DESCRIPTION

- 44 MHz SAW bandpass filter with 5.4 MHz bandwidth for digital RF signal processing.
- 24.6 x 9 mm 10 pad ceramic LCC.
- RoHS compliant.

TYPICAL PERFORMANCE

![Graph showing S11 and S22 performance](image-url)

**S11 (24-64 MHz)**

**S22 (24-64 MHz)**
SPECIFICATION

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Frequency, $F_c$</td>
<td>-</td>
<td>44</td>
<td>-</td>
<td>MHz</td>
</tr>
<tr>
<td>Insertion Loss at $F_c$</td>
<td>-</td>
<td>22.4</td>
<td>25</td>
<td>dB</td>
</tr>
<tr>
<td>Passband Ripple (41.3 to 46.7 MHz)</td>
<td>-</td>
<td>0.7</td>
<td>1</td>
<td>dB p-v</td>
</tr>
<tr>
<td>Response at 41.25 and 46.75 MHz</td>
<td>-</td>
<td>1</td>
<td>1.5</td>
<td>dB</td>
</tr>
<tr>
<td>Group Delay Variation $^{2,3}$</td>
<td>-</td>
<td>35</td>
<td>45</td>
<td>ns p-v</td>
</tr>
<tr>
<td>Absolute Delay</td>
<td>-</td>
<td>2.35</td>
<td>-</td>
<td>us</td>
</tr>
<tr>
<td>Attenuation at 38 MHz $^{2}$</td>
<td>40</td>
<td>46</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Attenuation at 39.75 MHz $^{2}$</td>
<td>45</td>
<td>47</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Attenuation at 40.25 MHz $^{2}$</td>
<td>35</td>
<td>44</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Attenuation at 40.45 MHz $^{2}$</td>
<td>10</td>
<td>38</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Attenuation at 47.45 MHz $^{2}$</td>
<td>15</td>
<td>42</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Attenuation at 47.6 MHz $^{2}$</td>
<td>30</td>
<td>44</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Attenuation at 48.7 MHz $^{2}$</td>
<td>40</td>
<td>48</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Attenuation at 50.0 MHz $^{2}$</td>
<td>40</td>
<td>48</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Attenuation at 51.75 MHz $^{2}$</td>
<td>45</td>
<td>55</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Rejection (20 to 38 MHz) $^{2}$</td>
<td>35</td>
<td>44</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Rejection (52 to 70 MHz) $^{2}$</td>
<td>35</td>
<td>48</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Source and Load Impedance</td>
<td>75</td>
<td></td>
<td>ohms</td>
<td></td>
</tr>
<tr>
<td>Temperature Coefficient of Frequency</td>
<td>-86</td>
<td></td>
<td>ppm/°C</td>
<td></td>
</tr>
</tbody>
</table>

Notes: 1. Reference frequency. Computed as mean of the 3 dB frequencies.
2. All dB values are referenced to the insertion loss value.
3. A 2% smoothing factor (100 KHz) from 41.3 to 46.7 MHz shall be allowed.

MAXIMUM RATINGS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temperature Range</td>
<td>-40</td>
<td>85</td>
<td>°C</td>
</tr>
<tr>
<td>Operating temperature Range</td>
<td>15</td>
<td>65</td>
<td>°C</td>
</tr>
</tbody>
</table>

MATCHING CIRCUIT

Note: External matching components are not required.
PACKAGE OUTLINE

SMI
BA03190S
Δ YYDDDD

24.6
9.0
2.30 MAX
1.02
2.31
1.905

Package Material:
Body: Al₂O₃ ceramic
Lid: Kovar, Ni plated
Terminations: Au plating 1 µm min,
over a 1.3-8.9 µm Ni plating

SUGGESTED FOOTPRINT

3.38
1.91
1.17
8.79
11.03

Units: mm
Tolerances are ±0.15 mm except where indicated.

Pad Configuration:
Input: 10
Input return: 1
Output: 5
Output return: 6
Ground: 2,3,4,7,8,9