

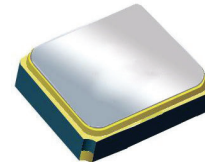
Surface Mount 1900.00MHz SAW Filter

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:

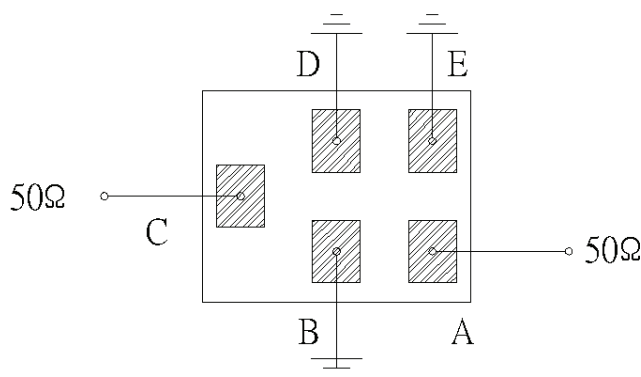
Maximum Ratings

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		Ω	See note # 1
Load Impedance (Z_L)		50		Ω	See note # 1

Note #1: No matching network required for operation into 50 Ω 's

TEST CIRCUIT:



Bottom View

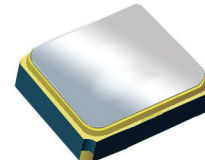


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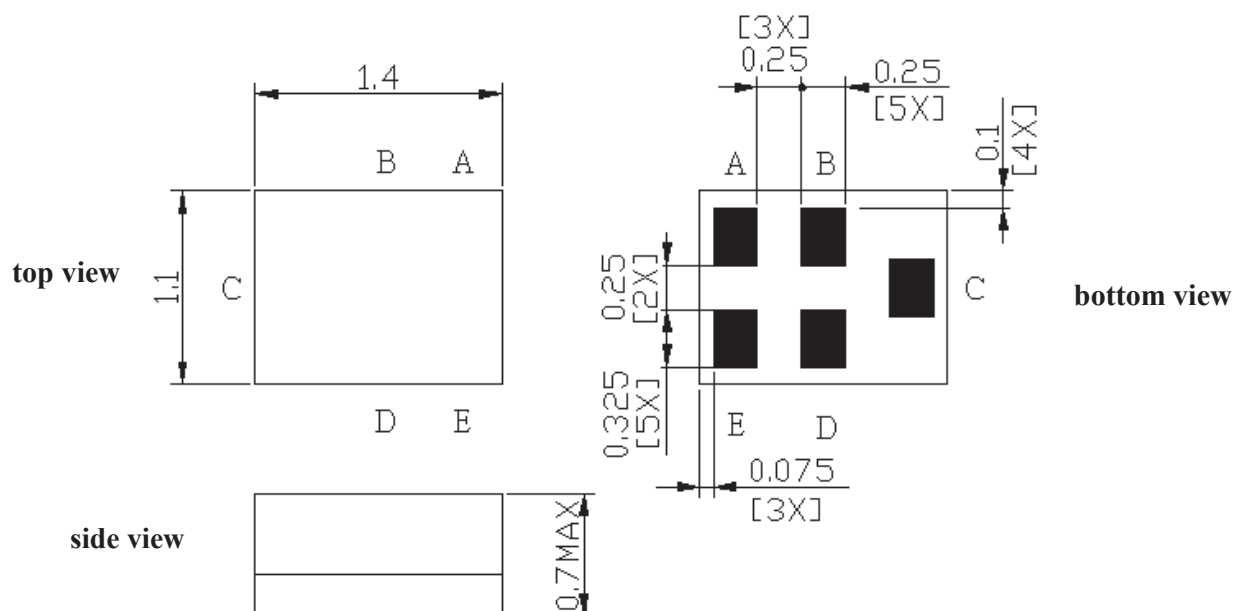


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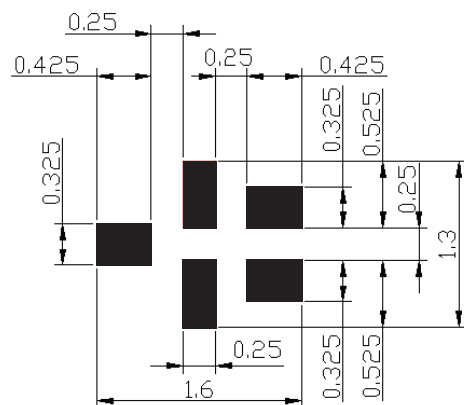
1.4 x 1.1 x 0.7 mm

