

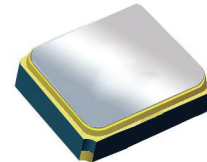
# Surface Mount 1575.42MHz SAW Filter

AFS20A42-1575.42-T3

Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable



RoHS  
Compliant



2.0 x 1.6 x 0.9 mm

## FEATURES:

- 2.0 x 1.6 x 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:

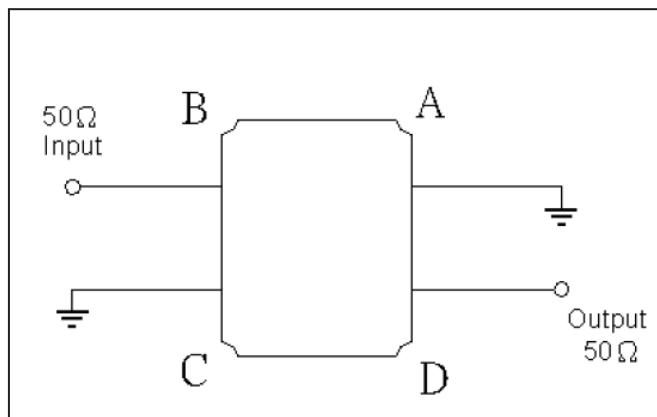
### Maximum Ratings

Item	Value
Input Power Level	+10 dBm max.
DC Permissive Voltage	7.5V DC max.
Operating Temperature Range	-40°C to + 85°C
Storage Temperature Range	-40°C to + 95°C

Parameters	Minimum	Typical	Maximum	Units	Notes
Center Frequency ( $f_c$ )		1575.42		MHz	
Insertion Loss (IL)		1.20	1.60	dB	1574.42 ~ 1576.42MHz
Effective Bandwidth		42		MHz	
Amplitude Ripple		0.1	0.8	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)	20	34		dB	DC ~ 1000MHz
	30	39			1625MHz ~ 1635MHz
	25	32			1800MHz ~ 3000MHz
Source Impedance ( $Z_S$ )		50		$\Omega$	See note # 1
Load Impedance ( $Z_L$ )		50		$\Omega$	See note # 1

**Note #1:** No matching network required for operation into 50 $\Omega$ 's

## TEST CIRCUIT:

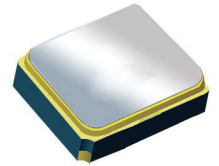


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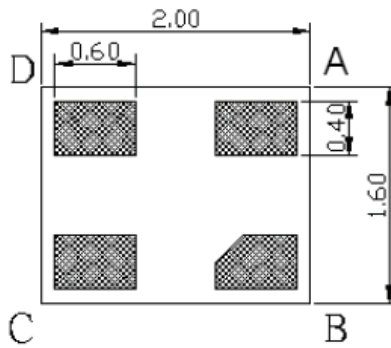
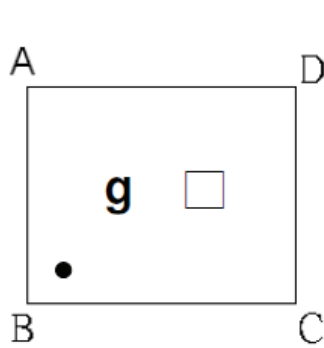


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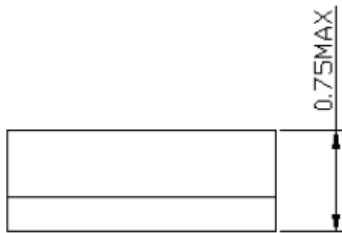
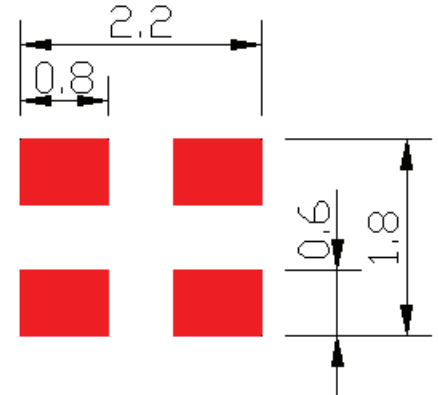


2.0 x 1.6 x 0.9 mm

## OUTLINE DIMENSIONS:



Recommended Land Pattern:

