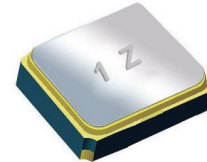


# Surface Mount 1575.42MHz SAW Filter

AFS20A53-1575.42-T2



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:

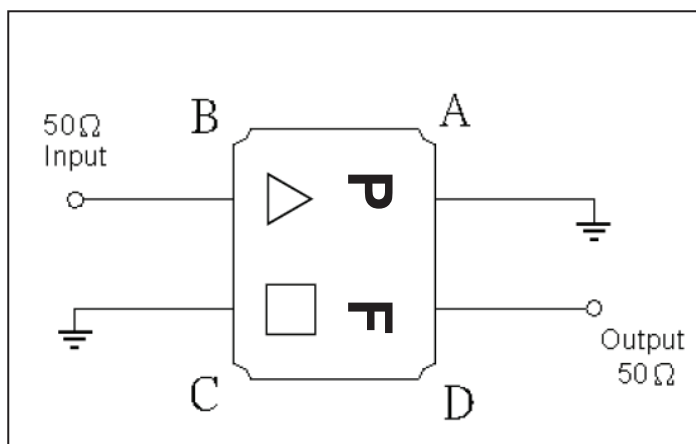
### Maximum Ratings

| Item                        | Value            |
|-----------------------------|------------------|
| Input Power Level           | +20 dBm max.     |
| DC Permissive Voltage       | 3.0V DC max.     |
| Operating Temperature Range | -55°C to + 105°C |
| Storage Temperature Range   | -55°C to + 105°C |

| Parameters                                      | Minimum | Typical | Maximum | Units    | Notes                |
|-------------------------------------------------|---------|---------|---------|----------|----------------------|
| Center Frequency ( $f_c$ )                      |         | 1575.42 |         | MHz      |                      |
| Insertion Loss (IL)                             |         | 2.1     | 3.0     | dB       | 1565.42 ~ 1585.42MHz |
| 3-dB Bandwidth                                  | 20      | 53      |         | MHz      |                      |
| Amplitude Ripple                                |         | 1.3     | 2.0     | dB       | 1565.42 ~ 1585.42MHz |
| Worst-Case Input / Output Return Loss           | 8       | 11      |         | dB       | 1565.42 ~ 1585.42MHz |
| Group Delay                                     |         | 4       | 26      |          | 1565.42 ~ 1585.42MHz |
| Stop-band Attenuation<br>(Referenced to 0.0 dB) | 15      | 19      |         | dB       | 300 ~ 1500MHz        |
|                                                 | 15      | 21      |         |          | 1650MHz ~ 1900MHz    |
|                                                 | 15      | 21      |         |          | 1900MHz ~ 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:

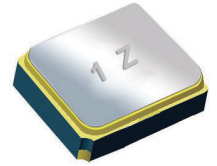


# Surface Mount 1575.42MHz SAW Filter

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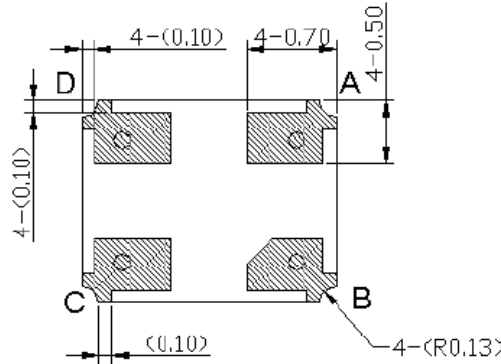
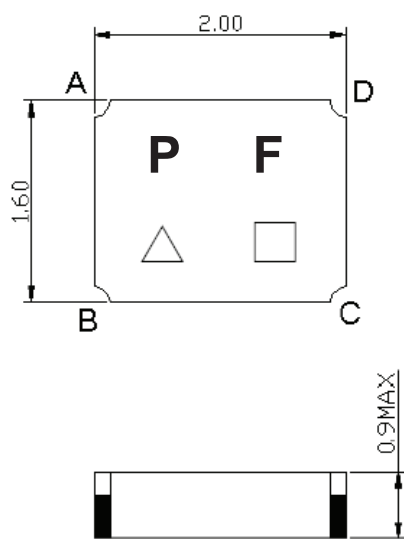


