



MAFL-007529-CD0550

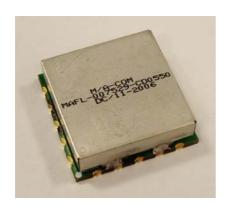
CATV Diplex Filter 5 - 36 / 48 - 1000MHz

#### **Features**

- 75 Ohm
- SMT unit
- · Excellent temperature stability
- Excellent repeatability
- RoHS\* Compliant
- Available on Tape and Reel. Reel quantity 50
- Technology used in this product is patent pending

### **Description**

M/A-COM's MAFL-007529-CD0550 is a low cost, surface mount diplex filter unit designed for CATV applications.

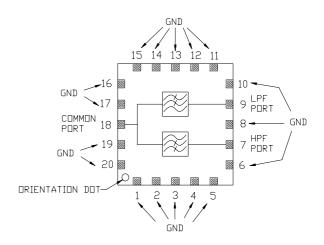


## Absolute Maximum Ratings 1,2

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

- Exceeding any one or combination of these limits may cause permanent damage to this device.
- M/A-COM does not recommend sustained operation near these survivability limits.

#### **Functional Schematic**



### **Pin Configuration**

Function	Pin Number		
Common Port	18		
Low Pass Port	9		
High Pass Port	7		
Ground	1-6, 8, 10-17, 19, 20		
Not connected	-		

## **Ordering Information**

Part Number	Package	
MAFL-007529-CD0550	50 Piece Reel	

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

<sup>•</sup> **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300

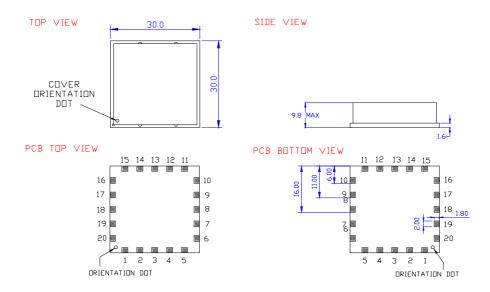
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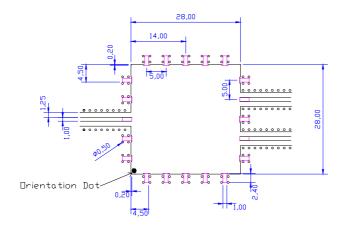
**CATV Diplex Filter** 5 - 36 / 48 - 1000MHz MAFL-007529-CD0550

### **SM-85 Case Style**



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

### **Recommended PCB Configuration**



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

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CATV Diplex Filter 5 - 36 / 48 - 1000MHz

MAFL-007529-CD0550 V1

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

Parameter	Test Conditions	Units	Min	Тур	Max
Frequency Range	5 - 36MHz / 48 - 1000MHz				
Insertion Loss	5 - 36MHz	dB	-	0.5	1.2
Insertion Loss	48 - 1000MHz	dB	-	0.5	1.1
Insertion Loss Flatness	5 - 36MHz	dB	-	-	0.5
Crossover Isolation	37 - 47MHz	dB	30	35	-
Stopband Rejection	5 - 36MHz	dB	50	55	-
Stopband Rejection	48 - 860MHz	dB	50	55	-
Stopband Rejection	860 - 1000MHz	dB	45	50	-
Input Return Loss	5 - 36MHz	dB	18	21	-
Input Return Loss	48 - 400MHz	dB	18	21	-
Input Return Loss	400 - 870MHz	dB	17	19	-
Input Return Loss	870 - 1000MHz	dB	15	17	-

Additional Specifications	Group Delay (nSec) TYP MAX		
32.5 – 36MHz	15	20ns	
48 – 51.5MHz	23	25ns	

<sup>3</sup> 

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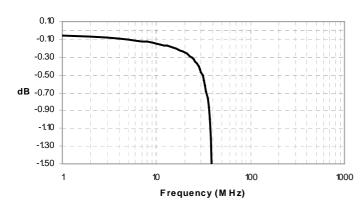


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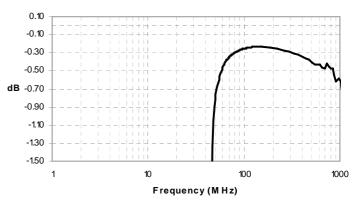
MAFL-007529-CD0550 V1

## **Typical Performance Curves**

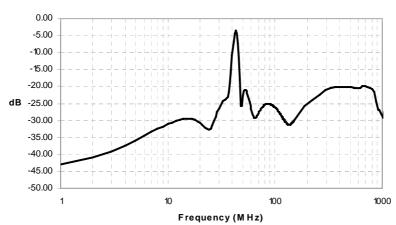
#### Low Pass Filter Insertion Loss



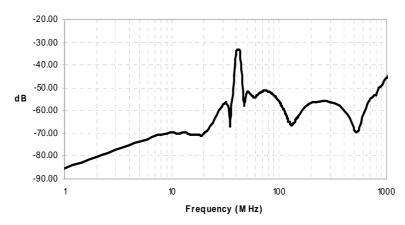
#### High Pass Filter Insertion Loss



#### Input Return Loss



#### Isolation



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