ATC HPF Series Multilayer Organic High Pass Filters

Features:
• Sharp Cut-off Response
• Low Insertion Loss
• Excellent Stopband Rejection
• Characteristic Impedance: 50Ω
• Operating Temperature: -55˚C to +85˚C
• Low Profile LGA SMT
• Pb Free / RoHS Compliant

ATC’s HPF Multilayer Organic (MLO) Series High Pass Filters offer superb performance in a low profile package. This filter Series offers excellent stopband rejection and low passband insertion loss. They are designed to exhibit a 50 ohm input and output characteristic impedance thereby eliminating the need for elaborate matching networks. Their superb performance makes them well suited for the most demanding RF and microwave frequency applications. The HPF MLO filter Series are supplied in tape and reel making them fully compatible with high speed automated pick-and-place manufacturing.

Applications:
• Wireless Communications (Cellular and PCS)
• Wireless LAN’s
• Public Safety Radio (P25)
• LTE
• ISM
• Global Navigation Satellite Systems (GNSS)
# MLO Filter Configurations

<table>
<thead>
<tr>
<th>ATC Part Number</th>
<th>Passband (MHz)</th>
<th>Power (W)</th>
<th>Footprint</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPF4016MO0740L1550HLG</td>
<td>740 to 1550</td>
<td>2</td>
<td>4016</td>
</tr>
<tr>
<td>HPF3116MO0850L1990HLG</td>
<td>850 to 1990</td>
<td>2</td>
<td>3116</td>
</tr>
<tr>
<td>HPF3116MO0930L1660HLG</td>
<td>930 to 1660</td>
<td>2</td>
<td>3116</td>
</tr>
<tr>
<td>HPF3116MO0950L2050HLG</td>
<td>950 to 2050</td>
<td>2</td>
<td>3116</td>
</tr>
<tr>
<td>HPF3116MO1440L2940HLG</td>
<td>1440 to 2940</td>
<td>2</td>
<td>3116</td>
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<tr>
<td>HPF3116MO1550L2890HLG</td>
<td>1500 to 2890</td>
<td>2</td>
<td>3116</td>
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<tr>
<td>HPF3116MO1540L3190HLG</td>
<td>1540 to 3190</td>
<td>2</td>
<td>3116</td>
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<tr>
<td>HPF3116MO1550L3130HLG</td>
<td>1550 to 3130</td>
<td>2</td>
<td>3116</td>
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<tr>
<td>HPF3116MO1840L2830HLG</td>
<td>1840 to 2830</td>
<td>2</td>
<td>3116</td>
</tr>
</tbody>
</table>

Note: Add Packaging Code to end of Part Number.

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### ATC Part Number Code

- **HPF**: High Pass Filter
- **4016**: Size
- **MO**: Multilayer Organic
- **0740L**: Passband (740 to 1550 MHz)
- **1550H**: Passband (1550 to 2850 MHz)
- **L**: Land Grid Array
- **G**: Gold Termination
- **W**: Waffle Pack

The above part number refers to a High Pass Filter, (size 4016), Multilayer Organic, Passband 740 MHz to 1550 MHz, Land Grid Array, Gold Termination, Waffle Pack.

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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.

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

Consult factory for additional performance data.
Mechanical Configurations
Footprint 3116

Suggested Pad Layout
Mechanical Configurations
Footprint 4016

Suggested Pad Layout
ATC HPF SERIES MULTILAYER ORGANIC HIGH PASS FILTERS

HPF4016MO0740L1550HLGW
Passband 740 to 1550 MHz

HPF3116MO0850L1990HLGW
Passband 850 to 1990 MHz

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ATC HPF SERIES MULTILAYER ORGANIC HIGH PASS FILTERS

HPF3116MO0930L1660HLGW
Passband 930 to 1660 MHz

Magnitude (dB)

Frequency (GHz)

0.0   0.5   1.0   1.5   2.0   2.5   3.0   3.5   4.0   4.5   5.0   5.5   6.0   6.5   7.0   7.5   8.0   8.5   9.0

S11
S21

HPF3116MO0950L2050HLGW
Passband 950 to 2050 MHz

Magnitude (dB)

Frequency (GHz)

0.0   0.5   1.0   1.5   2.0   2.5   3.0   3.5   4.0   4.5   5.0   5.5   6.0   6.5   7.0   7.5   8.0   8.5   9.0

S11
S21
ATC HPF SERIES MULTILAYER ORGANIC HIGH PASS FILTERS

HPF3116MO1540L3190HLGW
Passband 1540 to 3190 MHz

HPF3116MO1550L3130HLGW
Passband 1550 to 3130 MHz

Magnitude (dB)
Frequency (GHz)

S11
S21

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HPF3116MO1840L2830HLGW
Passband 1840 to 2830 MHz

Magnitude (dB)

Frequency (GHz)

S11
S21