SAW Filter 479.50MHz (Two channel)  
Model: TE0103A  
Part No: MA07470

A. MAXIMUM RATING:
1. AC Voltage Vac: 5V
2. Operating Temperature: -25°C to 85°C
3. Storage Temperature: -40°C to 85°C

B. ELECTRICAL CHARACTERISTICS OF CHANNEL 1:

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Min.</th>
<th>Type.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency, Fc</td>
<td>MHz</td>
<td>-</td>
<td>479.5</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss, IL at Fc</td>
<td>dB</td>
<td>-</td>
<td>21.8</td>
<td>23.5</td>
</tr>
<tr>
<td>Passband width, BW3</td>
<td>MHz</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>Amplitude Ripple in Fc±8.5MHz</td>
<td>dB</td>
<td>-</td>
<td>0.6</td>
<td>1.0</td>
</tr>
<tr>
<td>Group delay ripple in Fc±13.5MHz</td>
<td>nS</td>
<td>-</td>
<td>18</td>
<td>28</td>
</tr>
</tbody>
</table>

Attenuation:(Reference level from IL)
- Fc −13.5MHz: dB - 3.2, 4.5
- Fc +13.5MHz: dB - 2.4, 4.5
- Fc -50 to −27.5MHz: dB 36, 43
- Fc +27.5 to +50MHz: dB 34, 42

C. ELECTRICAL CHARACTERISTICS OF CHANNEL 2:

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Min.</th>
<th>Type.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency, Fc</td>
<td>MHz</td>
<td>-</td>
<td>479.5</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss, IL at Fc</td>
<td>dB</td>
<td>-</td>
<td>21.4</td>
<td>23</td>
</tr>
<tr>
<td>Passband width, BW3</td>
<td>MHz</td>
<td>17</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Amplitude Ripple in Fc±3.5MHz</td>
<td>dB</td>
<td>-</td>
<td>0.4</td>
<td>0.8</td>
</tr>
<tr>
<td>Group delay ripple in Fc±9MHz</td>
<td>nS</td>
<td>-</td>
<td>12</td>
<td>22</td>
</tr>
</tbody>
</table>

Attenuation:(Reference level from IL)
- Fc −9MHz: dB - 3.5, 4.5
- Fc +9MHz: dB - 2.5, 4.5
- Fc -50 to −22MHz: dB 36, 44
- Fc +21 to +50MHz: dB 34, 42

Temperature coefficient of frequency ppm/°C
- Channel 1: -86
- Channel 2: -86
D. FREQUENCY CHARACTERISTICS OF CHANNEL 1:

(1) Frequency Response:

![Frequency Response Graph]

(2) Amplitude ripple & Group Delay:

![Amplitude ripple & Group Delay Graph]
E. FREQUENCY CHARACTERISTICS OF CHANNEL 2:

(1) Frequency Response:

![Frequency Response Graph]

(2) Amplitude ripple & Group Delay:

![Amplitude ripple & Group Delay Graph]
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Part No: MA07470  
REV. NO.: 1

F. MEASUREMENT CIRCUIT:

G. OUTLINE DRAWING: