

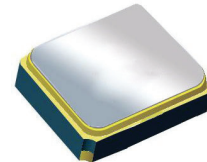
Surface Mount 1900.00MHz SAW Filter

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:

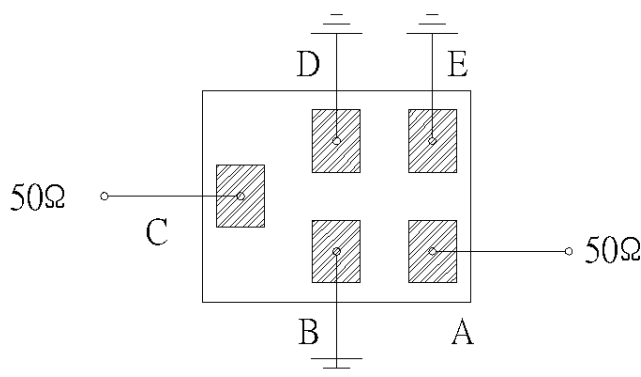
Maximum Ratings

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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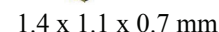
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Revised: 04.16.13

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The drawing shows three views of a mechanical part:

- Top View:** A rectangle with overall dimensions 1.4 (width) and 1.1 (height). It is divided into five regions labeled A, B, C, D, and E. Region C is a central square. Regions A and B are on the right, and D and E are on the left.
- Side View:** A rectangle with a height of 0.7 MAX.
- Bottom View:** A rectangle showing the underside of the part. It features five black square features corresponding to regions A, B, C, D, and E. Dimensions and tolerances are provided for these features:
 - Horizontal dimensions: 0.25 [3X] for regions A and B, 0.25 [5X] for region C, and 0.075 [3X] for regions D and E.
 - Vertical dimensions: 0.25 [2X] for regions A and B, 0.325 [5X] for regions D and E, and 0.1 [4X] for region C.

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

Technical drawing of a 2x2 grid of square elements. The overall width is 1.6 and the overall height is 1.3. The grid is composed of four squares, each with a side length of 0.325. The spacing between the squares is 0.25. The drawing includes dimension lines and numerical values for the overall dimensions, individual square dimensions, and spacing dimensions.

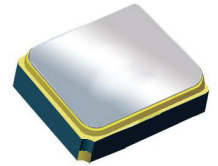
*All Dimensions are in mm

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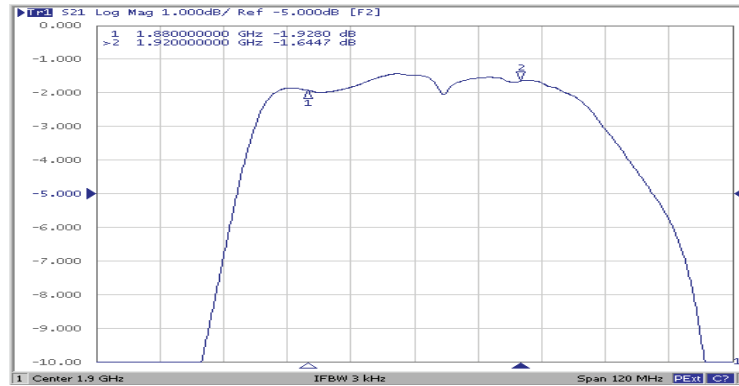
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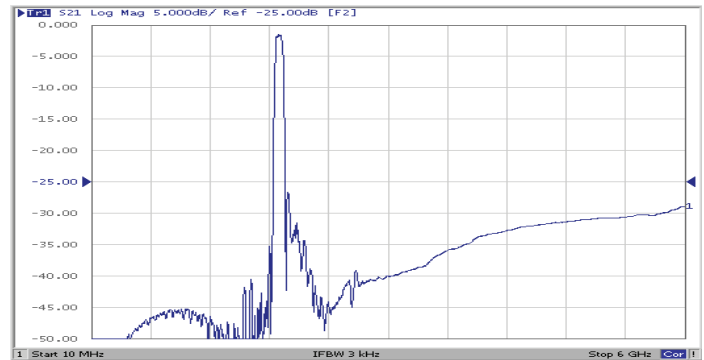
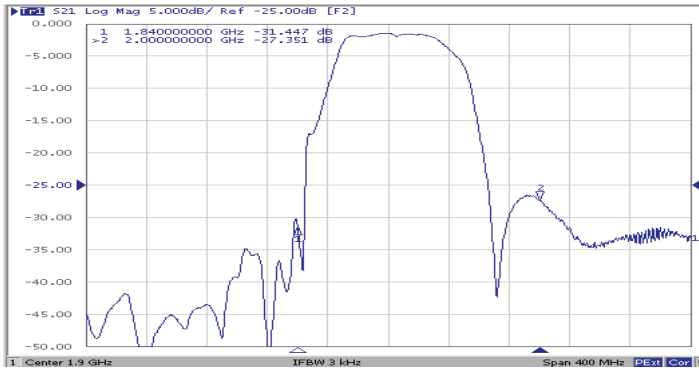
1.4 x 1.1 x 0.7 mm

FREQUENCY CHARACTERISTICS:

Filter Frequency Response (Narrowband)

