

# MAFL-011012



## CATV Diplex Filter 5 - 1002 / 1125 - 1675 MHz

M/A-COM Products  
V1

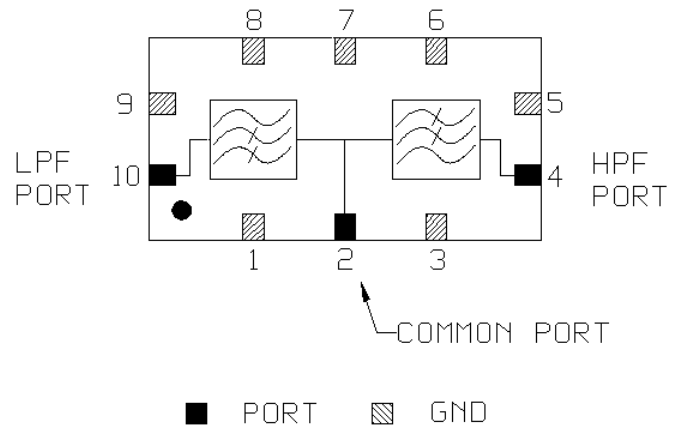
### Description

- M/A-COM Technology Solutions MAFL-011012 is a surface mount diplex filter unit designed for MoCA applications.

### Features

- 75 Ohm
- SMT unit
- RoHS\* Compliant

### Functional Schematic



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

Parameter	Units	Min	Typ	Max
<b>Common to Low</b>				
Insertion Loss				
5 - 42 MHz	dB	-	0.05	0.25
42 - 860 MHz	dB	-	0.6	1.0
860 - 1002 MHz	dB	-	1.5	1.7
Rejection				
1130 - 1550 MHz	dB	37	39	-
1550 - 1675 MHz	dB	36	39	-
<b>Common to High</b>				
Insertion Loss				
1125 - 1675 MHz	dB	-	1.5	2.0
Rejection				
5 - 1002 MHz	dB	37	39	-
2250 - 2400 MHz	dB	30	40	-
2400 - 2600 MHz	dB	18	50	-
2600 - 3000 MHz	dB	10	45	-
<b>Common Port Return Loss</b>				
5 - 600 MHz	dB	12	14	-
600 - 950 MHz	dB	11	14	-
950 - 1002 MHz	dB	12	13	-
1125 - 1200 MHz	dB	12	13	-
1200 - 1550 MHz	dB	11	14	-
1550 - 1675 MHz	dB	9.5	14	-
<b>Common port voltage transient</b>	V	-	-	200

### Pin Configuration

Function	Pin Number
Common Port	2
Low Pass Port	10
High Pass Port	4
Ground	1, 3, 5 - 9
Not connected	-

### Absolute Maximum Ratings

Parameter	Absolute Maximum
Storage Temperature	-40°C to +85°C
Operating Temperature	-40°C to +85°C
DC Current	30mA
RF Power	250mW

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

**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: +91.80.43537383 • **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.