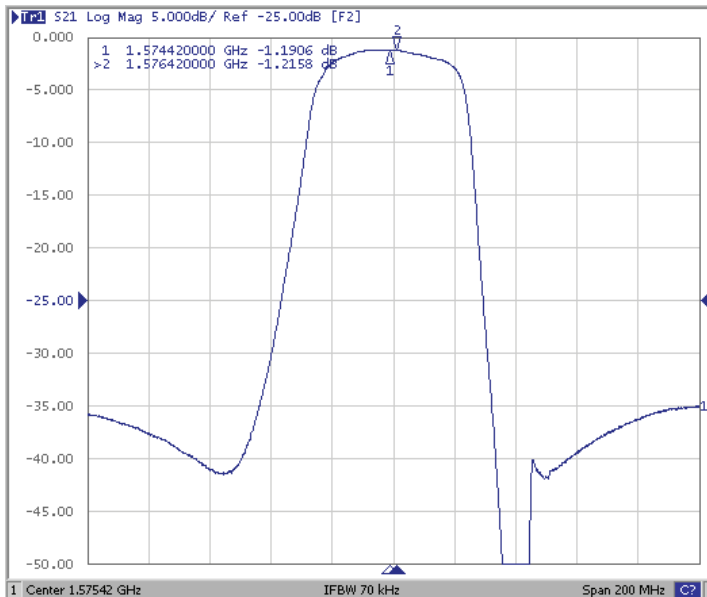


#B:	Input
#D:	Output
#A,C:	Ground
Unit:	mm

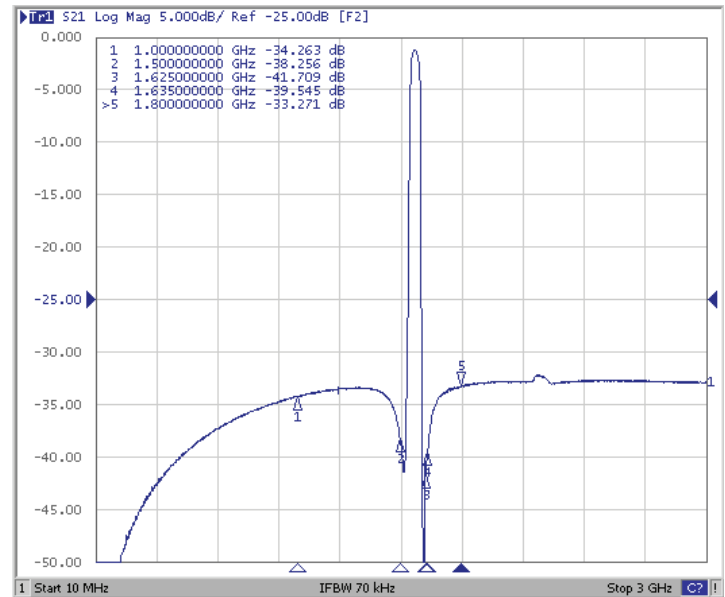
\*All Dimensions are in mm

## FREQUENCY CHARACTERISTICS:

### Filter Frequency Response (Narrowband)



### Filter Frequency Response (Wideband)

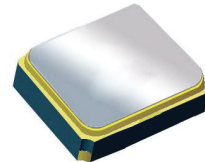


