

Surface Mount 1575.42MHz SAW Filter

AFS20A02-1575.42-T2



RoHS
Compliant



2.0 x 1.6 x 0.9 mm

FEATURES:

- 2.0 * 1.6 * 0.9 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:

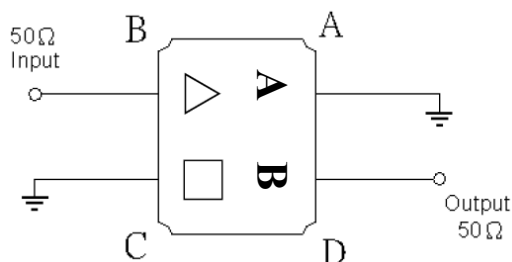
Maximum Ratings

Item	Value
Input Power Level	+10 dBm max.
DC Permissive Voltage	3V DC max.
Operating Temperature Range	-40°C to + 85°C
Storage Temperature Range	-55°C to + 95°C

Parameters	Minimum	Typical	Maximum	Units	Notes
Center Frequency (f_c)		1575.42		MHz	
Insertion Loss (IL)		1.15	1.60	dB	1574.42 ~ 1576.42MHz
3-dB Bandwidth		2		MHz	
Amplitude Ripple		0.1	0.5	dB	1574.42 ~ 1576.42MHz
Worst-Case Input / Output Return Loss		20	10	dB	1574.42 ~ 1576.42MHz
Stop-band Attenuation (Referenced to 0.0 dB)	31	33		dB	100MHz ~ 960MHz
	31	33			960MHz ~ 1460MHz
	22	26			1460MHz ~ 1513MHz
	22	28			1648MHz ~ 1710MHz
	25	32			1710MHz ~ 1990MHz
	25	30			1990MHz ~ 2300MHz
	29	31			2300MHz ~ 4000MHz
	20	24			4000MHz ~ 6000MHz
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:



Surface Mount 1575.42MHz SAW Filter

AFS20A02-1575.42-T2

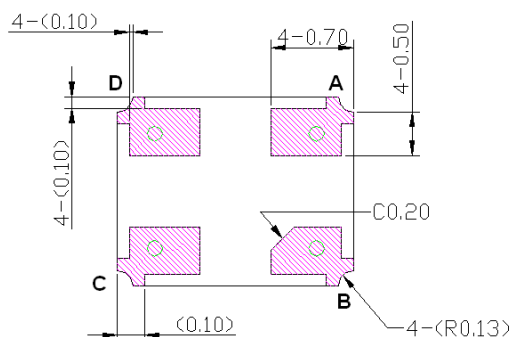
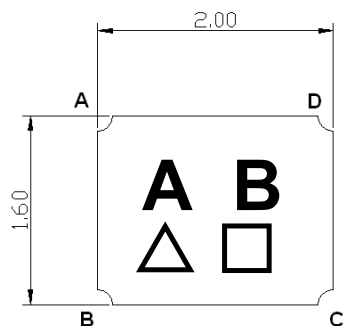


RoHS
Compliant

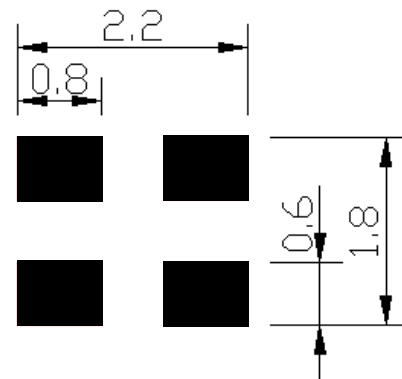


2.0 x 1.6 x 0.9 mm

OUTLINE DIMENSIONS:



Recommended Land Pattern:



#B:	Input
#D:	Output
#A,C:	Ground
Unit:	mm

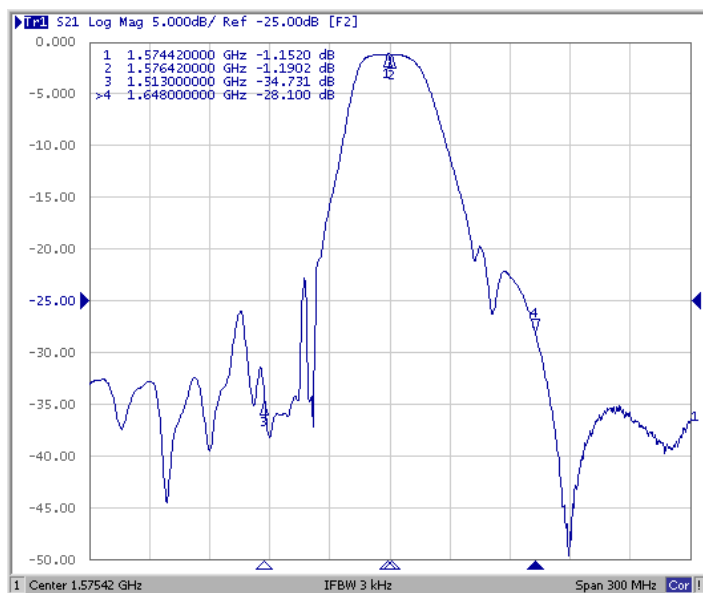
△ = Year (2=2012, for example)

