

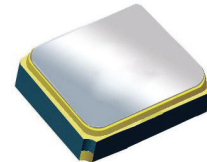
Surface Mount 1900.00MHz SAW Filter

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:

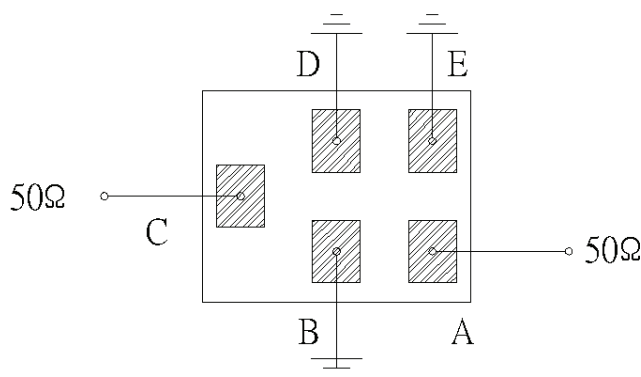
Maximum Ratings

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

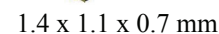
TEST CIRCUIT:



Bottom View



AFS14A40-1900.00-T3



RoHS
Compliant

The image displays three orthographic views of a mechanical part:

- Top View:** A rectangle with a width of 1.4 and a height of 1.1. It is divided into five regions labeled A, B, C, D, and E. Region C is a vertical strip on the left, while A, B, D, and E are horizontal strips on the right.
- Side View:** A rectangle with a height of 0.7 MAX, positioned below the top view.
- Bottom View:** A rectangle showing the underside of the part. It features five rectangular holes corresponding to regions A, B, C, D, and E. Dimensions for these holes are provided:
 - Holes A and B: Width 0.25 [3X], Depth 0.25 [5X].
 - Hole C: Width 0.1 [4X], Depth 0.25 [2X].
 - Holes D and E: Width 0.075 [3X], Depth 0.325 [5X].

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

Technical drawing of a 3D-printed part with dimensions. The part is a rectangular block with a total width of 1.6 and a total height of 1.3. It features a central vertical slot with a width of 0.25. The top surface has a horizontal slot with a width of 0.25 and a depth of 0.425. The bottom surface has a horizontal slot with a width of 0.25 and a depth of 0.425. The part is shown in a perspective view with a 30-degree angle.

