

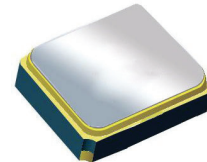
Surface Mount 1902.00MHz SAW Filter

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

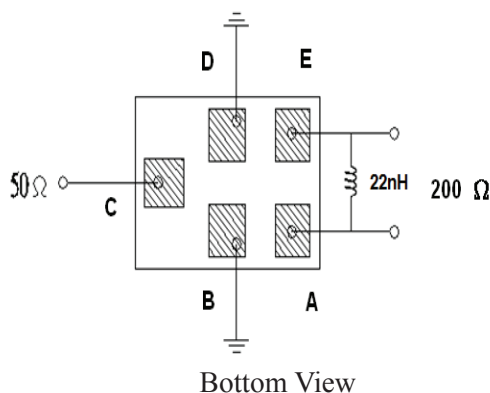
ELECTRICAL SPECIFICATIONS:

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 (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		Ω	
Terminating Load Impedance (Z_L) (Differential)		200 Ω // 22nH			

TEST CIRCUIT:



Bottom View

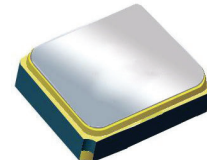


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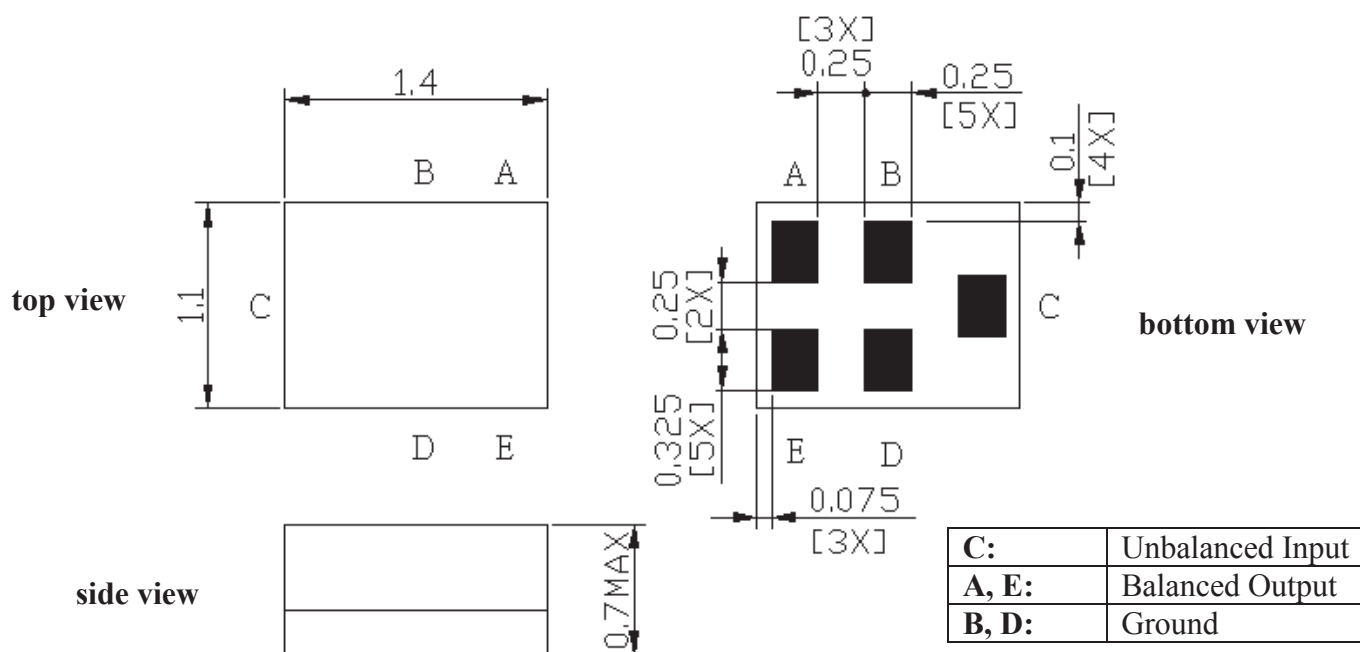


