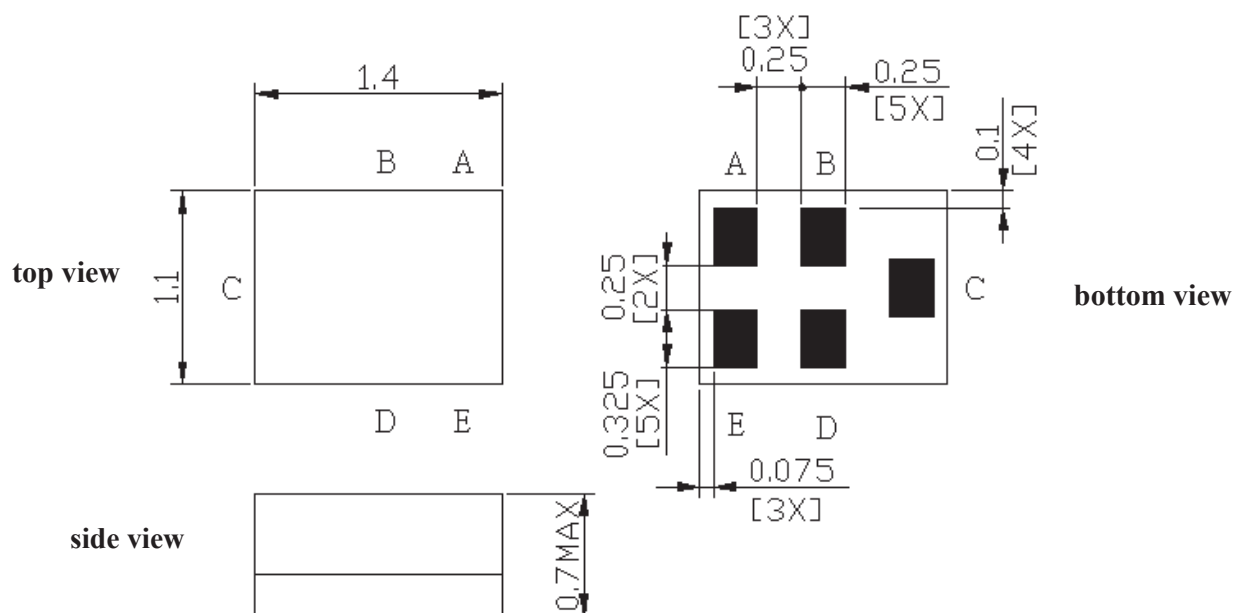


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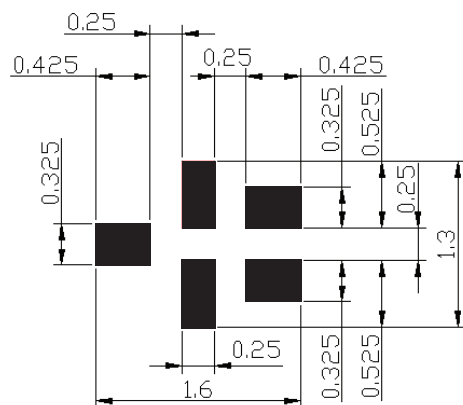
1.4 x 1.1 x 0.7 mm

## OUTLINE DIMENSIONS:



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

## Recommended Land Pattern:



■ : Land Pattern  
Unit : mm

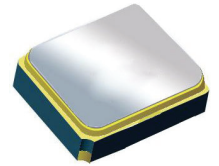
\*All Dimensions are in mm

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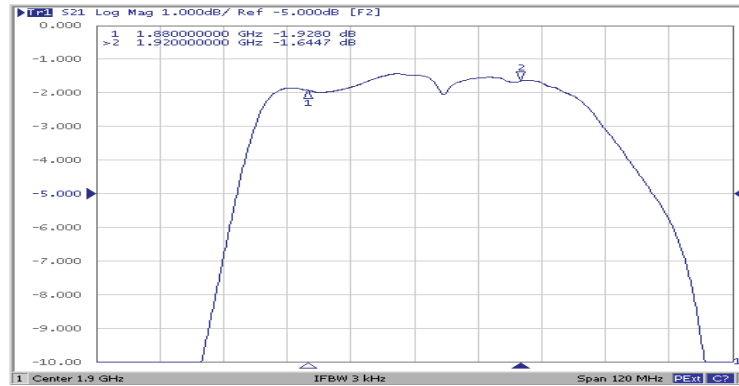
RoHS  
Compliant



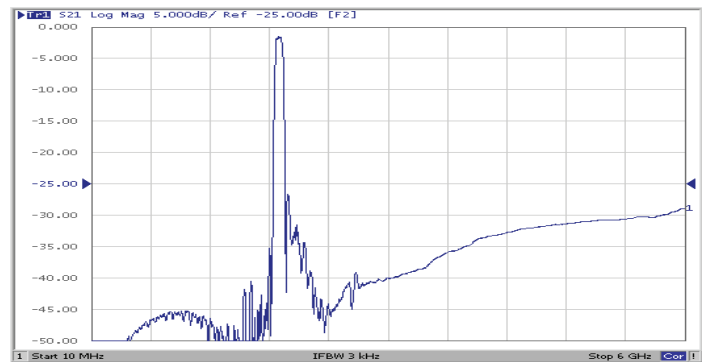
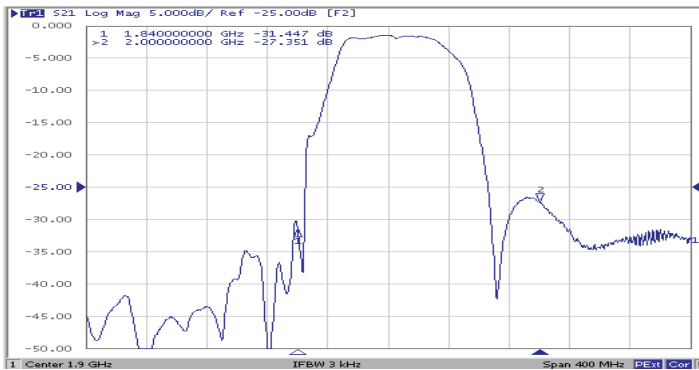
1.4 x 1.1 x 0.7 mm

