

MoCA Band Pass Filter 1125 - 1550 MHz

Rev. V1

#### **Features**

- 75 Ohm
- SMT unit
- RoHS Compliant

### **Description**

 M/A-COM Technology Solutions's MAFL-010101-CB0AD0 is a surface mount Band-Pass Filter unit designed for MoCA applications.

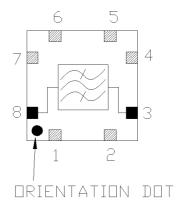
### **Product Image**



## **Pin Configuration**

| Function       | Pin Number  |
|----------------|-------------|
| Input Port     | 8           |
| Band-Pass Port | 3           |
| Ground         | 1, 2, 4 - 7 |
| Not connected  | -           |

#### **Functional Schematic**



## Electrical Specifications: $T_A = 25^{\circ}C$ , $Z_0 = 75\Omega$ , $P_{in} = 0$ dBm

| Parameter  | Units                      | Тур                        | Min                        | Max              |
|--|----------------------------|----------------------------|----------------------------|------------------|
| Insertion Loss<br>1125 - 1550 MHz  | dB                         | 1.7                        | -                          | 2.0              |
| Stop band Rejection 5 - 800 MHz 800 - 1002 MHz 2250 - 2400 MHz 2400 - 2600 MHz 2600 - 3000 MHz | dB<br>dB<br>dB<br>dB<br>dB | 43<br>40<br>33<br>36<br>36 | 40<br>37<br>30<br>18<br>10 | -<br>-<br>-<br>- |
| Input Port Return Loss<br>1125 - 1200 MHz<br>1200 - 1550 MHz                                   | dB<br>dB                   | 14<br>13                   | 12<br>11                   | -                |

#### **Recommended Maximum**

| Parameter             | Value             |  |
|-----------------------|-------------------|--|
| Storage Temperature   | -40°C to<br>+85°C |  |
| Operating Temperature | -40°C to<br>+85°C |  |
| DC Current            | 30mA              |  |
| RF Power              | 250mW             |  |

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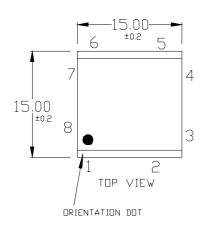
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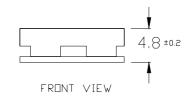


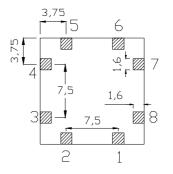
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### **Component Dimensions**



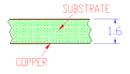


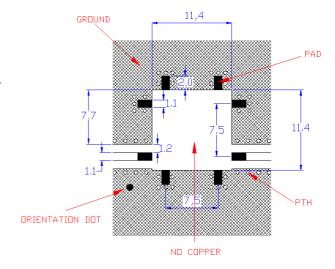


DEVICE BOTTOM VIEW

### **Recommended PCB Configuration**

- Track dimension = 1.1mm
- Gap dimension = 1.2mm
- It is not recommended to run tracks under the filter unless they are greater than 1.6mm below the base.
- Ground should be 1.6mm below the base of the filter
- Area directly under the filter should be free from copper





\* Dimensions are millimeters, tolerence ±0.1 unless otherwise specified.

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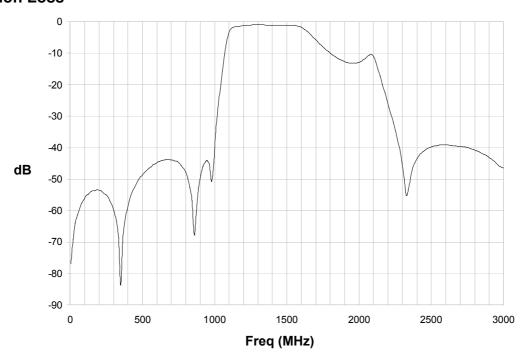


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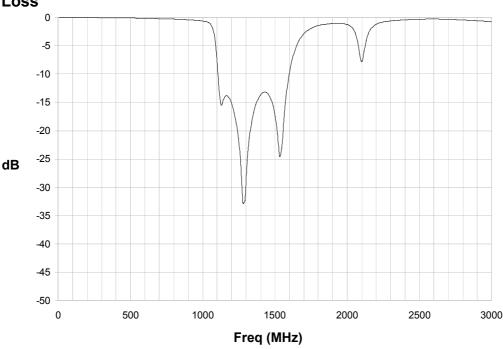
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## Typical Performance Curves: $T_A = 25^{\circ}C$ , $Z_0 = 75\Omega$ , $P_{in} = 0$ dBm

#### **Insertion Loss**



#### **Return Loss**



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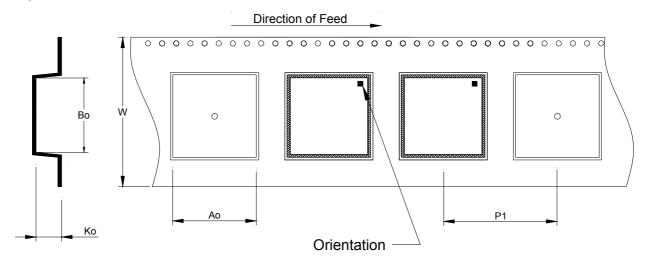
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### **Tape & Reel Information**



| Item | Dimension         |
|------|-------------------|
| Ao   | 15.40mm +/- 0.1mm |
| Во   | 15.40mm +/- 0.1mm |
| Ko   | 5.40mm +/- 0.1mm  |
| W    | 32.00mm +/- 0.3mm |
| P1   | 20.00mm +/- 0.1mm |

### **Ordering Information**

| Part Number        | Package                   |
|--------------------|---------------------------|
| MAFL-010101-CB0AD0 | 500pcs Reel               |
| MAFL-010101-CB0ATB | Customer Evaluation Board |

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