OUTLINE DIMENSIONS:



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

Recommended Land Pattern:



■ : Land Pattern
Unit : mm

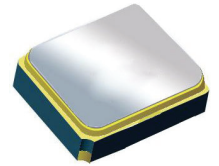
*All Dimensions are in mm

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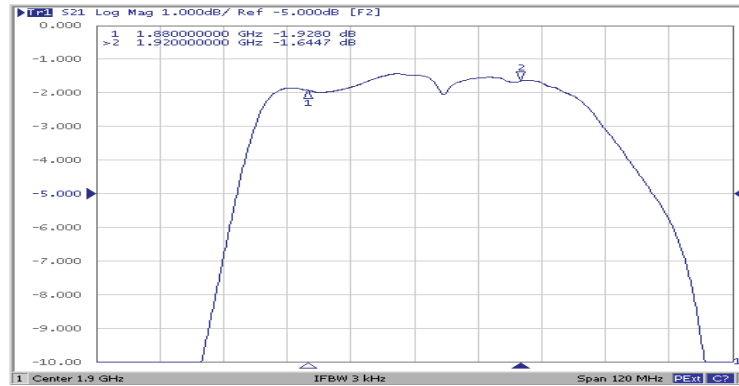
RoHS
Compliant



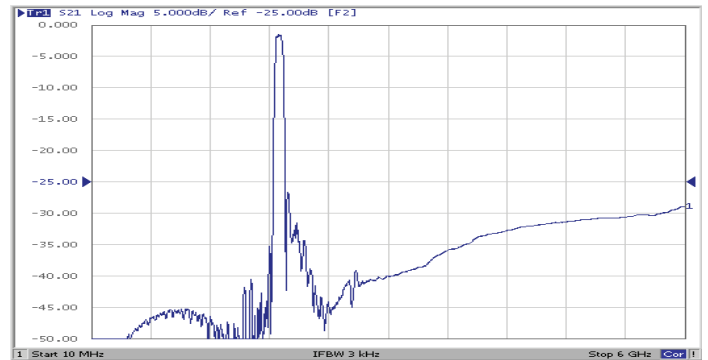
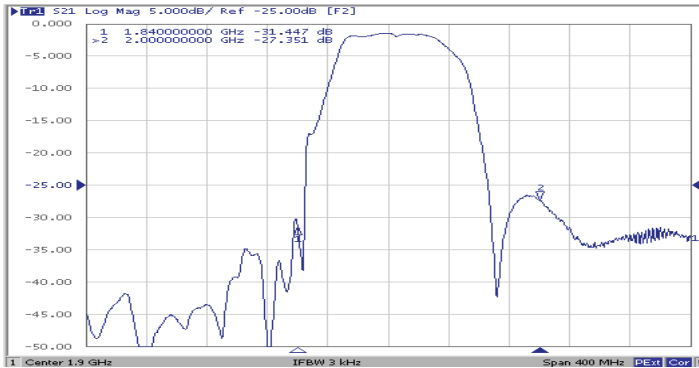
1.4 x 1.1 x 0.7 mm

FREQUENCY CHARACTERISTICS:

Filter Frequency Response (Narrowband)

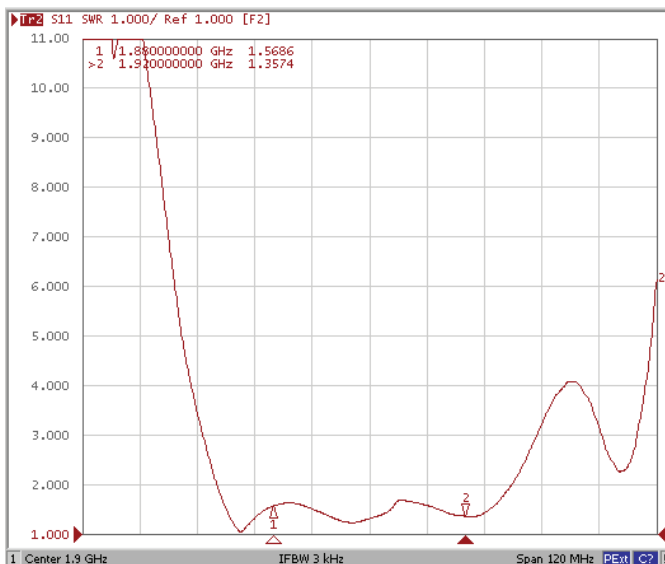


Filter Frequency Response (Wideband)

