SAW Filter 150.0 MHz

Model: TB1004A
Part No: MP04686
Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Operating Temperature: -40°C ~ +85°C
2. Storage Temperature: -40°C ~ +85°C
3. Input power: 10dBm

B. CHARACTERISTICS:

Ambient Temperature: 25°C

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min.</td>
<td>Typ.</td>
</tr>
<tr>
<td>Center frequency Fc MHz</td>
<td>-</td>
<td>150.0</td>
</tr>
<tr>
<td>Minimum Insertion loss IL dB</td>
<td>-</td>
<td>15.5</td>
</tr>
<tr>
<td>1dB BW MHz</td>
<td>50</td>
<td>52.5</td>
</tr>
<tr>
<td>Return Loss</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>VSWR</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>Phase linearity deg</td>
<td>4.2</td>
<td>6</td>
</tr>
<tr>
<td>Rejection at Fc ± 35MHz</td>
<td>40</td>
<td>44</td>
</tr>
<tr>
<td>Rejection at Fc ± 75MHz</td>
<td>45</td>
<td>52</td>
</tr>
<tr>
<td>Rejection at Fc ± 100MHz</td>
<td>45</td>
<td>53</td>
</tr>
<tr>
<td>Rejection from DC ~ 50MHz</td>
<td>50</td>
<td>53</td>
</tr>
<tr>
<td>Rejection from 250 ~ 590MHz</td>
<td>35</td>
<td>38</td>
</tr>
<tr>
<td>Substrate Material</td>
<td>YZ-LiNbO3</td>
<td></td>
</tr>
<tr>
<td>Temp Coefficient ppm/K</td>
<td>-</td>
<td>-94</td>
</tr>
</tbody>
</table>

Matching:
1. The input of the filter will be matched to 50 ohm
2. The output of the filter will be matched to 50 ohm
C. FREQUENCY CHARACTERISTICS:

1. S21 Response: (span: 200MHz)

![S21 Response Graph]

2. Pass-band Response: (span: 70MHz)

![Pass-band Response Graph]
3. S11 Smith Chart: (span: 200MHz)

![S11 Smith Chart](image1)

4. S22 Smith Chart (span: 200MHz)

![S22 Smith Chart](image2)
5. S11 & S22 Smith Chart (span: 80MHz)

D. MEASUREMENT CIRCUIT:

\[ Z_{\text{IN}} = Z_{\text{OUT}} = 50\,\text{ohm} \]

\[ L_1 = 132\,\text{nH}; L_2 = 132\,\text{nH} \]
SAW Filter 150.0MHz
Part No: MP04686

E. OUTLINE DRAWING:

C: RF input
G: RF output
H, D: Case Ground
Pin A, B, E, F: Ground
Unit: mm

F. PCB FOOTPRINT:
G. PACKING:

1. Reel Dimension

2. Tape Dimension

UNIT: mm
H. RECOMMENDED REFLOW PROFILE:

![Graph showing the recommended reflow profile for the SAW Filter 150.0MHz Model TB1004A Part No MP04686 Rev No 1. The graph plots temperature against time, indicating the optimal reflow process parameters.]