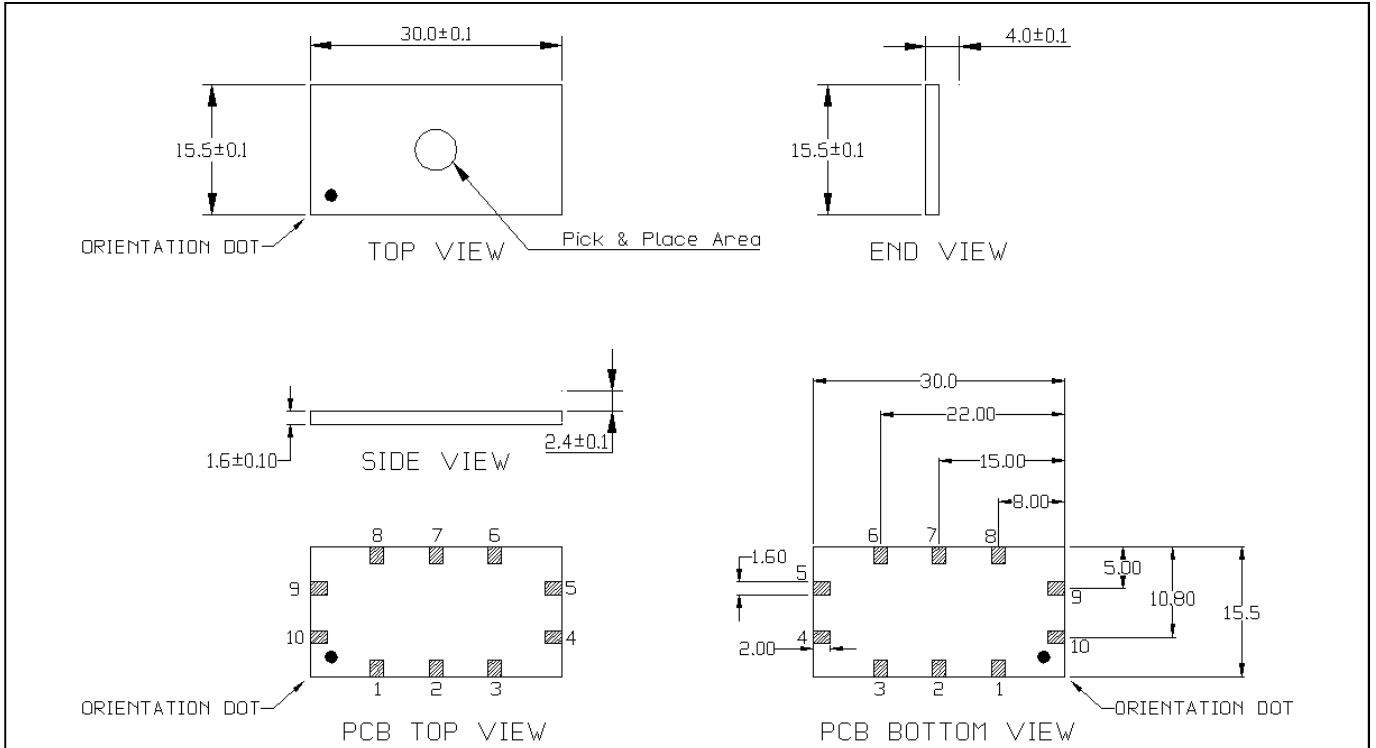
# MAFL-011012



**CATV Diplex Filter**  
**5 - 1002 / 1125 - 1675 MHz**

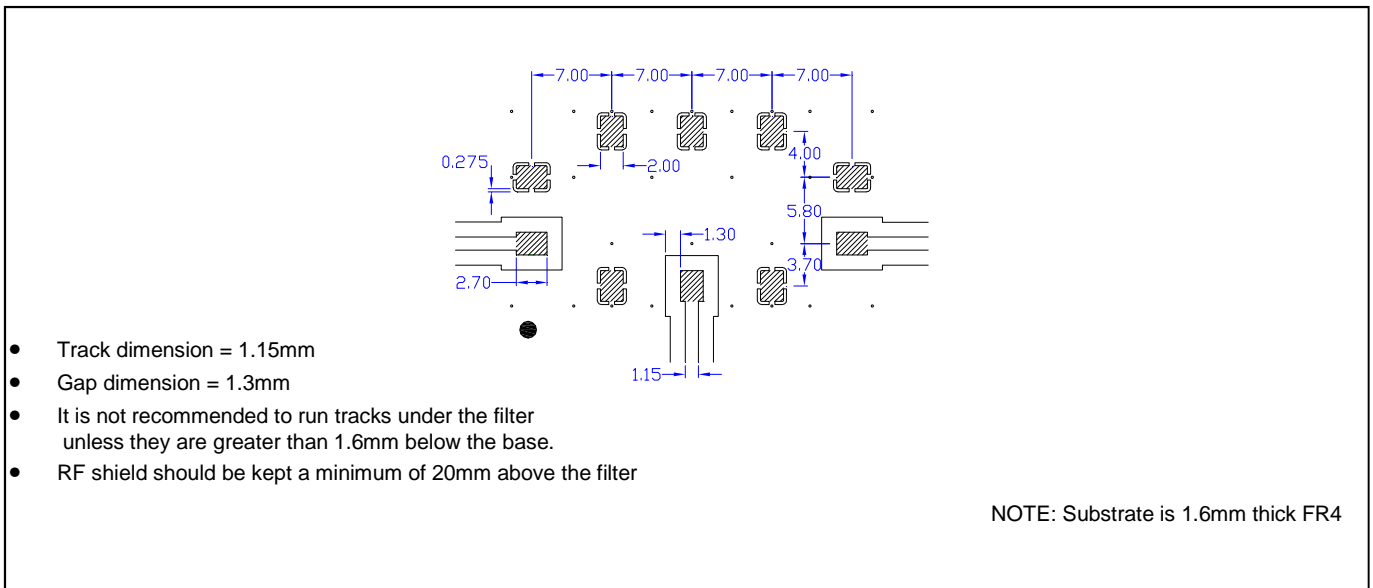
**M/A-COM Products**  
**V1**

## Outline Drawing:



Dimensions in mm. Tolerance: .x ± 0.1

## Recommended PCB Configuration



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

**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: +91.80.43537383 • **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.

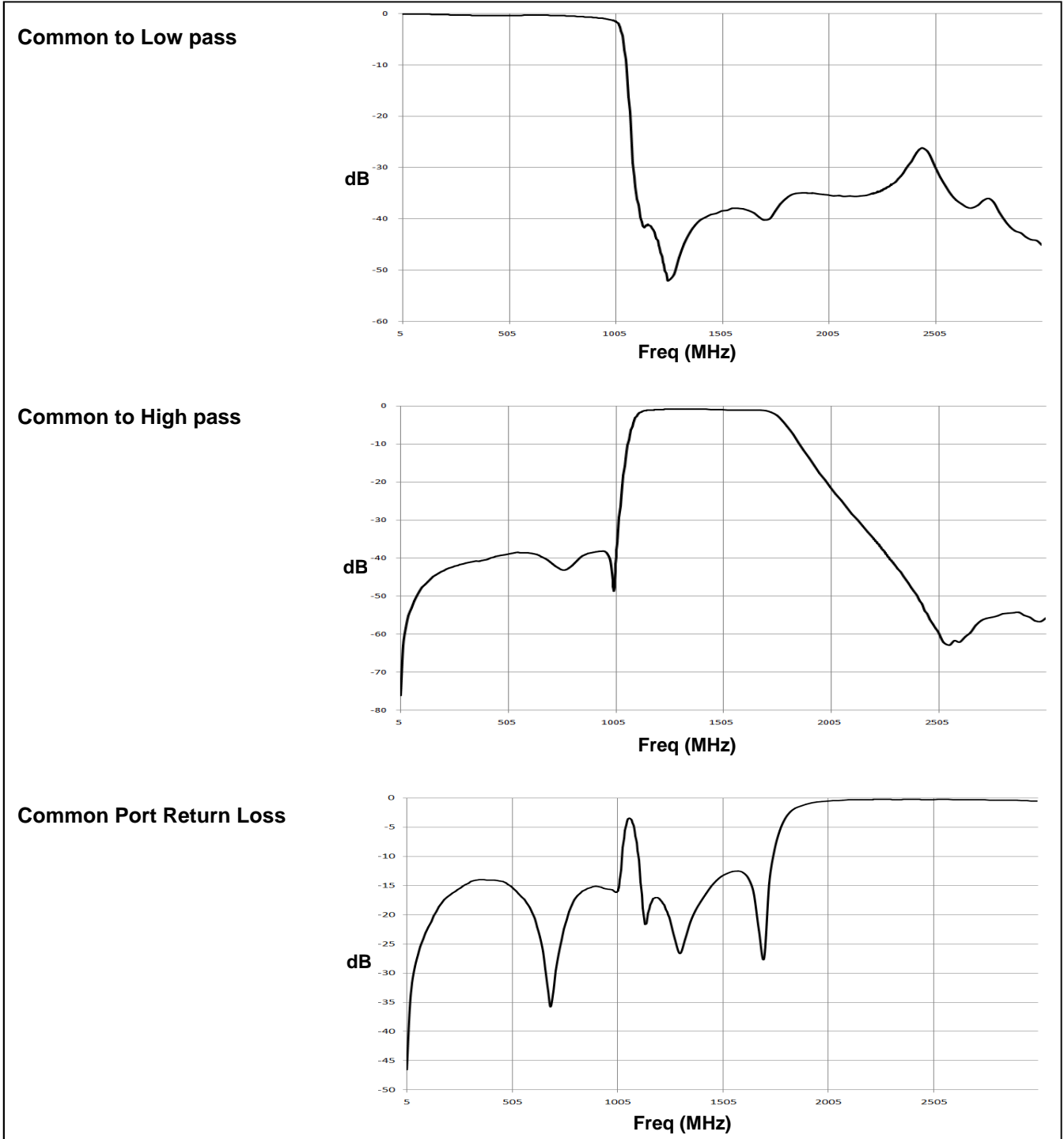
# MAFL-011012



CATV Diplex Filter  
5 - 1002 / 1125 - 1675 MHz

M/A-COM Products  
V1

## Typical Performance Curves at +25°C



**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: +91.80.43537383 • **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.

