

# MAFL-009906-CLOAD0



## MoCA Low Pass Filter 5 –1550 MHz

Rev. V3

### Features

- Surface Mount
- 75 Ohm
- RoHS\* Compliant
- Pb Free
- MoCA Application

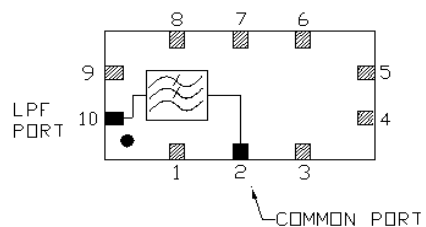
### Description

M/A-COM Technology Solutions' MAFL-009906-CLOAD0 is a surface mount Low Pass Filter unit designed for MoCA applications.

### Product Image



### Functional Schematic



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

Parameter	Units	Min	Typ	Max
<b>Common to Low</b>				
Insertion Loss	5 - 42 MHz	-	0.05	0.15
	42 - 860 MHz	-	0.6	0.8
	860 -1002 MHz	-	1.5	1.7
Rejection	1130 - 1550 MHz	30	32	-
	<b>Common Port Return Loss</b>			
5 - 600 MHz	dB	13	15	-
600 - 950 MHz	dB	11	13	-
950 - 1002 MHz	dB	12	14	-
<b>Common port voltage transient</b>	V	-	-	200

### Recommended Maximum Ratings

Parameter	Value
Storage Temperature	-40C to +85°C
Operating Temperature	40C to +85°C
DC Current	30mA
RF Power	+23.9dBm( 250mW)
Transient Voltage	200V

### Pin Configuration

Function	Pin Number
Common Port (Input)	2
Low Pass Port (Output)	10
Ground	1 - 5, 6 - 9
Not connected	-

\* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

1

**ADVANCED:** Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

**PRELIMINARY:** Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400  
 • **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588  
 Visit [www.macomtech.com](http://www.macomtech.com) for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