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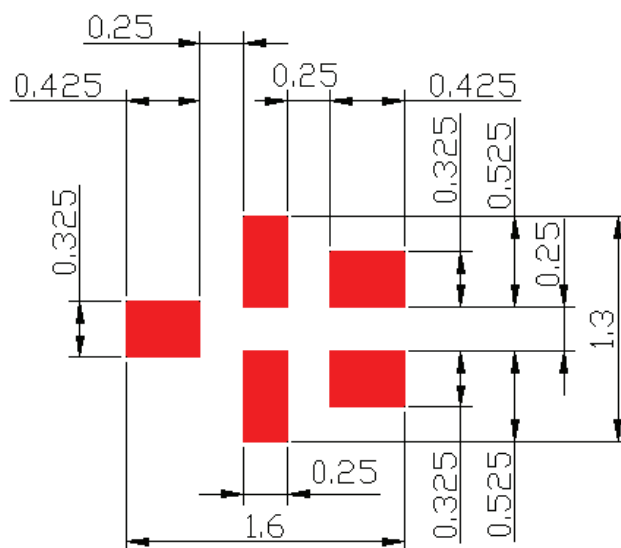
1.4 x 1.1 x 0.7 mm

OUTLINE DIMENSIONS:



Dimensions: mm

Recommended Land Pattern:



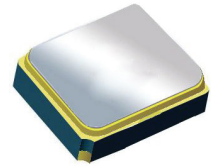
Dimensions: mm

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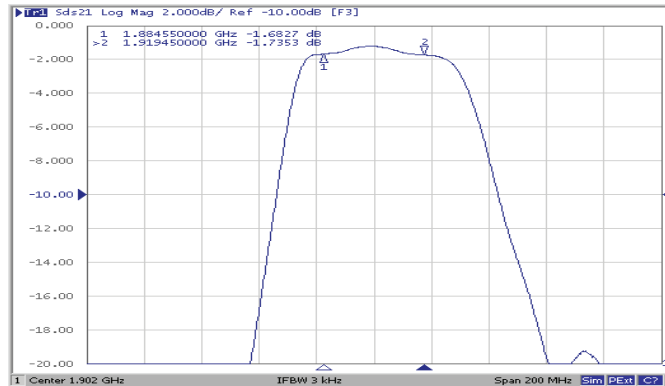
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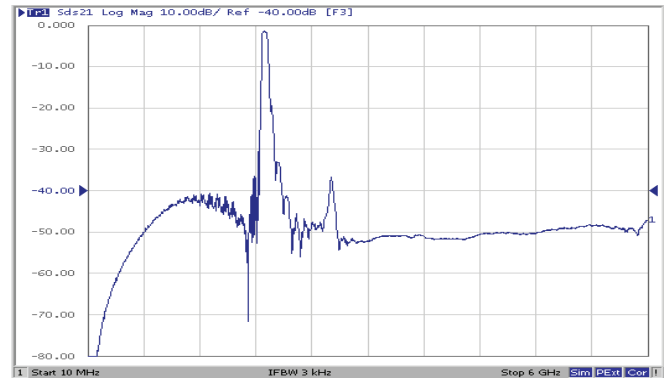
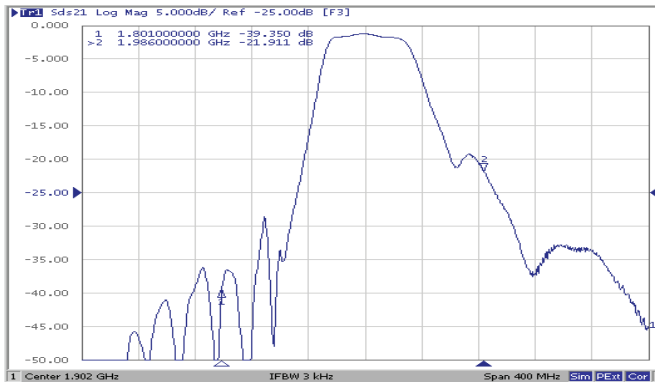
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FREQUENCY CHARACTERISTICS:

Filter Frequency Response (Narrowband)

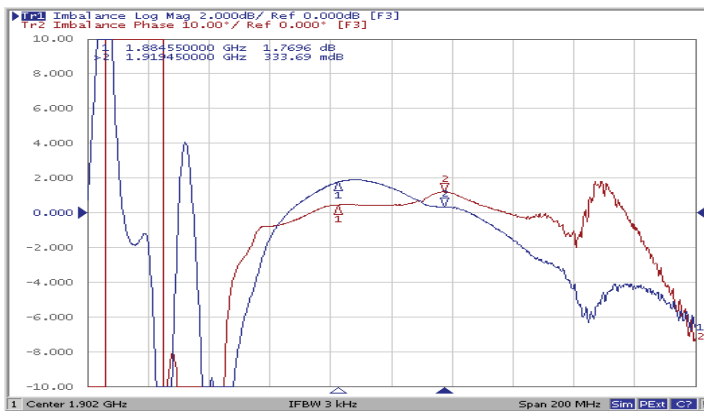


Filter Frequency Response (Wideband)