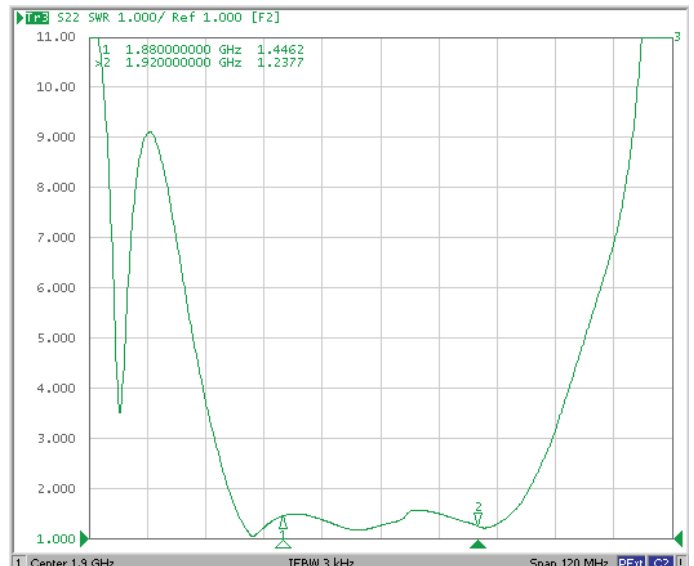


REFLECTION FUNCTIONS:

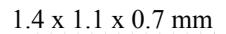
S11



S22



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Time (Sec)	Temp (°C)
0	20
20	20
40	145
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 wheel assembly, showing front, side, and detail views with dimensions.

Front View (Left):

- Overall diameter: $\varnothing 253$
- Inner hole diameter: $\varnothing 104.3$
- Inner hole tolerance: ± 0.13
- Inner hole concentricity: $\varnothing 104.3 \pm 0.13$
- Inner hole surface finish: $Ra 1.6$
- Inner hole chamfer: $2 \times 45^\circ$
- Inner hole chamfer radius: $R0.2$
- Inner hole chamfer angle: 45°

Side View (Top):

- Overall width: 20
- Inner hole diameter: $\varnothing 104.3$
- Inner hole tolerance: ± 0.13
- Inner hole concentricity: $\varnothing 104.3 \pm 0.13$
- Inner hole surface finish: $Ra 1.6$
- Inner hole chamfer: $2 \times 45^\circ$
- Inner hole chamfer radius: $R0.2$
- Inner hole chamfer angle: 45°

Detail "A" (Bottom Left):

- Overall diameter: $\varnothing 104.3$
- Inner hole diameter: $\varnothing 104.3$
- Inner hole tolerance: ± 0.13
- Inner hole concentricity: $\varnothing 104.3 \pm 0.13$
- Inner hole surface finish: $Ra 1.6$
- Inner hole chamfer: $2 \times 45^\circ$
- Inner hole chamfer radius: $R0.2$
- Inner hole chamfer angle: 45°

Detail "B" (Bottom Right):

- Overall width: 20
- Inner hole diameter: $\varnothing 104.3$
- Inner hole tolerance: ± 0.13
- Inner hole concentricity: $\varnothing 104.3 \pm 0.13$
- Inner hole surface finish: $Ra 1.6$
- Inner hole chamfer: $2 \times 45^\circ$
- Inner hole chamfer radius: $R0.2$
- Inner hole chamfer angle: 45°

Other Dimensions:

- Overall diameter: $\varnothing 253$
- Inner hole diameter: $\varnothing 104.3$
- Inner hole tolerance: ± 0.13
- Inner hole concentricity: $\varnothing 104.3 \pm 0.13$
- Inner hole surface finish: $Ra 1.6$
- Inner hole chamfer: $2 \times 45^\circ$
- Inner hole chamfer radius: $R0.2$
- Inner hole chamfer angle: 45°

Revised: 04.16.13

Mouser Electronics

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