3.75GHz Band Pass Filter, EIA 0603, SMD, Low Loss and High Attenuation

P/N 3750BP14A0900

Detail Specification: 5/21/2020

**General Specifications**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>3750BP14A0900</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Frequency (MHz)</td>
<td>3300 - 4200</td>
</tr>
<tr>
<td>Insertion loss (dB)</td>
<td>2.3 typ (2.7 max @ 85°C, 2.8 max @ 105°C)</td>
</tr>
<tr>
<td>Return Loss (dB)</td>
<td>10 min.</td>
</tr>
<tr>
<td>Power Capacity (W)</td>
<td>3 max. (CW)</td>
</tr>
</tbody>
</table>

**Attenuation (dB)**

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Attenuation (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC - 2170 MHz</td>
<td>44 typ. (40 min.)</td>
</tr>
<tr>
<td>2300 - 2700 MHz</td>
<td>41 typ. (30 min.)</td>
</tr>
<tr>
<td>5500 - 5850 MHz</td>
<td>22 typ. (20 min.)</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +105°C</td>
</tr>
<tr>
<td>Reel Quantity (pcs/reel)</td>
<td>4,000</td>
</tr>
</tbody>
</table>

**Recommended Storage Conditions for unused T&R product**

+5 to +35°C
Humidity 45 - 75%RH
18 months max.

You can download measured s-parameters of this component at: [https://www.johansontechnology.com/band-pass-filters](https://www.johansontechnology.com/band-pass-filters)

**Part Number Explanation**

<table>
<thead>
<tr>
<th>P/N Suffix</th>
<th>Packaging Style</th>
<th>Evaluation Board</th>
<th>E.g.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bulk</td>
<td>50Ω SMA</td>
<td>3750BP14A0900S</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>T &amp; R</td>
<td>SMA</td>
<td>3750BP14A0900T</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>EB1SMA</td>
<td></td>
<td>3750BP14A0900-EB1SMA</td>
<td></td>
</tr>
</tbody>
</table>

**Mechanical Dimensions**

- **L**: 0.063 ± 0.006 to 1.60 ± 0.15
- **W**: 0.031 ± 0.006 to 0.80 ± 0.15
- **T**: 0.016 max. to 0.40 max.
- **a**: 0.010 ± 0.002 to 0.25 ± 0.05
- **b**: 0.016 ± 0.004 to 0.40 ± 0.10
- **c**: 0.009 ± 0.004 to 0.23 ± 0.10
- **d**: 0.022 ± 0.004 to 0.55 ± 0.10
- **e**: 0.008 ± 0.002 to 0.21 ± 0.05
- **f**: 0.008 ± 0.002 to 0.20 ± 0.05

**Terminal Configuration**

- **No.**
  - 1: INPUT / OUTPUT
  - 2: GND
  - 3: INPUT / OUTPUT
  - 4: GND

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Mounting Pad Dimensions

Transmission line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

Measurement Schematic

Would you like the layout? Send us a message at: https://www.johansontechnology.com/ask-a-question
Typical Electrical Characteristics (T=25°C)

Insertion Loss & Return loss

Do you need the S-parameter file of the above? Send us a message at:
https://www.johansontechnology.com/ask-a-question
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Page 4 of 4

Application Notes, Layout Files, and more
https://www.johansontechnology.com/band-pass-filters

Packaging information
https://www.johansontechnology.com/tape-reel-packaging

Soldering Information
https://www.johansontechnology.com/ipcsoldering-profile

MSL Info
https://www.johansontechnology.com/msl-rating

Recommended Storage Condition and Max Shelf Life
https://www.johansontechnology.com/recommended-storage-conditions

RoHS Compliance
https://www.johansontechnology.com/technical-notes/rohs-compliance

Antenna layout and tuning techniques
https://www.johansontechnology.com/tuning.html

Antenna layout review, tuning, and characterization services
https://www.johansontechnology.com/ipc-antenna-services