□ = Week (A through Z → Week-01~ Week-26)
(a through z → Week-27~ Week-52)

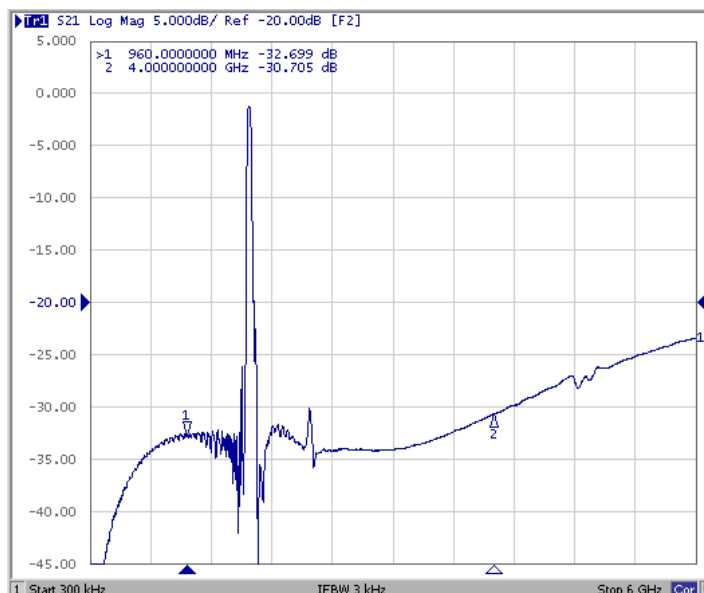
*All Dimensions are in mm

FREQUENCY CHARACTERISTICS:

Filter Frequency Response (Narrowband)



Filter Frequency Response (wideband)

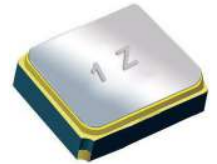


Surface Mount 1575.42MHz SAW Filter

AFS20A02-1575.42-T2



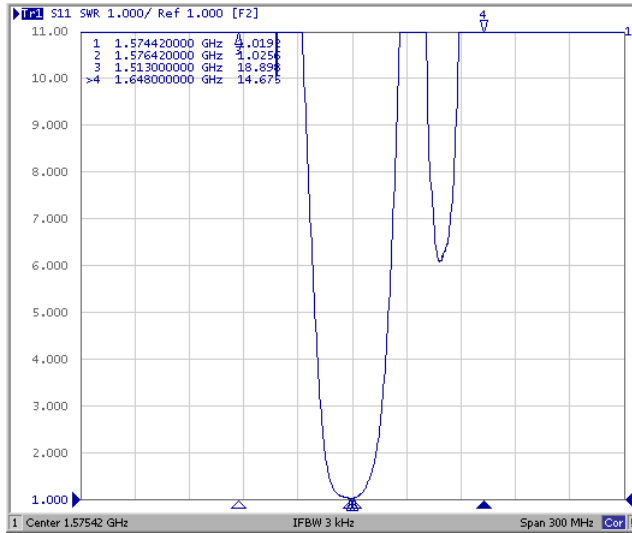
RoHS
Compliant



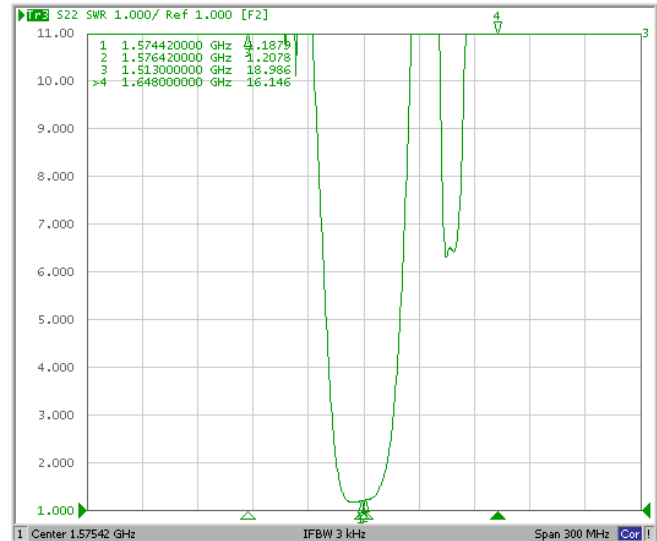
2.0 x 1.6 x 0.9 mm

REFLECTION FUNCTIONS:

S11

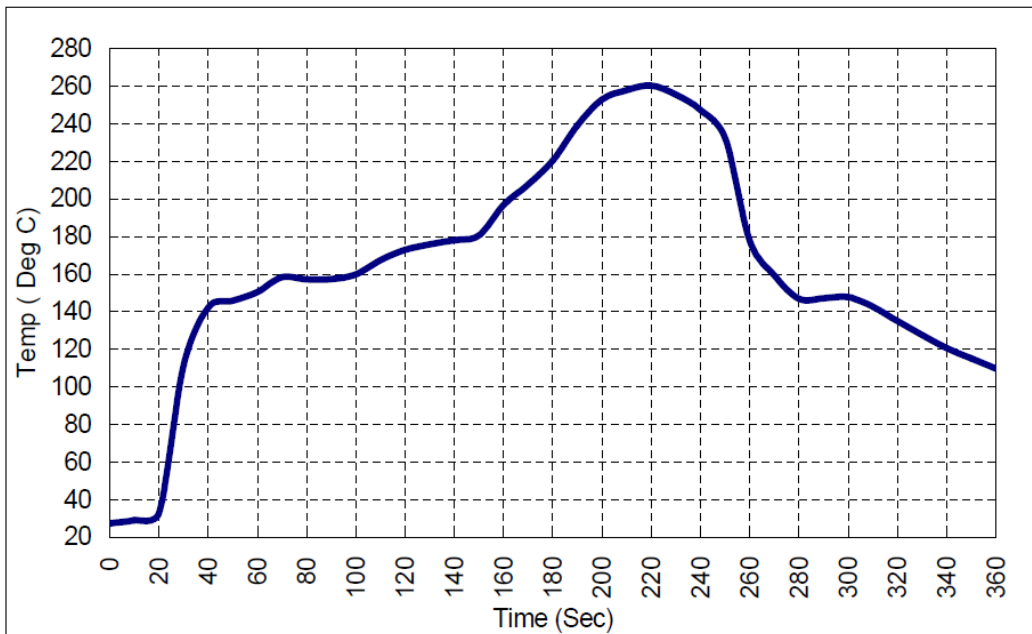


S22

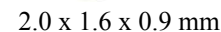


Note # 2: Detail S-parameter information (.s2p file) available upon request

REFLOW PROFILE:

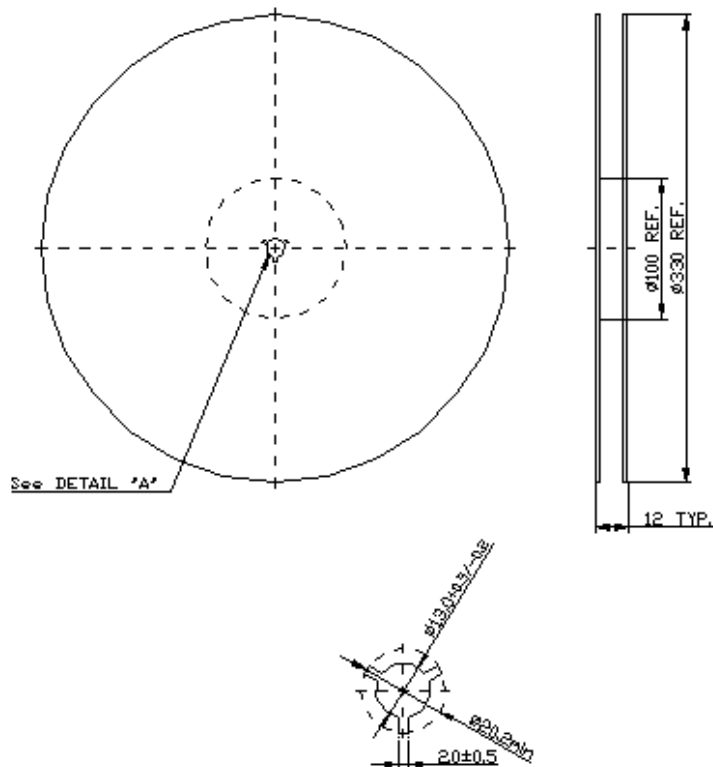


AFS20A02-1575.42-T2



RoHS
Compliant

Reel Dimensions



Technical drawing of a mechanical part, showing a top view and two cross-sectional views (BO and AO).

Top View Dimensions:

- Overall width: 8.0 ± 0.3
- Overall length: 17.75 ± 0.1
- Distance from left edge to first hole center: 2.0 ± 0.05
- Distance between hole centers: 4.0 ± 0.1
- Hole diameter: $\phi 1.55 \pm 0.05$
- Distance from right edge to last hole center: 3.5 ± 0.05
- Distance from centerline to feature center: 4.0 ± 0.1

Feature Callouts:

- Feature 1:** $\square \Delta M$ (Square feature with triangle symbol)
- Feature 2:** $\square \Delta M$ (Square feature with triangle symbol)
- Feature 3:** $\square \Delta M$ (Square feature with triangle symbol)
- Feature 4:** $\square \Delta M$ (Square feature with triangle symbol)
- Feature 5:** $\phi 0.5 \pm 0.05$ (Small circular hole)

Cross-Section BO:

- Overall width: 8.0 ± 0.3
- Distance from left edge to feature center: 2.30 ± 0.05
- Feature width: 0.25 ± 0.05
- Feature height: 0.5

Cross-Section AO:

- Overall width: 8.0 ± 0.3
- Distance from left edge to feature center: 1.90 ± 0.05
- Feature width: 0.90 ± 0.05

ABRACON IS
ISO 9001:2008
CERTIFIED



ABRACON CORPORATION

tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Revised: 02.01.12