

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

Rev. V2

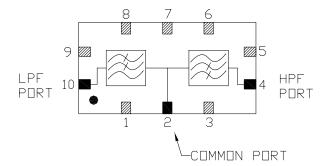
#### **Features**

- 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		

# **Pin Configuration**

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

- 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.

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

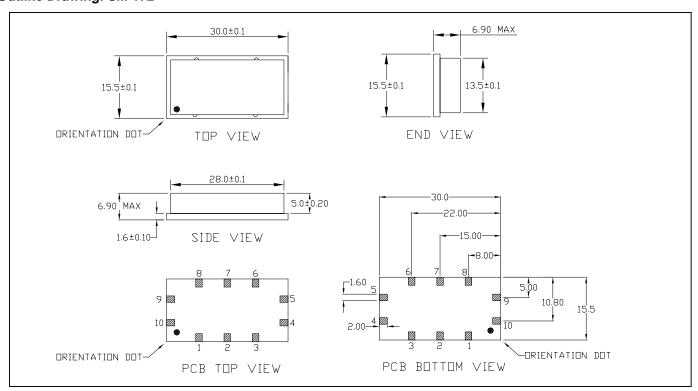
<sup>•</sup> North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400



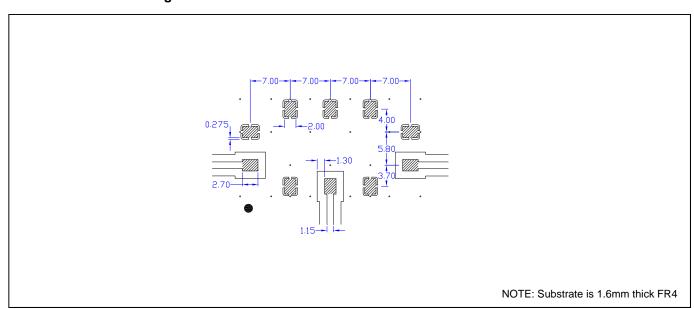
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### **Outline Drawing: SM-172**



#### **Recommended PCB Configuration**



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

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## Electrical Specifications: $T_A = 25$ °C, $Z_0 = 75$ $\Omega$

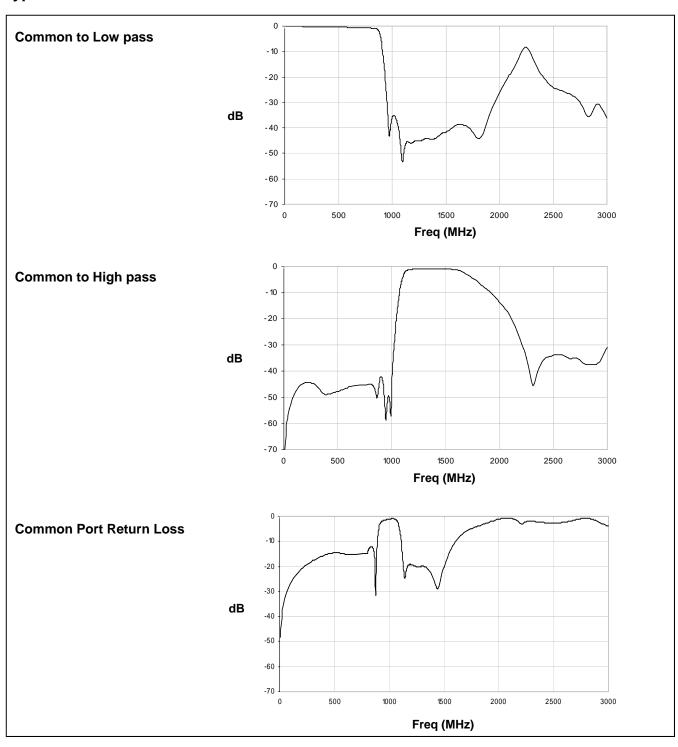
Parameter	Units	Min	Тур	Max
Common to Low				
Insertion Loss				
5 - 750 MHz	dB	-	0.5	1.0
750 -864 MHz	dB	-	1.0	1.5
Rejection				
977 - 1023 MHz	dB	30	35	-
1128 - 1525 MHz	dB	37	44	-
Common to High				
Insertion Loss				
1128 - 1525 MHz	dB	-	1.5	2.0
Rejection				
5 - 750 MHz	dB	40	44	-
750 - 864 MHz	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



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### Typical Performance Curves at +25℃



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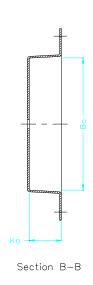
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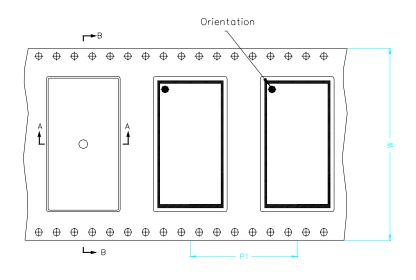


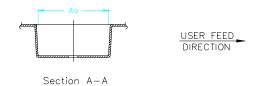
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### **Tape Specification**







Item	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

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.

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