Surface Mount 1588.66 MHz SAW Filter

**AFS14A34-1588.66-T3**

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

**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

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Power Level</td>
<td>+10 dBm max.</td>
</tr>
<tr>
<td>DC Permissive Voltage</td>
<td>3.0V DC max.</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-30ºC to + 85ºC</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>-40ºC to + 85ºC</td>
</tr>
</tbody>
</table>

### Parameters

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Frequency (f_c)</td>
<td>1588.66</td>
<td>MHz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insertion Loss (IL)</td>
<td>1.25</td>
<td>1.70</td>
<td>dB</td>
<td></td>
<td>1573.42~1577.42 MHz</td>
</tr>
<tr>
<td>Insertion Loss (IL)</td>
<td>1.7</td>
<td>2.5</td>
<td>dB</td>
<td></td>
<td>1571.42~1605.89 MHz</td>
</tr>
<tr>
<td>Effective Bandwidth</td>
<td>34</td>
<td>MHz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amplitude Ripple</td>
<td>0.25</td>
<td>0.8</td>
<td>dB</td>
<td></td>
<td>1573.42~1577.42 MHz</td>
</tr>
<tr>
<td>Amplitude Ripple</td>
<td>0.7</td>
<td>1.5</td>
<td>dB</td>
<td></td>
<td>1571.42~1605.89 MHz</td>
</tr>
<tr>
<td>Worst-Case Input / Output Return Loss</td>
<td>9.54</td>
<td>20.8</td>
<td>dB</td>
<td></td>
<td>1573.42~1577.42 MHz</td>
</tr>
<tr>
<td>Worst-Case Input / Output Return Loss</td>
<td>12.7</td>
<td>20.8</td>
<td>dB</td>
<td></td>
<td>1571.42~1605.89 MHz</td>
</tr>
<tr>
<td>Stop-band Attenuation (Referenced to 0.0 dB)</td>
<td>32</td>
<td>35</td>
<td>db</td>
<td>D.C.-824 MHz</td>
<td>824-849 MHz</td>
</tr>
<tr>
<td>Temperature Coefficient of frequency</td>
<td>-36 ppm/ºC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source Impedance (Z_s)</td>
<td>50 Ω</td>
<td></td>
<td></td>
<td></td>
<td>See note # 1</td>
</tr>
<tr>
<td>Load Impedance (Z_L)</td>
<td>50 Ω</td>
<td></td>
<td></td>
<td></td>
<td>See note # 1</td>
</tr>
</tbody>
</table>

**Note #1:** No matching network required for operation into 50Ω’s

**TEST CIRCUIT:**

![Test Circuit Diagram]

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Revised: 04.16.13

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ABRACON IS ISO 9001:2008 CERTIFIED
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AFS14A34-1588.66-T3

OUTLINE DIMENSIONS:

*All Dimensions are in mm

- **Recommended Land Pattern:**
  - Input (C)
  - Output (A)
  - Ground (B, D, E)

*All Dimensions are in mm*
Surface Mount 1588.66 MHz SAW Filter

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**FREQUENCY CHARACTERISTICS:**

Filter Frequency Response *(Narrowband)*

Filter Frequency Response *(Wideband)*

**REFLECTION FUNCTIONS:**

**S11**

**S22**

1.4 x 1.1 x 0.7 mm

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RoHS Compliant

1.4 x 1.1 x 0.7 mm

REFLOW PROFILE:

ATTENTION: Abracon Corporation’s products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon’s products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

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

Reel Count: 7" = 3k units

Dimensions: mm