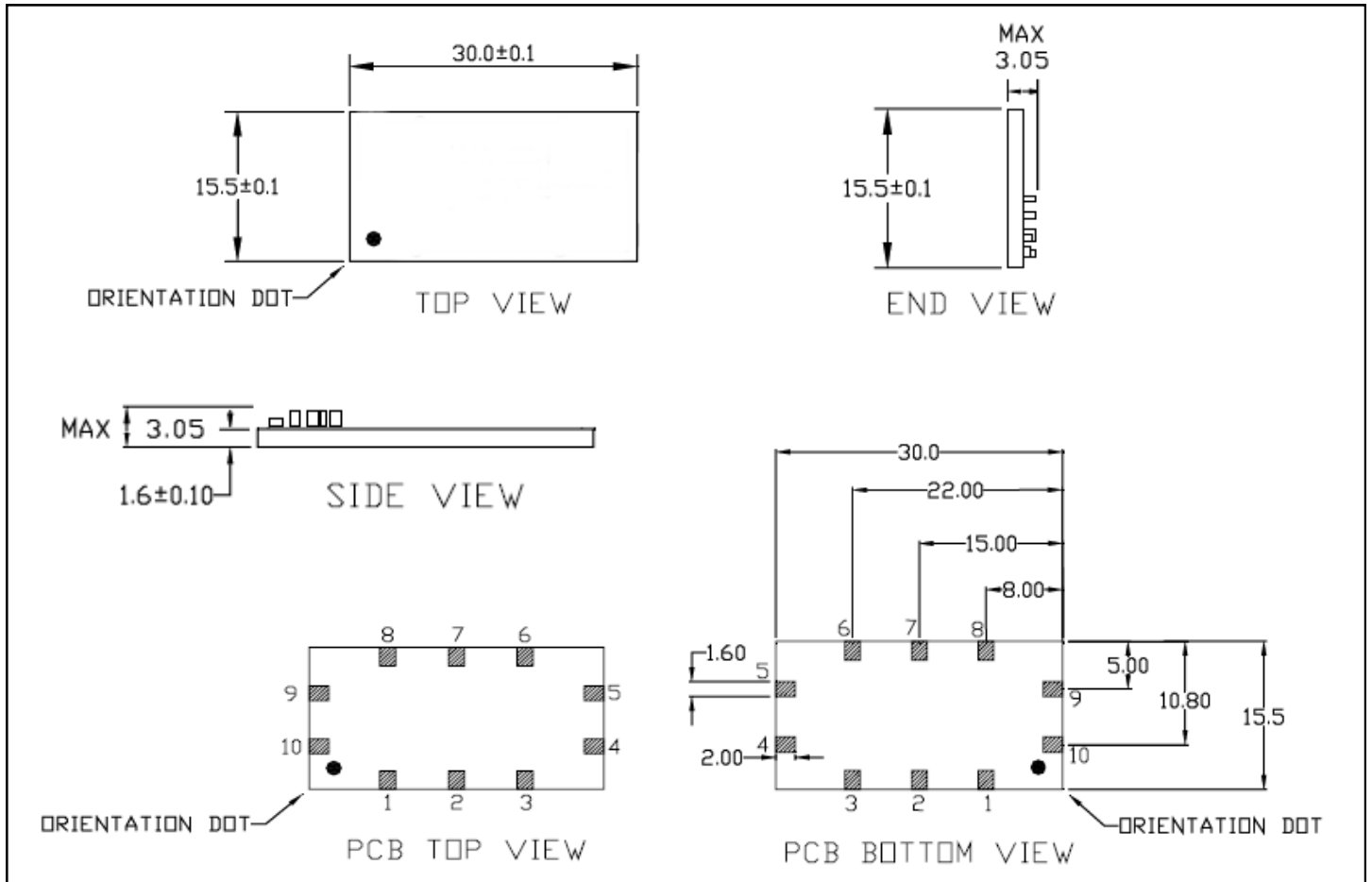
# MAFL-009906-CL0AD0



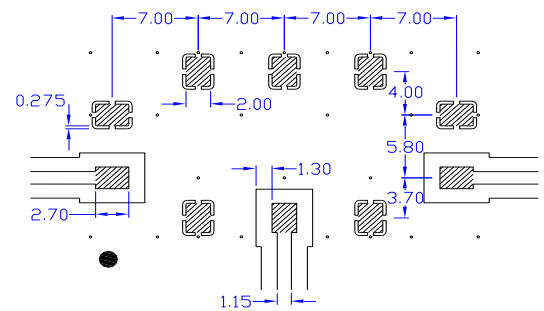
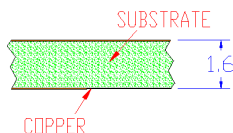
**MoCA Low Pass Filter**  
5 –1550 MHz

Rev. V3

## Recommended PCB Configuration



- Track dimension = 1.15mm
- Gap dimension = 1.3mm
- Ground should be 1.6mm below the base of the filter
- RF shield should be kept a minimum of 6mm above the filter



## PCB Finish Specification

Electroless Nickel/ Immersion Gold 0.05-0.1 $\mu$ m Gold over 3-5 $\mu$ m Nickel

Dimensions in mm. Tolerance:  $.x \pm 0.1$ ,  $.xx \pm 0.05$  unless otherwise noted

2  
**ADVANCED:** Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.  
**PRELIMINARY:** Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400  
 • **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588  
 Visit [www.macomtech.com](http://www.macomtech.com) for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

