ATC 0603 LPF Series LGA Thin Film Low Pass Filter

Features:
- 0603 LGA Package
- Frequency Range: DC to 5650 MHz
- Characteristic Impedance: 50Ω
- Low Insertion Loss: 0.35 dB typ.
- Power Rating: 3 W
- Operating Temp: -40˚C to +85˚C
- Pb Free / RoHS Compliant

ATC’s 0603 LPF Series Thin Film LGA Low Pass Filters offer superb high frequency performance in a low profile LGA style EIA package. The LPF Series is offered in a broad range of selected cut-off frequencies making them well suited for wireless frequency applications. Their superb performance provides an excellent drop-in solution for the most critical filter applications. The LPF Series exhibits excellent passband insertion loss, stop-band rejection and matching characteristics.

The LPF 0603 filter Series is fully tested to meet or exceed electrical, environmental and mechanical specifications. They are supplied in tape and reel making them fully compatible with high speed automated pick-and-place manufacturing.

Typical Characteristics

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Pass Band</th>
<th>Insertion Loss (S21)</th>
<th>Return Loss (S11)</th>
<th>Attenuation @ 2f0 (dB)</th>
<th>Attenuation @ 3f0 (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPF06030915LT</td>
<td>DC to 915</td>
<td>0.35 typ. 0.5 max.</td>
<td>1.4</td>
<td>25</td>
<td>14</td>
</tr>
<tr>
<td>LPF06030960LT</td>
<td>DC to 960</td>
<td>0.35 typ. 0.5 max.</td>
<td>1.4</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>LPF06031785LT</td>
<td>DC to 1785</td>
<td>0.3 typ. 0.5 max.</td>
<td>1.4</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>LPF06031880LT</td>
<td>DC to 1880</td>
<td>0.3 typ. 0.5 max.</td>
<td>1.4</td>
<td>27</td>
<td>15</td>
</tr>
<tr>
<td>LPF06031920LT</td>
<td>DC to 1920</td>
<td>0.3 typ. 0.5 max.</td>
<td>1.4</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>LPF06031980LT</td>
<td>DC to 1980</td>
<td>0.3 typ. 0.5 max.</td>
<td>1.4</td>
<td>27</td>
<td>15</td>
</tr>
<tr>
<td>LPF06032170LT</td>
<td>DC to 2170</td>
<td>0.3 typ. 0.5 max.</td>
<td>1.4</td>
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<td>17</td>
</tr>
<tr>
<td>LPF06032472LT</td>
<td>DC to 2472</td>
<td>0.3 typ. 0.5 max.</td>
<td>1.4</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>LPF06033600LT</td>
<td>DC to 3600</td>
<td>-0.3 typ. -0.5 max.</td>
<td>1.4</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>LPF06035350LT</td>
<td>DC to 5350</td>
<td>-0.2 typ. -0.5 max.</td>
<td>1.4</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>LPF06035650LT</td>
<td>DC to 5650</td>
<td>-0.2 typ. -0.5 max.</td>
<td>1.4</td>
<td>30</td>
<td>20</td>
</tr>
</tbody>
</table>

Applications:
- Wireless Communications
- Wireless LAN’s
- Public Safety Radio (P25)
- LTE
- ISM
- Global Navigation Satellite Systems (GNSS)
ATC 0603 LPF SERIES LGA THIN FILM LOW PASS FILTER

For additional information and catalogs contact your ATC representative or call direct at +1-631-622-4700. Consult factory for additional performance data.

ATC accepts orders for our parts using designations with or without the "ATC" prefix. Both methods of defining the part number are equivalent, i.e., part numbers referenced with the "ATC" prefix are interchangeable to parts referenced without the "ATC" prefix. Customers are free to use either in specifying or procuring parts from American Technical Ceramics.

ATC Part Number Code

<table>
<thead>
<tr>
<th>LPF</th>
<th>0603</th>
<th>1980</th>
<th>L</th>
<th>T</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Pass Filter</td>
<td>Case Size: 4 digits</td>
<td>Passband: 4 digits</td>
<td>Style: LGA</td>
<td>Packaging</td>
<td>Termination</td>
</tr>
</tbody>
</table>

The above part number refers to a Low Pass Filter, (EIA case size 0603), Passband DC to 1980 MHz, Land Grid Array (LGA) Style, Tin Termination

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Dimensions

<table>
<thead>
<tr>
<th>Size (EIA)</th>
<th>Length (L)</th>
<th>Width (W)</th>
<th>Thickness (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0603</td>
<td>0.063 ±0.004</td>
<td>0.033 ±0.004</td>
<td>0.024 ±0.004</td>
</tr>
<tr>
<td></td>
<td>(1.6 ±0.1)</td>
<td>(0.84 ±0.1)</td>
<td>(0.60 ±0.1)</td>
</tr>
</tbody>
</table>

inches (mm)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.010 ±0.002</td>
<td>0.008 ±0.002</td>
<td>0.002 ±0.002</td>
</tr>
<tr>
<td>(0.25 ±0.05)</td>
<td>(0.20 ±0.05)</td>
<td>(0.05 ±0.05)</td>
</tr>
</tbody>
</table>

Mechanical Configurations

Terminals and Orientation in Tape (Top View)

Recommended Pad Layout

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2
LPF06030915L
Passband 0 to 915 MHz

LPF06030960L
Passband 0 to 960 MHz
LPF06033600L
Passband 0 to 3600 MHz

LPF06035350L
Passband 0 to 5350 MHz
LPF06035650L
Passband 0 to 5650 MHz

Magnitude (dB)

S11

S21

Frequency (GHz)

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