## FREQUENCY CHARACTERISTICS:

### Filter Frequency Response (Narrowband)

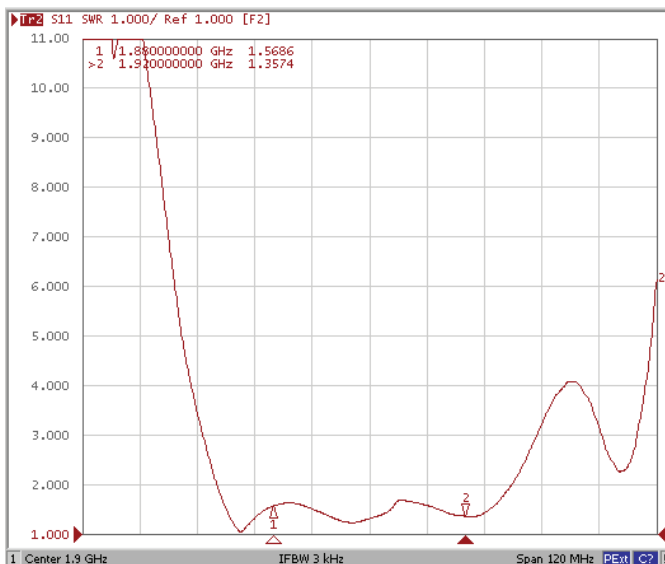


### Filter Frequency Response (Wideband)

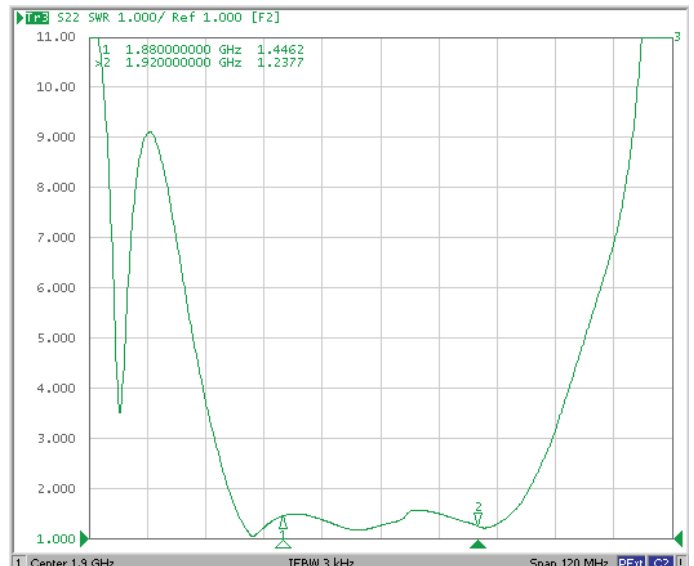


## REFLECTION FUNCTIONS:

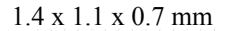
### S11



### S22



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The graph shows the temperature of a substance over time. The temperature starts at 20°C, rises to a peak of approximately 260°C at 220 seconds, and then decreases to about 105°C at 360 seconds.

Time (Sec)	Temp (Deg C)
0	20
20	20
40	140
60	145
80	155
100	155
120	165
140	175
160	195
180	220
200	250
220	260
240	250
260	170
280	145
300	145
320	135
340	115
360	105

Technical drawing of a circular mechanical part, likely a flange or cover plate, showing multiple views and dimensions.

**Main View (Top):** A circular part with a central hole. The outer diameter is  $\phi 100 \pm 0.3$ . The inner hole diameter is  $\phi 25.3$ . The thickness of the part is 2.0. The outer edge has a radius of R3.0. The central hole has a chamfer with a 6° angle.

**Side View (Left):** Shows the profile of the part. The total height is 17.0. The central hole has a diameter of  $\phi 25.3$ . The outer edge has a radius of R3.0. The thickness of the part is 2.0. The central hole has a chamfer with a 6° angle.

**Detail A (Bottom Left):** A cross-sectional view of the central hole. It shows a central hole with a diameter of  $\phi 10.0 \pm 0.3$ . The hole is surrounded by a ring with a thickness of 1.5. The outer diameter of the ring is  $\phi 25.3$ . The hole has a chamfer with a 6° angle.

**Detail B (Bottom Right):** A cross-sectional view of the outer edge. It shows a ring with a thickness of 1.5. The outer diameter is  $\phi 100 \pm 0.3$ . The inner diameter is  $\phi 75.0 \pm 0.3$ . The ring has a chamfer with a 6° angle.

**Other Views:** A top view of the part with a central hole, showing a diameter of  $\phi 100 \pm 0.3$  and a central hole diameter of  $\phi 25.3$ . A side view of the part showing a thickness of 2.0 and a central hole diameter of  $\phi 25.3$ . A cross-sectional view of the part showing a total height of 17.0 and a central hole diameter of  $\phi 25.3$ .

Revised: 04.16.13