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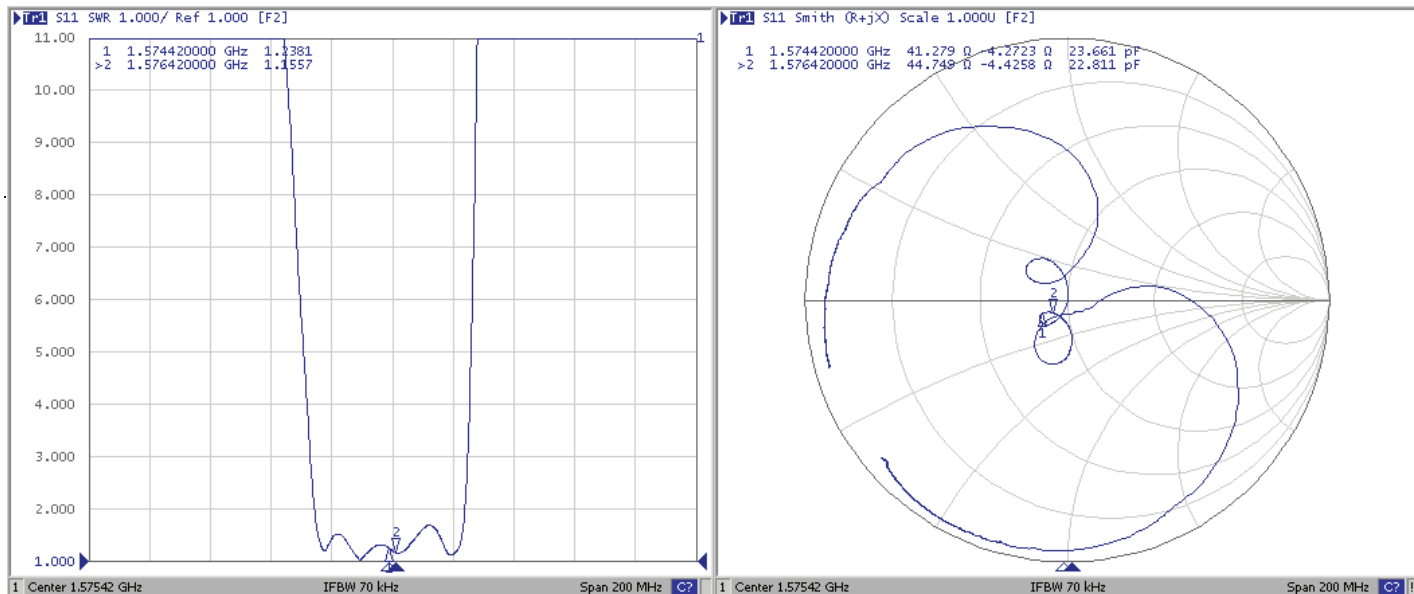
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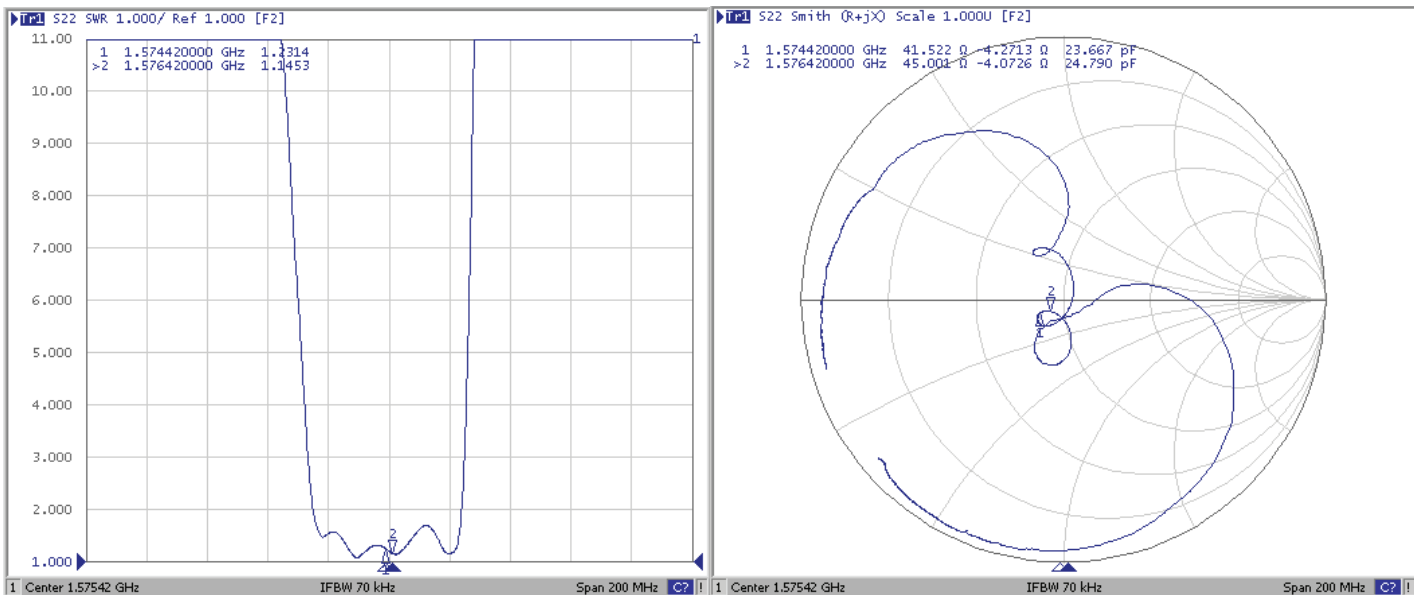
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## REFLECTION FUNCTIONS

