

**CATV Diplex Filter**  
**5 - 36 / 48 - 1000MHz**

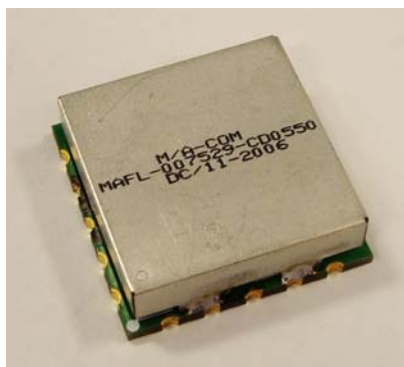
**MAFL-007529-CD0550**  
**V1**

**Features**

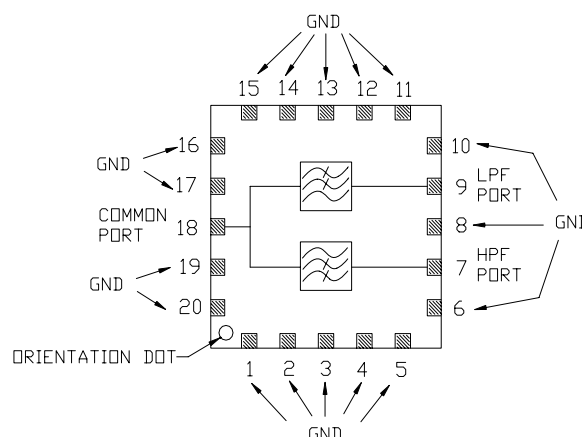
- 75 Ohm
- SMT unit
- Excellent temperature stability
- Excellent repeatability
- RoHS\* Compliant
- Available on Tape and Reel. Reel quantity 50
- Technology used in this product is patent pending

**Description**

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



**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	-

**Absolute Maximum Ratings** <sup>1,2</sup>

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

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

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

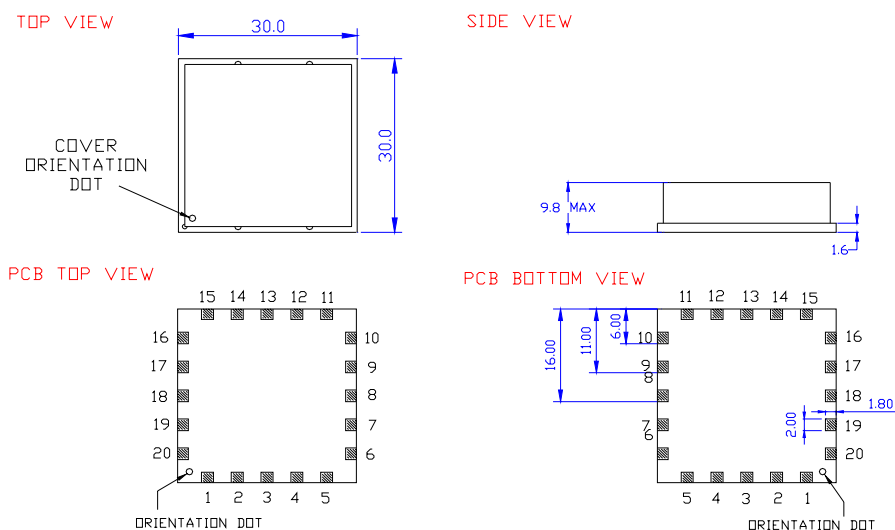
**Ordering Information**

Part Number	Package
MAFL-007529-CD0550	50 Piece Reel

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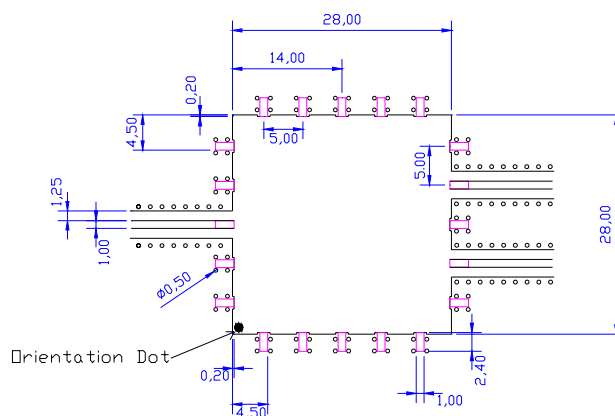
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**SM-85 Case Style**



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

Parameter	Test Conditions	Units	Min	Typ	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	-

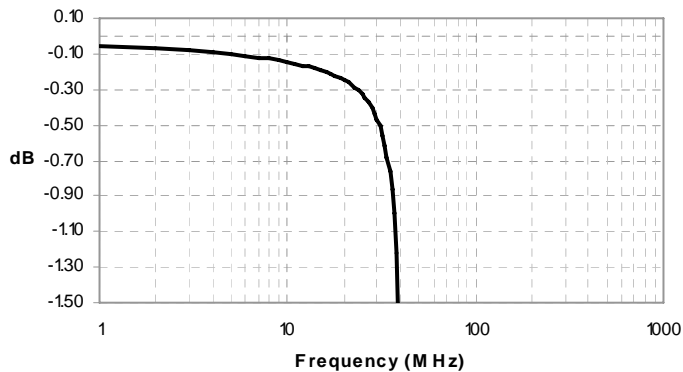
Additional Specifications	Group Delay (nSec)	
	TYP	MAX
32.5 – 36MHz	15	20ns
48 – 51.5MHz	23	25ns

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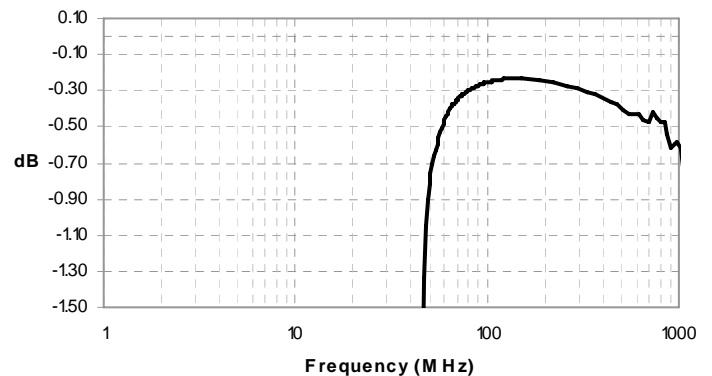
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**Typical Performance Curves**

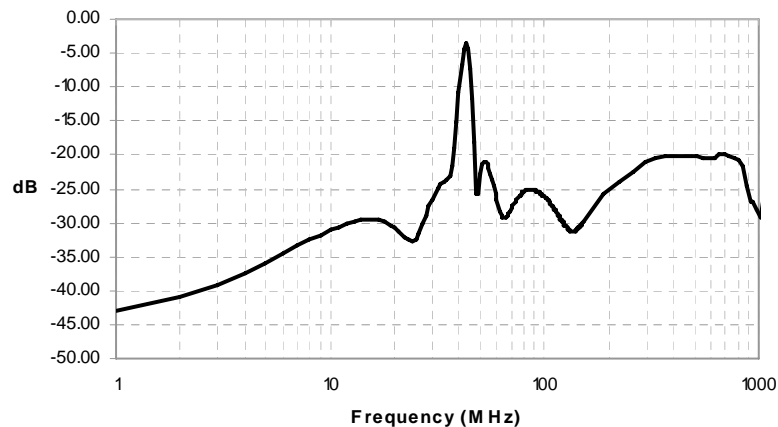
**Low Pass Filter Insertion Loss**



**High Pass Filter Insertion Loss**



**Input Return Loss**



**Isolation**

