## CATV Diplex Filter 5 - 864 / 1128 - 1525 MHz



Rev. V2

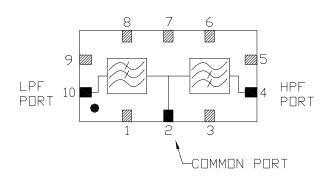
### Features

- 75 Ohm
- SMT unit
- RoHS\* Compliant

### Description

• M/A-COM Technology Solutions MAFL-009217-CD0AC0 is a surface mount diplex filter unit designed for MoCA applications.

## **Functional Schematic**



## **Product Image**



# **Recommended Maximum Ratings**<sup>1,2</sup>

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

1. Exceeding any one or combination of these limits may cause permanent damage to this device.

2. M/A-COM Technology Solutions does not recommend sustained operation near these survivability limits.

## **Pin Configuration**

1

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

\* 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.

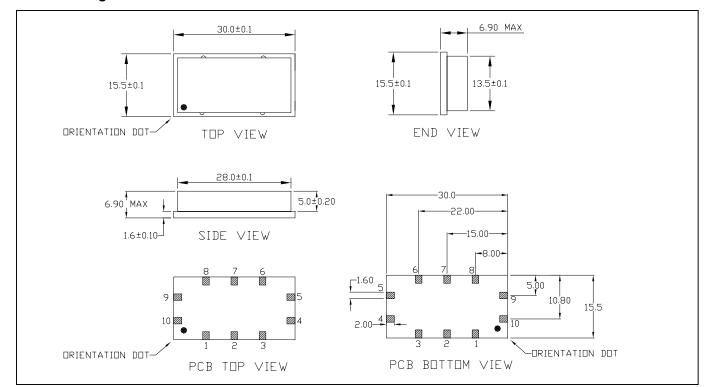
- North America Tel: 800.366.2266 Europe Tel: +353.21.244.6400
- India Tel: +91.80.43537383
  China Tel: +86.21.2407.1588
  Visit www.macomtech.com for additional data sheets and product information.

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.

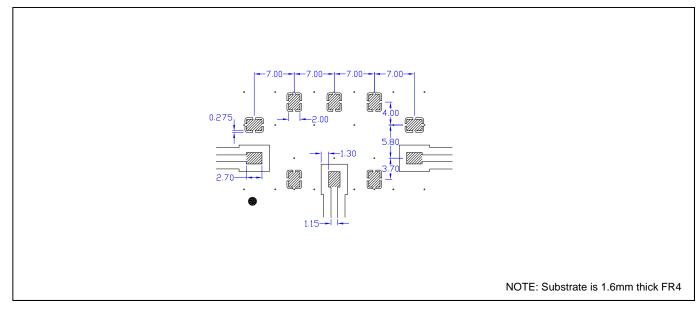


## CATV Diplex Filter 5 - 864 / 1128 - 1525 MHz

### **Outline Drawing: SM-172**



### **Recommended PCB Configuration**



#### Dimensions in mm. Tolerance: .x $\pm$ 0.1, .xx $\pm$ 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 for additional data sheets and product information.

 $\it MA-COM$  Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

Rev. V2



## CATV Diplex Filter 5 - 864 / 1128 - 1525 MHz

Rev. V2

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

Parameter	Units	Min	Тур	Max
Common to Low				
Insertion Loss				
5 - 750 MHz	dB	-	0.5	1.0
750 -864 MHz	dB	-	1.0	1.5
Rejection				
977 - 1023 MHz	dB	30	35	-
1128 - 1525 MHz	dB	37	44	-
Common to High				
Insertion Loss				
1128 - 1525 MHz	dB	-	1.5	2.0
Rejection				
5 - 750 MHz	dB	40	44	-
750 - 864 MHz	dB	37	45	-
977 - 1023 MHz	dB	30	43	-
2300 - 2400 MHz	dB	30	34	-
2400 - 3000 MHz	dB	20	25	-
Common Port Return Loss				
5 - 864 MHz	dB	12	14	-
1128 - 1525 MHz	dB	12	18	-
Common Port Voltage Transient	V	-	-	200

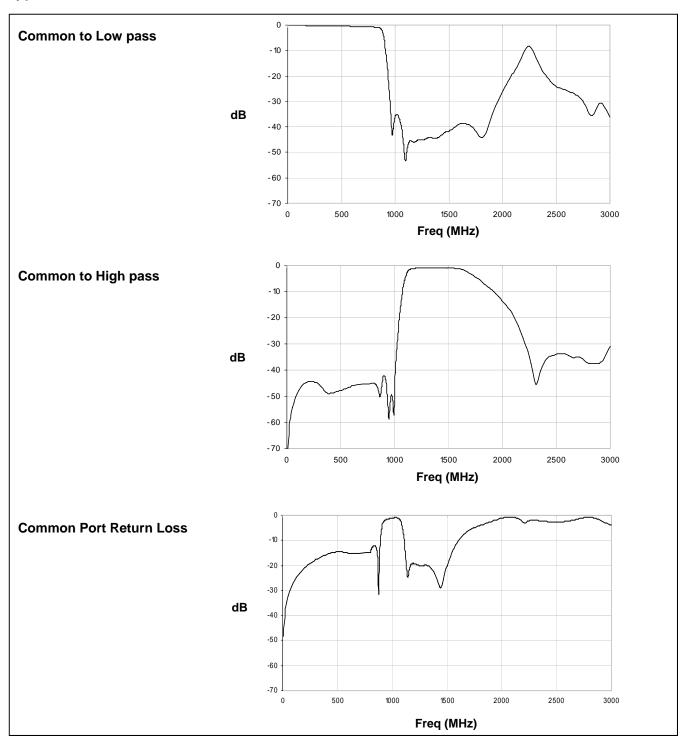
ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed. **PRELIMINARY:** Data Sheets contain information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

Visit 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.

## CATV Diplex Filter 5 - 864 / 1128 - 1525 MHz

## Typical Performance Curves at +25°C



- 4
- 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 for additional data sheets and product information.

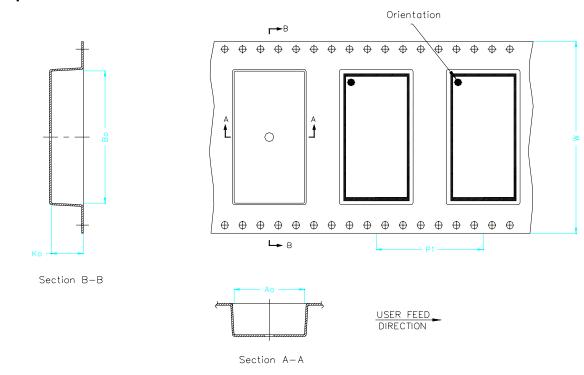
M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.



Rev. V2

## CATV Diplex Filter 5 - 864 / 1128 - 1525 MHz

## **Tape Specification**



ltem	Dimension	
Ao	15.80mm +/- 0.1mm	
Во	30.30mm +/- 0.1mm	
Ko	7.20mm +/- 0.1mm	
W	44.00mm +/- 0.3mm	
P1	24.00mm +/- 0.1mm	

## **Ordering Information**

Part Number	Package
MAFL-009217-CD0AC0	200 pcs 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: +91.80.43537383 • China Tel: +86.21.2407.1588

Visit www.macomtech.com for additional data sheets and product information.

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



Rev. V2