### S11



### S22



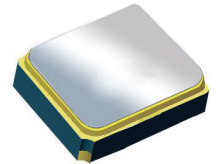
Note # 2: Detail S parameter information (.s2p file) available upon request

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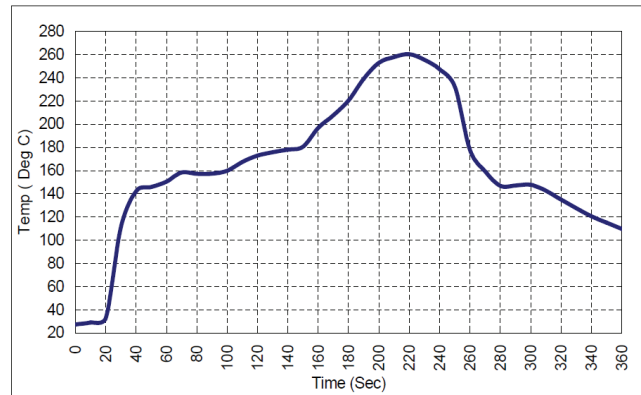


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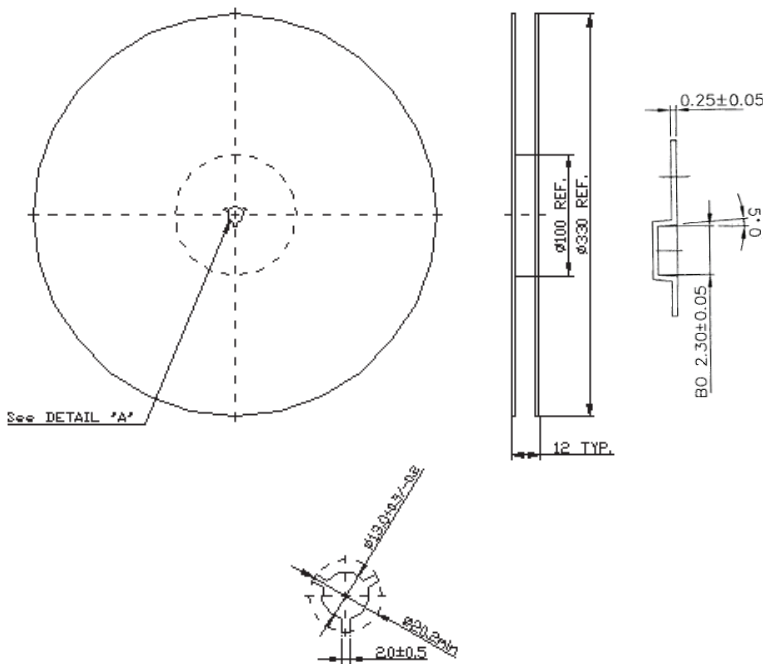
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## REFLOW PROFILE:

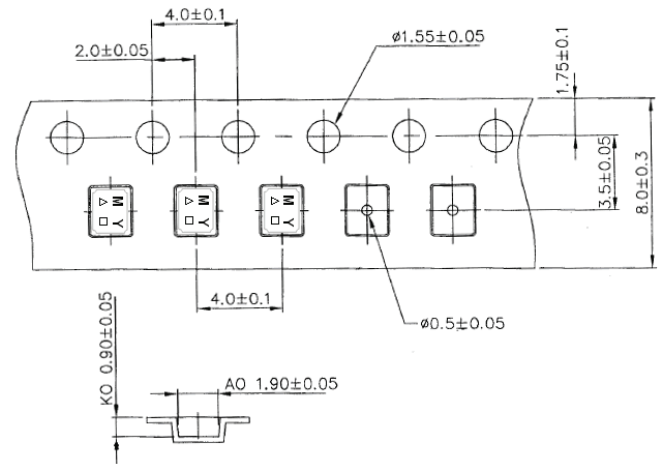


## PACKAGING: 3000 Units/Reel “-T2” parts (2k/reel) are no longer available effective 01/01/2013

Reel Dimensions



Tape Dimensions



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