A. MAXIMUM RATING:

1. Operating temperature range: -40°C to 85°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level: 10dBm
4. Maximum DC Voltage: 10V

Electrostatic Sensitive Device

B. CHARACTERISTICS:

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency, Fc</td>
<td>MHz</td>
<td>-</td>
<td>71</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss IL</td>
<td>dB</td>
<td>-</td>
<td>7.2</td>
<td>8.0</td>
</tr>
<tr>
<td>1dB Passband width</td>
<td>kHz</td>
<td>250</td>
<td>330</td>
<td>-</td>
</tr>
<tr>
<td>Amplitude Ripple Fc ±125kHz</td>
<td>P-P dB</td>
<td>-</td>
<td>0.9</td>
<td>2.0</td>
</tr>
<tr>
<td>Group delay at Fc</td>
<td>usec</td>
<td>1.9</td>
<td>2.34</td>
<td>2.4</td>
</tr>
<tr>
<td>Group delay ripple Fc ±125kHz</td>
<td>nsec</td>
<td>-</td>
<td>550</td>
<td>1500</td>
</tr>
<tr>
<td>Relative Attenuation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fc ±300kHz ~ Fc ±500kHz</td>
<td>dB</td>
<td>15</td>
<td>18</td>
<td>-</td>
</tr>
<tr>
<td>Fc ±500kHz ~ Fc ±700kHz</td>
<td>dB</td>
<td>30</td>
<td>34</td>
<td>-</td>
</tr>
<tr>
<td>Fc ±700kHz ~ Fc ±3MHz</td>
<td>dB</td>
<td>35</td>
<td>39</td>
<td>-</td>
</tr>
<tr>
<td>Fc ±800kHz</td>
<td>dB</td>
<td>41</td>
<td>46</td>
<td>-</td>
</tr>
<tr>
<td>Fc ±3MHz ~ Fc ±35MHz</td>
<td></td>
<td>43</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Temperature Coefficient</td>
<td>ppm/°C2</td>
<td>-0.036</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source Impedance (Balanced)</td>
<td>Ohm</td>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Load Impedance (Balanced)</td>
<td>Ohm</td>
<td>200</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The Insertion loss has included loss of balun
C. FREQUENCY CHARACTERISTICS:

1. S21 Response (Span 5MHz)

![Graph 1](attachment:image1.png)

Fig. 1. Horizontal: 0.5MHz / Div, Vertical: 10dB / Div

2. S21 Response (Span 1MHz)

![Graph 2](attachment:image2.png)

Fig. 2. Horizontal: 0.05MHz / Div, Vertical: 1dB / Div, Vertical: 1μS / Div
D. MEASUREMENT CIRCUIT:

D1.1 Measurement Circuit 1:

- L1 = 297nH, C1 = C2 = 9pF, L2 = 306nH, C3 = C4 = 8pF
- ZIN = ZOUT = 50 ohm

D1.2 Measurement Circuit 2:

- L1 = L2 = 165nH, L3 = 68pF, L4 = L5 = 165nH, L6 = 82pF
- ZIN = 50 ohm, ZOUT = 50 ohm

D1.3 Measurement Circuit 3:

- L1 = 220nH, C1 = 9pF, L2 = 220nH, C2 = 9pF
- ZIN = ZOUT = 50 ohm

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SAW Filter 71.0MHz
Model: TB0630A
Part No: MP01948
Rev No: 3
SAW Filter 71.0MHz  
Part No: MP01948  
Model: TB0630A  
Rev No: 3

E. OUTLINE DRAWING:

K: RF input  
A: RF balance input or to be ground  
E: RF output  
F: RF balance output or to be ground  
B, C, D, G, H, I: Ground

F. PCB FOOTPRINT:
G. PACKING:

1. Reel Dimension

2. Tape Dimension

Unit: mm
H. RECOMMENDED REFLOW PROFILE:

![Graph showing temperature profile over time](image-url)