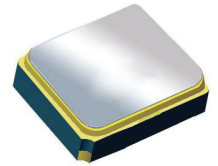
*All Dimensions are in mm

Surface Mount 1900.00MHz SAW Filter

AFS14A40-1900.00-T3



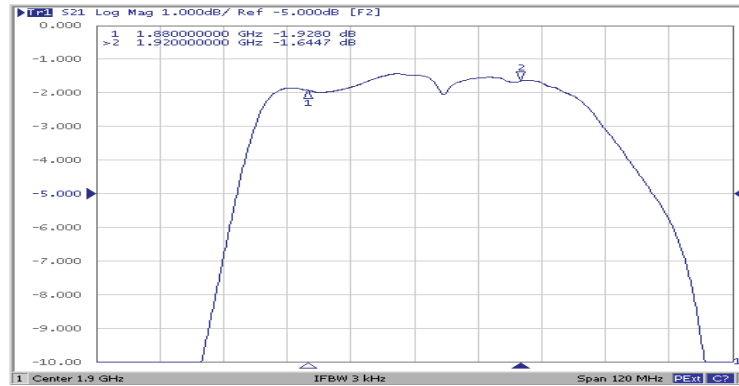
RoHS
Compliant



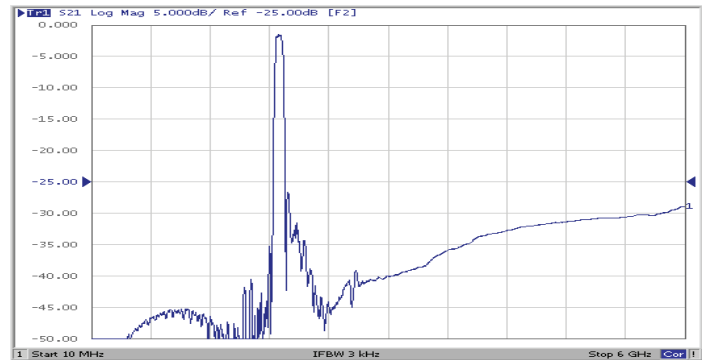
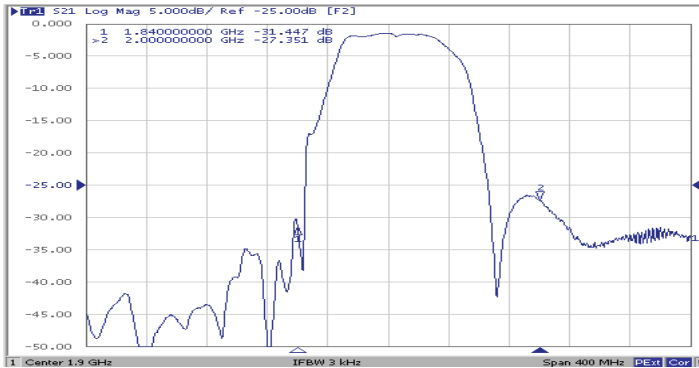
1.4 x 1.1 x 0.7 mm

FREQUENCY CHARACTERISTICS:

Filter Frequency Response (Narrowband)

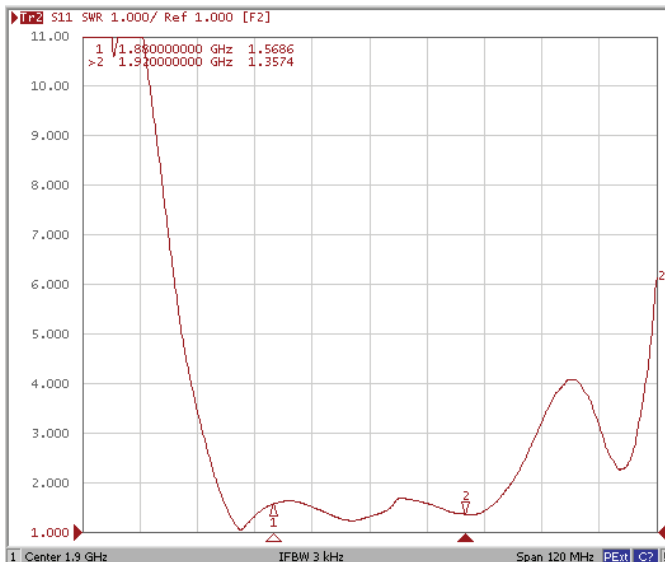


Filter Frequency Response (Wideband)

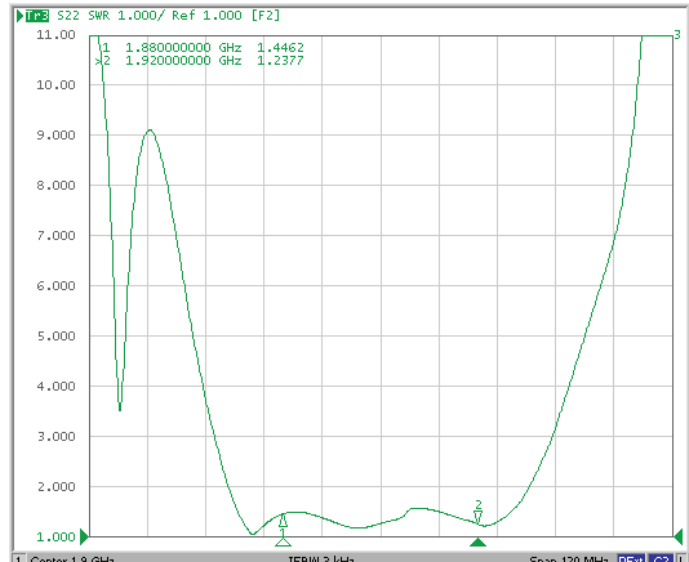


REFLECTION FUNCTIONS:

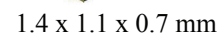
S11



S22



AFS14A40-1900.00-T3

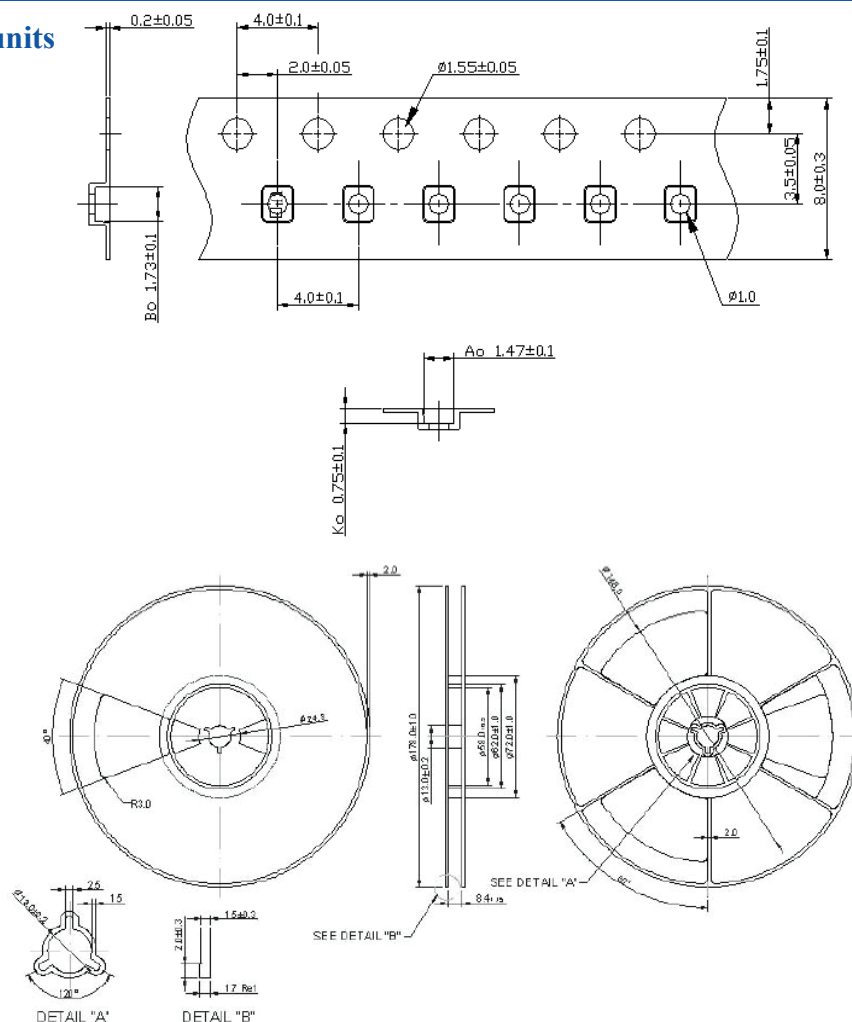


RoHS
Compliant

The graph displays the temperature profile over a 360-second period. The temperature starts at 25°C, remains relatively stable until 20 seconds, then rises sharply to 145°C by 40 seconds. It continues to rise with some fluctuations, reaching a peak of 260°C at 220 seconds. After the peak, the temperature decreases to 145°C by 260 seconds and then continues to decline to 105°C at the end of the 360-second test.

Time (Sec)	Temp (Deg C)
0	25
20	25
40	145
60	145
80	155
100	155
120	165
140	175
160	185
180	215
200	250
220	260
240	245
260	145
280	140
300	145
320	130
340	115
360	105

Reel Count : 7" = 3k units



Dimensions: mm

ABRACON IS
ISO 9001:2008
CERTIFIED



30332 Esperanza, Rancho Santa Margarita, California 92688
tel. 949-546-8000 | fax 949-546-8001 | www.abracon.com