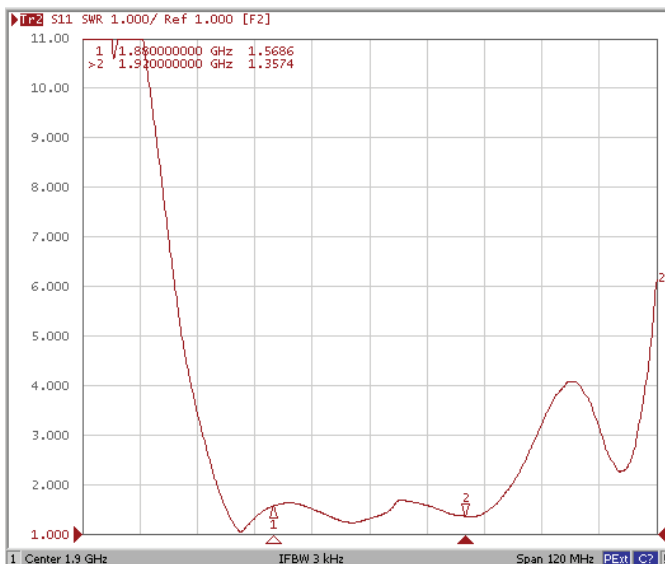


Filter Frequency Response (Wideband)

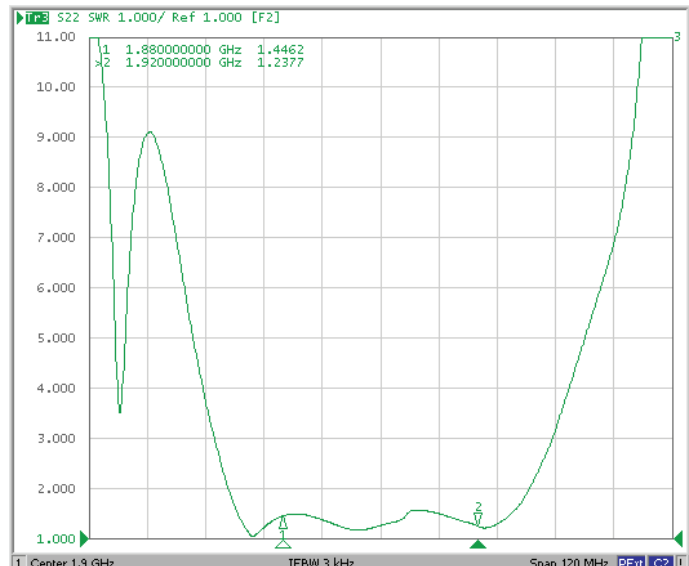


REFLECTION FUNCTIONS:

S11



S22



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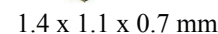
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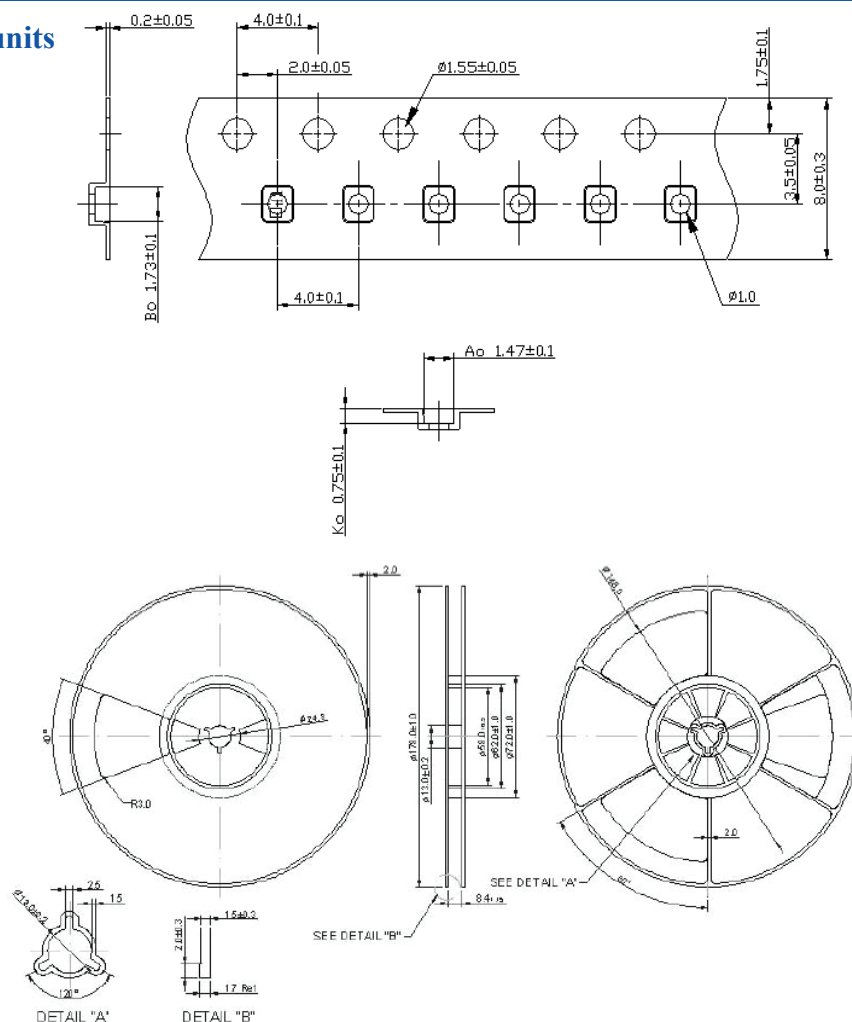
Pb

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The graph illustrates the temperature change over time during the heating of water. The temperature starts at 20°C at 0 seconds, rises sharply to about 145°C by 40 seconds, and then enters a plateau phase until approximately 100 seconds. After this, the temperature continues to rise, reaching a maximum of about 260°C at 220 seconds. Following this peak, the temperature decreases, returning to approximately 105°C by 360 seconds.

Time (Sec)	Temp (Deg C)
0	20
20	20
40	145
60	145
80	155
100	155
120	165
140	175
160	185
180	215
200	250
220	260
240	245
260	175
280	145
300	145
320	130
340	115
360	105

Reel Count : 7" = 3k units



Dimensions: mm

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