# MAFL-009906-CL0AD0

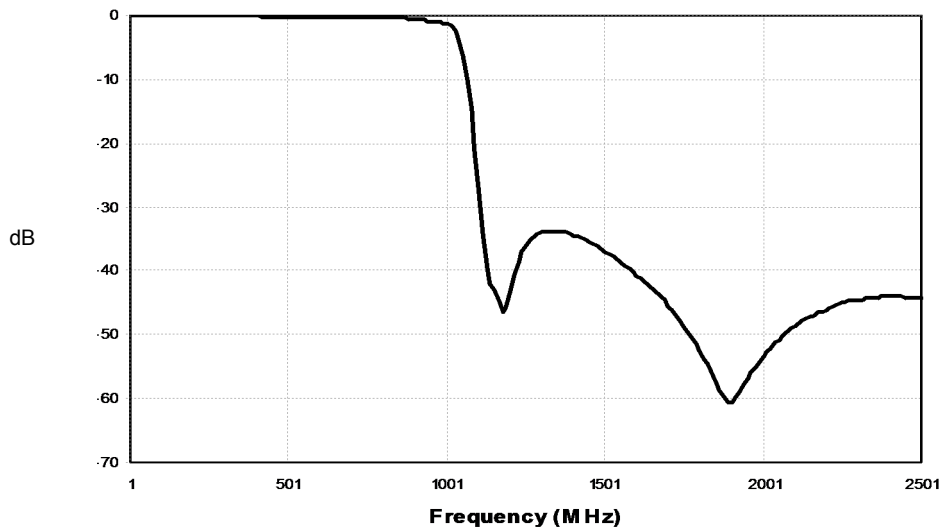


## MoCA Low Pass Filter 5 –1550 MHz

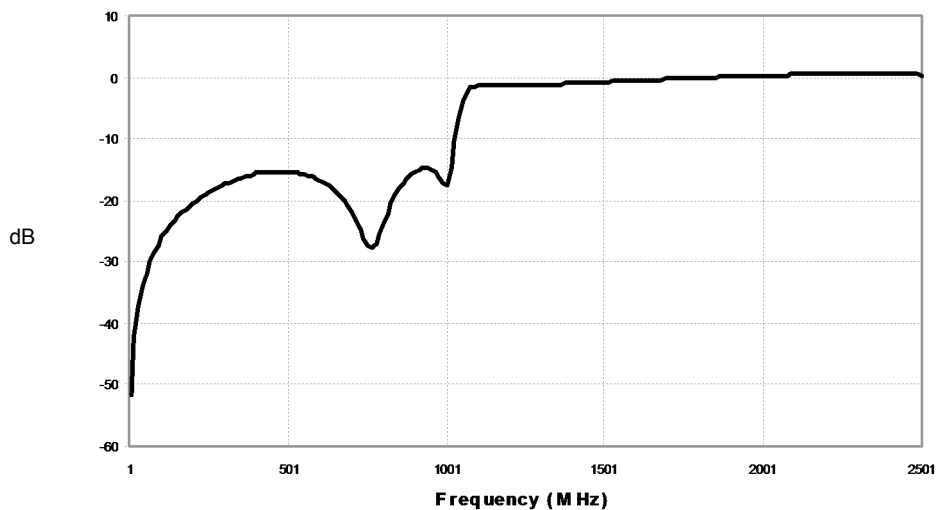
Rev. V3

Typical Performance Curves  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$

### Low Pass Insertion Loss



### Common Port Return Loss



**ADVANCED:** Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

**PRELIMINARY:** Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400  
• **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588

Visit [www.macomtech.com](http://www.macomtech.com) for additional data sheets and product information.

*M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.*

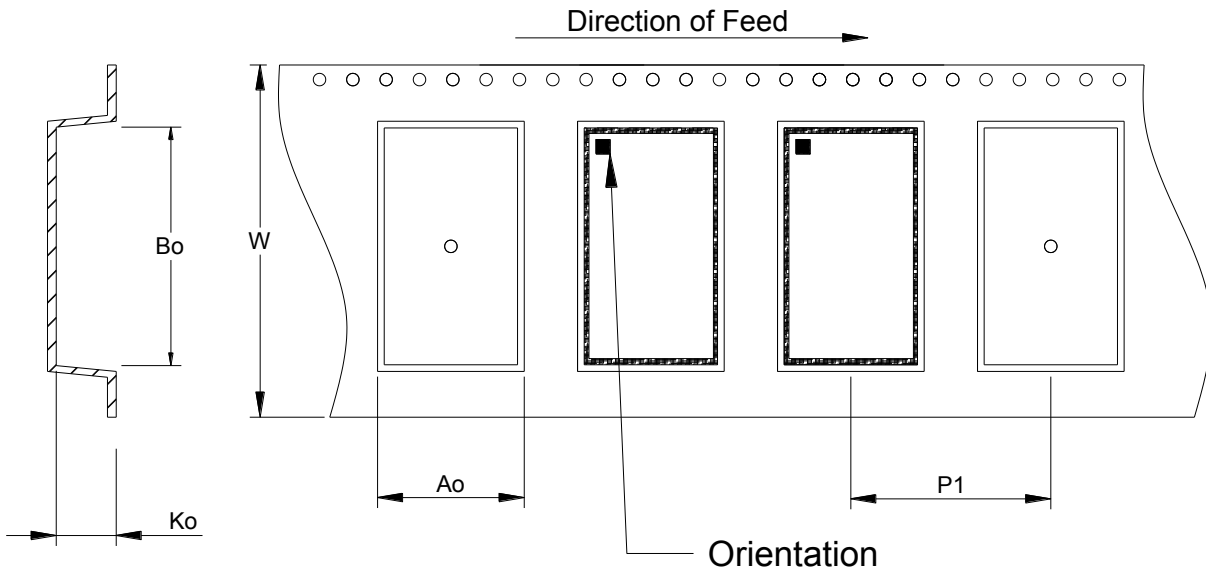
# MAFL-009906-CLOAD0



**MoCA Low Pass Filter**  
5 –1550 MHz

Rev. V3

## Packaging



Item	Dimension
Ao	15.80mm +/- 0.1mm
Bo	30.30mm +/- 0.1mm
Ko	3.40mm +/- 0.1mm
W	44.00mm +/- 0.3mm
P1	24.00mm +/- 0.1mm

## Ordering Information

Part Number	Package
MAFL-009906-CLOAD0	500 Piece Reel

**ADVANCED:** Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

**PRELIMINARY:** Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400  
• **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588

Visit [www.macomtech.com](http://www.macomtech.com) for additional data sheets and product information.

*M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.*