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2.0 x 1.6 x 0.9 mm

## OUTLINE DIMENSIONS:



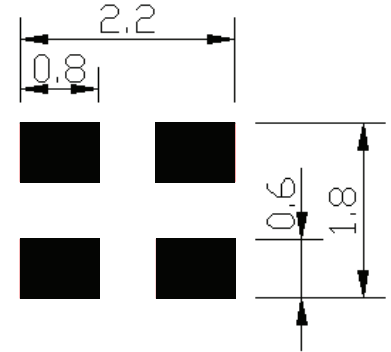
|       |        |
|-------|--------|
| #B:   | Input  |
| #D:   | Output |
| #A,C: | Ground |

\* All Dimensions are in mm

△ : Year Code (2011 = 1, 2012 = 2, ....etc)

□ : Date Code (Follow the table from planner each year)

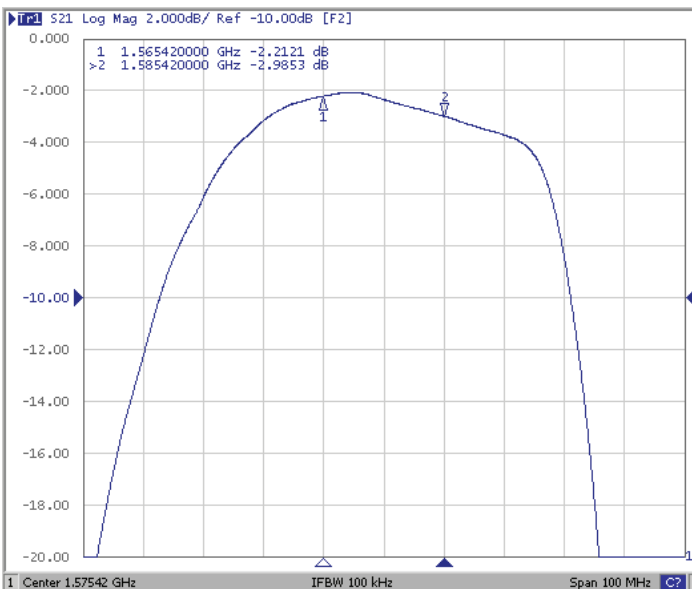
Recommended Land Pattern:



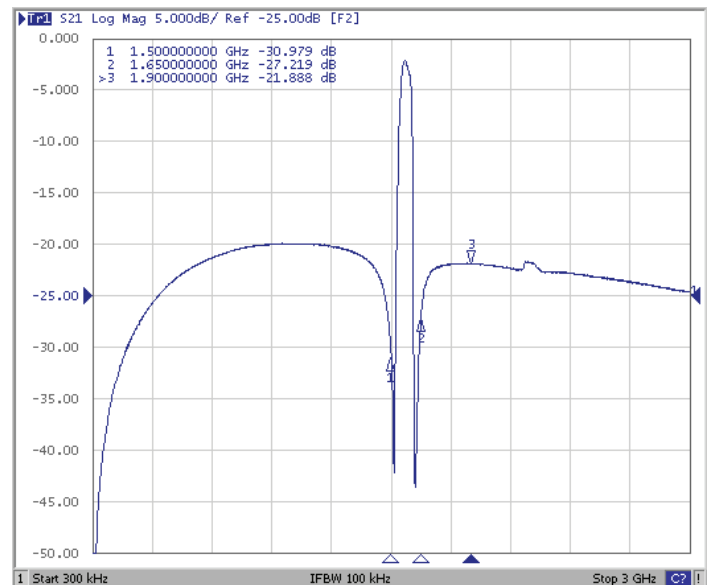
\*All Dimensions are in mm

## FREQUENCY CHARACTERISTICS:

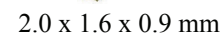
### Filter Frequency Response (Narrowband)



