DESCRIPTION
One of DLI’s surface mountable catalog bandpass filters designed for the 5G band. This filter utilizes DLI’s low loss temperature stable materials which offer small size and minimal performance variation over temperature.

The catalog BPF’s are offered in a variety of frequency bands, which offers a drop in solution with highly repeatable performance.

FEATURES
- Small Size
- Fully Shielded Component
- Solder Surface Mount Package
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55˚C to +125˚C
- Characteristic Impedance: 50Ω

PACKAGING AND ORDERING INFORMATION:
To request tape and reel packaging, please order part number B280MC1S-T

SPECIFICATIONS*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency Range (GHz)</th>
<th>Min</th>
<th>Typ.</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss (dB)</td>
<td>26.5 - 29.5</td>
<td>—</td>
<td>3.5</td>
<td>4.0</td>
</tr>
<tr>
<td>Return Loss (dB)</td>
<td>10</td>
<td>15</td>
<td>—</td>
<td></td>
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<tr>
<td>Low Side Rejection (dB)</td>
<td>DC - 6.0</td>
<td>50</td>
<td>55</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>6.0 - 20.0</td>
<td>40</td>
<td>45</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>20.0 - 25.0</td>
<td>30</td>
<td>30</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>25.0 - 25.5</td>
<td>20</td>
<td>20</td>
<td>—</td>
</tr>
<tr>
<td>High Side Rejection (dB)</td>
<td>30.5 - 31.5</td>
<td>25.0</td>
<td>27.5</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>31.50 - 37.0</td>
<td>35</td>
<td>40</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>37.0 - 41.0</td>
<td>30</td>
<td>35</td>
<td>—</td>
</tr>
<tr>
<td>Size (L x W x H)</td>
<td>0.216 x 0.090 x 0.064 in</td>
<td>5.5 x 2.3 x 1.8 mm</td>
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</tr>
</tbody>
</table>

*Electrical specifications based on typical probed performance at room temperature. Insertion loss shall vary up to ±0.5 dB over temperature.
28.0 GHz Surface Mount Bandpass Filter
B280MC1S

RF Measured Performance

[Graph showing RF performance with frequency on the x-axis and magnitude (dB) on the y-axis.]
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Physical Dimensions

Units = inches (in)

NOTES:
1. MOUNTING SURFACE METALLIZATION:
   3–6 μINCHES Au OVER
   50 μINCHES MIN. Ni OVER
   100 μINCHES MIN. Au OVER
   300 Å MIN. TiW
2. COVER MATERIAL:
   ANNEALED, 430 STAINLESS STEEL
3. COVER METALLIZATION:
   5–15 μINCHES Au OVER
   50–100 μINCHES Ni
4. ASSEMBLY WILL BE LASER MARKED AS SHOWN.
5. MAXIMUM ASSEMBLY PROCESS TEMPERATURE: 250°C

50Ω trace dimensions are application specific.
Ensure adequate grounding beneath the part.
PCB Pattern Recommendations

Unit: mil

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www.knowlescapacitors.com
2777 Route 20 East, Cazenovia, NY 13035| Ph.: (315)655-8710 | KCCSales@knowles.com

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