374MHz IF SAW Filter
Part No: MA03771

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>374</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Insertion Loss, IL</td>
<td>dB</td>
<td>-</td>
<td>8.9</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Passband width, BW3</td>
<td>MHz</td>
<td>17</td>
<td>23</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Amplitude Ripple in Fc 7MHz, AR</td>
<td>dB</td>
<td>-</td>
<td>0.8</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Group delay ripple in Fc 7MHz, GDT</td>
<td>nS</td>
<td>-</td>
<td>67</td>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>Triple transit suppression</td>
<td>dB</td>
<td>30</td>
<td>38</td>
<td>-</td>
<td>1</td>
</tr>
</tbody>
</table>

Attenuation:(Reference level from Min IL)

<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>Fc -100 to –33MHz</td>
<td>dB</td>
<td>45</td>
<td>49</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Fc -33to –22MHz</td>
<td>dB</td>
<td>40</td>
<td>51</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Fc -22 to –16.5MHz</td>
<td>dB</td>
<td>30</td>
<td>45</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Fc +16.5 to +22MHz</td>
<td>dB</td>
<td>30</td>
<td>39</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Fc +22 to +43 MHz</td>
<td>dB</td>
<td>35</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fc +43 to +100MHz</td>
<td>dB</td>
<td>40</td>
<td>45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1. The standard definitions is in JIS C 6703
C. FREQUENCY CHARACTERISTICS:

1) Wide-band of S21:

![Wide-band of S21 graph]

2) Amplitude ripple:

![Amplitude ripple graph]
(3) Group delay:

(4) Triple transit suppression:
(5) Smith chart of $S_{11}$:

![Smith chart of $S_{11}$]

(6) Smith chart of $S_{22}$:

![Smith chart of $S_{22}$]
374MHz IF SAW Filter
Model: TB374EA
Part No: MA03771
REV. NO.: 4

D. OUTLINE DRAWING:

Pin configuration:
I  input
J  input or input ground
C  output
D  output or output ground
A,G,E,F,K,L  case ground
B,H  to be ground
E. MEASUREMENT CIRCUIT:

50Ω unbalanced:

$$L_1 = 18\,\text{nH}$$  \quad $$L_2 = 15\,\text{nH}$$

200Ω balanced:

(1)  \quad $$C_1 = C_2 = 20\,\text{pF}$$  \quad $$C_3 = C_4 = 20\,\text{pF}$$  \quad $$L_1 = 22\,\text{NH}$$  \quad $$L_2 = 22\,\text{NH}$$

(2)  \quad $$L_1 = L_2 = 22\,\text{NH}$$  \quad $$L_3 = L_4 = 22\,\text{NH}$$  \quad $$C_1 = 5\,\text{PF}$$  \quad $$C_2 = 4\,\text{PF}$$
F. PACKING:
1. REEL DIMENSION

2. TAPE DIMENSION