MAFL-009478-CD0AC0

CATV Diplex Filter
50 - 870 / 950 - 1550 / 2000 - 3000 MHz

Features
- 75 Ω
- Surface Mount Technology
- RoHS* Compliant

Description
The MAFL-009478-CD0AC0 is a surface mount diplex filter unit designed for MoCA applications.

Electrical Specifications: $T_A = 25^\circ C$, $Z_0 = 75 \, \Omega$

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Conditions Frequency (MHz)</th>
<th>Units</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common to Low - Insertion Loss</td>
<td>50 - 870</td>
<td>dB</td>
<td>—</td>
<td>1.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>
| Common to Low - Stop band Rejection    | 950 - 975
  975 - 1055
  1055 - 1550
  1790 - 2100 | dB    | 30   | 37   | 40   | —    |
| Common to High - Stop band Rejection   | 50 - 860
  860 - 870 | dB    | 40.0 | 44.0 | 49.0 | —    |
| Common to High - Insertion Loss        | 950 - 1125
  1125 - 1550 | dB    | —    | 2.0  | 2.75 | —    |
| Common to High - Stop band Rejection   | 2000 - 3000                     | dB    | 17.5 | 22.0 | —    |
| Common Port - Return Loss              | 50 - 300
  300 - 600
  600 - 870
  950 - 1400
  1400 - 1550 | dB    | 16   | 25   | 14   | 18   |

* Restrictions on Hazardous Substances, compliant to current RoHS EU directive.

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Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAFL-009478-CD0AC0</td>
<td>200 piece reel</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings\(^1,2\)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Power</td>
<td>250 mW</td>
</tr>
<tr>
<td>DC Current</td>
<td>30 mA</td>
</tr>
<tr>
<td>Operating &amp; Storage Temperature</td>
<td>-40°C to +85°C</td>
</tr>
</tbody>
</table>

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

Typical Performance Curves

Common to Low Pass Filter

Common Port Return Loss

Common to High Pass Filter

For further information and support please visit: https://www.macom.com/support
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Recommended PCB Configuration

Substrate is 1.6 mm thick FR4

SM-172 Case Style

Dimensions in mm. Tolerance: ,x ± 0.1, ,xx ± 0.05
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