MAFL-011015

CATV Diplex Filter
5-42 / 54-1002 MHz

Features
- 75 Ohm
- SMT unit
- RoHS Compliant

Description
- M/A-COM Technology Solutions MAFL-011015 is a Low Cost, surface mount Diplex Filter unit designed for CATV, DTV and DBS applications.

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package</th>
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</thead>
<tbody>
<tr>
<td>MAFL-011015</td>
<td>200</td>
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Recommended Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temperature</td>
<td>-40ºC to +85ºC</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40ºC to +85ºC</td>
</tr>
<tr>
<td>DC Current</td>
<td>30mA</td>
</tr>
<tr>
<td>RF Power</td>
<td>250mW</td>
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</table>

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
</tr>
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<tbody>
<tr>
<td>Insertion Loss</td>
<td>dB</td>
<td>-</td>
<td>0.5</td>
<td>1.2</td>
</tr>
<tr>
<td>5 - 42 MHz</td>
<td>dB</td>
<td>-</td>
<td>0.5</td>
<td>1.2</td>
</tr>
<tr>
<td>54 - 1002 MHz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filter Rejection</td>
<td>dB</td>
<td>50</td>
<td>55</td>
<td>-</td>
</tr>
<tr>
<td>5 - 42 MHz</td>
<td>dB</td>
<td>50</td>
<td>55</td>
<td>-</td>
</tr>
<tr>
<td>54 - 1002 MHz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filter Return Loss</td>
<td>dB</td>
<td>14</td>
<td>20</td>
<td>-</td>
</tr>
<tr>
<td>5 - 42 MHz</td>
<td>dB</td>
<td>14</td>
<td>18</td>
<td>-</td>
</tr>
<tr>
<td>54 - 1002 MHz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filter Isolation</td>
<td>dB</td>
<td>50</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5 - 42 MHz</td>
<td>dB</td>
<td>48</td>
<td>55</td>
<td>-</td>
</tr>
<tr>
<td>54-60 MHz</td>
<td>dB</td>
<td>50</td>
<td>55</td>
<td>-</td>
</tr>
<tr>
<td>60 - 890 MHz</td>
<td>dB</td>
<td>45</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>890-1002 MHz</td>
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Pin Configuration

<table>
<thead>
<tr>
<th>Function</th>
<th>Pin Number</th>
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<tbody>
<tr>
<td>Common Port</td>
<td>18</td>
</tr>
<tr>
<td>Low Pass Port</td>
<td>9</td>
</tr>
<tr>
<td>High Pass Port</td>
<td>7</td>
</tr>
<tr>
<td>Ground</td>
<td>1 - 6, 8, 10-17, 19, 20</td>
</tr>
<tr>
<td>Not connected</td>
<td>-</td>
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Functional Schematic

Visit www.macom.com for additional data sheets and product information.
CATV Diplexer Filter
5-42 / 54-1002 MHz

Outline Drawing

**TOP VIEW**

**SIDEB VIEW**

**PCB TOP VIEW**

**PCB BOTTOM VIEW**

Dimensions in mm

Recommended PCB Configuration

Dimensions in mm
Typical Performance: \( T_A = 25^\circ C, Z_0 = 75\Omega \)

**Input Port Return Loss**

**High Pass Filter Insertion Loss**

**Low Pass Filter Insertion Loss**

**Filter Isolation**

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Tape & Reel Information

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<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Qty per reel</td>
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<td>200</td>
</tr>
<tr>
<td>Reel Size</td>
<td>mm</td>
<td>330</td>
</tr>
<tr>
<td>Tape Width</td>
<td>mm</td>
<td>56.00</td>
</tr>
<tr>
<td>Pitch</td>
<td>mm</td>
<td>40.00</td>
</tr>
<tr>
<td>Ao</td>
<td>mm</td>
<td>30.3</td>
</tr>
<tr>
<td>Bo</td>
<td>mm</td>
<td>30.3</td>
</tr>
<tr>
<td>Ko</td>
<td>mm</td>
<td>6.4</td>
</tr>
<tr>
<td>Orientation</td>
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<td>F30</td>
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Reference Application Note ANI-019 for orientation

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<td>Tape &amp; Reel</td>
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