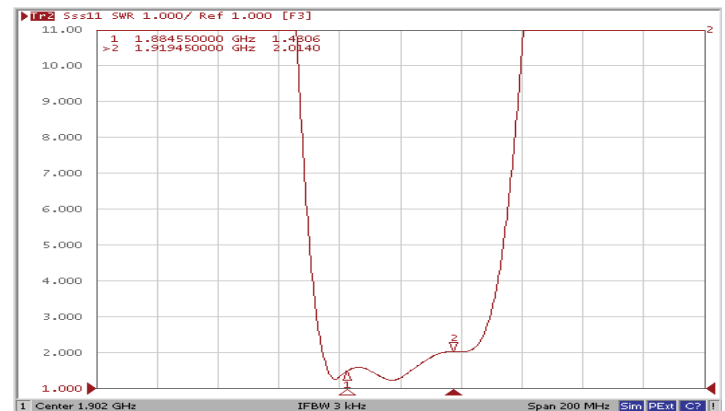


REFLECTION FUNCTIONS:

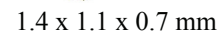
S11



S22



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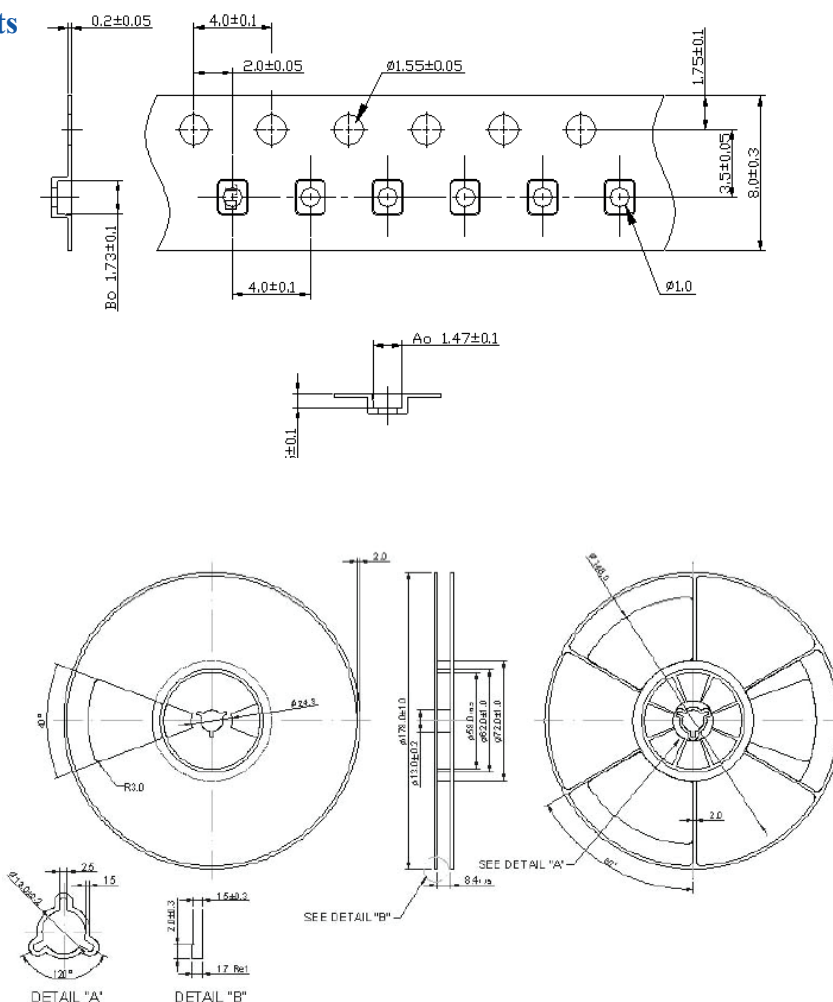


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The graph plots Temperature (Deg C) on the y-axis (ranging from 20 to 280 in increments of 20) against Time (Sec) on the x-axis (ranging from 0 to 360 in increments of 20). The curve shows a non-linear increase in temperature over time, with a significant plateau between 40 and 100 seconds, followed by a peak around 220 seconds and a subsequent decrease.

Time (Sec)	Temperature (Deg C)
0	20
20	20
40	145
60	145
80	155
100	155
120	170
140	175
160	195
180	220
200	250
220	260
240	245
260	175
280	145
300	145
320	130
340	115
360	105

Reel Count : 7" = 3k units



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