### Filter Frequency Response (Wideband)

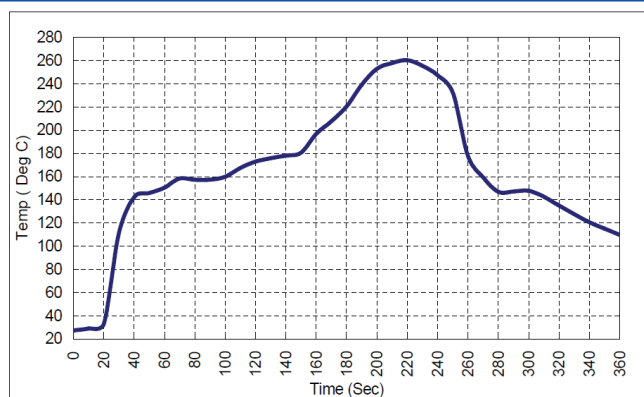


AFS20A53-1575.42-T2



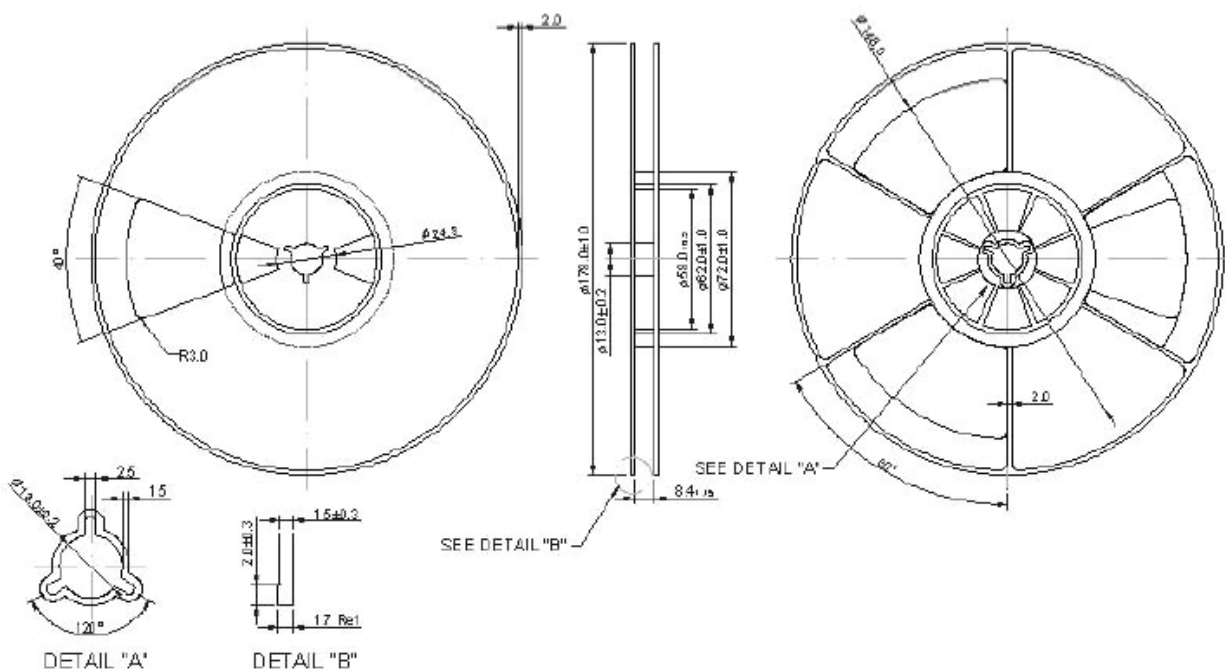
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➤ **REFLOW PROFILE:**



**PACKAGING:** 2000 Units/Reel

( Reel Count : 7''=2000 typ. ; 13''=10000 typ.)



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