280 MHz SAW Filter for WLAN
Model: TB0137A
Part No: MA05396

A. MAXIMUM RATING:
1. Input Power Level: 10 dBm
2. Operating Temperature: -10°C to 85°C
3. Storage Temperature: -40°C to 85°C

B. ELECTRICAL CHARACTERISTICS:

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Min.</th>
<th>Type.</th>
<th>Max.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency, Fc</td>
<td>MHz</td>
<td>-</td>
<td>280</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Insertion Loss, IL</td>
<td>dB</td>
<td>-</td>
<td>8.3</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Passband width, BW3</td>
<td>MHz</td>
<td>18.5</td>
<td>19.8</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Amplitude Ripple in Fc 9MHz</td>
<td>dB</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Group delay ripple in Fc 9MHz</td>
<td>nS</td>
<td>-</td>
<td>60</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Attenuation:(Reference level from Min IL)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fc -60 to –40MHz</td>
<td>dB</td>
<td>40</td>
<td>46</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Fc -40 to –22MHz</td>
<td>dB</td>
<td>37</td>
<td>39</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Fc -22 to –16MHz</td>
<td>dB</td>
<td>30</td>
<td>39</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Fc +16 to +22MHz</td>
<td>dB</td>
<td>25</td>
<td>33</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Fc +22 to +40MHz</td>
<td>dB</td>
<td>34</td>
<td>36</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Fc +40 to +60MHz</td>
<td>dB</td>
<td>40</td>
<td>45</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
C. MATCHING CONFIGURATION:

1. For Single End In, Single End Out

\[ \begin{align*}
&\text{L1} = 33\,\text{nH} \\
&\text{C1} = 15\,\text{pF} \\
&\text{L2} = 22\,\text{nH} \\
&\text{C2} = 12\,\text{pF}
\end{align*} \]

2. For Single End In, Balance Out

\[ \begin{align*}
&\text{C1} = 15\,\text{pF} \\
&\text{C2} = 75\,\text{pF} \\
&\text{C3} = 68\,\text{pF} \\
&\text{L1} = 33\,\text{nH} \\
&\text{L2} = 27\,\text{nH}
\end{align*} \]
D. FREQUENCY CHARACTERISTICS (For Single Un, Balance out Type):

Note 2: Insertion loss of balun transformers is around –0.7dB.
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E. OUTLINE DRAWING:

#3, 2 : Input, Input Ground or bal. Input
#7, 6 : Output, Output Ground or bal. Output
#4, 8 : Case ground
#1, 5 : Ground
□ : Date code
Unit: mm
F. PACKING:

1. REEL DIMENSION

![Reel Dimension Drawing]

2. TAPE DIMENSION

![Tape Dimension Drawing]

Ao=5.30 +/- 1 mm  
Bo=5.30+0.2/-0.0 mm  
Ko=2.0+/-.01 mm